Leopold Sub Regional
Activity Centre
Urban Design Framework

June 2011





Revision History

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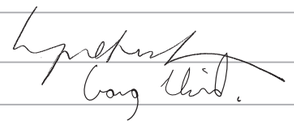
Reviewed by	Lynne Hancock		2 June 2011
Approved by	Craig Hind		2 June 2011
On behalf of	Beca Carter Hollings and Ferner		

Bellarine Rail Trail, connecting Leopold with the Bellarine Peninsula

Contents

1 Introduction

1.1 Project description

This urban design framework forms part of a wider strategic framework to guide future development of the Leopold Sub Regional Activity Centre (LSRAC) in a sustainable manner that maximises social, cultural, social and environmental benefits for the Leopold community and visitors to the area. The components of the strategic framework are a strategic planning report; this urban design framework; and a recreational reserve master plan for Leopold Memorial Recreation Reserve.

As outlined in the City of Greater Geelong Retail Strategy (2006) the purpose of a sub regional centre is to provide for activities such as discount department stores, mini majors, supermarkets and specialties serving a catchment of between 40,000 and 80,000 people. It has been estimated that the Bellarine Peninsula requires approximately 27,000sqm in retail plus an additional associated 17,000sqm non-retail commercial space over the medium to long term. The Retail Strategy suggests that Leopold is well suited to the provision of a sub regional centre to provide for these requirements.

This urban design framework sets out to provide direction for Council, the community, landowners and developers on how to achieve sustainable design outcomes for the LSRAC that reflect Council and community aspirations for the area. As a guidance document, the framework plan will assist in the planning process by providing landowners and developers with design principles developed specifically for the LSRAC.

1.2 Project aims

This urban design framework aims to provide a design vision and framework to guide the development of the LSRAC. Key issues relating to the site and addressed through this urban design framework include:

- Facilitating an attractive, memorable, human scale environments that reinvigorates the culture of the local environment.
- Enhancing safe legible connections between the LSRAC and the Leopold community.
- Addressing and responding to locational qualities (e.g. edge of town location of the proposed LSRAC).
- Providing direction relating to built form, streetscape and landscape treatment, movement and car parking, pedestrian requirements and water sensitive urban design treatments.
- To ensure improved integration between the informal recreation opportunities of the Gateway Reserve Sanctuary, the Leopold Memorial Recreation Reserve and the wider LSRAC area.

One of the most important aims for the site is to integrate sustainability into future design. In addition to adding to the economic stability of the region, commercial land use must contribute to the social, cultural and environmental wellbeing of Leopold and region. Accordingly, in addition to those aforementioned aims, the urban design framework has specific regard to:

- Water sensitive urban design: minimising and reuse of stormwater and associated energy use
- Reduced energy consumption through integration of green infrastructure

Together, the aims of the urban design framework have the potential to establish a commercially viable centre that will be attractive to visitors and employees and assist in the enhancing the qualities and image of Leopold.

1.3 Relationship to other documents

In preparing this urban design framework, regard has been given to the following documents:

- City Plan - City of Greater Geelong, 2009-2013
- Bellarine Peninsula Strategic Plan 2006-2016
- Greater Geelong Planning Scheme
- Environment Management Strategy 2006-2011
- Leopold Structure Plan, March 2006
- Greater Geelong Cycle Strategy, 2008
- City of Greater Geelong Retail Strategy 2006
- Interim Design Guidelines for Large Format Retail Premises, State Government of Victoria, 2007
- Leopold Strategic Footpath Network, October 2007
- Leopold Community Hub Concept Design, February 2008
- City of Greater Geelong Residential Character Study
- Tim Nott, Leopold Sub-Regional Activity Centre Assessment, January 2010
- Sinclair Knight Merz, Proposed Supermarket at Leopold – Flood and Drainage Investigations, 2003

Figure 1: Aerial photograph showing the extent of the LSRAC Study Area

Figure 2: Regional Context Plan - Bellarine Peninsula

2 Study area appreciation and analysis

2.1 Overview – Leopold and the surrounding environment

With an existing population of 8,743 (2006 census), Leopold is a largely residential community approximately 12 kilometres south east of Geelong on the Bellarine Highway. Leopold is located approximately 1.5 kilometres north of Lake Connewarre, a shallow estuarine lake located on the Barwon River, and 1.5 kilometres south of Corio Bay Outer Harbour. Located on the Bellarine Highway, the town is popular with commuters, enjoying the quiet location of a small semi rural town in close proximity to surrounding beaches and other recreational opportunities, while remaining in close proximity to other centres including Ocean Grove, Queenscliff, Clifton Springs, Drysdale and St Leonards.

Leopold is also located along the Bellarine Rail Trail, a 32 km walking and cycling track on the Bellarine Peninsula that follows the route of the former South Geelong to Queenscliff branch line.

Bellarine Peninsula

Leopold is the gateway to the Bellarine Peninsula. It is situated on elevated land with views of Corio Bay available from much of the township.

The Bellarine Peninsula is one of the fastest growing areas in the City of Greater Geelong – the population of this region is forecast to increase by 15,260 residents between 2006 and 2021. Ocean Grove and Rural Bellarine are the largest communities in the Bellarine Peninsula region. These areas are forecast to experience the greatest population increase, the former is anticipated to grow by 1,820 residents and the latter is predicted to grow by 6,660 people.

Leopold will have a key role within the municipality as a designated Sub-Regional Activity Centre, providing a focus for retail and services for communities along the Bellarine Peninsula. The City of Greater Geelong has recently prepared preliminary updated population forecasts for the Leopold township as part of the Leopold Structure Plan review. These forecasts predict that Leopold could accommodate between 12,000 and 16,000 residents by the year 2021.

As shown on Figure 2, existing regional and sub regional centres are located to the west of Leopold within the City of Geelong. With the exception of existing community centres at Ocean Grove, the Bellarine Peninsula currently remains largely unprovided for in terms of large scale retail opportunities.

Following on from the City of Greater Geelong Retail Strategy (2006), a Leopold Sub-Regional Activity Centre Assessment (2010) by Tim Nott has identified that there is likely to be sufficientdemand to accommodate expansion of the Leopold Gateway to a sub-regional activity centre over the period to 2021, whereby the primary customer base would be provided by communities on the Peninsula to the east of Leopold.

2.2 Leopold township local activities and land use

The Leopold township accommodates a combination of local and regional retail, recreational, educational and community uses located throughout the town. As shown on Figure 3, existing activities and land use within Leopold include:

- Low density residential living
- Gateway Plaza (Leopold Shopping Centre)
- Local shopping centres at Ash Road and Dorothy Street
- Community hub
- Leopold Primary School
- Gateway Sanctuary
- Memorial Recreation Reserve
- Leopold Sportsmans Club
- Numerous churches
- Numerous aged care facilities
- Numerous child care facilities
- Open space areas

The majority of activities provided for in Leopold are in close walking distance of one another, generally no more than ten minutes walking distance, providing excellent opportunities for reducing reliance on motor vehicles at a local scale. The challenge for future planning within Leopold is to provide safe, attractive pedestrian and cycle links between these areas.

Local shopping centres

Community shopping centres are located within Leopold at Ash Road and Dorothy Street. The Ash Road centre is situated on the southern side of the Bellarine Highway and comprises 12 shops including a bakery, news agency, milk bar, butcher and chemist. The Dorothy Street centre is located north of the Bellarine Highway and includes 13 shops including a supermarket, opportunity shop, café and real estate agent.

Figure 3: Leopold: Local activity areas

Gateway Plaza

As described within the Leopold Sub-Regional Activity Centre Assessment (2010), the Gateway Plaza is a neighbourhood activity centre which is anchored by a Coles supermarket and contains a number of specialty stores and a doctor's surgery. The centre is a traditional single-owner shopping centre with car-parking to the front and has good visibility to traffic passing on the Bellarine Highway.

While the development of a Sub Regional Activity Centre at Gateway Plaza will provide an important asset to the regional community, it also remains important to preserve the ongoing viability and attractiveness of local shopping centres at Ash Road and Dorothy Street, to encourage sustainable living patterns and ensure high quality amenities are retained for local residents.

Leopold Community Hub

In September 2007 the City of Greater Geelong commissioned the preparation of an integrated community hub plan for the 2.5ha allotment located adjacent to the Leopold Primary School. The Leopold Community Hub will provide a focus for community facilities and services within the township and will comprise:

- Lifelong Learning and Social Recreation Hub – including a library, information technology hub, function room containing kitchen facilities, youth centre and café.
- Integrated Children's Services Centre – including Maternal and Child Health as well as consulting rooms, pre-school, day care and occasional care.
- Enterprise Hub – including a studio/workshop, business incubator and meeting room.
- Community Gardens – including 15 allotments and storage.
- Adaptable Housing – including medium density housing.

Open Space

Leopold is well provided in terms of open space, with large active and passive recreation spaces provided for. Notwithstanding, many of these spaces, and the Gateway Sanctuary and Memorial Recreation Reserve in particular, remain somewhat disconnected from the surrounding communities by barriers such as busy roads, residential areas with little permeability, and lack of openness. This urban design framework seeks to enhance integration between the community and open spaces throughout Leopold.

Gateway Plaza

Dorothy Street local centre

Memorial Recreation Reserve skateboard park

2.3 Leopold gateways, views and vistas

Prominent views and vistas are present throughout the town and these should be protected and enhanced where possible. Views promote an environment legible to users and often support a strong sense of local identity within the community. Streets are understood and negotiable through clear visual cues, which help to improve ease of connectivity and promote community integration. Street vistas can be enhanced via appropriate landscaping and land use, framing the view and increasing viewer appreciation. New development should be carefully designed to be sensitive and responsive to surrounding views and vistas. Prominent vistas (as illustrated on Figure 4) will have associated view-shafts that are considered to be significant and should be protected and enhanced.

Town gateways are another way in which to promote legibility and create a strong sense of local identity. Gateways provide an opportunity to emphasise town characteristics and display a distinct sense of place. Gateways should respond not only to vehicles passing through, but also to pedestrians and cyclists, taking into account the differences in perception experienced at differing speeds. It is proposed Leopold's gateways will be enhanced through appropriate streetscaping, forming an obvious entry or exit point to the town. Consolidation of the town can be promoted through the presence of gateways by restricting sprawl, reducing environmental impacts and creating a more compact and efficient town.

View of Memorial Recreation Reserve from Bellarine Highway

Melaluka Road Vista

View from Kensington Road towards study area

Rural view north from study area

The following gateways, views and vistas assist to form a basis for this urban design framework:

1. Western Gateway: As a gateway to the Bellarine Peninsula and Leopold, the western entrance to the town should make a strong statement that welcomes visitors to Leopold and represents the town's values for a sustainable future.
2. Bellarine Rail Trail Pedestrian and Cycle Gateway: With appropriate connections, this gateway has the potential to draw visitors into Leopold as a destination along the Bellarine Peninsula.
3. Vistas along Bellarine Highway and Melaluka Road: These long views add to the character of Leopold and provide residents and visitors with pleasant views of the surrounding landscape and therefore should be protected from inappropriate interventions.
4. Views entering Leopold from the surrounding rural area: The views of the study area experienced as visitors and residents enter Leopold should be enhanced to add positively to the 'gateway' experience entering the town and to reduce impacts on the surrounding rural amenity values.
5. Views from Leopold residential and public areas: It is important to ensure that views from the east, from elevated areas overlooking the study area, are responded to positively, such that future development of the study area does not reduce the visual amenity values associated with the largely rural outlook that many residents and visitors within the town currently enjoy.

Figure 4: Leopold: Gateways, views and vistas

Figure 5: Leopold Sub Regional Activity Centre Study Area: Topography

- Gentle Slope
- Upward Slope Direction
- Hillocks
- Water Bodies
- Sports Oval
- Sub Regional Activity Centre Study Area
- Existing Urban Growth Boundary
- 0.5m Contours
- Trees

2.4 Study area topography and landscape

The topography of the study area is variable and falls into the following categories:

Relatively flat

The area of land lying north of the Bellarine Highway and west of Melaluka Highway (part of which is currently occupied by the Gateway Plaza) is, with the exception of some man made water bodies, generally flat with up to a half a metre of variance.

Drainage

The site itself consists of low lying land and is part of a wider drainage catchment, which is subject to flooding and has limited overland flood conveyance and limited grade for underground drainage systems. Preliminary drainage assessments indicate that water generally drains to the north of the site with run-off impacting on surrounding nearby residential and agricultural land within the catchment. This drainage pattern should be considered as part of the stormwater management associated with future development in this areas.

Gently sloping

Land to the east of the Melaluka Road rises gently to the east. The topography provides for good views from Leopold's western residential areas over the western part of the study area and beyond to the rural backdrop.

Hillocks

Gateway Sanctuary has varied topography formed by hillocks surrounding a wetland area. The hillocks range from one to two metres in height and, along with mature trees, limit the visibility into and through this part of the study area.

Vegetated

Trees create strong edges to the Gateway Sanctuary and the Leopold Memorial Recreation Reserve. This landscaped buffer creates visually impermeable edges along Bellarine Highway and Melaluka Road, internalising these spaces and limiting public awareness and appreciation. Other vegetation located within the study area is more sporadic in nature, located within the rural and residential surrounds. A number of the trees are remnant River Red Gums.

View west, looking down the Bellarine Highway

Vegetation at southeastern corner the Recreation Reserve

View Into Gateway Sanctuary from Bellarine Highway

Figure 6: Leopold Sub Regional Activity Centre Study Area: Existing built form

2.5 Built form and development

Development throughout Leopold is characterised by low scale built form. As described in the City of Greater Geelong's Residential Character Study, buildings frequently have low pitched roofs which emphasises their domestic character.

Given that much of the study area falls into either rural or recreation use, the number of buildings located within the area is fewer than within the residential core of the town. To the north of the Bellarine Highway and west of Melaluka Road the study area is dominated by the Gateway Plaza building. This single storey (8m) commercial building provides for approximately 5,800sqm of commercial floor space including a supermarket, retail shops, food stores and various non-retail services. A number of dwellings and farm buildings are also located to the north of the Bellarine Highway and Gateway Plaza.

Gateway Sanctuary to the south of the Bellarine Highway contains three buildings including public bathrooms. To the east of Melaluka Road, the Memorial Recreation Reserve contains a number of buildings associated with the recreation purposes of the reserve. In all cases, the buildings are small and low scale (i.e. single storey) with little visual impact on the surrounding environment.

Existing restaurant opposite the Gateway Plaza

Gateway Plaza rear parking

BP service station on the Bellarine Highway

Figure 7: Leopold Sub Regional Activity Centre Study Area: Existing connectivity

2.6 Study area movement and connectivity

Bellarine Highway

The existing movement and connectivity environment is characterised and influenced by the Bellarine Highway - the main traffic route through Leopold which connects the Bellarine Peninsula to Geelong. The Bellarine Highway is reduced to 70km/hour in the study area location, has two lanes in each direction and is controlled at major intersections by turning lanes and traffic lights. The highway has a central median separating the two traffic lanes. This median gets quite wide in certain sections of road and acts as a landscaped buffer between east and west bound traffic.

Melaluka Road

Melaluka Road is a smaller road connecting the southern part of the peninsula (including Lake Connewarre) with another major highway located to the north (the Geelong Portarlington Road) and the coast. Melaluka Road has a speed limit of 60km/hour. The road consists of one lane in each direction, and is also controlled at major intersections by turning lanes and traffic lights. Notably, the road lacks formed footpaths.

Portarlington Road

Portarlington Road is a busy east west arterial road located to the north of the study area; it provides direct access from the north to Melaluka Road for motorists.

Local roads

The local residential street network largely consists of a cul-de-sac layout. This layout currently offers few opportunities for connections from the residential catchment in the east with the recreation reserve, Gateway Sanctuary and shopping centre to the west.

Clifton Avenue

Clifton Avenue is a dirt road running through the western portion of the site. While this is a legal road, it does not currently form part of the wider network of roads and is primarily for farm access.

- Sub Regional Centre Study Area
- Existing Urban Growth Boundary
- Traffic Light Intersection
- Site Entrance
- Car Parking
- Bus Route
- Bus Stop
- Bellarine Highway 60km
- Melaluka Road 80km
- Local Roads 50km

Site entrances

Numerous site entrances are located along the southern side of the Bellarine Highway, east of Melaluka Road. These entrances open directly out on to the highway and could be consolidated should an access road be created in this location (such as that present further east along the highway). There are two main entrances to the Leopold Shopping Centre, one from the Bellarine Highway and one from Melaluka Road. A service entrance is also located on Melaluka Road.

Car parking

The existing Leopold Shopping Centre has car parking located along the majority of the southern edge (along the Bellarine Highway) and the eastern edge (along Melaluka Road).

Public transport

A bus route between Geelong and Leopold loops through the residential area to the south of the Bellarine Highway. It then circuits through and stops at the existing shopping centre. This service operates on hourly intervals during both weekdays and over the weekend. Leopold is connected to the rest of the Bellarine Peninsula (such as Queenscliff and St Leonards) to the east through other regional bus services, with operate slightly less frequently.

Pedestrians and cyclists

The existing pedestrian environment along the Bellarine Highway is problematic due to the four lanes, heavily trafficked nature of the highway and reliance on signalised pedestrian crossing points which are sometimes quite a distance apart. Pedestrian footpaths are currently located on both sides of the highway from Melaluka Road eastwards and are not located to the west of Melaluka road in front of the existing plaza or Sanctuary Gateway. Formed pedestrian footpaths are not found on Melaluka Road, except for a small section of road directly abutting the Gateway Plaza. Cycle lane provision is fairly infrequent along the highway and is limited to cycle lane provision at major intersections. Elsewhere between Geelong and Queenscliff the sealed highway shoulders are used by a significant number of cyclists. Cycle lanes are absent from Melaluka Road completely.

2.7 Issues and constraints

Sustainable Development

- Large scale retail development has the potential to contribute to climate change and sustainability issues, particular those associated with water management and energy use. Future development within the LSRAC will require innovative solutions to stormwater management and energy conservation.

Identity and Character

- To date, the development of Leopold has occurred in a way that the township currently lacks an identifiable local character.
- Leopold contains a growing proportion of families and retirees who require local services with ease of access.
- The study area is located at the western edge of the Leopold township boundary with rural land bounding the site to the west. The future activity centre has the potential to significantly affect the existing rural living character and amenity (particularly with regard to traffic impacts from circulation, parking and servicing).

Public realm and open space

- Screening along the southern edge of the Leopold recreation reserve and the northern edge of the Gateway Sanctuary creates poor visibility and connection with the Bellarine Highway, resulting in a lack of passive surveillance and public awareness / appreciation of the facility within. Conversely, the screening reduces exposure to traffic noise for reserve and Sanctuary users.
- The built form within the recreation reserve is currently disjointed.

Pedestrian movement and connectivity

- The pedestrian environment within the Gateway Plaza is fairly poor, with car parking dominating the plaza surrounds; no footpaths exist along either side of the Bellarine Highway west of Melaluka Road.
- The Bellarine Highway currently acts as a barrier to pedestrian movement due to the traffic and speed limit, width of road and median strip.
- There are no formed footpaths located on either side of Melaluka Road (except directly in front of the plaza).
- The intersection between Melaluka and Bellarine Highway currently represents an area of vehicle and pedestrian conflict.
- Residential areas are poorly connected to the Recreation Reserve / Gateway Sanctuary / and existing plaza.
- The existing environment impairs movement of aged persons.

Vehicle movement and parking

- The car parking available at the recreation reserve is currently insufficient for local demand, with overflow parking encroaching into the parking available across the road at the plaza.
- The speed limit along Melaluka road reduces the appeal of this street for pedestrian and cyclist use and limits the ability for pedestrians to cross over between the plaza and the recreation reserve.
- The speed limit along Bellarine Highway reduces the appeal of this street for pedestrian and cyclist use and reduces the ability for pedestrians to cross over between the plaza / recreation reserve and the Gateway Sanctuary and residential areas to the south.
- Given the absence of bicycle lanes on the Bellarine Highway, the rail trail is an important route for cyclists.

Land use

- The site of Leopold's community hub site is disconnected from the LSRAC, with limited through connections.
- There is currently a lack of night time activities within the Leopold township.
- Few restaurants and cafes can currently be found within Leopold.
- Visual permeability is also limited, reducing the ability for residential properties or thoroughfares to provide passive surveillance to areas such as the recreation reserve or Gateway Sanctuary.
- Pockets of residential zoned land are currently located within the recreation reserve area, reducing the amount of space available for community facilities.
- The existing 'rural feel' of the township that is part of Leopold's attraction for some people is at risk of being lost with potential rezoning and subsequent development.

Drainage

- The site is subject to complex drainage patterns and is subject to flooding in parts. A detailed drainage study is required to support any future development within the study area. This investigation will need to consider a catchment wide response and address the provision of drainage infrastructure both within and beyond the boundary of the Leopold Sub Regional Activity Centre.
- Barwon Water has major sewage assets and existing mains along Melaluka Road. New mains are also planned along Melaluka Road in addition to an upgrade of sewage assets throughout the area to service future development

Figure 8: Leopold Sub Regional Activity Centre Study Area: Issues and Constraints

Urban form

- The existing height throughout Leopold is two storeys, encouraging sprawl of development as opposed to a slight increase in density in strategic locations.
- There is currently little relationship between the plaza and the two streets that it connects to (Bellarine Highway and Melaluka Road).

2.8 Opportunities

Identity and character

- Establish a 'sustainable' LSRAC that adds character and identity to Leopold. Sustainability has the potential to become an identifying character element of the future retail centre.
- Create a strong gateway to the township, enhancing its role as a gateway to the Bellarine Peninsula.
- Maintain the rural edge of the town, strengthening the existing character of the township.
- Enhance views within the township – optimizing the topography of Leopold.
- Meet the retail, social, cultural and recreational needs of the direct community and eventually peripheral towns.
- Visually and physically strengthen connections and 'cues' for the Recreation Reserve, as an important community asset and point of difference for Leopold.

Public realm and open space

- Create linkages between the Bellarine Rail Trail, the recreation reserve, plaza and Gateway Sanctuary.
- Provide for a LSRAC with a heart, in the form of an attractive community plaza with a strong relationship to surrounding land uses, including the adjoining Recreation Reserve.
- Improve the interface between the Gateway Sanctuary / recreation reserve and surrounding streets.
- Landscape to create a strong sense of place and improve the public realm.
- Rationalise the land uses and built form within the Recreation Reserve.
- Broaden uses at the recreation reserve to include opportunities for passive recreation
- Improve amenity and appearance of the recreation reserve and improve potential for passive surveillance from neighbouring residential land.

Pedestrian movement and connectivity

- Create connections between the Gateway Sanctuary and Recreation Reserve.
- Establish, safe, legible pedestrian and cycle linkages between the community hub, Recreation Reserve and plaza, and Leopold Primary School.
- Improve pedestrian connections between the plaza and Recreation Reserve.
- Reduced speed limits along Melaluka Road would greatly improve the pedestrian and cycle environment. A reduction in speed limit along the Bellarine Highway is unlikely given its strategic role as a key transport link to the peninsula.
- Create clear pedestrian link between the shopping centre and associated car parking.

Land use

- Provide for a broad range of uses within the sub-regional activity centre.
- Create a strip of commercial development south of the highway, east of Melaluka Road.

Urban form

- Development potential for the north-western corner of the Bellarine Highway and Melaluka Road. This development should better address the neighbouring streets.
- Define the future preferred layout and sequence for development of the sub-regional activity centre.

Vehicle movement and parking

- Undergrounding parking within the plaza should be explored as an alternative.
- Reduce the amount of frontage to the street edge to a maximum of 22m in width.
- Buffer parking areas with landscaping.

3 Leopold Sub Regional Activity Centre (LSRAC) Urban Design Framework Objectives

Sustainability

- Develop a landscape strategy that establishes a 'green' infrastructure to link existing and future open spaces and recreation nodes throughout Leopold, and that provides outdoor shade in urban areas during the summer.
- Provide for compact urban form that encourages pedestrian and cycling within, to and from the Leopold Sub Regional Activity Centre
- Establish water sensitive urban design initiatives to that reduce peak flows and runoff from urban development, while continuing to enhance the biodiversity and aesthetic values of the Leopold Sub Regional Activity Centre through water capture and reuse.
- Provide guidelines for future development that seek to minimise energy use and waste associated with buildings and their uses.
- Establish a legible edge to Leopold's urban environment through an appropriate landscape structure that recognises the urban / rural boundary.
- Protect and enhance ecological values within the Leopold Sub Regional Activity Centre area by ensuring that future development contributes positively to landscape and nature values.

Character and identity

- Provide for the growth of the Leopold Activity Centre as a regional centre and gateway to Leopold that provides for a variety of commercial and recreation activities within a sustainable, high amenity environment.
- Establish an attractive community plaza within the LSRAC, with a strong relationship to surrounding land uses, including the adjoining Recreation Reserve.
- Integrate landscape, recreation and commercial uses to provide for a unique, vibrant urban environment that is both functional and an attractive place for people to work and visit.
- Provide for built form that adds positively to the character of Leopold's western gateway and complements the surrounding landscape and existing built character of the town.

Connectivity and accessibility

- Place emphasis on the development of safe, legible pedestrian and cycle routes and opportunities to enhance public transport networks:
- Establish and enhance pedestrian, cycle and vehicle connections between the Leopold Sub Regional Activity Centre, Memorial Recreation Reserve, Gateway Sanctuary, the Leopold community hub site, Leopold Primary School, and existing and future residential areas.
- Provide for filtered permeability throughout the Leopold Sub Regional Activity Centre, enhancing pedestrian, cycle and mobility scooter access throughout the development and minimising walking time to public transport.
- Provide for a safe, legible connection with the Bellarine Rail Trail, providing potential for regional cycle connections with the Leopold Sub Regional Activity Centre.

Social and cultural wellbeing

- Provide for a variety of commercial land uses within the Leopold Sub Regional Activity Centre that provide for local needs and contribute to ongoing employment opportunities within Leopold and the surrounding area.
- Provide for built form that contributes to public safety through active frontages and a strong relationship with the public domain.
- Provide for a Leopold Sub Regional Activity Centre community space that acts as a meeting place and attracts people of all ages to gather and interact, without compromising the viability of the Leopold Community Hub.
- Ensure that future development protects and enhances views to the surrounding landscape.

4 Key Strategies for Leopold Sub Regional Activity Centre

The following five key strategies are considered to be the 'big moves' necessary to achieve the urban design framework principles and achieve long term sustainable outcomes for the Leopold and the wider community. The implementation of these strategies is further discussed in Section 5 of this document.

Establish a pedestrian friendly environment

A safe pedestrian network that supports all ages and levels of mobility is integral to establishing an environment that people want to be part of. Enhancing the opportunities for locals and visitors to move around Leopold on foot means creating routes that are felt to be safe.

Melaluka Road currently acts as a major barrier to people wishing to move between Leopold Township to the Gateway Plaza and Sanctuary. Equally, the Bellarine Highway is an impediment to north south movement.

To ensure that future integration between activities to the east and west of Melaluka Road are maximised, the speed limit in the vicinity of the Gateway Plaza and Sanctuary should be reduced significantly along with upgrades and additions to crossing points, pedestrian and cycle routes.

Establish strong connections between the LSRAC and Leopold Township

Future development at Gateway Plaza and improvements to Gateway Sanctuary will need to establish clear legible links with existing routes and community nodes to ensure successful integration with the Leopold community is achieved.

Improvement to existing footpaths and cycle links along the Bellarine Highway, and the development of safe, legible routes along secondary streets and through the Memorial Recreation Reserve will provide both movement choices and integration opportunities.

All routes should be designed so that they maximise passive surveillance and safety for users.

Activate frontages along the Bellarine Highway and Melaluka Road

Focusing active frontages along the Bellarine Highway and, in particular, Melaluka Road, will add life and interest to Leopold's gateway entrance and the relationship with surrounding land uses (e.g. activities within the Recreation Reserve). They will assist in enhancing the relationship between commercial areas and adjoining recreation areas by attracting people to the area and enhancing vitality in the public realm.

Active frontages mean frequent doors and windows; avoiding blank walls; giving rhythm to facades through the addition of bays and porches and diversity in facade treatment; and providing lively internal uses that spill out to the street, engaging people who pass by, whether it be on foot, cycle or vehicle.

Establish a safe, legible urban structure

Urban structure (i.e. movement frameworks; block patterns; and open space provision) makes a place what it is and therefore defines whether it is integrated, functional, offers a sense of place and is commercially viable.

Future development on Leopold's periphery will need to be designed to be walkable, offering pedestrian friendly block sizes. The street network should be designed to interconnect with existing street patterns and be able to facilitate future connections also.

Urban structure should be highlighted by distinct character forms and areas, achieved through high amenity landscapes and outstanding architecture that adds to the interest of the area.

Provide for a range of community amenities integrated through a strong landscape strategy

Given that the area will likely attract a range of users, provision of a range of integrated uses is encouraged. Greater density (in the form of LSRAC plaza) should be provided for within walking distance of existing residential communities and Leopold community centre.

Integrated uses have the potential to reduce reliance of vehicle travel; provide greater opportunities for social interaction; add to safety through passive surveillance; bring vitality to the street; and increase the viability of local amenities such as sports facilities and small businesses.

5 Urban Design Framework for Leopold Sub Regional Activity Centre

This section presents a series of over-arching urban design principles for the study area, expressed through text and a series of framework plans. As a starting point, a concept for an integrated pedestrian and cycle network was prepared, taking into account Leopold's existing character and opportunities for connectivity. The landscape strategy is the basis of all the framework plans, acknowledging that the study area forms an integral part of the wider environment.

The framework plans that follow illustrate urban design principles aimed at providing direction for Council, the community, landowners and developers. They are arranged under the headings:

- Landscape and movement framework
- Land use framework
- Vehicle movement and parking framework
- Built form framework.

In addition design principles around sustainability are included.

The framework plans are 'layers' that together set out an indicative structure plan for the study area, and therefore should be read in conjunction with one another. They do not constitute a masterplan.

In developing the framework plans for the area, consideration was given to how commercial growth could be best provided for to integrate with Leopold township. Noteworthy is that the study area (refer Figure 1) will not be required in its entirety to provide for the envisaged future retail and non-retail commercial development likely to occur in the area. Accordingly, two key concepts for future development were considered and analysed as part of the design exercise, both of which are included in this document, in order to provide guidance for future development of either concept. Neither concept suggests development over the full extent of the land within the study area, but rather, they seek to address how development may occur without compromising the integration of future development opportunities.

Concept 1 contains future development of the activity centre to the north of the study area, in close proximity to the Leopold Recreation Reserve and Melaluka Road. Concept 2 facilitates development to the west, along the Bellarine Highway and west of Clifton Road. The structure of the section is therefore to set out, for each framework 'heading':

- General design principles (relevant to both concepts)
- General design strategies (relevant to both concepts)
- Concept 1 framework diagram with specific strategies
- Concept 2 framework diagram with specific strategies

Where future development departs from or modifies aspects of the framework plans, it should be demonstrated that the intention of the framework has still been achieved. By way of example, where a pedestrian route is not provided for in line with the framework plans, it should be demonstrated that the permeability of the study area, and connections with existing and future land uses will be maintained.

5.1 Establishing a connected community

Continued enhancement of connectivity throughout Leopold will be integral to the ongoing sustainable growth of the town. Attractive, safe, legible connections with the town centre, local amenities, communities, working areas and the surrounding environment will enhance opportunities for locals and visitors and reduce the necessity for motor vehicle use.

Connectivity and community integration facilitate ease of access, economy of movement and can help to improve social interaction. Provision of clear connections within the town centre will help to link places of interest, such as: local amenities, retail, schools, places of work and recreational areas. Signs in key locations will promote way-finding within the town and increase overall legibility, while resting places will also encourage use, particularly for the elderly. Green spaces will be well integrated within the town to encourage passive recreation within the community and networks of safe and attractive walking and cycling routes will also be provided. Provision of these routes promotes choice and diversity, potentially reducing adverse impacts associated with vehicle emissions as other transport modes become increasingly viable. Safe pedestrian crossing points further encourages walking within the town and should be incorporated into future development and provided elsewhere where necessary. This will help to ensure that the LSRAC will be well connected to existing networks (vehicle, pedestrian and cycle), encouraging effective community integration.

Figure 9 outlines the concept for an integrated network incorporating cycle, pedestrian and possible mobility scooter routes into a high quality landscape environment. The network builds upon the existing qualities of the town, such as the important community nodes, the Bellarine Rail Trail, recreation areas and sports clubs, seeking to integrate these with one another and future commercial development within the study area. The network seeks to provide for strategic links between the LSRAC and the community hub area; smaller nodes such as aged care units and churches; surrounding residential areas; and to neighbouring towns and nearby attractions such as the coastline.

The potential exists for future Council, community and developer projects to be undertaken in a manner that continues to advance the realisation of the landscape strategy, thus

Figure 9: Concept for an integrated pedestrian and cycle network

building towards a town with excellent connectivity within a high amenity environment.

While there is no shortage of open space and potential for green links throughout Leopold these are yet to be fully taken advantage of to become of significant local and visitor benefit. The aim of the pedestrian and cycle network is to provide connections between as many of the town's local amenities as possible. A number of pedestrian and cycle routes are proposed to increase connections within and around Leopold (refer Figure 11). These routes have the potential to be both amenity routes for recreation and functional routes for movement between destinations.

The proposed routes include:

- The Bellarine Rail Trail/Leopold Centre Link: Linking users of the Bellarine Rail Trail with the Gateway Plaza, Gateway Sanctuary and Memorial Recreation Reserve. This route has the potential to attract users of the Bellarine Rail Trail to visit some of the key destinations in Leopold.
- The Leopold Loop: Circling around Leopold's main activity nodes, this loop has the potential to provide a high amenity functional route for both visitors and local residents.
- Bellarine Rail Trail – Connewarre Lake Loop: This route has the potential to become an addition to the Bellarine Rail Trail and link with the northern coastline. For locals, this route would provide for a high amenity health circuit, while visitors to the town would benefit from connections with recreation and commercial areas.

Over time, all routes should be designed to cater for pedestrians, cyclists and mobility scooters, with emphasis on safety, legibility and accessibility being integral to their success.

A range of traffic calming techniques will need to be investigated including but not limited to changes in road surface such as textured pavements, speed tables, neck downs, raised crossings, speed humps and street planting.

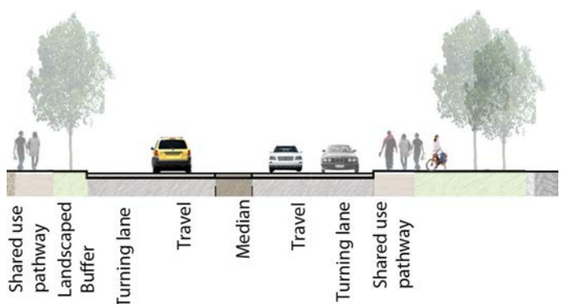


Figure 10: Indicative section of pedestrian and cycle routes along Melaluka Road

Figure 11: Potential cycle and pedestrian routes

5.2 Sustainability

Sustainable approaches to development have the potential to add favorably to the economic, social, cultural and environmental wellbeing of Leopold and the region. Accordingly, sustainable development principles should be carried through at every level of design and development within the study area. The matters outlined below are guiding principles and should form the basis for further research and a comprehensive sustainable design approach to all future development.

Water Sensitive Urban Design (WSUD)

WSUD has the potential to: reduce costs associated with stormwater retention; add to the social and cultural dimension of the site; provide a source of water for use on a adjoining sports fields; and enhance environmental outcomes of development. Where viable, WSUD will operate on two broad levels – minimisation of water run-off from individual sites and buildings; and an overarching storm water drainage system to attenuate to a large wetland prior to discharge beyond the site boundaries and/or for reuse on the subject site or on the adjoining Memorial Reserve. In particular:

- Where possible roof water runoff should be kept separate from car park runoff until after treatment. This is due to the significant difference in pollutant load between the two types of catchment area. Combining the two types of runoff decreases the pollutant concentration and reduces the effectiveness of the treatment system.
- A green solution should avoid the need to pump surface water flow. Any benefit gained from treating the runoff with soft drainage solutions is lost when energy is expended to transport the flow to the point of discharge. Therefore storm water runoff should be discharged under gravity where possible.

Having regard to the above, the following principles should be adhered to:

Car Park Drainage

- Permeable paving with an underlying filter material can be used to treat surface water runoff at source. Permeable paving should only be used in areas where vehicular speed is significantly reduced, in order to maintain the integrity of the system. Permeable paving could be used in outdoor parking areas to delineate between the car parking bays and the trafficable area.
- Maintenance of permeable paving is more arduous than soft landscaped solutions. Permeable paving need only be considered when landscaped solutions are not viable.
- The current site makes use of bio-detention swales within the car parking areas. To allow for continuity across the site and add to the aesthetic nature of the development, future development should consider applying such landscaping within any new car parking zones.
- Landscaped buffer strips should be installed adjacent to hardstand walkways and cycle paths so as to maximize soakage to ground, increase filtration of runoff and increase the time to concentration of the flow.
- Buffer strips should be located between all car parking areas and any adjacent roadway. Pollutant loads are higher in car parking areas due to the slow moving nature of the traffic. Buffer strips prevent these higher pollutant loads from being deposited into the road drainage network.
- By utilizing above ground storage within the car park it may be possible to avoid costly below ground storage structures. However consideration must be given to the operational use of the car park. Above ground storage should only come into effect during significant rainfall events when, it is unlikely that patrons will be visiting the complex.
- At the entry and exit points between the proposed site and the adjacent roads, access should fall into the site rather than away from it. This will prevent the site from increasing the hydraulic and pollutant load within the roads drainage system.
- Permeable surfaces such as gravel, grass-cretes or permeable paving systems can be used on driveways, parking places and pathways to allow storm water to percolate directly into the underlying sub-soil. These systems work on the principle of ground infiltration of storm water thus reducing the pressure on the main storm water drainage system and are appropriate for smaller, peripheral parking areas
- The use of swales for local attenuation of storm water is an appropriate method of reducing the storm water load to the main drainage system. The advantages of using swales include: storm water velocity is reduced; storm water discharge to the mains system is reduced; pollutants can be removed by infiltration; vegetation / planting of the swale contributes to local biodiversity.

Cycle ways with bicycle priority at intersections.

Landscaped buffer and car parking at front of buildings.

Examples of surface materials appropriate for small to medium sized car parking areas

Green roofs

As far as possible, green roofs should be established as part of the overall development concept for future commercial development within the LSRAC.

Green roofs are an environmental solution for the control, treatment and discharge of rainwater runoff. Up to 45% of rainfall can be released back into the atmosphere by transpiration. Green roofs also improve the carbon footprint of a development by reducing on-going cooling and heating costs associated with the development's use. Establishing plant material on rooftops provides numerous ecological and economic benefits, including energy conservation, mitigation of urban heat island effects, longevity of roofing membranes, and more aesthetically pleasing outlook to overlooking residents (i.e. from residents living to the east in Leopold).

Implementation of green roofs has the potential to reduce indoor temperatures by up to 4°C when outdoor temperatures are between 25°C to 30°C . Every decrease in internal building air temperature of 0.5°C has the potential to decrease cooling related energy use by up to 8%.

Green roofs consist of an insulation layer, waterproofing, a drainage layer and planting. The additional weight associated with the various components typically requires a higher strength structural frame; however, the additional cost associated with the strengthen frame is offset by the reduced costs of on-going heating and cooling within the property.

Having regard to the above, the following design requirements should be adhered to:

- Runoff from a green roof should be kept separate from runoff from untreated areas. Green roofs provide treatment of the rainfall runoff prior to discharge into the below ground drainage network.
- The low pollutant loads within roof water runoff makes it ideal for collection and reuse. The installation of rainwater tanks should be encouraged due to the significant benefit they provide. Roof water runoff can be used within the development to irrigate areas of soft landscaping or for the flushing of toilets. Roof water runoff could also be collected and discharged across Melaluka Road to the sports fields to be used for irrigation purposes.
- Sections of roof water runoff can be discharged to ground level when there is a vegetated zone directly adjacent to the building footprint. Such an approach may provide additional amenity value to areas such as the public plaza.
- Roof water typically has a low concentration of pollutants and should therefore be kept separate from runoff off roadways and footpaths. By combining the flows the overall pollutant load is diluted and the downstream treatment system becomes less effective.
- The developer will need to consider alternative methods of storage for roof water runoff, such as rainwater harvesting, if green roofs are not provided. However, such an approach will not assist in achieving the wider environmental, economic and aesthetic outcomes of the preferred green roof approach.

Importantly, water runoff should be captured and reused wherever possible, regardless of whether green roofs are installed.

Wetlands and other features

A water feature such as a constructed wetland has the potential to provide significant benefit to the proposed LSRAC development. Such structures allow for the removal of sedimentation as well as hydrocarbons and dissolved pollutants. They can add to the aesthetic quality of the site and create a point of congregation for users and the surrounding residents.

- The greater the distance the runoff has to travel from the wetland's inlet to its outlet the greater the percentage of pollutant is removed. This factor must be considered when locating a wetland within a development. A large surface area provides no benefit if the inlet and outlet are in close proximity.
- Water features should be integrated into the site design in such a way as to provide added benefit, not just to the site's drainage system but also to the development's patrons and staff members.
- Locating a landscaped area with a water feature in close proximity to the food court would provide an additional area for dining. Being able to dine outdoors would add to the overall experience of the patrons.

Designing for change of use

- Design buildings within the shopping centre that have flexible layouts to enable a variety of functions and tenancies. Carefully consider access arrangements, configuration of buildings (height, width and depth), and configuration of internal space(s).

Building orientation

- Design and orient buildings to maximise daylight and solar energy for illumination and heating. Orient buildings to the north and minimise building depth where possible.
- Provide shading devices and screens on buildings for use in the summer months.
- Ensure buildings are insulated to optimise their thermal performance.

Recycling

- Locate recycling bins (as well as rubbish bins) throughout the new development along key pedestrian connections and within the parking spaces.

Transportation

- Promote sustainable transportation through provision of clearly marked / identifiable cycle routes.
- Provide bicycle racks at appropriate locations within the shopping centre, recreation reserve and Gateway Sanctuary. These facilities should be located in clearly visible locations.
- Ensure close proximity to public transportation routes and provide a bus stop outside the shopping centre on Melaluka Road.
- Include mobility scooter recharge areas in close proximity to retail.

Materials

- Minimise the use of building materials with high embodied energy.
- Design robust, durable buildings with low maintenance requirements.
- Use lighter colours, particularly on roofs where they improve the thermal performance of the roof system.

Local example of a green roof (DPI Marine and Freshwater Resource Institute, Queenscliff, Victoria)

5.3 LSRAC open space and pedestrian movement framework

A diverse range of activities for locals and visitors of all ages should be provided throughout the Leopold. These may include passive open spaces for walking, cycling and horse riding; or active space such as sports pitches, BMX riding and skateboard parks, and playgrounds that cater for both children and their parents. Open spaces should be safe to use, and provide the opportunity for people to meet with one another. Open space also has the potential to add to biodiversity and amenity values within Leopold and, designed in the right way, to contribute to environmental and cultural values. To reduce maintenance costs large areas of open space can be returned to a natural state, which will contribute to the rural character of the town as well as biodiversity values.

5.3.1 General principles

The landscape and pedestrian movement framework seeks to provide a robust template for integrating future commercial development with adjoining recreation areas and Leopold's residential community. In particular the framework supports the following principles:

- Provide for a 'green belt' between the shopping centre and rural land to the west and north through the establishment of a passive recreation area (refer Figure 12).
- Provide for a landscaped spine along the ownership boundaries between the northern and southern lots within the commercial development area.
- Establish safe walking and cycling routes around the periphery of the study area, connecting with the Bellarine Rail Trail, the Memorial Recreation Reserve and the Gateway Sanctuary. These routes should provide for separated pedestrian and cycle ways, and, where possible, maintain pedestrian and cycle priority over vehicle traffic access. Provision for mobility scooters should be included as appropriate.
- Establish an internal network of pedestrian routes that maximises permeability through the site, providing for a walkable block pattern. This will include the addition of clearly delineated pedestrian walkways through large open areas of car park to improve pedestrian legibility and safety.
- Ensure that pedestrian access points and connections through the LSRAC complement the pedestrian network through the Leopold Memorial Recreation Reserve to provide safe and convenient access through the Centre.
- Establish distinctive, attractive entrances to the Gateway Sanctuary, Gateway Plaza and Memorial Recreation Reserve.
- Mitigate the visual effects of future development and add to the amenity value of the area with landscape boundary treatment to the activity centre.
- Provide bicycle parking in convenient locations (close to key entrances) where a level of passive surveillance can be achieved.

5.3.2 General strategies

Pedestrian and cycle ways

- Provide overhead lighting at regular intervals for all footpaths / areas of intensive pedestrian activity (such as the community meeting space within the shopping centre) to enable safe use after dark.
- Create pedestrian and cycle priority lanes, with vehicles giving way to pedestrians, cyclists and mobility scooters at intersections, particularly where roads pass through the active recreation area bounding the shopping centre site to the north and west.

Pedestrian friendly streets / street networks

- Ensure pedestrian footpaths are located alongside all roads including the Bellarine Highway and Melaluka Road.
- Create a clearly signposted and formed pedestrian connection between Split Court and the recreation reserve. This will better connect the residential area to the east with the reserve, sanctuary and shopping centre to the west.
- Ensure that pedestrian access points along the eastern boundary tie into the pedestrian network of the Leopold Memorial Recreation Reserve

Universal access

- Ensure safe and convenient access for everyone, including those with mobility requirements (prams, mobility scooters, shopping trolleys).
- Provide appropriate pedestrian guidance devices such as tactile indicators, lighting and properly graded pedestrian crossings at all main intersections along the Bellarine Highway and Melaluka Road.

Figure 12: Future vision of the LSRAC landscape edge, a recreation space and green belt for the wider Leopold town

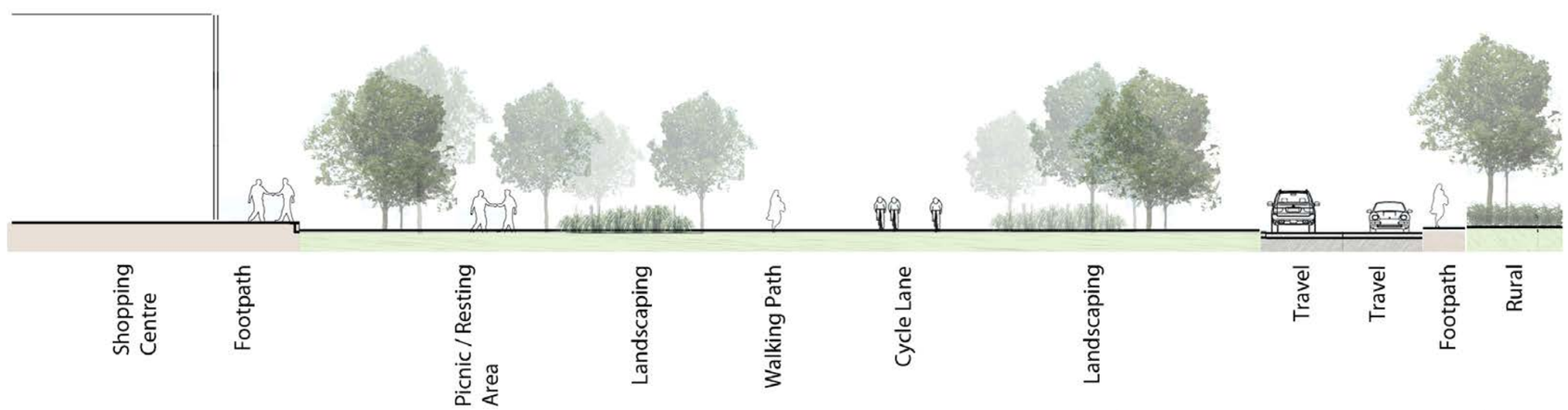


Figure 13: Indicative Section (B) of the LSRAC landscape edge, to the north of the study

Provide for a high amenity LSRAC plaza - a community meeting place

- The LSRAC should provide for a central community plaza (a mix of hard and soft space) as part of the overall development. This space should be formed and enclosed by new buildings and create a space which defines the identity of the activity centre and Leopold.

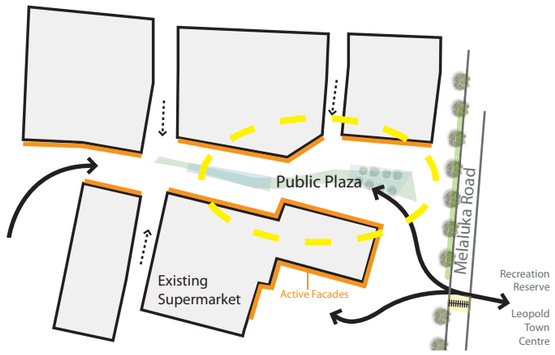


Figure 14: Indicative concept of proposed plaza facing onto Melaluka Road and Leopold Recreation reserve

- The plaza will be a meeting point, a place for events and a space which makes the activity centre an attractive urban community and commercial destination. In addition to being surrounded by retail and commercial activities, it is important that the centre also offer community amenities, for example a (privately operated) child care centre.
- The plaza should establish a strong relationship with the Leopold Recreation reserve and Melaluka Road, orientating towards these areas.
- The surfaces in the plaza should be pedestrian focused. Pedestrian areas should allow spaces for seating and meeting, and street furniture, paving and planting should be chosen to create a people friendly environment.
- Provide for resting areas within the shopping centre, Gateway Sanctuary and Memorial Recreation Reserve. Such resting areas are to include formal seating places and trees for shade.

Enhance visual access to open space

Make existing natural features such as the Gateway Sanctuary and Recreation Reserve more visible by replacing the strong and densely landscaped edge close to the Melaluka Road and the Bellarine Highway intersection with lower, more visually permeable landscaping.

Landscaping and boundary treatment

- Clearly define the shopping centre boundary and street edges with landscaping.
- Provide landscaping within the shopping centre that builds on local identity and promotes the use of indigenous species.
- Incorporate tree planting within the shopping centre to provide shade, shelter and amenity.
- Protect and retain existing vegetation within the development where possible.
- Create areas of new landscaping (with a strong focus on the use of indigenous species), in line with WSUD principles and reflecting the existing landscape character.
- Design landscapes within and surrounding the shopping centre that enable infiltration and retain water to assist in plant maintenance.
- Enhance the approach and entry experience to Leopold from the east through providing landscaped edges, transitioning from the rural surrounds to the retail space of the shopping centre.

Vision for Leopold LSRAC: High quality public realm similar to Rouse Hill Centre, Sydney (GPT Group Rouse Hill Brochure)

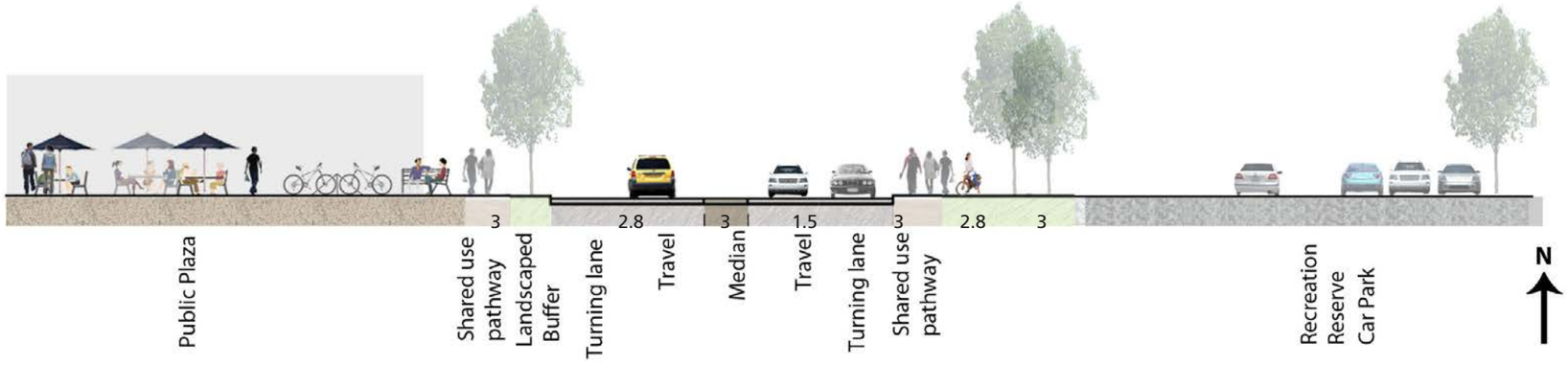
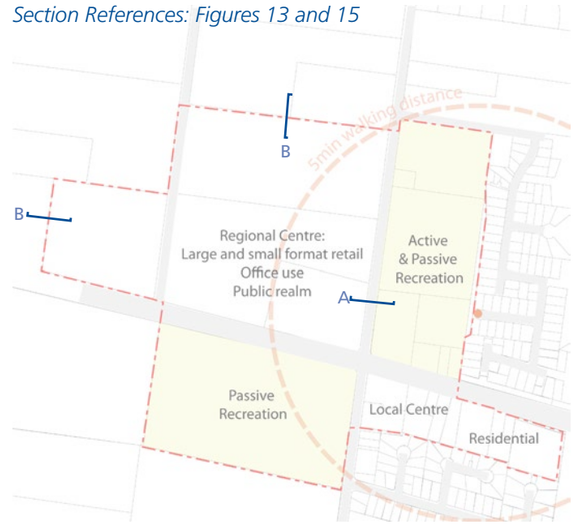


Figure 15: Indicative Section (A) of proposed plaza facing onto Melaluka Road and Leopold Recreation reserve

Section References: Figures 13 and 15



5.3.3 Concept 1 specific strategies

(Refer to figure 17 for number references):

1. Provide for a 'green belt' between the shopping centre and rural land to the west and north through the establishment of a passive recreation area. This area, up to 30m-40m wide, should consist of cycle lanes and pedestrian pathways, landscaping, swales, resting and picnic areas and fixed exercise equipment, creating a circuit route around the shopping centre and connecting to the Memorial Recreation Reserve and Gateway Sanctuary. The landscaped edge could provide for stormwater detention and/or disposal through the inclusion of amenity ponds and/or soakage pits.

2. Provide for a landscaped spine along the ownership boundaries between the northern and southern lots within the commercial development area. This green spine, approximately 15m-20m wide, should be developed during the first phase of development and seek to address those matters listed in 1 above. Over time, as additional development occurs to the north, this outer edge will become part of an internal network of high amenity pedestrian routes.

3. Establish safe walking and cycling routes around the periphery of the study area, connecting with the Bellarine Rail Trail, the Memorial Recreation Reserve and the Gateway Sanctuary. These routes should provide for separated pedestrian and cycle ways, and, wherever possible, maintain pedestrian and cycle priority over vehicle traffic access. Any future crossing point on Bellarine Highway will need to be signalised for pedestrian and cyclists safety.

4. Establish an internal network of pedestrian routes based on an irregular grid pattern. The network should maximise permeability through the site, providing for a walkable block pattern. Grid spacing should be no more than 100m. As far as practical, internal pedestrian routes should be given priority over vehicle routes, designed to be overlooked by adjoining uses (active frontages), and form part of the wider landscape and open space network.

5. Provide for east-west internal pedestrian routes aligned with views to the rural surroundings and to the adjoining Memorial Recreation Reserve, framed by buildings and trees.

6. At the intersection of the Bellarine Highway and Melaluka Road, specific attention should be given to establishing distinctive, attractive entrances to the Gateway Sanctuary. The entrance should be integrated with existing public realm, providing a meeting point for people and drawing people into the individual site.

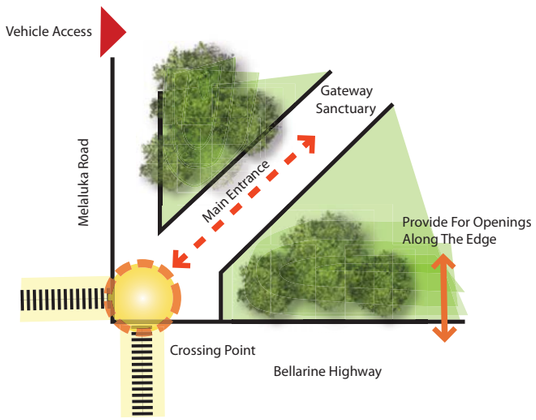


Figure 16: Indicative concept of Gateway Sanctuary Entrance

7. Provide for intermittent screening along western boundary, integrated as a landscape feature along the boundary to assist in mitigating the visual effects of future development and add to the amenity value of the area. Trees and other vegetation should be planted prior to future development to ensure that they achieve their purpose as quickly as possible.

8. Ensure a legible, well defined public route between the proposed plaza, Gateway Sanctuary and Leopold Recreation Reserve.

Figure 17: Leopold Sub Regional Activity Centre Study Area: Open space and pedestrian movement framework Concept 1

5.3.4 Concept 2 specific strategies

(Refer to figure 18 for number references):

1. Provide for a 'green belt' between the shopping centre and rural land to the west through the establishment of a passive recreation area. This area, approximately 30m-40m wide, should consist landscaping, swales, resting and picnic areas overlooking adjoining rural landscape). The landscaped edge could provide for stormwater disposal through the inclusion of amenity ponds and/or soakage pits.

2. Provide for a landscaped spine along the eastern edge of Clifton Ave and along the northern boundary of the commercial development area. This green spine, approximately 30m wide should be developed during the first phase of development and seek to address those matters listed in 1 above, and assist to establish a circuit route around the shopping centre and connecting to the Memorial Recreation Reserve and Gateway Sanctuary. Over time, if additional development occurs to the north, this outer edge will become part of an internal network of high amenity pedestrian routes.

3. Establish safe walking and cycling routes around the periphery of the study area, connecting with the Bellarine Rail Trail, the Memorial Recreation Reserve and the Gateway Sanctuary. These routes should provide for separated pedestrian and cycle ways, and, wherever possible, maintain pedestrian and cycle priority over vehicle traffic access.

4. Establish an internal network of pedestrian routes based on an irregular grid pattern. The network should maximise permeability through the site, providing for a walkable block pattern. Grid spacing should be no more than 100m at the eastern half of the development area. As far as practical, internal pedestrian routes should be given priority over vehicle routes, designed to be overlooked by adjoining uses (active frontages), and form part of the wider landscape and open space network.

5. Provide for east-west internal pedestrian routes aligned with views to the rural surroundings and to the adjoining Memorial Recreation Reserve, framed by buildings and trees.

6. At the intersection of the Bellarine Highway and Melaluka Road, specific attention should be given to establishing distinctive, attractive entrances to the Gateway Sanctuary refer figure 16), Gateway Plaza and Memorial Recreation Reserve. These entrances should be integrated with public realm, providing a meeting place for people and drawing people into the individual sites.

7. Provide for intermittent screening along Bellarine Highway, particularly beyond Clifton Ave, integrated as a landscape feature along the boundary to assist in mitigating the visual effects of future development and add to the amenity value of the area.

   Trees and other vegetation should be planted prior to future development to ensure that they achieve their purpose as quickly as possible.

8. Ensure a legible, well defined public route between the proposed plaza, Gateway Sanctuary and Leopold Recreation Reserve.

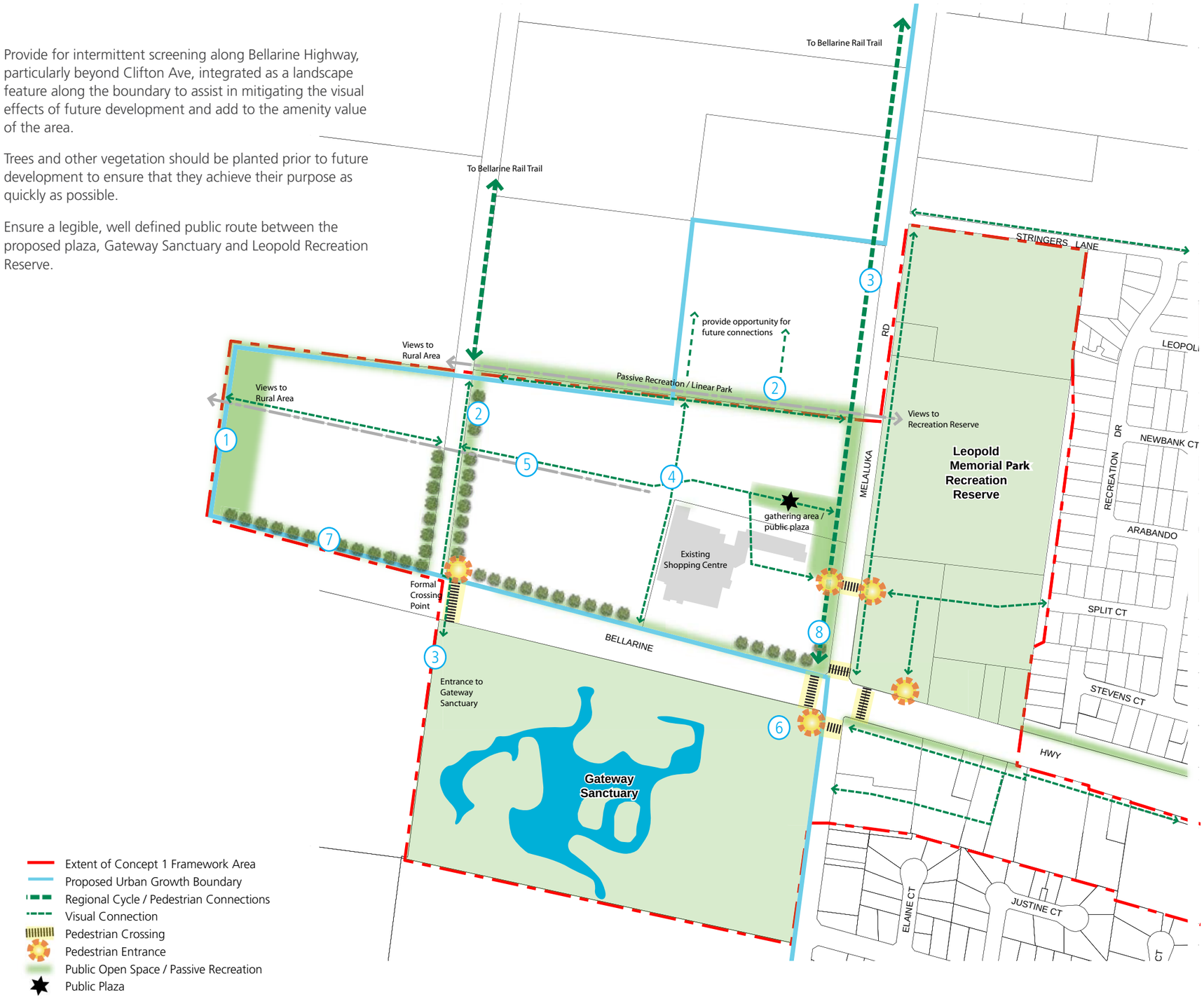


Figure 18: Leopold Sub Regional Activity Centre Study Area: Open space and pedestrian movement framework Concept 2

5.4 LSRAC Land use framework

Successful communities require a full range of local services and facilities, conveniently sited and well connected to residential areas by safe, accessible and legible routes. A consolidated activity centre will enhance the ease of connectivity through reduced travel distances and creation of a compact destination for both locals and visitors. By concentrating the majority of development, services and amenities within the LSRAC, the centre will become increasingly walkable and enable commuter diversity, particularly for Leopold residents. Additional detailed technical studies will be required to support the implementation of the principles and strategies outlined below.

5.4.1 General principles

The land use framework seeks to provide a robust template for an economically sustainable future for Leopold and the region. In particular the framework supports these principles:

- Provide a range of land uses, predominantly retail in nature, but also including non-retail uses and entertainment facilities.
- Provide for a local centre to the southeast of the Bellarine Highway and Melaluka Road junction.
- It has been estimated that the Bellarine Peninsula requires approximately 27,000sqm in retail plus an additional associated 17,000sqm non-retail commercial space over the medium to long term, much of which will be provided for in the above areas. Non retail may include wholesaling, offices or light industrial type uses.
- Enable staging of development over time to support orderly growth of the activity centre that optimises the range and mix of uses envisaged.

The aim of this urban design framework is to provide for the general massing of built form as shown in the land use figures, thus breaking up the overall building mass and providing for permeability, connectivity and other principles set out in this document.

This framework acknowledges that retail and non retail 'blocks' have the potential to be divided up into different tenancies in a variety of floor layouts (as shown above).

Integral to ensuring such layouts contribute positively to the outcomes sought in this framework include:

- Maximising active frontages (aiming for minimum 50% of elevations)
- 'Sleeving' big box retail amongst smaller retail units

5.4.2 General strategies

Distribution of uses

- Retail uses form the main street edges along Melaluka Road and internally.
- The existing supermarket building will remain, with additions to the east and north to establish active facades that enhance the relationship with the adjoining Leopold Memorial Recreation Reserve and activate the proposed plaza area.
- Retail uses within the shopping centre are to include: supermarkets and grocery stores, specialty food, clothing and footwear, homeware, hardware and electrical goods, recreational goods, food services and similar activities.
- Non-retail uses are included within the shopping centre and may include: real estate agents, banks, laundries, doctors, therapists, legal and accounting services and similar activities.
- Community uses are included within the shopping centre around proposed plaza location. Such uses may include post office, banks, or community hall/civic offices.
- An entertainment land use is located within the shopping centre facing onto the plaza area. Land uses in this area will be associated with community gathering space, better connecting the Gateway Plaza with its immediate surrounds including the Gateway Sanctuary and Leopold Memorial Recreation Reserve.
- Entertainment and related uses of this area could include: cinema, gym, bowling, bars and a community garden.
- Residential uses within the study area should be considered for medium to higher densities given the proximity to services and facilities. (maps also to be shaded to include 2 properties in the south east corner of the Leopold Memorial Recreation Reserve – refer Figures 19 and 20, concepts 1 and 2.

The mix, location and ratio of various retail, commercial and community floor space allocations is subject to further market assessment during the preparation of a detailed development plan.

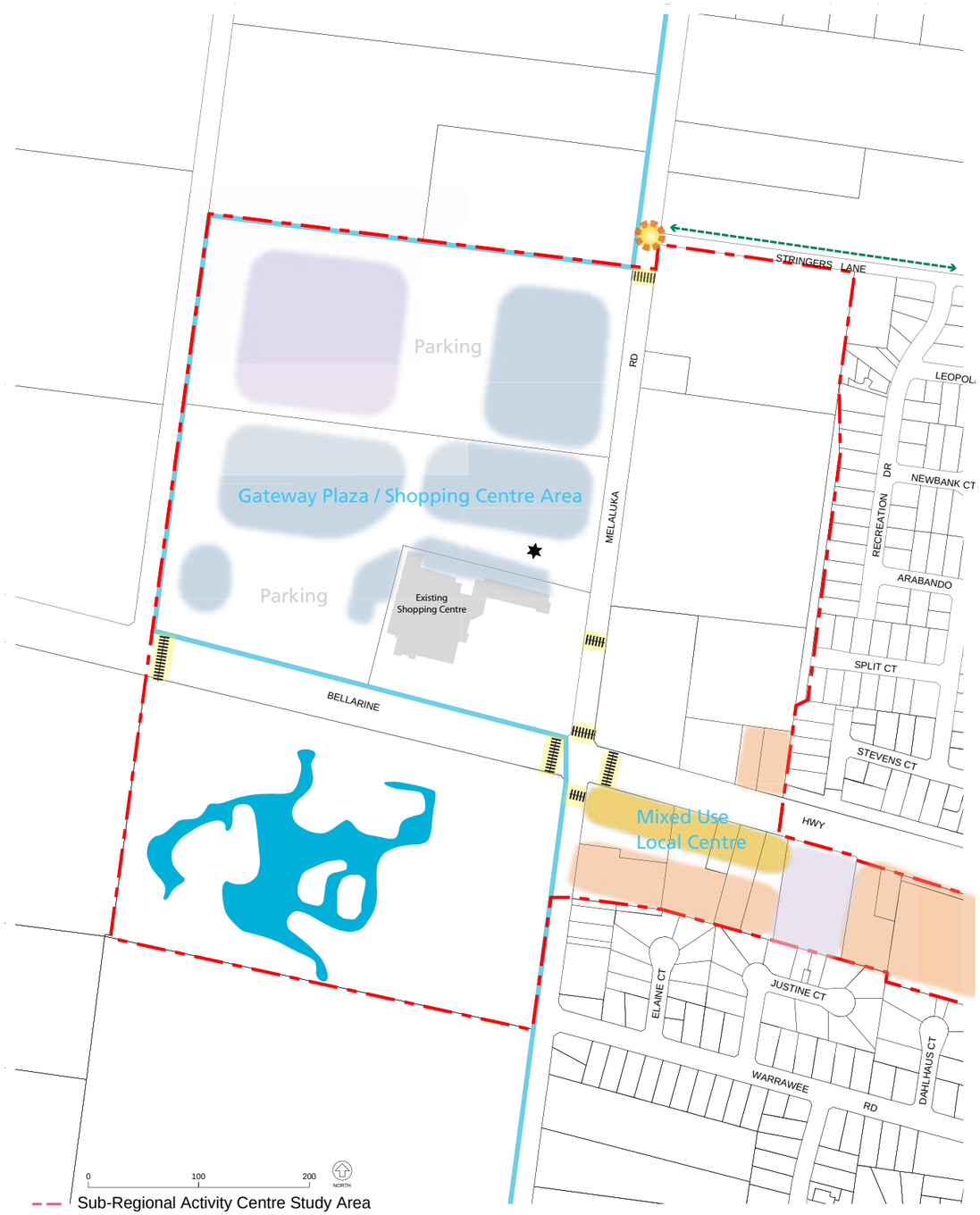


Figure 19: Leopold Sub Regional Activity Centre Study Area: Land use Framework Concept 1

Mixed Use Local Centre – South of the Bellarine Highway

- A consolidated strip of retail will be located to the south of Bellarine Highway, east of Melaluka Road. The retail uses within this location shall include restaurants and local convenience stores.
- The possibility exists for offices to be located above retail stores to the south of Bellarine Highway, east of Melaluka Road.
- A new strip of medium or higher density residential development is located south of Bellarine Highway behind the proposed retail development in the Mixed use Local Centre.
- The residential land to the east of the service station is to remain residential.
- The service station in this location will remain.

5.4.3 Concept 1 specific strategies

(Refer to figure 19):

- Office use and warehousing are located within the north west corner of the site. This area may be able to be accessed separately from the retail component via access roads to the north and west of the shopping centre, forming a joined but separate land-use node.

5.4.4 Concept 2 specific strategies

(Refer to figure 20):

- Subject to demand, office uses / warehousing / wholesaling / light industrial are located to the north of the proposed development area. This area may be able to be accessed separately from the retail component via access roads to the north and west of the shopping centre, forming a joined but separate land-use node. This northern area, not currently included within the concept boundaries, has the potential to continue to develop in a consolidated manner along Melaluka Road as demand requires. Any such development should be well connected and accessible to the shopping centre plaza area.
- Given the distance from the Leopold town edge, development to the west of Clifton Ave should provide primarily for large box hardware type retail, being those activities that are usually accessed by vehicle.

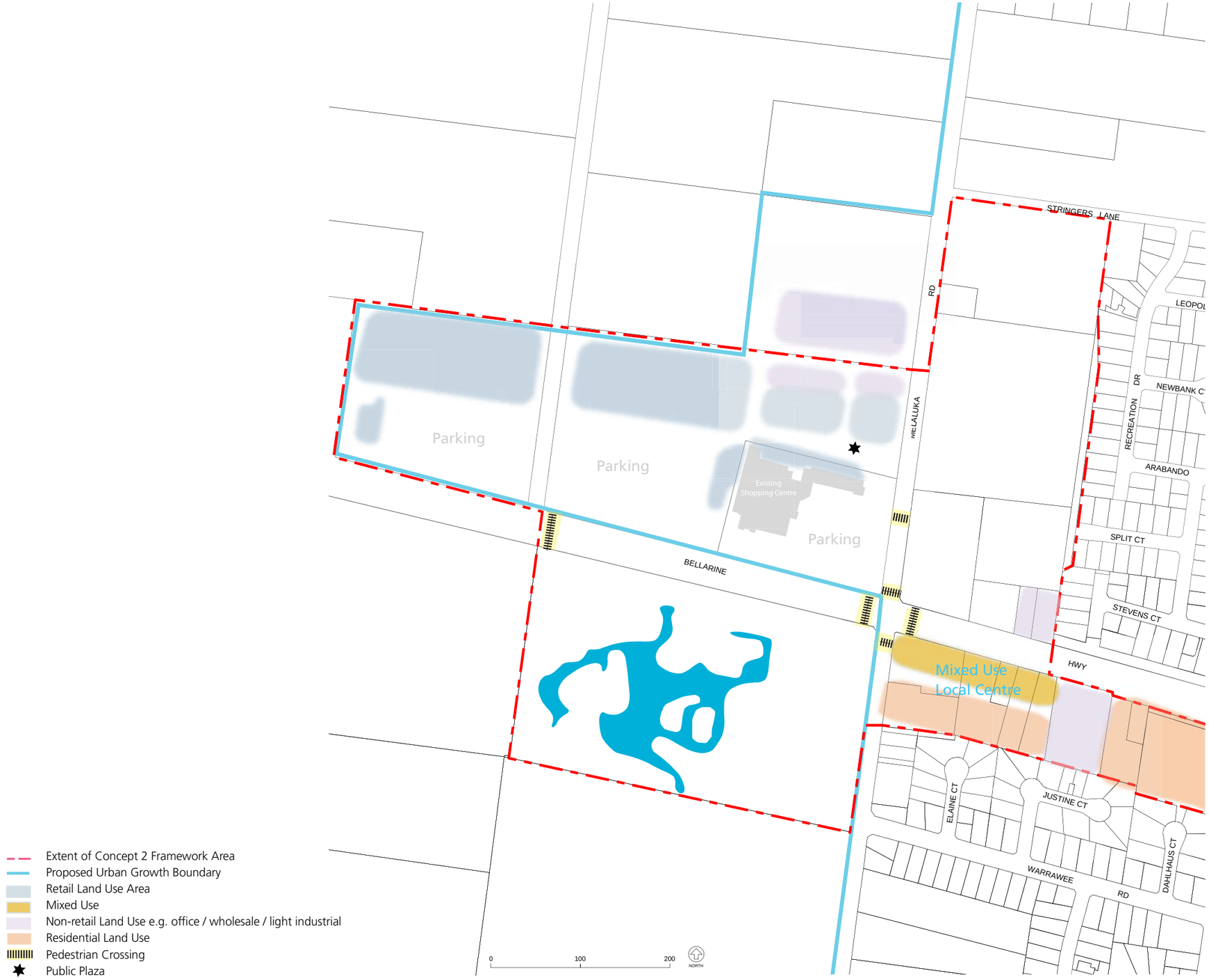


Figure 20: Leopold Sub Regional Activity Centre Study Area: Land use Framework Concept 2

5.5 LSRAC Vehicle movement and parking framework

The design of the vehicle network should assist in assist in establishing an environment that encourages people to move about on foot, and be provided in such a manner that it does not result in traffic congestion within or around the study area. A successful movement framework will also make clear connections with existing routes and connections. The vehicle movement and parking framework seeks to provide a rational movement network based on an irregular grid pattern. The framework is designed to sit in conjunction with the landscape and pedestrian movement framework and to be achievable over a phased development.

In addition, the parking framework has specific regard to contributing the sustainability of stormwater management. A green solution should avoid the need to pump surface water flow. The southerly half of the study area drains south to the Gateway Sanctuary and on to Lake Connewarre. The northerly half of the site drains to the north towards the coastline of the Bass Strait. This has been provided for in the proposed car parking layout. A requirement of between 42,000sqm and 60,000sqm of parking within the LSRAC is envisaged over the medium term.

5.5.1 General principles

- Minimise potential conflicts between vehicles and pedestrian and cyclists - establish clear, formed pedestrian routes through car park areas by creating raised footpaths and / or using different textures and materials.
- Provide service access directly from the street wherever possible, including for smaller retail and office businesses.
- Minimise the visual and amenity impacts of service and parking access, parking and storage areas on the pedestrian environment within and the immediate context of the activity centre.
- Encourage non car based forms of transport through the provision of an integrated transport network and improved public transport options in line with the Victorian State Government's Transport Integration Act 2010.

5.5.2 General strategies

- Design off street car parks as integral parts of the urban landscape.
- For larger businesses where significant deliveries are required (such as supermarkets or large goods stores) provide service access at the rear of buildings and screen with built form and vegetation. Basement servicing, in conjunction with underground car parking, is encouraged.
- Reduce the use of productive rural land by minimising above ground car parking: provide for 30%-40% of required car parking beneath ground level in basement or sub-basement.
- Ensure car parking areas are well illuminated by overhead lighting placed at regular intervals.
- Investigate opportunities to widen Melaluka Road as part of any future development by utilising land on the proposed development site(s) to allow for improved vehicle turning, vehicle, bike & pedestrian safety and landscaping.
- If car parks must be located along the street edge, they must comprise no more than two rows of angle parking, enabling a maximum building setback of approximately 22m.
- Partially screen any car parking along the Bellarine Highway and Melaluka Road street edges with appropriate landscaping, 2.5m-4m in width.
- Ensure any landscaping within the car park areas does not provide areas of concealment.
- Promote sharing of car parks between adjoining facilities to maximise their use.
- Consideration to be given to facilitating the provision of a bus interchange on this site in the long term.
- Apply car parking provision ratios of 1.5 car parks per 100m2 of gross leasable area for offi ce/commercial uses and
  8 car parks per 100m2 of gross leasable retail floor area. Rates could be altered if supported by an appropriate traffic study.
- Ensure sufficient provision of mobility parking near retail and commercial/office entrances.

5.5.3 Concept 1 Specific strategies

(Refer to figure 21 for number references):

1. Provide for internal vehicle movement within the Gateway Plaza development area, based on an irregular grid system. Priority should be given to pedestrians wherever possible.
2. Provide for service access with screening to ensure that a high amenity environment is maintained throughout the area. Mature vegetation and built form should be used to screen service access from primary pedestrian and vehicle routes.
3. Provide for separate residential and service access within the proposed local centre area south of the Bellarine Highway. Service access (dashed line) should be provided for between future commercial development. Residential access will also provide for access to south facing commercial development.
4. Provide for above ground car parking integrated with vegetation and water sensitive urban design initiatives. Car parks should appear more 'parks' than 'cars', with appropriate landscaping and tree planting to provide shading and amenity. Parking to the north will drain to the north, and parking in the south will drain to the south.
5. Car parking to a maximum depth of two rows may be provided for along street frontages. It should be integrated with landscaping to reduce visual dominance, and the design should align to desire lines to and from the Reserve.

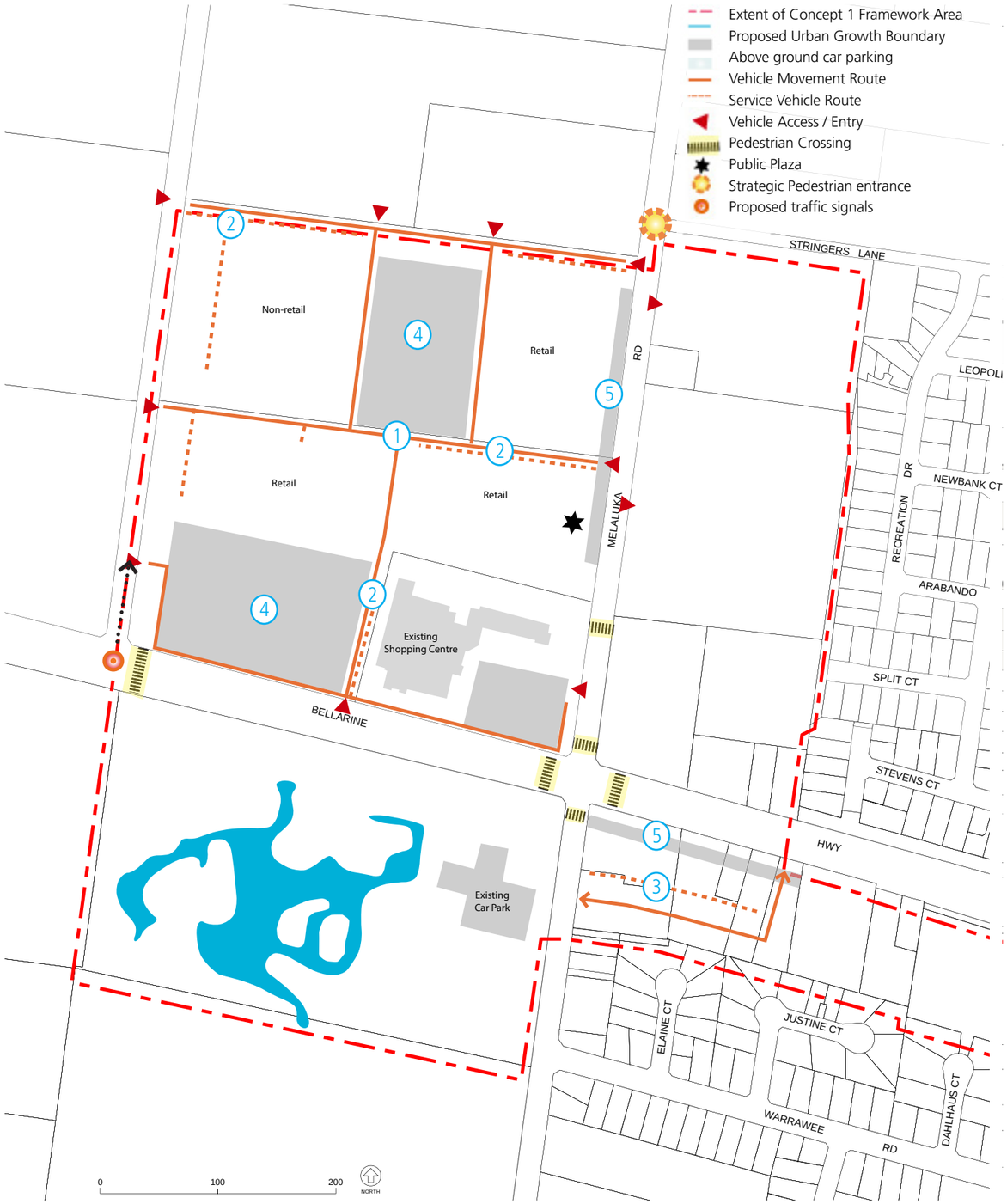


Figure 21: Leopold Sub Regional Activity Centre Study Area: Vehicle movement and parking framework - Concept 1

5.5.4 Concept 2 Specific strategies

(Refer to figure 22 for number references):

1. Provide for internal vehicle movement within the Gateway Plaza development area. The system should allow for potential integration of development to the north in the future, particularly where access is provided along the northern part of the site.

2. Provide for service access with screening to ensure that a high amenity environment is maintained throughout the area. Mature vegetation and built form should be used to screen service access from primary pedestrian and vehicle routes.

3. Provide for separate residential and service access within the proposed local centre area south of the Bellarine Highway. Service access (dashed line) should be provided for between future commercial development . Residential access (solid line) will also provide for access to south facing commercial development.

4. Provide for above ground car parking integrated with vegetation and water sensitive urban design initiatives. Car parks should appear more 'parks' than 'cars', with appropriate landscaping and tree planting to provide shading and amenity. Large areas of above ground car parking should be provided to the rear of the site away from views from the Bellarine Highway and Melaluka Road.

   Given that the site falls to the south, the car parking area provides the opportunity to attenuate runoff during critical storm events.

5. Car parking to a maximum depth of two rows may be provided for along street frontages. This car parking should be integrated with landscaping to reduce visual dominance.

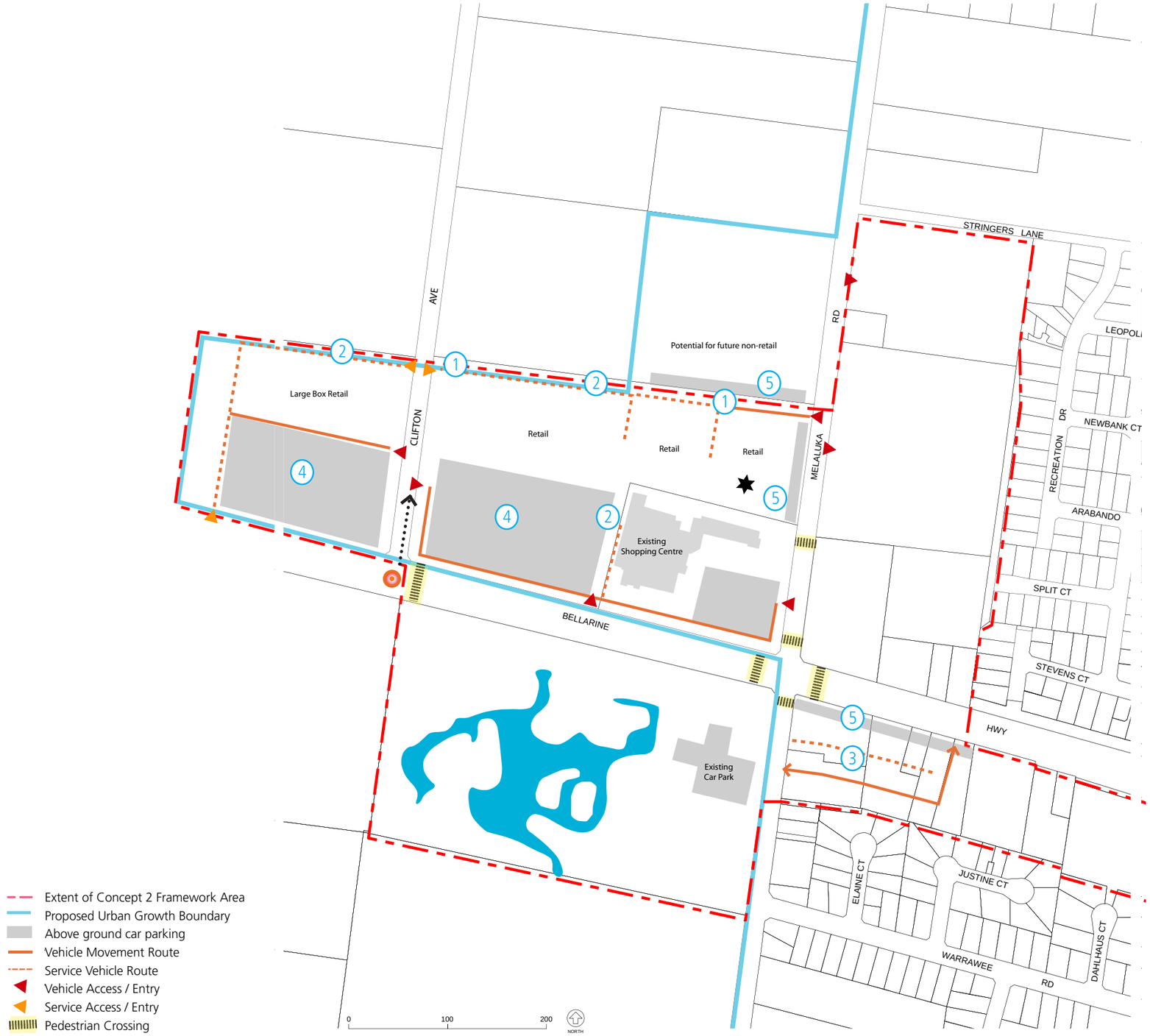


Figure 22: Leopold Sub Regional Activity Centre Study Area: Vehicle movement and parking framework - Concept 2

5.6 LSRAC Built form framework

The success of buildings within the study area should be assessed against their ability to make a positive contribution to public realm as a whole. This can be measured in how they face the street, how they contribute to the animation of the street, and whether people feel comfortable using the surrounding public space. The greater the interaction between buildings and public realm, the more positive the experience for the people using the area.

In some instances, such as adjacent to the Gateway Sanctuary and Memorial Recreation Reserve, 'open frontages' free from screening will have the potential to enhance use and security by ensuring that areas are overlooked by adjoining uses (such as streets or adjoining land uses).

On this page are principles and strategies that are to apply to any future built form. On the pages following (sections 5.6.3 and 5.6.4 respectively) are two options that adhere to these general principles but also reflect alternative site layouts, depending on the size and shape of the development site. Figures 26,27 and 28 illustrate the difference between these options, in terms of bulk and scale to the highway, and against the exising built form.

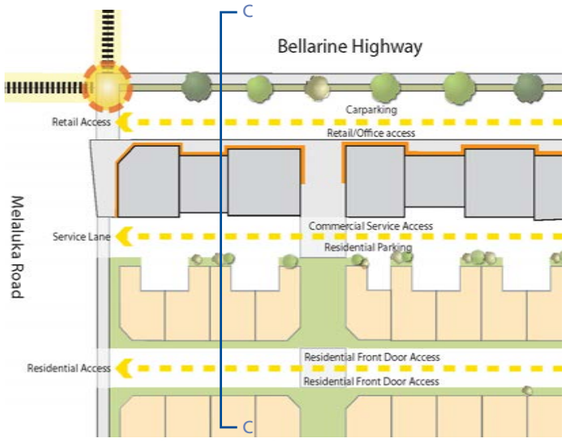
5.6.1 General principles

- Establish a pattern of active frontages within the study area, to assist in creating a vibrant, exciting destination for local residents, employees and visitors to the area.
- Provide for primary active frontages along the Bellarine Highway and Melaluka Road and facing onto public open space; and secondary active frontages fronting the pedestrian movement network.
- Enhance the perceived relationship with and usability of the Recreation Reserve through careful design of entrances, building openings and pedestrian access within the Activity Centre.

5.6.2 General strategies

Height

- Distribute lower scale buildings (maximum 8-10m) along the rural boundaries to the north and west.
- Locate higher buildings (maximum 12m) further towards the centre of the Gateway Plaza, rising towards the intersection between Melaluka Road and the Bellarine Highway.
- The maximum allowable for the LSRAC is between 12 and 14 metres depending on the final design of the built form. A 'gateway' building within the plaza is considered appropriate and should, through appropriate design, establish a relationship with the Gateway Plaza, Gateway Sanctuary and Leopold Memorial Recreation Reserve.
- Enable greater height at the northwest junction of the Bellarine Highway and Melaluka Road (12 -14 metres) to provide a corner landmark structure
- Height to the southeast of the Bellarine Highway and Melaluka Road junction should be sympathetic to existing development, no greater than 8m (refer to Figure 23 below and key section diagram adjacent). This applies irrespective of the option for the northwest area.



Indicative built form layout for southeast area of site

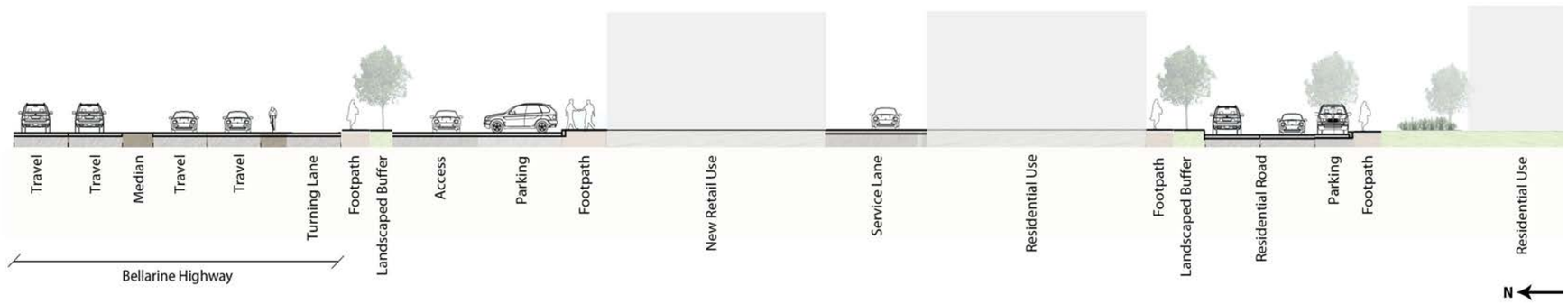


Figure 23: Indicative future section (C) through proposed Mixed Use Local Centre to the south of the Bellarine Highway: see section line above

Setbacks

- Avoid unreasonable overshadowing of adjoining public spaces (such as internal pedestrian routes and community gathering areas) through appropriate setbacks based on solar access of internal pedestrian routes at different times of day and year.
- Where possible, locate shopping centre buildings along the street boundary. Where this is not possible, maintain visual connections to the street with a maximum set back of 22m from the street boundary (in line with the 'Interim Design Guidelines for Large Format Retail Premises' – Department of Planning and Community Development, Victoria State Government).

Existing service land to the north of Gateway Plaza

Example of proposed active frontages and streetscaping

Active frontages

- Conceal the bulk of larger format buildings from internal pedestrian routes through 'wrapping' public edges with smaller scale uses that have active frontages.

Example of residential character in a mixed use zone

Responding to proposed local character

- Design low pitched / flat roofs to respect the existing built form character of Leopold.
- Wherever possible, use light materials (timber, non-masonary cladding) to reflect the residential character of Leopold.

Servicing and Site Utilities

- Locate loading bays, site storage, access points and site utilities away from public spaces, streets and residential areas.
- Separate servicing areas and site utilities from pedestrian movement routes.

Advertising signs

- Encourage buildings to be designed with a designated space for signage on the building façade
- Where possible signs should integrate with the building and provide architectural interest.
- Ensure signs are of a scale (size and height) that complements the built form of the building(s) and surrounding landscape
- Ensure signs incorporate limited detail other than is necessary to identify the building name and key tenants
- Where there are multiple tenancies or mixed use developments signs should be consolidated to avoid the visual clutter of multiple signs and displays.

5.6.3 Concept 1 specific strategies

(Figure 24 is numbered to map the strategies below where appropriate):

1. Provide for primary active frontages along the Bellarine Highway and Melaluka Road. These frontages should promote a range of functions, incorporate a large number of doors and windows (i.e. approximately 25 every 100m), have no blind facades, and be constructed of high quality materials with emphasis on detail. Facades should be divided into smaller legible elements. Design guidelines should encourage 'entrance treatments' to preclude unattractive 'highway' uses on the western entrance of the SRAC such as service stations and convenience retail

2. Provide for primary active frontages facing onto public open space. These frontages should promote a range of functions, particularly associated with the proposed entertainment land uses. They should have no blind facades, and be constructed of high quality materials with emphasis on detail.

3. Provide a building of high design quality that addresses the corner of the Bellarine Highway and Melaluka Road to encourage active frontages and preferred uses which maximise the attractiveness if the western entrance to the LSRAC.

4. It is recommended that vegetation along the edges of the Leopold Memorial Recreation Reserve be removed and/or trimmed; and selectively trimmed along the edges of the Gateway Sanctuary, to open up parts of the understorey and allow more views into these public spaces from the Bellarine Highway and Melaluka Road. This is considered particularly important at the intersections of the above roads to assist in passive surveillance of the areas.

5. Provide for active frontages along the internal pedestrian and vehicle movement routes of the future development area. These secondary frontages should promote a moderate range of functions, a moderate number of doors and windows (e.g. at least 15 every 100m), have few blind facades and be constructed of good quality materials with attention to detail. Emphasis should be placed on building facades rounding corners (including towards service access).

6. Public Plaza: The plaza should be formed and enclosed by new buildings and create a space which defines the identity of the Gateway Plaza and Leopold. The square will be a meeting point, a plaza for events and a space which makes the shopping centre more than just a shopping centre – a place that people wish to visit for its quality. To maintain a 'human scale' the plaza should not be more than 25m in one direction, and no more than 1000m^2.

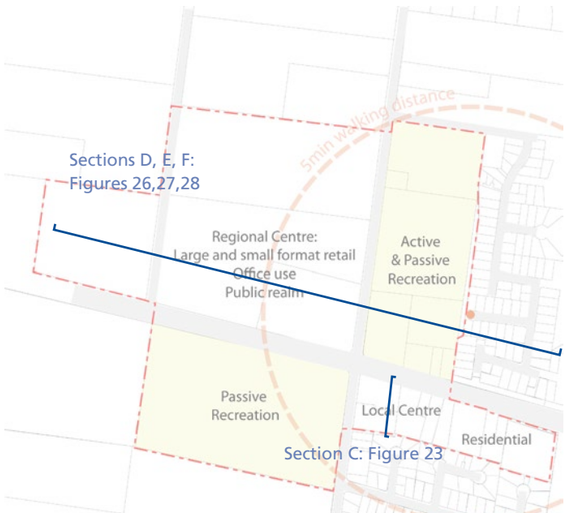
7. Provide a feature or treatment at the western entrance to the LSRAC such as landscaping, public art, or architectural signage, to denote the arrival to Leopold.'

8. Provide a feature or treatment that reinforces the role of this key intersection at the 'heart' of the LSRAC.

Pedestrian areas should allow spaces for seating and meeting, and street furniture, paving and planting should be chosen to create a people friendly environment. The plaza should provide for a mix of hard and soft surfaces, integrating water sensitive design as an aesthetic element.

Apply car parking provision ratios of 1.5 car parks per 100m2 of gross leasable area for office/commercial uses and 8 car parks per 100m2 of gross leasable retail floor area. Rates could be altered if supported by an appropriate traffic study.

Ensure sufficient provision of mobility parking near retail and commercial/office entrances.



Key map for indicative future sections: Figures 23, 26, 27, 28

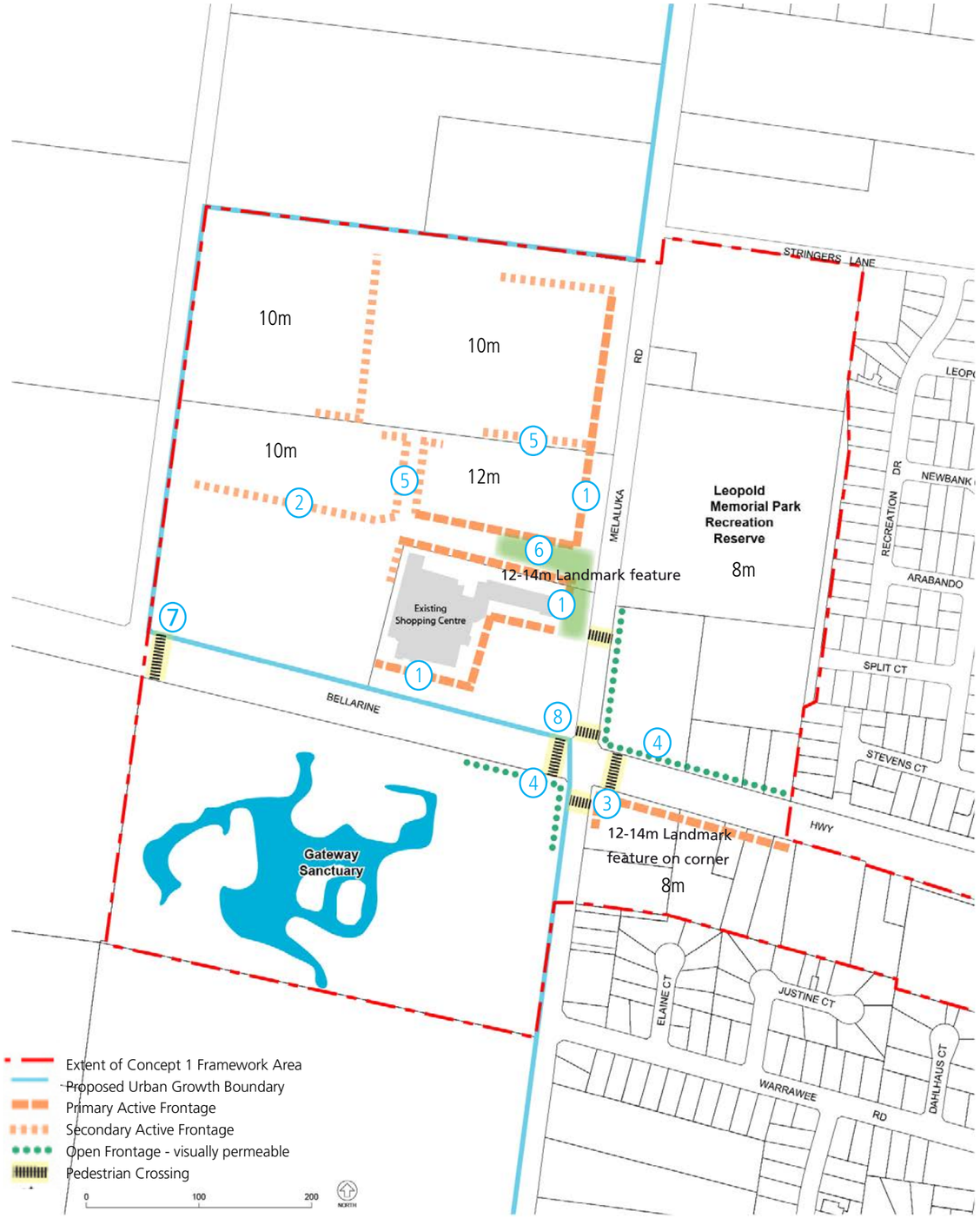


Figure 24: Leopold Sub Regional Activity Centre Study Area: Active frontages and height framework

5.6.4 Concept 2 specific strategies

(Refer to figure 25 for number references):

1. Provide for primary active frontages along the Bellarine Highway and Melaluka Road. These frontages should promote a range of functions, incorporate a large number of doors and windows (i.e. approximately 25 every 100m), have no blind facades, and be constructed of high quality materials with emphasis on detail. Facades should be divided into smaller legible elements.

2. Provide for primary active frontages facing onto public open space. These frontages should promote a range of functions, particularly associated with the proposed entertainment land uses. They should have no blind facades, and be constructed of high quality materials with emphasis on detail.

3. Provide a building of high design quality that addresses the corner of the Bellarine Highway and Melaluka Road.

4. It is recommended that vegetation along the edges of the Gateway Sanctuary and Memorial Recreation Reserve be removed and/or trimmed to allow open views into these public spaces from the Bellarine Highway and Melaluka Road. This is considered particular important at the intersections of the above roads to assist in passive surveillance of the areas.

5. Provide for active frontages along the internal pedestrian and vehicle movement routes of the future development area. These secondary frontages should promote a moderate range of functions, a moderate number of doors and windows (e.g. at least 15 every 100m), have few blind facades and be constructed of good quality materials with attention to detail. Emphasis should be placed on building facades rounding corners (including towards service access).

6. Public Plaza: The plaza should be formed and enclosed by new buildings and create a space which defines the identity of the Gateway Plaza and Leopold. The square will be a meeting point, a plaza for events and a space which makes the shopping centre more than just a shopping centre – a place that people wish to visit for its quality.

7. Provide a feature or treatment of the western entrace to the LSRAC such as landscaping, public art, or architectural signage, to denote the arrival to Leopold.

8. Provide a feature or treatment that reinforces the role of this key intersection at the 'heart' of the LSRAC.

   Pedestrian areas should allow spaces for seating and meeting, and street furniture, paving and planting should be chosen to create a people friendly environment. The plaza should provide for a mix of hard and soft surfaces, integrating water sensitive design as an aesthetic element.

Apply car parking provision ratios of 1.5 car parks per 100m2 of gross leasable area for office/commercial uses and 8 car parks per 100m2 of gross leasable retail floor area. Rates could be altered if supported by an appropriate traffic study.

Ensure sufficient provision of mobility parking near retail and commercial/office entrances.

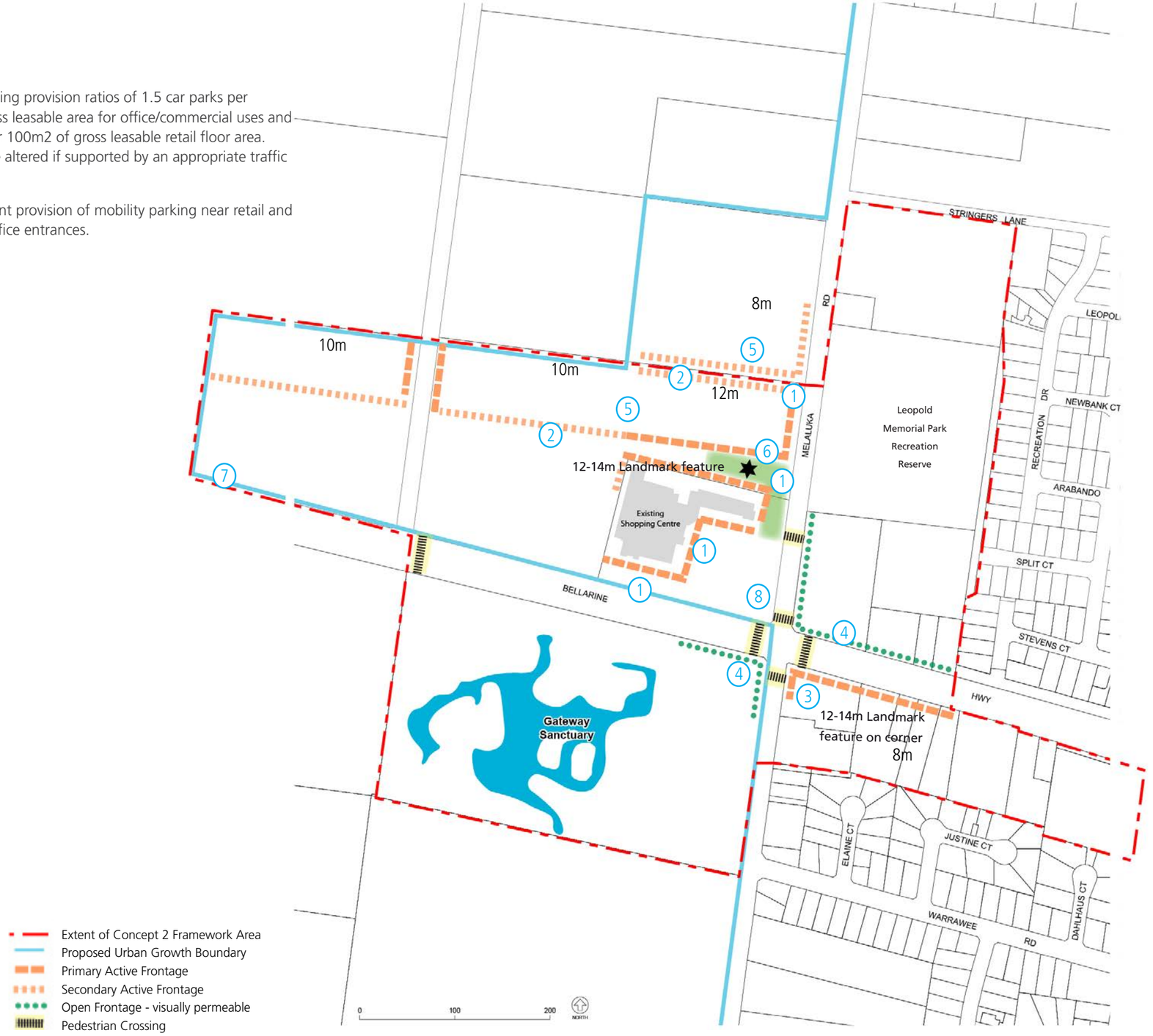


Figure 25: Leopold Sub Regional Activity Centre Study Area: Active frontages and height framework

Figure 26: Section D – Existing east-west long section through LSRAC

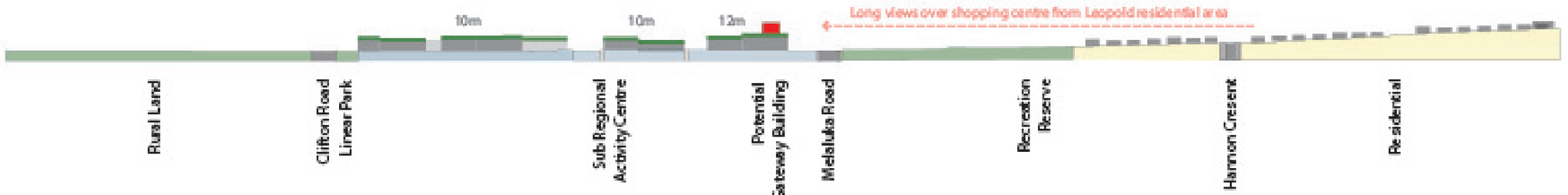


Figure 27: Section E – Indicative future east-west long section through LSRAC - Concept 1

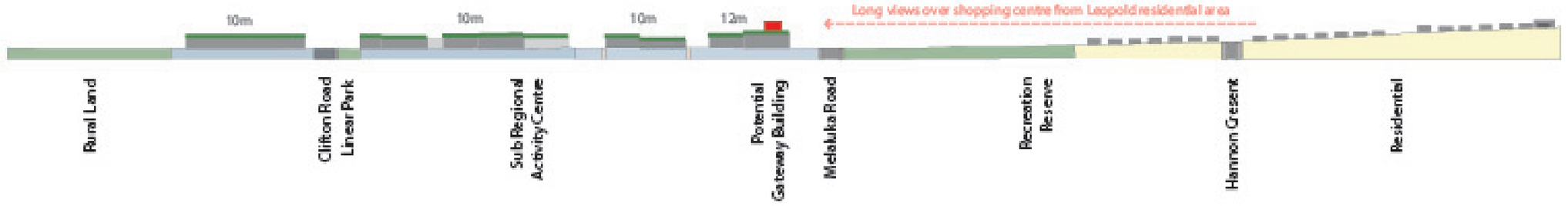


Figure 28: Section F – Indicative future east-west long section through LSRAC - Concept 2

Appendices

Appendix A - Concept 1

Appendix B - Concept 2

Appendix C - Summary of Commercial Development Concept Analysis

Overview

Consideration was given to a number of future development concepts for the proposed LSRAC. Regard was given to the requirements of the LSRAC as described within the City of Greater Geelong Retail Strategy 2006, specifically the need to provide for up to 27,000sqm of retail space over the medium term. Further to this, the recent Leopold Sub-Regional Activity Centre Assessment, January 2010, prepared by Tim Nott foresees a total land requirement of between 8.7 and 11.1 hectares for commercial land use including car parking and landscaped areas.

Given the constraints of developing to the east and south of the existing Gateway Plaza, the two most logical concepts were considered to be concept 1: continued commercial development north along Melaluka Road; and concept 2: continued development west along the Bellarine Highway.

It is considered that the benefits and disbenefits weighed in favour of concept 1, which has been put forward in the urban design framework as the preferred concept. The primary matters for consideration were those urban design principles outlined in section 3 of the urban design framework.

Overview of Concept 1 Analysis

Benefits

- Adequate area to provide for regional growth;
- Potential to provide for commercial growth strongly integrated with existing commercial and recreation areas particularly Memorial Recreation Reserve;
- Potential to provide for a number of safe legible pedestrian connections with existing residential areas in close vicinity;
- Potential to develop strong links to proposed community hub at the centre of Leopold;
- Potential to provide for a walkable commercial precinct;
- Close connections to Bellarine Rail Trail;
- Potential to provide for a wide variety of local needs and contribute to employment opportunities;
- Provides for compact urban form that discourages vehicle use and encourages walking and cycling;
- Potential to integrate landscape strategy with adjoining lands including Gateway Sanctuary and Memorial Recreation Reserve;
- Assists in establishing a legible edge to Leopold Township;
- Flexibility in the development of retail/commercial floorspace uses. Specific floorspace allocations for retail (including restricted retail and commercial/office uses) is subject to further detailed demand assessment;
- Potential to incorporate highway facing retail to break up car parks areas; and
- Future growth along Melaluka Road to the north would is preferred from a VicRoads transport planning perspective.[1]

Disbenefits

- Significant drainage constraints apply to all developments within the study area and must incorporate further detailed flooding and drainage studies addressing impacts within the study area and the wider catchment.

Overview of Concept 2 Analysis

Benefits

- Lands are largely in single ownership and intentions of the currently landowner are understood to be in line with developing the area for commercial purposes;
- Adequate area to provide for regional growth;
- Potential to provide for a wide variety of local needs and contribute to employment opportunities;
- Potential to integrate landscape strategy with adjoining lands including Gateway Sanctuary and Memorial Recreation Reserve;
- Flexibility in the development of retail/commercial floorspace uses. Specific floorspace allocations for retail (including restricted retail and commercial/office uses) is subject to further detailed demand assessment;
- Potential to incorporate highway facing retail to break up car parks areas

Disbenefits

- Reduced potential for integration with existing commercial and recreation areas particularly Memorial Recreation Reserve;
- Necessity to provide for connections over a number of roads, with reduced potential for direct connections between commercial and residential areas;
- Future development to the west falls outside typical walking catchment distances from the proposed community hub and other central nodes;
- Walkability of the commercial precinct will be reduced in the east west direction (approximately 800m in length; 10 minutes walking time);
- Does not provide for compact urban form and is likely to encourage vehicle use by Leopold residents;
- Will 'stretch' the Leopold Township edge, distorting the Gateway to the town and detracting from rural amenity values ;
- Potential to promote future urban sprawl of the town beyond existing growth boundaries; and
- Significant drainage constraints apply to all developments within the study area and must incorporate further detailed flooding and drainage studies addressing impacts within the study area and the wider catchment.

Conclusions

Overall, while the commercial benefits to the wider region remain the same, the benefits to Leopold and its residents of concept 1 in terms of connectivity and integration of the proposed LSRAC are considered to significantly outweigh those of the Concept 2.

In terms of promoting sustainable future development and growth of the Leopold Township, future commercial development to the north has the potential to remain well integrated with existing residential and recreation areas and, with the ongoing development of safe, legible pedestrian routes, will likely also establish good connections with the proposed community hub.

Conversely, it is considered that development to the west has very real possibilities of distorting the urban boundaries of the town and encouraging further development to the north and northwest in the medium to long term. In addition, it will blur Leopold's gateway, having negative effects on the town's identity and character as well as surrounding rural amenity values.

1. VicRoads correspondence, 12 October 2010