FUTURE NYORA

NYORA DEVELOPMENT STRATEGY

FINAL REPORT

JULY 2016

SOUTH GIPPSLAND SHIRE COUNCIL

planisphere

PLANNING + DESIGN + PEOPLE

PROJECT CONTROL

Status	Version	Checked PM	Checked PD	Date released
Draft Strategy	1	BH	JLR	11/04/2016
Draft Strategy	2	BH	JLR	06/05/2016
Final Strategy	1	BH	JLR	17/06/2016
Final Strategy	2	PH	JLR	15/07/2016

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FUTURE NYORA

1.1 INTRODUCTION

Nyora is a township on the cusp of considerable change. As the closest township to Melbourne's Urban Growth Boundary within South Gippsland Shire, it offers a desirable peri-urban lifestyle in close proximity to major service centres and beautiful natural attractions.

Although the demand for residential development has been modest to date, the expansion of the metropolitan area and upgrades to road and rail infrastructure are improving the accessibility of the township. In addition, the recent installation of reticulated sewerage has resolved a long-standing barrier to further development within the township itself.

Nyora is strategically placed for residents to travel to work to nearby regional centres such as Pakenham and Cranbourne. Located within 100km of Melbourne, the picturesque township may also establish a significant commuting population in the future.

At present, residents of Nyora rely on nearby townships, such as Loch, Poowong, Lang Lang and Koo Wee Rup, for commercial services and many community facilities. Major retail outlets are further afield, with the majority shopping within Cardinia Shire. The larger towns within the South Gippsland Region – Korumburra, Leongatha and Wonthaggi – also support a variety of retail, entertainment and service needs.

Residents of Nyora value its rural township character and attractive vistas, with well-vegetated horizons and undulating topography. This agriculturally productive area also boasts diverse flora and fauna, including the Giant Gippsland Earthworm, Lace Monitors, Southern Brown Bandicoots and Gippsland Burrowing Cray.

According to the Gippsland Regional Growth Plan (2014) Nyora plays a critical role in the provision of resources to the State. Areas to the west of Nyora have some of Victoria's best sand resources and the economic importance of these is recognised in the Municipal Profile of the South Gippsland Planning Scheme.

The recent provision of reticulated sewerage has created the potential for substantial growth, although it is difficult to predict the likely rate of change. The challenge to be addressed by this strategy is how to manage growth in a way that maintains the valued rural character of Nyora, while creating opportunities to improve services, infrastructure and retail opportunities.

Although there are no plans in the foreseeable future to re-open the South Gippsland railway line for passenger services, this potential needs to be recognised. Any such proposal would be led by V/Line, VicTrack and Public Transport Victoria (PTV) in conjunction with Council and other stakeholders.

The reopening of Nyora Railway Station would be a significant opportunity for the town, however this needs to be regarded as a very long-term prospect.

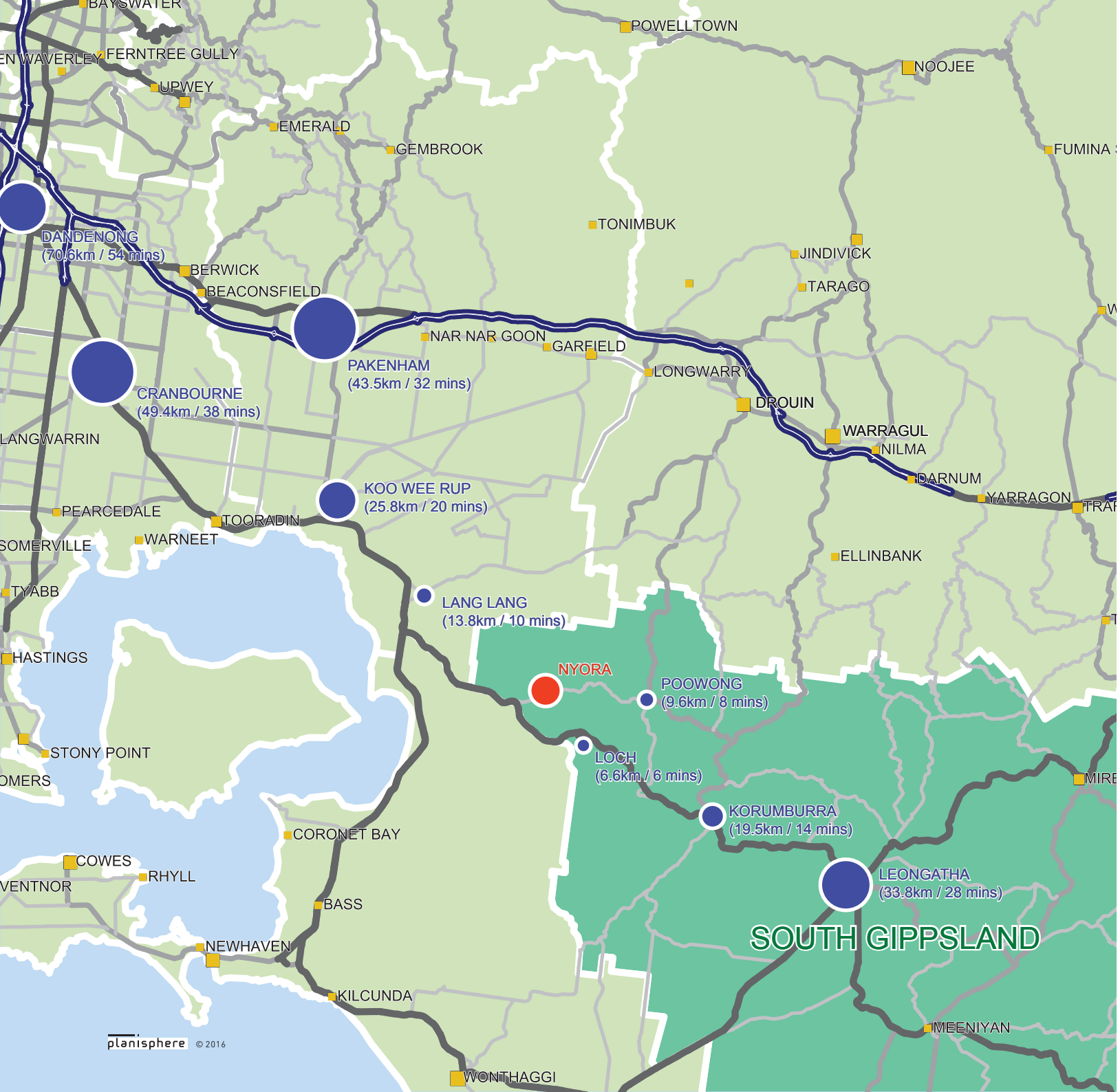

FIGURE 1. REGIONAL CONTEXT

COMPETING TOWNSHIP
(Distance in km / Time in minutes) to Nyora

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PROJECT PURPOSE

The need for the Nyora Development Strategy was identified in the Nyora Structure Plan (2011, updated 2013) (the 'NSP'). The structure plan recognises that the township is predicted to experience substantial growth over the medium term.

In addition, there are a number of township improvements that are needed by the existing population. These include better drainage, improved community facilities, road upgrades, town centre enhancements, and pedestrian and bicycle linkages.

While the expected population growth will increase the urgency of these improvements, it may also open up new opportunities to fund them.

Given Nyora's current and future challenges, this strategy will help manage the orderly planning, development and infrastructure provision in response to predicted population growth.

APPROACH

South Gippsland Shire Council commissioned a multidisciplinary team lead by Planisphere to prepare a Development Strategy for Nyora. The consultant team comprises:

- **Planisphere** - Project Management, Town Planning, Urban Design and Landscape Architecture, and Community Consultation
- **Urban Enterprise** - Property Economics, Tourism Planning, and Economic Development
- **Engeny** - Water and Environmental Services
- **Traffix Group** - Traffic and Transport

This project is being undertaken in four key stages:

1. Strategic Investigations
2. Draft Strategy
3. Exhibition
4. Final Development Strategy

This report is a product of Stage 2 and has been prepared for public exhibition and comment.

1.2 VISION

The Nyora Community Plan (October 2010) developed a five year vision for Nyora based on community aspirations for the township. This vision was referenced in the Nyora Structure Plan (2013) and has guided the preparation of this Draft Development Strategy.

COMMUNITY & OPEN SPACE

To be supportive of people of all ages; providing quality health, education, recreation, leisure and social facilities and opportunities for personal development.

ECONOMY & INFRASTRUCTURE

To ensure provision of infrastructure such as sewerage, drainage, water, electricity, gas, access roads, etc. to support Nyora's growth and prosperity.

ENVIRONMENT & WATER

To retain Nyora's rural lifestyle by protecting valuable farming land and the natural environment, providing for sensitive and appropriate development at the interface with rural land.

MOVEMENT NETWORK

To have comprehensive transport options for both public and business use linking nearby towns and larger towns and cities.

1.3 NYORA TODAY

Nyora and the surrounding farmland area currently has 1,332 people living in 450 households, with an average household size of 2.8 people. Its proximity to Pakenham, Cranbourne and Leongatha means it has the potential to accommodate a growing population in future years as demand for residential development in semi-rural areas within commuting distance of employment centres increases.

The map opposite shows existing zones and overlays, loosely demonstrating the way development is currently laid out across the Nyora Township.

Existing services in central Nyora comprise a post office and general store on Mitchell Street, a community hall on Henley Street, an op shop in the former railway building and Nyora Primary School on Grundy Avenue. A pharmacy has also recently opened in the town centre.

Visiting Maternal and Child Health Services are delivered at Nyora Primary School and immunisation services are provided at the Nyora Community Centre. There is also an existing Mobile Library Service, which operates on a fortnightly basis. The Mobile Library can provide sufficient services and facilities until the population reaches 2,500 people.

Nyora Community Park, the Recreation Reserve and the Pony Club are the key areas of public open space. The Recreation Reserve also supports a Men's Shed and a variety of sporting clubs. The majority of residents live within walking distance of an area of public open space (see **Figure 6**).

The Nyora Speedway, located on Grundy Avenue, runs races every two months. A mobile library stop next to Nyora Community Park is visited on the second Saturday of every month.

A railway running through the centre of Nyora was constructed in the late 19th century. Regular rail services ceased in the 1990s and until recently a volunteer-run tourist train operated between Nyora and Leongatha. The railway land is largely undeveloped, with the exception of Nyora Community Park.

The major road entrances to Nyora are from the south-west (Lang Lang-Poowong Road), east (Nyora-Poowong Road) and north (Yannathan Road). These roads intersect just to the north of the railway line in close proximity to the town centre and the industrial area. While this enhances the visibility and accessibility of commercial activities, it also means that heavy vehicles must pass right through the centre of town along Davis Street.

As Nyora is a relatively low-density township, it has a sparse street network. A number of key streets are unsealed, the provision of kerb, channel and drainage is limited, and there are no footpaths beyond the town centre.

Nyora, Loch and Poowong form a cluster of townships within approximately 10 minutes drive of each other. This close proximity allows the towns to provide complementary services to each other. While this Development Strategy recognises that population growth will require new services to be provided in Nyora in the future, it does not duplicate services that are already provided within the cluster.

The landscape in South Gippsland is gently undulating and the mild climate lends itself to green hills with dark stands of remnant vegetation. Such scenic qualities make Nyora a particularly attractive place to live. The town centre itself is relatively flat, while the surrounding residential areas undulate, particularly to the south and east, creating opportunities for panoramic views across the hills.

As illustrated by **Figure 3**, Nyora is extensively vegetated, particularly in the sparsely developed areas and along low-lying land. A number of vegetation corridors exist and it will be important that future development is designed to protect significant patches of vegetation and, ideally, provide open space connections between them.

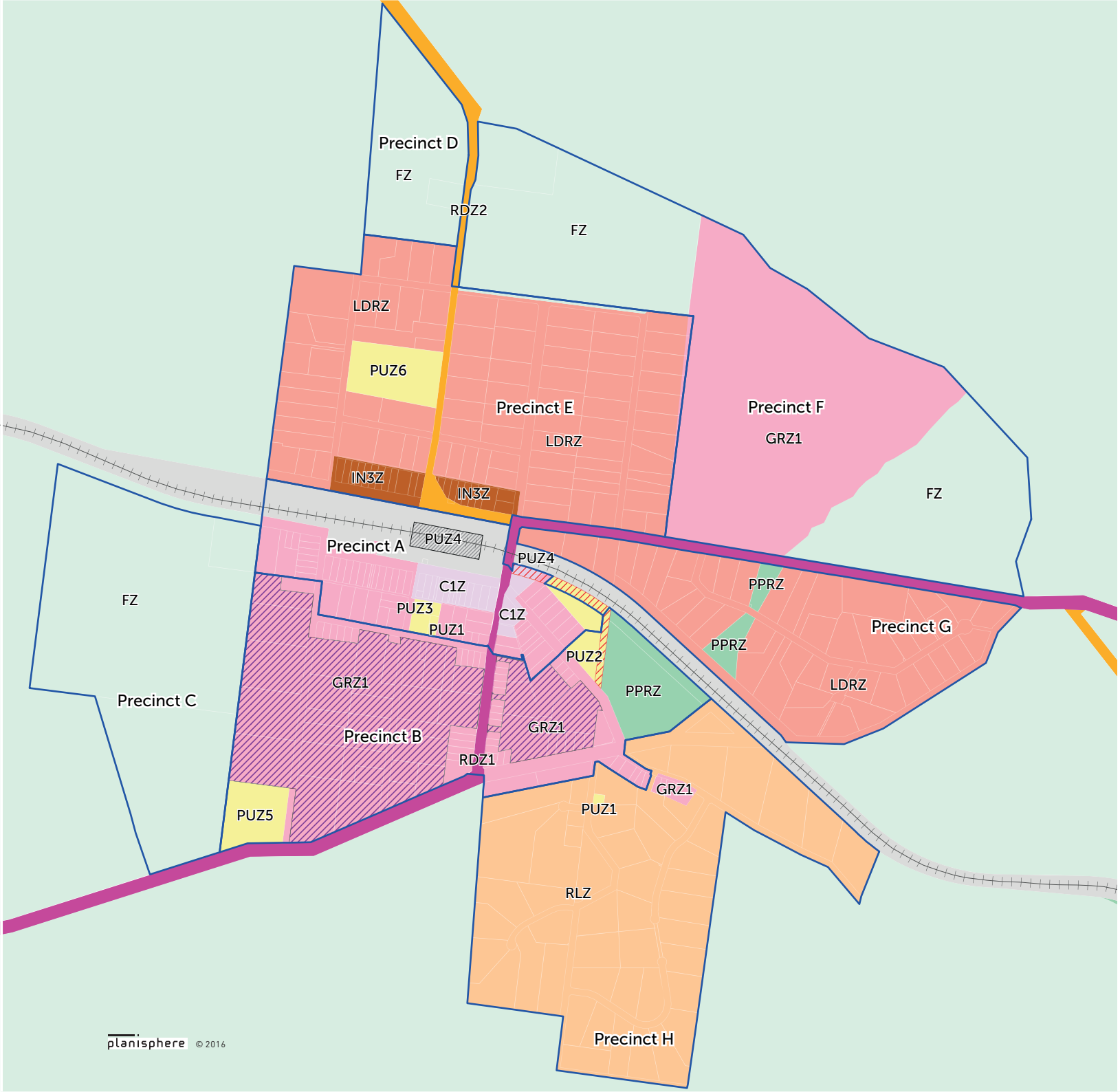

FIGURE 2. EXISTING PLANNING ZONES & OVERLAYS

LEGEND

- Precinct Boundary
- Railway Line

Planning Zones

- Commercial 1 Zone (C1Z)
- Farming Zone (FZ)
- General Residential Zone, schedule 1 (GRZ1)
- Industrial 3 Zone (1N3Z)
- Low Density Residential Zone (LDRZ)
- Public Park and Recreation Zone (PPRZ)
- Public Use Zone, scheudle 1 (PUZ1)
- Public Use Zone, scheudle 2 (PUZ2)
- Public Use Zone, scheudle 3 (PUZ3)
- Public Use Zone, scheudle 4 (PUZ4, Transport)
- Public Use Zone, scheudle 5 (PUZ5)
- Public Use Zone, scheudle 6 (PUZ6)
- Road Zone, Category 1 (RDZ1)
- Road Zone, Category 2 (RDZ2)
- Rural Living Zone (RLZ)

Planning Overlays

- Development Plan Overlay (DPO)
- Heritage Overlay (HO)
- Road Closure Overlay (RXO)

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1.4 POPULATION & HOUSING

DEMOGRAPHIC PROFILE

The Nyora Community Infrastructure Plan (2014) compares key demographic statistics for Nyora with the South Gippsland Shire as a whole. The plan presents the following data about Nyora's current demographics (based on 2011 Census data).

Notably, the adjoining Cardinia Shire had the second-highest population growth in Victoria in 2012, at 5.2%.

TABLE 1. DEMOGRAPHIC PROFILE

	NYORA	SOUTH GIPPSLAND	KEY FACTS
Total population (persons)	1,332	27,800	*Just under 5% of South Gippsland residents live in Nyora.*
Average household size (persons per household)	2.8	2.4	*Nyora's households are generally larger than the Shire as a whole.*
Older adults (percentage aged 35-70)	53%	47%	*Nyora has a higher proportion of older adults than South Gippsland*
Seniors (percentage aged over 75)	3.4%	6.6%	*... a lower proportion of seniors*
Young adults (percentage aged 20-35)	22.8%	28.5%	*... and young adults.*
Couples with children	175		*13% of households were 'couples with children'; and the average family size was two children.*
Year 12 completion (or equivalent)	23.9%	33.1%	*People in Nyora have fewer tertiary qualifications than the Shire as a whole.*

EMPLOYMENT PROFILE

The Nyora Community Infrastructure Plan includes the following commentary on the employment profile of Nyora residents:

- 97.1% of the population (660 people aged over 15 years at the time of the 2011 Census) are employed and 3.2% (21 people) are unemployed.
- More people in Nyora work full time (59%) than in South Gippsland (55%) and less people work part time (30%) than in South Gippsland (39%);
- The majority of residents in South Gippsland West statistical local area (SLA) work within the area 1,668 (43%);
- A survey of Nyora residents undertaken during October 2013 found that respondents (n=159) worked in 44 different towns or suburbs. The most common locations for work were Nyora (21) and Dandenong (21). Many residents work in Melbourne (18) and the eastern suburbs (18), Korumburra (17), Leongatha (12), Pakenham (12) and Cranbourne (10).

According to ABS 2011 Census data on employment by industry and occupation, compared with Regional Victorian averages:

- A greater proportion of Nyora residents are employed as Technicians and Trade workers and machinery operators and drivers (35%, compared with 22% across regional Victoria);
- A lower proportion of Nyora residents are employed as Managers or Professionals (21%, compared with 32% across regional Victoria); and
- A greater proportion of Nyora residents are employed in "industrial" sectors such as manufacturing, construction, wholesale trade and transport, postal and warehousing (45%, compared with 26% across regional Victoria).

POPULATION GROWTH SCENARIOS

Three population growth scenarios have been prepared to help plan for the future development of Nyora:

- Low growth: 2.5% per year
- Medium growth: 4.0% per year
- High growth: 6.5% per year.

The 'low' growth scenario would see the population grow by 33 people each year, requiring 12 additional dwellings annually.

If growth is slightly faster, the 'medium' scenario would see an increase of 53 people and 19 dwellings per year.

Finally, the 'high' growth scenario would involve increases of 87 people and 31 dwellings per year. This scenario could result in growth in Nyora's population by up to 3,705 people by 2036.

Population growth will be driven by a range of external factors:

- Improved transport connections to Melbourne
- Proximity of the South-Eastern growth corridor
- Affordable housing
- Proposed residential development in the north-east edge of the town.

TABLE 2. POPULATION GROWTH SCENARIOS*

GROWTH LEVEL	PERCENTAGE INCREASE	PEOPLE	HOUSES	2036 POPULATION	POPULATION CHANGE
Low	2.5%	33	12	2,126	+938
Medium	4.0%	53	19	2,644	+1,749
High	6.5%	87	31	3,776	+3,705

**This data has been taken from the Urban Enterprise "Summary of Population Growth Scenarios in the Catchment table, included in the Nyora Development Strategy Economic and Property Issues and Opportunities report (April 2016).*

Nyora Community Park

FIGURE 3. EXISTING OPEN SPACE & LANDSCAPE FEATURES

LEGEND

- Precinct Boundaries
- Former Railway Line
- Properties
- Waterway
- Water Area (Including Seasonal)
- Public Open Space (e.g. Parks)*
- Vegetation^
- Giant Gippsland Earthworm Habitat

* Public Open Space refers to publicly accessible land set aside for sport, recreation and community purposes and may include parklands, sporting fields, playgrounds, bushland and built areas such as civic squares, plazas or skate parks.

^ Vegetation cover shown on this plan comprises State Government Ecological Vegetation Classes (EVC) data and tree density data. Further work is required to determine the vegetation condition and confirm native vegetation cover.

Preparation of Development Plans for new subdivision should include biodiversity assessments to identify significant or remnant native vegetation to be protected as development occurs.

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ANIMAL KEEPING AND LOCAL LAWS

There were a number of concerns raised by the community during consultation that the strategy would impact on the ability to keep horses and other animals in Nyora. These concerns appear to have been raised solely by residents of Precinct E, which is zoned Low Density Residential.

At present the South Gippsland Shire Council's local law requires a permit for keeping animals such as horses, cattle and goats on most land within Nyora's township (land zoned General Residential, Low Density Residential, Commercial 1 and Industrial 3).

The regulations are different for land zoned Farming or Rural Living (e.g. Eagle Rise, Anna Cl, Carlisle Cl), where local law permits are not required (although planning permits may be for uses such as intensive animal husbandry).

Clause 46 of the South Gippsland Shire Council's General Local Law States:

46. Keeping Animals

(1) An owner or occupier of a property must not, without a permit, keep or allow to be kept any more in number for each kind of animal than as set out in the following table [**Table 3**]*:*

(2) Subclause (1) does not apply where a planning permit has been obtained for land used for the purposes of an animal shelter, animal boarding, animal breeding or animal keeping.

Local law permits are issued for one year and are subject to an annual renewal process. The 2015/2016 Keeping Livestock in Township Zones fee is $110.70.

TABLE 3. ANIMAL KEEPING LOCAL LAW SUBCLAUSE (1)

TYPE OF ANIMAL	MAXIMUM NO. OF ANIMALS ALLOWED IN RESIDENTIAL, MIXED USE, COMMERCIAL, TOWNSHIP & INDUSTRIAL ZONES AS DEFINED IN THE RELEVANT PLANNING SCHEME	MAXIMUM NO. OF ANIMALS ALLOWED IN RURAL CONSERVATION & RURAL LIVING ZONES AS DEFINED IN THE RELEVANT PLANNING SCHEME
Horses / donkeys	None	N/A
Cattle	None	N/A
Sheep	None	N/A
Goats	None	N/A
Pigs	Not Permitted	Not Permitted
Other	None	N/A

A permit may also be refused if there are complaints against an animal owner. These are considered on merit. As development occurs in Nyora the likelihood of complaints could be expected to increase.

Many people in Nyora keep a range of animals, particularly horses. In response to concerns that people find it more difficult to keep animals like horses in Precinct E (zoned Low Density Residential), Council is considering making changes to the local law. Community consultation will be undertaken before any changes to the local law are made.

HERITAGE BUILDINGS & SITES

Heritage buildings are an important part of Nyora's character and identity. A number of properties have been identified in the South Gippsland Heritage Study (2004) as being significant. Landowners will be encouraged to support voluntary inclusion of their properties in the Heritage Overlay to ensure their protection.

The map [opposite] shows properties that have been identified as having potential heritage significance. Places classified as Local 1 are most significant, followed by Local 2, then Local 3. Council will not apply heritage protection to these properties without consultation and the consent of the land owners.

General Store, Mitchell Street

Former butcher, Mitchell Street

Former railway buildings

Uniting Church, corner of Mitchell Street and Henley Street

FIGURE 4. LOTS IDENTIFIED BY THE HERITAGE STUDY

LEGEND

- Precincts
- Precinct Boundaries
- Former Railway Line

LOCAL HERITAGE DESIGNATION (SIGNIFICANCE)

The South Gippsland Heritage Study identifies a number of buildings and open spaces (e.g. public reserves / parks) as having local heritage significance. In Nyora, the Heritage Overlay (HO) has only been applied to the former railway buildings.

- Existing Heritage Overlay
- Local 1 (Most significant)
- Local 2
- Local 3

0 500m

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1.5 FUTURE DIRECTIONS

Background research, technical analysis and community feedback have identified a number of key priorities to be addressed by the Nyora Development Strategy. These priorities are dealt with in detail in the remaining chapters.

PLANNING & URBAN DESIGN

- Consolidate the town structure and define a distinctive town centre.
- Resolve the future use of the VicTrack land to enhance the town structure.
- Define a rural township built form and landscape character to inform future growth.
- Identify land for local retail, services and facilities in the short, medium and long term to facilitate economic development.
- Establish a logical street hierarchy that is accessible to all users.
- Identify areas required to accommodate residential development for the short, medium and long term growth projections.
- Provide open space connections to link residential precincts.

PROPERTY & ECONOMIC

- Identify sites available in the short and medium term for the required additional non-residential floor space; this could include assistance in identifying sites for small businesses and medical services.
- Facilitate the establishment of new, or relocated, locally-oriented service businesses by assisting with the identification of possible sites.
- Determine a schedule of developer contributions, or consider special charge schemes, to be allocated towards priority civil and community infrastructure projects.

STORMWATER MANAGEMENT

- Propose drainage and Water Sensitive Urban Design (WSUD) features and maintenance schemes that can accommodate the impact of projected population growth on drainage and flooding.
- Develop planning tools for specific areas to prohibit or manage development in flood prone areas.
- Manage stormwater using techniques that are best practice in water quality, drainage, and flood mitigation.
- Provide stormwater management strategies and WSUD that provides environmental, public amenity, safety, and other benefits to the community.

MOVEMENT

- Identify priorities for new road and path connections within precinct to enable future growth.
- Determine a clearer road network hierarchy.
- Identify priority roads and intersections to be upgraded based on:
  - Importance in the movement hierarchy
  - Safety/speed concerns and compliance
  - Anticipated growth in volume
  - Sealing requirements.
- Investigate a second north-south crossing of the former railway for pedestrians and cyclists (subject to VicTrack approval).
- Identify priority roads to have higher amenity for pedestrians and cyclists.
- Identify locations for the provision of on and off street parking.

ENVIRONMENT

- Undertake further investigation of the extent and quality of existing vegetation.
- Protect significant vegetation through the development plan process for Precinct B.
- Retain key vegetation remnants and identify bio-links in future development.
- Evaluate and protect roadside vegetation.
- Protect Adam's Creek as a waterway and increase vegetation to cover the recommended 30% cover in the landscape.

A meeting of the local CFA (Image courtesy Brett Hume, 2016)

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PLANNING & INFRASTRUCTURE ASSESSMENT

2.1 PLANNING & DEVELOPMENT

PRECINCTS

The introduction of reticulated sewerage and recent rezonings have set the foundation for significant population growth in Nyora over the next 15-20 years.

For the purposes of future planning, the Development Strategy divides Nyora into 8 precincts, each of which has different characteristics and growth potential.

Development is expected to occur in opportunistic ways in existing residential and rural lifestyle areas (Precincts A, B, E, G and H), while the remaining precincts are likely to undergo managed change that is developer-driven (Precincts C, D and F). **Figure 5** shows the recommended development staging and type of growth for each of the identified precincts.

The provision, location and design of public open space will undertaken in accordance with the State government Precinct Structure Planning Guidelines and Clause 56.02 (Urban Landscape) of the Planning Scheme.

PRECINCT A

Precinct A covers the town centre. It includes land in the Commercial 1, General Residential and Public Use Zones. This precinct contains the majority of smaller lots in the township, a high proportion of which are developed and connected to reticulated sewerage.

The town centre currently lacks: coherence in its layout, buildings suited for commercial purposes and a retail anchor, such as a supermarket. Existing retail opportunities are very limited and are not well located to attract new retail investment.

A number of residential properties exist in the commercially zoned area. Community services such as healthcare and early years facilities are lacking.

Commercial development opportunities will be available within the Commercial 1 Zone (C1Z) area and through the redevelopment The fragmented nature of ownership and lots in the Town Centre means that for an anchor site such as a supermarket, to be created several lots will need to be consolidated.

The development of retail floor space will be driven gradually by floorspace demand arising from population growth in other precincts.

Development within the residential area of the Town Centre is expected to be incremental and at an urban density. It will create opportunities for people to live in close proximity to services.

PRECINCT B

This precinct surrounds the town centre on the southern side of the railway reservation. It is primarily zoned General Residential 1, although the precinct also contains public assets, such as the Primary School, Recreation Reserve and Speedway.

The availability of reticulated sewerage will create the potential for significant development on larger lots. In order to coordinate development and infrastructure provision across this largely fragmented precinct, a Development Plan Overlay applies to the majority of the precinct.

Further subdivision is not to be permitted until a development plan for a logical land unit (e.g. area east of Davis Street or area between Henley Street and Walters Road) has been approved by Council. This allows for a staged development approach and for landowners to work together if they wish to redevelop a land unit.

Development in this precinct will occur incrementally at an urban density which takes advantage of the close proximity to the emerging town centre, education facilities and the Recreation Reserve.

PRECINCTS C AND D

These precincts represent long to very-long term growth fronts which will be delayed until Precincts B and F are substantially developed.

As part of the development process, the precincts will need to be provided with movement

and open space linkages to the respective adjoining precincts and will be developed at an urban density.

PRECINCT E

This precinct is located to the north of the railway reserve and is largely zoned Low Density Residential. An area of Industrial 3 Zone also exists directly opposite the railway reservation, providing an important economic asset for the township.

Many of the Low Density Residential Zone lots in this precinct are well in excess of the minimum lot size permissible in the zone (4,000m2 without sewer / 2,000m2 with sewer), creating the potential for further subdivision.

Guidelines for building design and land uses within the industrial precinct will be required to ensure that industrial activity does not diminish the amenity of the surrounding residential area; and that low density residential subdivision is managed carefully.

Development in this precinct is likely to occur in an incremental manner at low density.

PRECINCT F

Amendment C97 has resulted in 50ha of land in this precinct being rezoned from the Farming Zone to the General Residential Zone. This is the first stage of a significant residential subdivision, which will comprise approximately 700 lots when the precinct is fully developed.

The development of this land is likely to represent the largest and most efficiently developed growth front in Nyora for the short to medium term. Development is proposed at an urban density and development controls require the provision of a open space including a sports field.

Amendment C97 also applied a Development Plan Overlay (DPO) across the land. The DPO requires a development plan to be approved for each stage of subdivision.

PRECINCT G

Like Precinct E, this area is currently zoned Low Density Residential, although it has been developed much more recently. Development potential in this precinct is somewhat lower than Precinct E because the lots are generally smaller and the subdivision pattern more complex. The precinct has been identified as an area of limited growth, where further subdivision is discouraged.

PRECINCT H

Precinct H is a Rural Living Zone (RLZ) immediately to the south of Nyora. The RLZ limits subdivision in Precinct H to a minimum area of 1 hectare. Given the existing lot sizes in Precinct H, the precinct is subdivided to its maximum potential under the zone. The majority of lots have been developed. Accordingly, very limited growth will occur in this precinct.

Hewson Street

NYORA'S RURAL TOWNSHIP CHARACTER

As Nyora grows, some areas will experience more change in the way they look and feel than others. Density transition areas are likely to change the most in terms of character or the way they look and feel. When smaller lots are created there may be less space for large trees, for example, which are a strong feature in many parts of Nyora. Other elements that contribute to the rural township feel of Nyora are:

- Large gaps between houses
- Wide streets, often with narrow bitumen and very wide 'nature strips'
- Sometimes unmade roads with no kerbs
- Adjustments for topography such as 'stepping' a new dwelling down a hill rather than undertaking large cut and fill or visually prominent design solutions
- Urban-style development found only (if at all) in part of the main street(s)
- Visibility to surrounding landscape from within settlements
- Very low density built form in some areas
- Highly visible and prevalent vegetation.

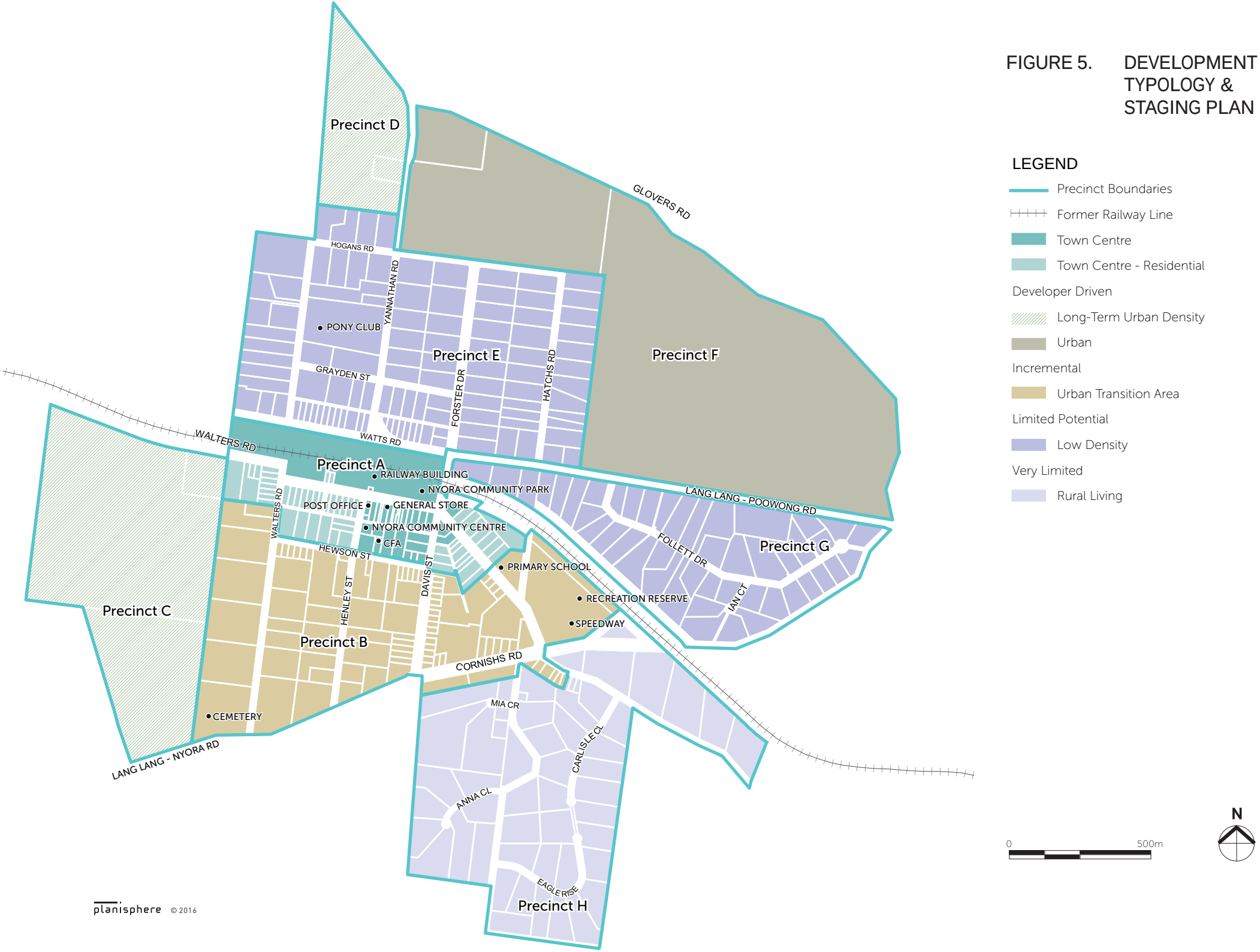
The elements above can be managed and translated using design guidelines that can facilitate new development while helping developers and residents to protect important visual features such as trees and a feeling of space are preserved. The recommended design guidelines are found in **Appendix B**.

Note: The **Table 3** (below) refers to the target dwellings per hectare (dph)rate for State policy in a General Residential Zone as 15 dph. In Nyora, the southern block on Mitchell Street between Davis and Henley Street has a rate of approximately 10 (9.34) dph.

TABLE 4. RESIDENTIAL CHANGE OVERVIEW

PRECINCT	STAGING	GROWTH TYPE	CURRENT ZONE	FUTURE LOT SIZE + ZONE	DEGREE OF CHANGE
Precinct A	Short to long	Incremental	General Residential Zone (GRZ)	GRZ 15 dwellings per hectare as per State planning policy	Moderate to high
Precinct B	Short to long	Incremental	General Residential Zone (GRZ)	GRZ 750sqm average	Moderate to high
Precincts C and D	Long to very long	Developer driven	Farming Zone (FZ)	GRZ 750sqm average	High
Precinct E	Short to long	Incremental	Low Density Residential Zone (LDRZ)	LDRZ 2,000sqm minimum	Low
Precinct F	Short to long	Developer driven	Farming Zone (FZ)	GRZ 750sqm average	High
Precinct G	Medium to long term	Limited potential	Low Density Residential Zone (LDRZ)	LDRZ 4,000sqm minimum	Low
Precinct H	Long term	Very limited	RLZ	RLZ 1ha minimum	Very Low

FIGURE 5. DEVELOPMENT TYPOLOGY & STAGING PLAN



LEGEND

- Precinct Boundaries
- Former Railway Line
- Town Centre
- Town Centre - Residential

Developer Driven

- Long-Term Urban Density
- Urban

Incremental

- Urban Transition Area

Limited Potential

- Low Density

Very Limited

- Rural Living

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2.2 INFRASTRUCTURE ASSESSMENT

This section summarises priorities for movement, stormwater management (drainage) and community infrastructure in Nyora. These issues have been addressed in the Town Centre Masterplan at **Chapter 4** and the Precinct Plans in **Chapter 5**.

MOVEMENT

A number of unsealed roads and unmade roads exist across the township. In particular, a lack of pedestrian and shared paths limits residents' ability to walk and cycle from residential areas into the town centre. The following observations have been derived from preliminary traffic analysis and input from community consultation.

FOOTPATHS:

- Movement networks are often fragmented or inaccessible other than by car, and do not consider desire lines for human movement.
- Connections between Precincts E and G and the town centre are lacking and there is no footpath along Lang Lang-Poowong Road.
- There is only a small section of footpath at the northern end of Davis Street but children walk to school from southern parts of the township up Davis Street (a busy road that is a key route for sand and cattle trucks and the V/Line bus).
- There is no footpath on the northern side of Grundy Avenue to the Primary School and Recreation Reserve though there is one on the southern side.
- The town centre has few footpaths (refer to **Figure 6** for the extent of existing footpaths: Existing Movement Network).

ROADS:

- The street hierarchy is poorly defined and rudimentary and the street layout is not adequate for growth.
- There are few east-west road connections through the residential areas and some north-south connections are poorly configured.
- A number of existing roads are unsealed and lack kerb and channel, particularly in Precincts A, B and E.
- The railway reserve provides a barrier to north-south movement. There is only one north-south through traffic route within the township.
- There is a lack of formalised car parking and parking areas are poorly designed or in disrepair. This may become a bigger issue into the future as the population grows.
- The layout of the Mitchell Street and Davis Street intersection is irregular and is poor for east-west vehicle movements and pedestrians.
- The Davis Street/Lang Lang-Poowong/Forster Road intersection is an unsignalised cross-intersection with some history of crashes and no footpaths or pedestrian refuges. The intersection requires improvements to manage increased traffic volumes.
- Davis Street is the primary truck route through the town. The existing geometry of intersections encourages vehicles including trucks to travel at speed through the township.
- Grundy Avenue accommodates some heavy vehicle traffic to the Speedway.
- Cornishs Road is not connected between Davis Street and Grundy Avenue.
- Long term connections to Precincts C and D will be required.
- There are few east-west connections able to support quick travel times for emergency vehicles throughout the township.

TRAFFIC IMPACT ASSESSMENT

The following sections present specific areas where existing and future traffic impacts should be addressed by infrastructure upgrades.

WALTERS ROAD AND HENLEY STREET

Walters Road and Henley Street are expected to experience an increase in traffic volumes. These roads provide connection with the Lang Lang Poowong Road to the south. Traffic volume is expected to increase along both of these roads as a result of future subdivision and densification within Precincts A and B.

There is also an opportunity to upgrade the intersections of each of these roads with the Lang Lang Poowong Road. Of these two, the Walters Road intersection is the priority for upgrade due to sight line deficiencies.

Future growth in Precinct B will require a future east-west connector road between Walters Road and Davis Street.

MITCHELL STREET/DAVIS STREET/GRUNDY AVENUE

This intersection is unusual in its configuration and currently has the highest traffic volume in Nyora, which will increase with development. Reconfiguration of this intersection should be further investigated as a possible roundabout, to improve vehicle accessibility to Mitchell Street and Grundy Avenue.

Safer pedestrian/bicycle crossing points can be incorporated as appropriately located pedestrian refuges located away from the complicated intersection.

DAVIS STREET/HEWSON STREET

As commercial development increases in Davis Street in the long-term there may be a need to upgrade the Hewson Street/ Davis Street intersection. If a supermarket develops in the preferred location, the importance of the intersection will increase. Due to the existing width of Davis Street in that location, the upgrade may be achieved through appropriate line-marking at the intersection.

DAVIS STREET/ WATTS ROAD/ LANG LANG POOWONG ROAD/ FORSTER ROAD

This intersection is the most critical intersection in considering future growth within Nyora due to its proximity to Precinct F and its irregular geometry.

This unsignalised intersection presents as a cross intersection but due to traffic volumes on the VicRoads main roads, it acts as a T-intersection. Accordingly, some turning movements are unnecessarily complex.

A roundabout should be further investigated as the preferred alternative to accommodate predicted future traffic volumes, with due consideration for safe pedestrian and cyclist movements.

FOOTPATHS

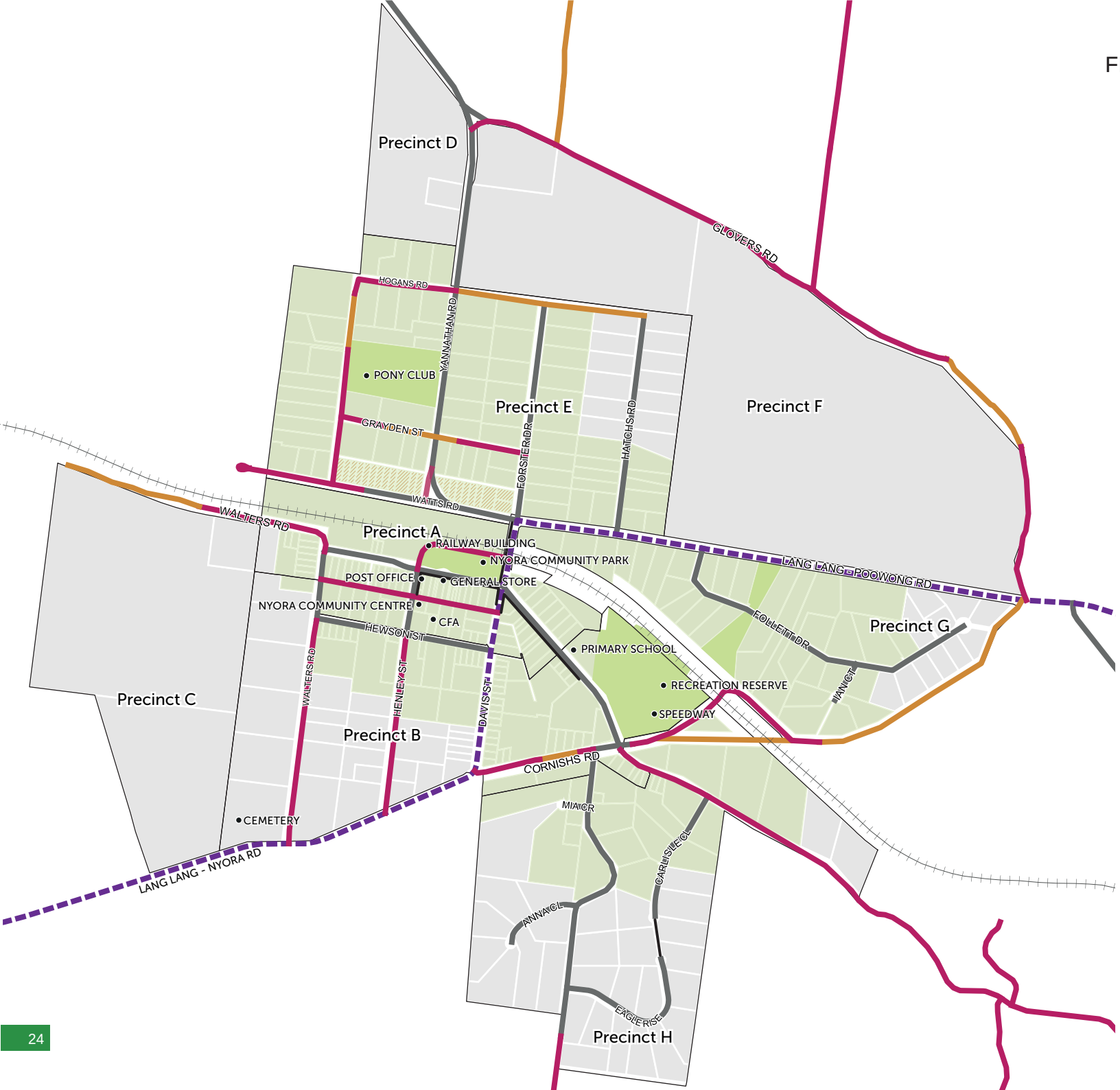
Footpaths and shared paths were identified as insufficient across the town. Future new development areas, should include footpaths on all new roads on at least one side, and consider bicycle lanes where appropriate for the overall circulation in the town.

TOWN CENTRE CAR PARKING

Future growth, particularly in the town centre will need increased car parking provision, although this is not currently an issue in the town centre.

Note: A detailed table of the upgrade of unmade road reserves is included in Section 3.1 of the Traffix Group "Background and Issues Report".

FIGURE 6. EXISTING MOVEMENT & ACCESS TO OPEN SPACE



LEGEND

- Precincts
- Precinct Boundaries
- Former Railway Line
- Industrial Area Abutting Town Centre

EXISTING PUBLIC OPEN SPACE & ACCESS

- Public Open Space

Public Open Space refers to publicly accessible land set aside for sport, recreation and community purposes and may include parklands, sporting fields, playgrounds, bushland and built areas such as civic squares, plazas or skate parks.

- Lots within 400m of Public Open Space

EXISTING MOVEMENT NETWORK

- Unsealed Roads
- Unmade Roads (Not open to traffic)
- Sealed Roads
- Sealed VicRoads-Managed Road
- Footpath (Sealed only)

0 500m

N

TRAFFIC VOLUMES MODELLING

In order to determine the required upgrades for roads across Nyora and establish the best location for footpaths and shared paths, traffic modelling has been prepared by Traffix Group.

The modelling has been based on a high growth scenario for Nyora, which assumes the maximum development potential for each Precinct.

The figures show the number of cars likely to be added into the road network in the very long-term. This includes the likely trips that would occur on new east-west links in Precinct B, and connections to and through Precincts C, D and F where residential development may occur in the short (Precinct F) to very long-term (Precincts C and D).

The maximum development or capacity potential for each Precinct (in terms of "net developable area" and "gross lot yield") have been included in **Chapter 5**.

The plan on the following page shows the existing daily traffic volumes compared with the predicted additional daily volumes across Nyora's road network.

It is important to remember that these figures show an increase based on the high growth rate scenario for Nyora in the very long-term and where maximum development potential has been achieved.

The modelling incorporates the following assumptions:

- No growth in Industry Areas (the IN3Z land on Watts Road)
- All traffic generated by Town Centre will be internal trips from within Nyora, no trips to/ from external areas.

The traffic modelling concluded that the roads with the greatest predicted long-term daily volumes in Nyora are:

- Lang Lang – Poowong Road
- Davis Street
- Yannathan Road.

These roads currently experience the highest traffic volumes in the township. The former two are controlled by VicRoads, the latter by Council.

The road section that is predicted to carry the highest traffic volume in the long-term is Davis Street (near the railway line) with a daily volume of approximately 7,300 vehicles. This daily traffic volume is considered to be well below the capacity limit for a higher order road with a single lane in each direction. Accordingly, the existing Davis Street carriageway is considered sufficient from a capacity point of view. This is similarly the case for other higher order roads in Nyora including Lang-Lang Poowong Road and Yannathan Road.

TABLE 5. POSSIBLE FUTURE DAILY TRAFFIC GENERATION

PRECINCT	NO. RESIDENTIAL LOTS	DAILY RATE*	DAILY TRAFFIC GENERATION
Precinct A (East)	31	6	186
Precinct A (West)	67	6	402
Precinct B (East)	74	6	444
Precinct B (West)	279	6	1674
Precinct C	486	6	2916
Precinct D	142	6	852
Precinct E (East)	99	6	594
Precinct E (West)	39	6	234
Precinct F	924	6	5544
Precinct G	17	6	102
Precinct H	No change	NA	NA

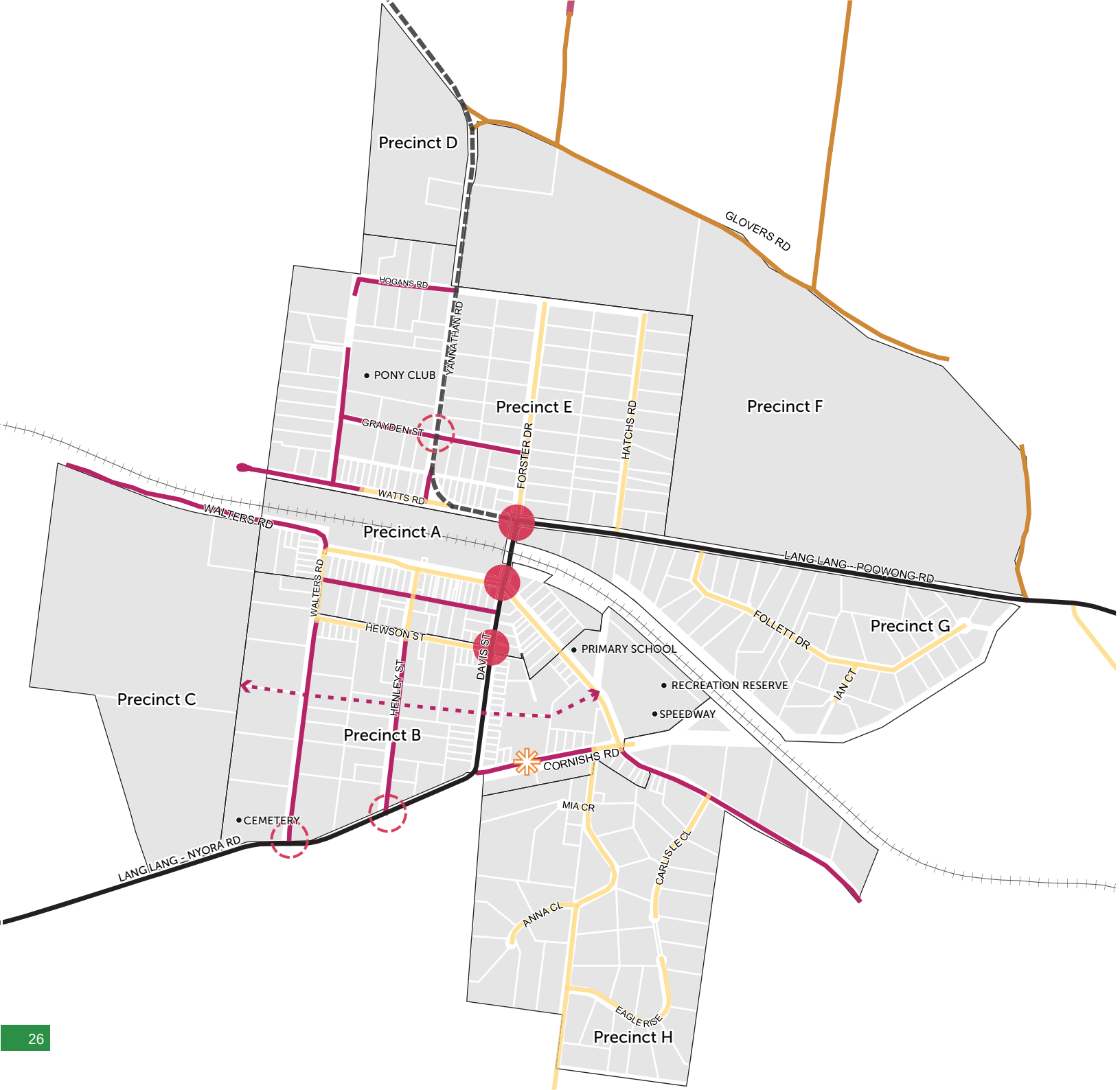


FIGURE 7. PROPOSED MOVEMENT NETWORK

LEGEND

- Precincts
- Precinct Boundaries
- Existing Main Roads
- Existing VicRoads-Managed Main Roads
- Existing Sealed Roads
- Former Railway Line

PROPOSED MOVEMENT NETWORK

- Proposed Sealed Roads
- Future East-West Connections Required (Indicative location only)
- Roads to be Maintained in Current Condition
- Proposed Intersection Upgrade
- Potential Intersection Improvements (Long-term as development occurs)
- Road Connection for Emergency Vehicle Access Only

0 500m

N

planisphere © 2016

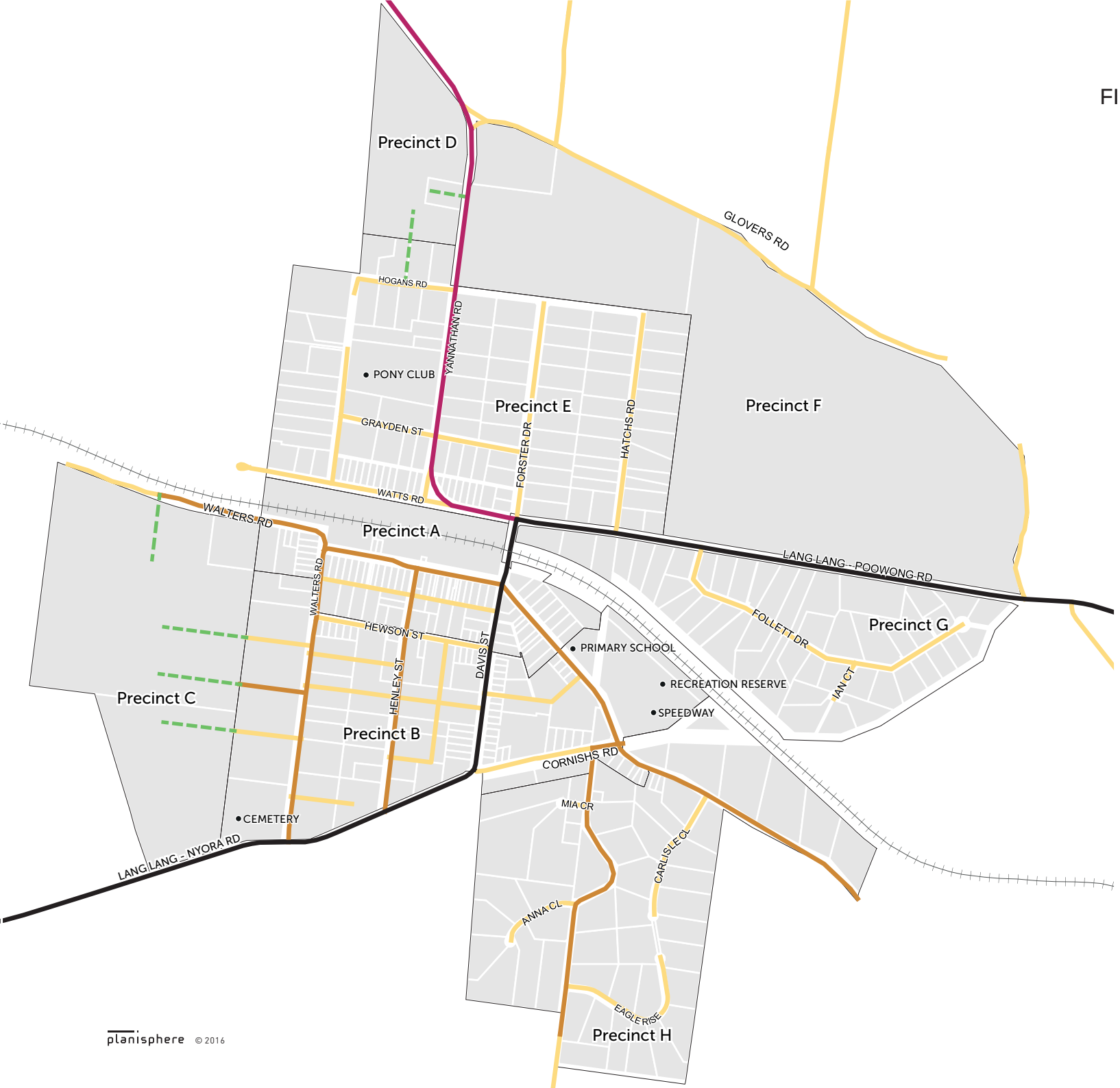


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FIGURE 8. PROPOSED ROAD HIERARCHY

LEGEND

- Precincts
- Precinct Boundaries
- Former Railway Line

PROPOSED ROAD HIERARCHY

Roads shown in Precincts B are indicative only and the final location of the roads will require further work with Council based on Development Plans as landowners or developers start to subdivide logical land units in the area.

- VicRoads-Managed Main Roads
- Council-Managed Main Roads
- Connector Roads
- Access Roads (Local Streets)
- Very Long-Term Connections

Road connections shown in Precincts C and D are very long-term and the location is indicative only; final location will be determined as development in Precinct B occurs, and after land in C and D is rezoned for residential (very long-term).

N

0 500m

INTERSECTIONS

The intersections that are predicted to accommodate the greatest daily increase in traffic volumes are the following, located either side of the existing railway crossing:

- Davis Street / Lang Lang-Poowong Road / Watts Road / Forster Drive
- Davis Street / Mitchell Street / Grundy Avenue.

As a result of the proposed Town Centre Masterplan (discussed later in this strategy), which identifies supermarket and car park access via Hewson Street, the Davis Street/Hewson Street intersection will have increased importance and accommodate higher traffic volumes. This intersection will need improvements to accommodate increased traffic and also heavy vehicles associated with deliveries.

Traffix Group has prepared concept intersection layouts for proposed improvements at each of these three intersections, as outlined under the following headings.

DAVIS STREET / LANG LANG-POOWONG ROAD / WATTS ROAD / FORSTER DRIVE

A concept roundabout layout has been prepared to replace the existing unsignalised cross-intersection.

The roundabout has been designed to accommodate B-double truck turning movements between all exits (except Forster Drive which is a local street and has been designed to accommodate large service trucks such as waste vehicles). This is important when considering that Davis Street and Lang Lang-Poowong Road are VicRoads approved B-double routes whilst Yannathan Road is conditionally approved for B-doubles.

The concept roundabout layout includes a single lane on each approach and a single circulating lane. This roundabout layout will be more than sufficient from a capacity point of view to accommodate the predicted ultimate traffic volumes. Furthermore, the existing single railway crossing for Nyora is considered to be sufficient in a capacity sense and therefore a second railway crossing is not necessary. In any case, a second crossing is unlikely to be approved even though the rail line is currently closed.

DAVIS STREET / MITCHELL STREET / GRUNDY AVENUE

A concept roundabout layout has been prepared to replace the existing unsignalised cross-intersection.

The roundabout has been designed to accommodate B-double truck movements in a north-south direction given that Davis Street is an approved B-double route. Furthermore, the roundabout has been designed to accommodate 12.5m long rigid truck movements to/from Mitchell Street and Grundy Avenue.

The concept roundabout layout includes a single lane on each approach and a single circulating lane. This roundabout layout will be more than sufficient from a capacity point of view to accommodate the predicted ultimate traffic volumes.

DAVIS STREET / HEWSON STREET

Hewson Street will become the primary access to the town centre car park and loading areas. The potential ultimate large supermarket will potentially have deliveries undertaken by 19m semi-trailers.

Accordingly, the concept layout for this intersection has been prepared to accommodate 19m semi-trailer movements between Davis Street and Hewson Street.

The existing carriageway width of Davis Street is sufficient for line marking of two (2) southbound traffic lanes which provides for a southbound vehicle to pass a vehicle that is waiting to turn right into Hewson Street.

OTHER ROADS AND INTERSECTIONS

For the remaining roads within Nyora, the predicted ultimate volumes warrant nothing more than an access street cross-section given that daily volumes are less than 3,000 vehicles.

A new key east-west route is proposed in the southern part of Nyora (predominantly in Precinct B), which will provide improved connectivity and access opportunities for the township. This proposed road will allow east-west traffic to spread across a number of roads reducing ultimate traffic volumes through the town centre along Mitchell Street and Hewson Street.

Walters Road (at the south end near Lang Lang-Poowong Road) is predicted to carry approximately 1,000 vehicles per day. This growth in traffic is primarily due to the long-term development of Precinct C. This level of traffic warrants sealing Walters Road and also potential improvements (albeit minor) at the Walters Road/Lang Lang-Poowong Road intersection.

It is noted that under a scenario where Precinct C was developed with a connection to Lang Lang-Poowong Road at the south, this would result in much lower traffic volumes along Walters Road than predicted in the traffic modelling.

Similar to the above, increased traffic volumes at the south end of Henley Street also warrant sealing of this road and potential minor intersection improvements at its intersection with Lang Lang-Poowong Road.

A proposed upgrade is shown at the intersection of Grayden Street and Yannathan Road (refer to **Figure 7**). If this road is sealed in the very long-term (subject to more intensive development in Precinct E), investigations will be undertaken to ensure any crossing is constructed to Council and VicRoads safety standards, as required.

At Cornishs Road, traffic management measures will be put in place to ensure access from Lang Lang-Nyora Road to Grundy Avenue is only available to emergency vehicles, pedestrians and cyclists. This will increase safety and access for emergency vehicles travelling from the west to service Nyora, while ensuring the road does not become a thoroughfare for heavy vehicles accessing Grundy Avenue and the Nyora Speedway.

INTERSECTION CONCEPT DESIGNS

Preliminary intersection upgrade designs for the town centre have been prepared for the purposes of this strategy (refer to **Appendix D**, Traffic Impact Assessment Report). These are conceptual and may not represent the final design. Rather, then provide an indication as to how roundabouts may be used at the intersections.

Given the long term nature of the proposed upgrades and the possibility for other options to arise in time as design solutions change (e.g. channelised right turn, splitter islands for 'T' intersection), the solution for these intersections will be considered in detail at a later date in consultation with VicRoads and adjacent landowners.

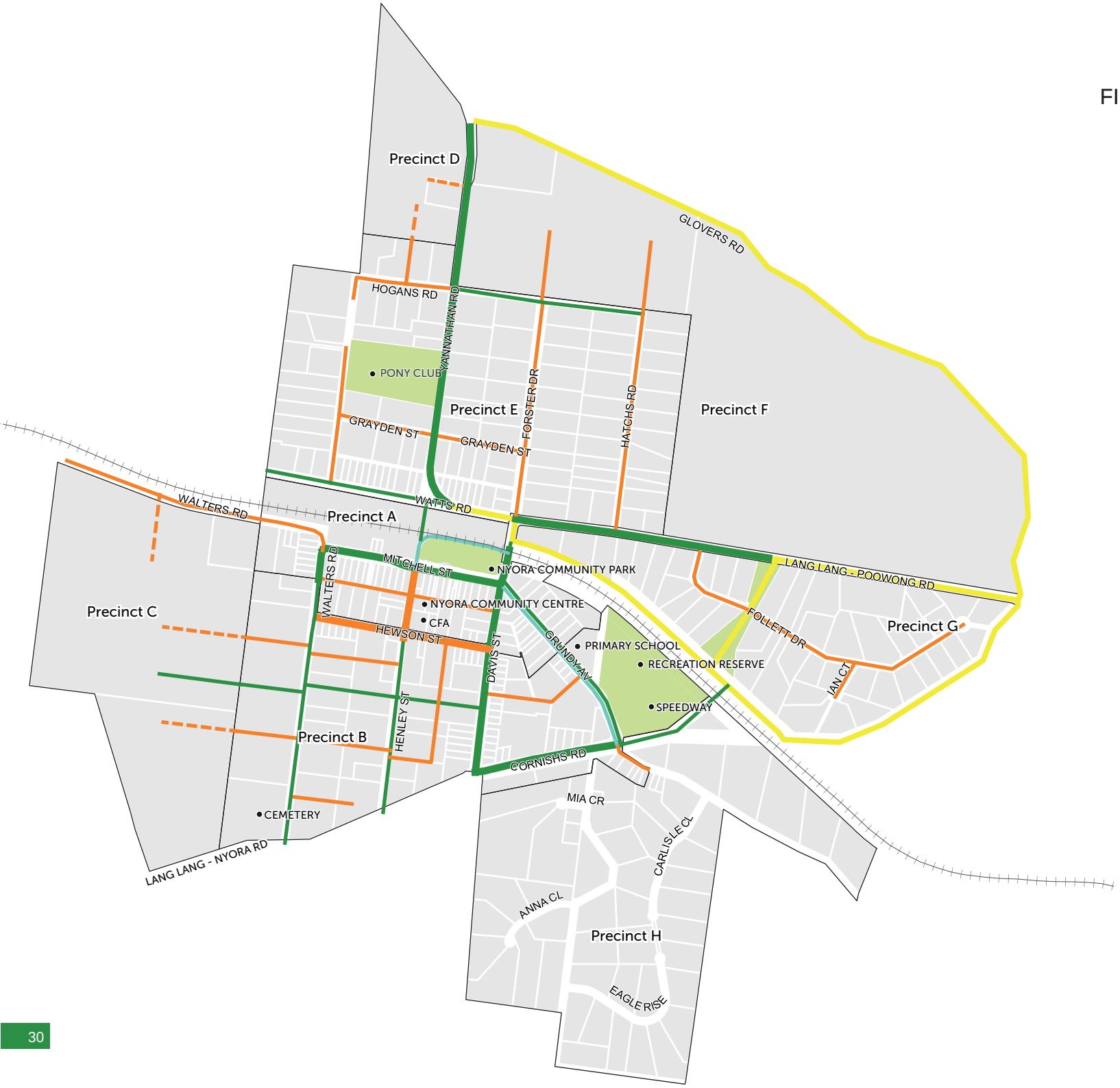
CONSTRUCTION OF EXISTING ROAD RESERVES

As part of the proposed road network, Grayden Street and Cornishs Road are proposed to become access roads. These existing reserves are part of Nyora's road network, but are currently not constructed.

Following consultation discussions, it was determined that Cornishs Road would be opened for emergency services, pedestrian and cyclist access only. This new link will improve access for emergency vehicles travelling from the west to access residential areas in the east of Nyora.

In the very long-term, if Precinct E develops along the scenario included at **Chapter 5** (very-long term scenario), Grayden Street may need to be connected to contribute to the street network to service residential development in that location. Any sealing of this road would be accompanied by investigations about whether intersection upgrades would be required to Yannathan Road; as discussed above.

FIGURE 9. PROPOSED FOOTPATH & SHARED PATH NETWORK



LEGEND

- Properties
- Public Open Space (e.g. parks)
- Precinct Boundaries
- Former Railway Line

PROPOSED PATH NETWORK

For proposed implementation timing please refer to the relevant Precinct Plan in Chapters 4 and 5 of this report.

- Footpath - One Side
- Footpath - Both Sides
- Footpath - One Side (new long-term connections)
- Shared Path - One Side
- Foot and Shared Path (including Multi-Purpose Trail) - Both Sides
  Shared path provides a connection for pedestrian and cyclists
- Multi-Purpose Trail
- Existing Footpath

'Shared Path and Footpath – Both Sides' and 'Shared Path - One Side' locations are concept only and may be subject to change as development occurs within Precincts A, B, E and F, especially where new through roads are proposed to be created.

0 500m

N

STORMWATER & DRAINAGE

There are a number of areas in Nyora where stormwater drainage issues regularly occur. **Figure 10** shows the 18% and 1% Annual Exceedance Probability (AEP) for drainage issues arising in Nyora (AEP is the likelihood that a storm event will recur in any given year).

For new development to occur, existing drainage issues need to be dealt with in the short to medium-term. As population and urban-style development in Nyora increases, stormwater management will become an increasingly urgent issue. The development potential of existing lots that are subject to stormwater issues will be reduced until drainage can be improved. Without stormwater management, development uptake in existing areas may be slower, meaning the potential for new development (particularly in Precinct B and the DPO5 area) to contribute to other infrastructure improvements across the township will be reduced.

The South Gippsland Shire Council has adopted the Infrastructure Design Manual (IDM) requirements for new developments. The IDM seeks to standardise Council requirements for the design and development of municipal infrastructure such as roads and drainage mechanisms. The requirements of the IDM will form the basis of drainage solutions in Nyora, particularly for addressing drainage issues using Water Sensitive Urban Design (WSUD) or temporary detention techniques. Other options could be 'end of line' treatments (such as man-made wetlands) or treatment of major/minor flows using 'in-road' or piped options.

Key issues identified in the preliminary analysis are:

- There are existing deficiencies with drainage and stormwater infrastructure meaning residents have ongoing issues with stormwater on their properties.
- There remain unsewered residential areas where residents have decided to opt-out of voluntary connections which may slow uptake for lot redevelopment. However, the system allows residents to pay to connect in future if they do seek to develop.
- There are a number of open waterways and roadside drains in the township and these are often found in poor repair.
- There are no formal retarding basins located within the Nyora township area.
- The existing open channel drainage system has limited capacity to accommodate the increased overland flow caused by significant growth.
- Creation of a revised drainage system may be difficult in the context of legal issues regarding drainage outlet permissions, downstream impacts to landowners, increased pollution from urban stormwater runoff, and modified rainfall patterns associated with climate change.

Follett Drive

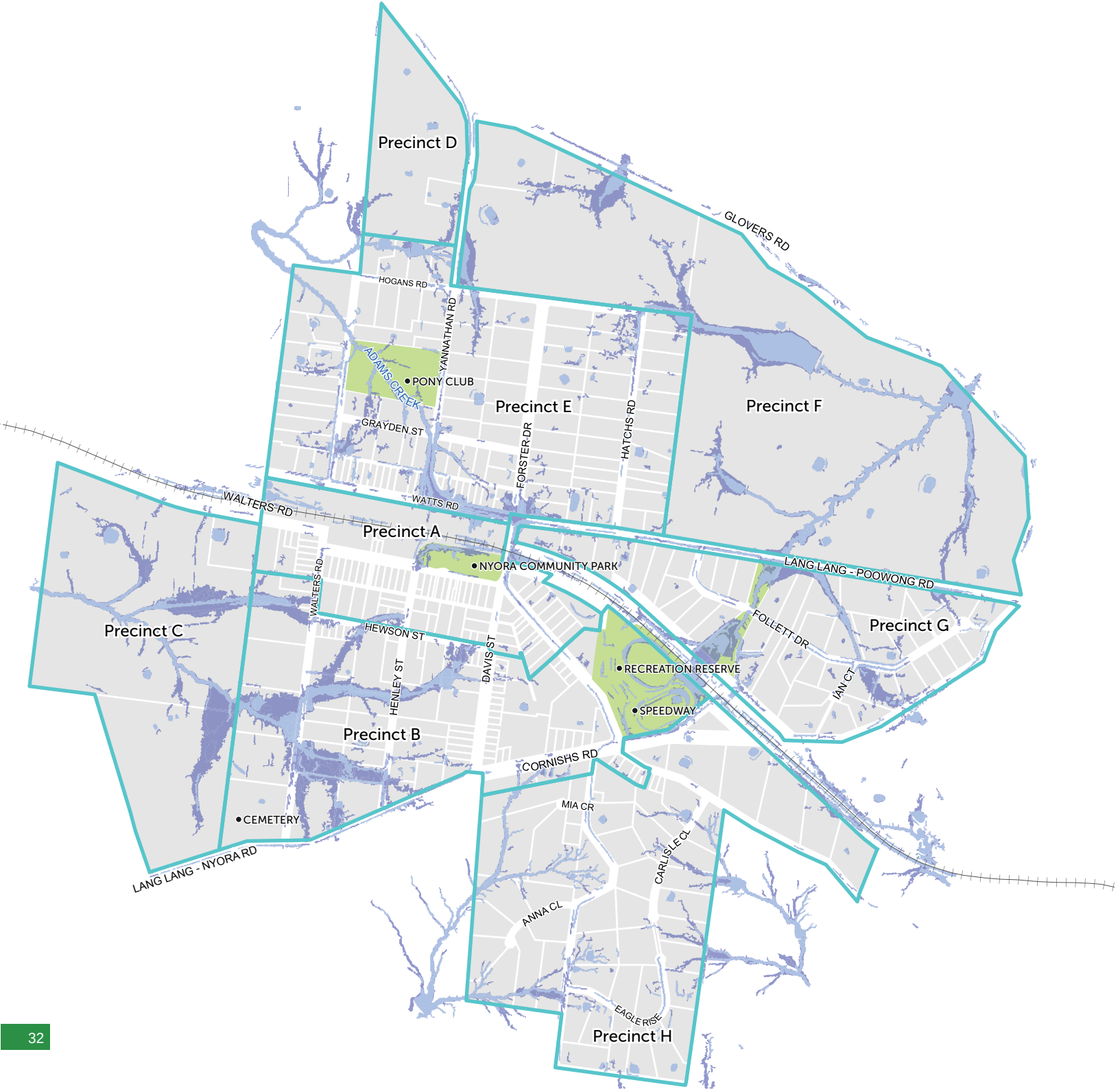


FIGURE 10. EXISTING STORMWATER FLOWS

LEGEND

- Precincts
- Precinct Boundaries
- Former Railway Line
- Public Open Space (e.g. Parks)

Public Open Space refers to publicly accessible land set aside for sport, recreation and community purposes and may include parklands, sporting fields, playgrounds, bushland and built areas such as civic squares, plazas or skate parks.

- Flood-Prone Land (18% AEP)

AEP (Annual Exceedance Probability) refers to the likelihood of a flood event happening in any given year.

- Flood-Prone Land (1% AEP)

0 500m

N

STORMWATER MODELLING

As part of this study, stormwater modelling and a stormwater management plan have been prepared for the Nyora township.

The modelling considers existing flood-prone land which is calculated based on the likelihood of a flood event happening in any given year (this is known as Annual Exceedance Probability or 'AEP').

A flood event may involve the overland flow of water, and many residents who attended community meetings commented that their land may often be very wet or retain water after a large rain event.

In order for more development to occur in Nyora, stormwater and drainage will need to be managed. New development introduces more hard surfaces into an area which lessens the potential for water to soak, and increases the need to manage the water using piped or open drainage systems.

The stormwater modelling has identified areas of piped or open drainage for each precinct, and shows where likely retarding basins are needed at the end of the stormwater management system.

As identified in the stormwater modelling, there are numerous existing properties in Nyora which already need better stormwater management systems. The following are key findings and recommendations from the stormwater investigations:

- Some lots will continue to have back-of-lot drainage (in the lower density and rural residential areas)
- Constructed drainage solutions will be needed where large changes will occur as a result of development
- New masterplanned areas such as Precinct F will need to prepare their own drainage schemes including major and minor drainage systems
- End of line retarding basins will be used in the masterplanned areas
- On site stormwater detention will be needed in precincts A, B, E and in the Rural Living Zone (RLZ) and Low Density Residential Zone (LDRZ) areas.
- Storm water quality is proposed to be managed by a combined end of line and distributed street scale system of bioretention and sedimentation basins in precincts A, B, C, D and F and by on-lot WSUD such as rainwater tanks and vegetated swales where infill development occurs in the low density residential and rural living precincts. Gross pollutant traps are proposed at 3 locations to intercept flows discharging from the commercial and industrial areas in precincts A and E respectively.
- Waterway corridors and land for easements (containing piped drainage, for example) are identified for biodiversity and system management/ maintenance.

The plan on the following page shows the proposed stormwater management strategy for Nyora. An outline of the specific proposed stormwater management techniques for each precinct has been included in **Appendix E** of this report.

FARM DAMS

A number of dams exist on properties that are likely to be developed over time. Due to the potential hazard associated with these dams in an urban environment, each will need to be decommissioned as development progressively occurs.

FURTHER WORK

As part of the public exhibition of this Strategy, the draft version was sent to a number of authorities for review. A detailed discussion about community and authority feedback has been included in the **Engagement Report**.

As a result of feedback received, the Stormwater Management Plan has been updated from the last version of the report, and new candidate (e.g. indicative) retarding basins are now shown on the Stormwater Management Plan at **Figure 11**.

Similar to the Traffic Impact Assessment (**Appendix D**), the Stormwater Management Plan provides preliminary information for Council to undertake further detailed work in future, as development occurs. For more information about the proposed stormwater management techniques, refer to **Appendix E**.

Melbourne Water have advised that existing waterways should be protected using a setback distance of between 20-60m from waterways such as Adams Creek.

Future development will need to address both drainage management issues identified in the Stormwater Management Plan, and ecological considerations such as the Giant Gippsland Earthworm habitats, existing remnant native vegetation, waterway and habitat corridors will need to be considered for protection and enhancement when locating and implementing new infrastructure.

In addition to the above, ownership arrangements (e.g. retarding basins on VicTrack land as shown in **Figure 11**) will need to be explored in further detail. At present, the northern part of the former railway land does play a role in temporary detention of water in a flood event (i.e. storm or heavy rain - refer to **Figure 10**). Formalisation of this as part of the town centre and Precinct E stormwater management will need to be assessed in further detail.

View east from Eagle Rise

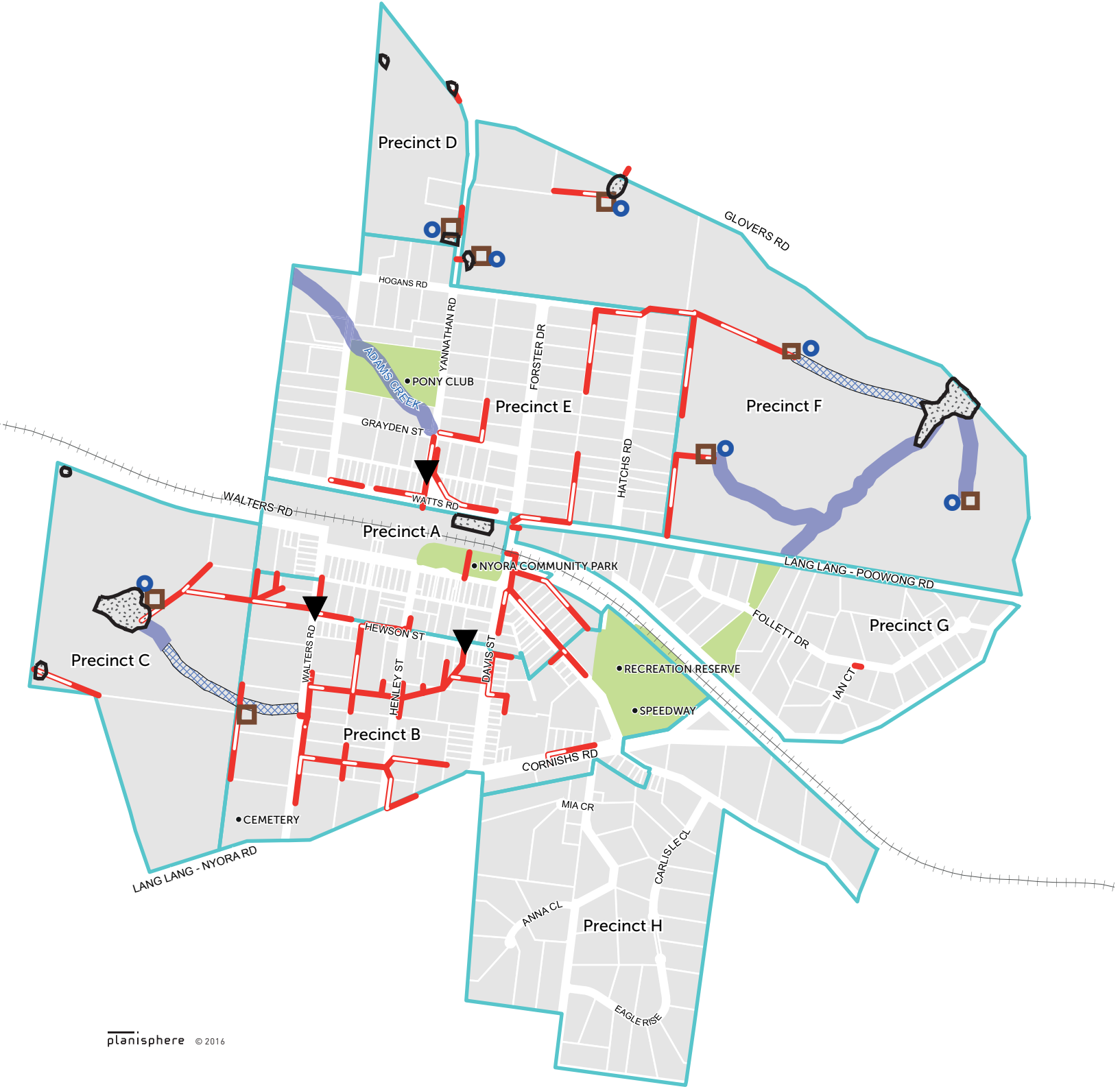


FIGURE 11. PROPOSED STORMWATER MANAGEMENT PLAN

LEGEND

- Precincts
- Precinct Boundaries
- Former Railway Line
- Public Open Space (e.g. Parks)

Public Open Space refers to publicly accessible land set aside for sport, recreation and community purposes and may include parklands, sporting fields, playgrounds, bushland and built areas such as civic squares, plazas or skate parks.

PROPOSED STORMWATER MANAGEMENT PLAN

- Waterway Corridor
- Constructed Waterway
- Retarding Basin
- Bio-Retention Basin
- Sedimentation Basin
- Point
- Pipe (New Pipe or Upgrade)

0 500m

N

PRECINCT-BASED ISSUES AND OPPORTUNITIES

PRECINCT A – TOWN CENTRE

The station area could be utilised to construct a detention storage to provide attenuation for development flows from the catchment located approximately east of Henley Street that discharges north across the railway. Depending on the future development plan for this area, the detention storage could be underground or an above ground retarding basin. There is potential that the storage could be sized to attenuate existing catchment flows to provide some flood relief for properties on the north side of the railway. There is also potential that a storage located here could be utilised for stormwater harvesting. Back of kerb bioretention basins and tree pits could be utilised on Mitchell Street to provide water quality treatment.

Drainage system upgrades on Henley Street and Mitchell Street to service future development should be designed in accordance with the Infrastructure Design Manual (IDM). Council should consider upgrading the existing pipe drainage system on these streets to mitigate existing flooding, in accordance with the objectives of their drainage upgrade program. Water quality treatment for the catchment draining south west could be provided by an end of line wetland located in Precinct C or vegetated swales, bioretention basins and tree pits depending on the development timing of the Precinct C development.

Rainwater harvesting opportunities to be considered as part of redevelopment strategy to contribute towards the water quality objectives in this area.

PRECINCT B – NYORA CENTRAL

Future road alignments or a drainage corridor should be aligned to convey the two main overland flow paths if possible.

Main trunk drains should be sized to convey the future 18% AEP fully developed flow and located under the main overland flow paths.

Preferred water quality treatment and flow control is by end of line wetland and retarding basin located in Precinct C. However given precinct is likely to be developed after Precinct B locations for vegetation swales and bioretention basins adjacent to road sides and within public open spaces should be considered.

PRECINCT C – NYORA WEST

Future major and minor drainage system will service development area.

Water quality treatment by end of line wetland could potentially be used to treat flows from the upstream precinct areas.

A waterway corridor with appropriate buffers around existing waterway should be established.

Opportunities for stormwater and rainwater harvesting could be sought.

COMMUNITY INFRASTRUCTURE & OPEN SPACE

The Nyora Community Infrastructure Plan (2014) provides a detailed analysis of future needs. This structure plan identifies opportunities to implement the recommendations of the plan.

Nyora has limited community infrastructure for a township of its size, although much of the town has access to public open space. Existing assets comprise:

- Nyora Community Park (informally known as Toby's Paddock)
- The Pony Club
- Nyora Recreation Reserve (including the Speedway and the Men's Shed)
- Public open space in Precinct G
- Nyora Community Centre (including regular immunisation services)
- Nyora Primary School (including regular maternal and child healthcare visits)
- Country Fire Authority
- Post Office.

In the long-term, as population grows, there will be a need to expand Nyora Primary School and provide an integrated children's centre. The preferred model would be to co-locate the integrated children's centre with the Primary School.

Council has already identified the need for a Community Hub with an area of 1,400sqm (shown on the Town Centre Masterplan in **Chapter 3**), which could include a library.

A pharmacy has recently opened at the former Nyora Pub site (corner Davis Street and Grundy Avenue), which will provide an additional service and retail anchor.

As shown on the Existing Movement Network plan (**Figure 6**), there are a number of areas in Nyora that do not have access to public open space (e.g. parks) within a five-minute walk (approximately 400m).

Difficulty in accessing public open space is compounded by a lack of safe pedestrian connections around the town centre and other precincts. This means that even lots within a 400m radius of open space may not have direct or safe walking links to access open space despite appearing to be within walking distance of a park.

There is potential, as population grows, to upgrade existing public open space areas, particularly the Recreation Reserve and Nyora Community Park. There will also be a need to deliver new public open space in Precincts B, C, D, E and F, as new development occurs.

STRUCTURE PLANNING GUIDELINES

The State Government provides guidelines and standards when planning for new population and development. Key standards relevant to the planning for public open space have been used when preparing the Future Nyora Strategy and include:

- Provide a network of quality, well-distributed, multi-functional and cost effective open space,
- Catering for a broad range of users that includes:
  - Local parks within 400m safe walking distance of at least 95% of all dwellings;
  - Active open space within 1 kilometre of 95% of all dwellings;
  - Linear parks and trails, most often along waterways, but also linked to vegetation corridors and road reserves within 1 kilometre of 95% of all dwellings.
- Including approximately 10% of the net developable area as total public open space, 6% of which is active open space.

The location and design of public open space generally should be:

- Of an appropriate size, i.e. sufficient to incorporate two football/cricket ovals, but small enough to enable regular spacing of active open space provision across the precinct

(This configuration would generally require at least 8 hectares);

- Appropriate for its intended open space use in terms of quality and orientation;
- Located on flat land (which can be cost-effectively graded);
- Located with access to, or making provision for, a recycled or alternative sustainable water supply;
- Designed to achieve sharing of space between sports; and
- Linked to pedestrian and cycle paths.

The location of new areas of public open space in the Transition and Growth precincts (B, C, D and F) will be determined in greater detail as Development Plans are prepared by developers or landowners in future.

RECREATION TRAILS

There is potential for a new multi-purpose recreation trail to be developed around the northern half of Nyora, making use of the existing trail as shown in the map opposite.

The rail corridor reserve represents an opportunity for additional open space in Nyora. However, any planning for this land must consider the potential for the rail to begin operation again in the future (including for freight).

EDUCATION

As the population grows, it is likely that there will be increased demand for the primary school as well as childcare, occasional care, more playgroup services, after school care and day care. These services will be especially important where residents in Nyora may seek work in other centres, both within South Gippsland Shire and further afield.

A local netball game; CFA members in action; spectators at a football game (Recreation Reserve); and laying a wreath at a local memorial service (images courtesy Brett Hume, 2016).

FIGURE 12. OPEN SPACE NETWORK PLAN

LEGEND

- Precincts
- Precinct Boundaries
- Former Railway Line
- Existing Public Open Space (e.g. Parks)*

Public Open Space refers to publicly accessible land set aside for sport, recreation and community purposes and may include parklands, sporting fields, playgrounds, bushland and built areas such as civic squares, plazas or skate parks.

PROPOSED OPEN SPACE NETWORK

- Proposed Public Open Space

Public Open Space Shown in indicative locations only.

- Possible Future Rail Trail
- Possible East-West Shared Path
- Possible Multi-Use Recreation Trail
- Facilities Upgrades

0 500m

N

3

NYORA MASTERPLAN

3.1 HOW WILL GROWTH BE MANAGED?

VISION AND STRATEGIC FRAMEWORK

In the future, Nyora will maintain its rural township character while accommodating a larger population in a variety of housing types and lot sizes. The town centre will have a vibrant and rural main street feel.

Residents and visitors will have improved access to public open space and a connected network of roads and paths to get around the township.

Where possible, drainage issues will be solved by using water sensitive urban design techniques that will add to the open space network.

Traffic safety will be managed by improvements to the Mitchell/ Davis Street and Davis St/ Lang Lang-Poowong Road intersections.

OBJECTIVES

PLANNING AND URBAN DESIGN

- Manage residential growth and settlement.
- Deliver housing diversity and land supply.
- Preserve the rural township character by developing built form and landscape guidelines for new development and subdivision.
- Protect and enhance native flora and fauna including habitat links.
- Develop a coherent and well-structured town centre that sets the scene to become the activity hub of the township.
- Attract commercial and retail investment in the town centre.
- Resolve the use of the former railway land to improve the town structure.
- Manage industrial land uses in the Watts Road precinct.
- Determine a schedule of developer contributions, or consider special charge schemes, to be allocated towards priority civil and community infrastructure projects.
- Discourage multi-dwelling developments unless kerb and channel and drainage management infrastructure is implemented.

INFRASTRUCTURE

- Address existing and future infrastructure deficits (footpaths, road surfaces and drainage).
- Deliver community services and facilities including a Community Hub.
- Provide sufficient and well-located public open space and public open space networks.
- Define a street hierarchy, for all road users, to guide infrastructure investment based on:
  - Importance in the movement hierarchy
  - Safety/speed concerns and compliance
  - Anticipated growth in volume
  - Sealing requirements.
- Resolve stormwater and drainage issues on public and private land that can cater for a growing population.
- Form agreements with Melbourne Water or South Gippsland Water as development plans are prepared to confirm stormwater treatment and flood retarding and mitigation measures.
- Develop planning tools for specific areas to prohibit or manage development in flood prone areas.
- Identify priority roads to have higher amenity for pedestrians and cyclists.
- Plan for a potential rail trail route in conjunction with VicTrack, which owns the land. Any planning must consider the potential of the railway operating again in the very long-term.

FIGURE 13. FRAMEWORK PLAN

LEGEND

- Precinct Boundaries
- Existing Road / Road Reserve
- Former Railway Line
- Public Open Space (e.g. Parks)
- Key Service/Building

OPPORTUNITIES

- Possible Multi-Purpose Trail
- Possible Rail Trail Route
- Intersection Upgrades
- Long-Term Intersection Improvements
- Proposed Sealed Roads
- Proposed New Roads (Indicative location only)
- Proposed Drainage Management
- Main Traffic Route (Davis St)
- Main Street
- Railway (VicTrack) Land
- Possible Retarding Basin Locations

FRAMEWORK AREAS

- Town Centre (Precinct A)
- Community Facilities & Town Centre Expansion Area
- Transition Area (Precinct B)
- Short-/Medium-Term Growth Area (Precinct F)
- Long-Term Growth Area (Precinct C & D)
- Rural Lifestyle (Precinct G & H)
- Rural Lifestyle & Potential for Very Long-Term Urban Transition Area (Precinct E)

Location of public open space for Precincts B, C, D and F to be determined as development occurs.

TABLE 6. TOWNSHIP-WIDE INFRASTRUCTURE PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	MECHANISM / APPROVAL AUTHORITY	FUNDING
Main Road Improvements	Lang Lang - Poowong Road / Precinct F Entrance	Development of Precinct F	Short Term	VicRoads and planning permit(s)	Developer
	Lang Lang - Poowong Road / Davis Street Intersection	Development of Precinct F	Short Term	VicRoads	Precinct F Section 173
	Shared Path - Precinct F to Grundy Avenue	Development of Precinct F	Short Term	Council Capital Works	Precinct F Section 173
	Davis Street / Mitchell Street Intersection	Development of supermarket	Long Term	VicRoads and planning permit	Supermarket Section 173 / Developer Contributions
Town Improvements	Street tree planting on major roads and at entrances	Quick win	Short Term	Council Capital Works/ Vic Roads	Council / Grant Opportunity
	Bike lanes on main streets	Opportunistic	Short Term	Council Capital Works/ Vic Roads	Council / Developer Contributions
	Shared paths	Opportunistic	Short Term	Council Capital Works	Council / Developer Contributions
Railway Reservation	Restore Railway Station	Funding Driven	Medium Term	Vic Track	VicTrack / Grant Opportunity
	North-south shared path (Yannathan to Henley)	Quick win	Short Term	Vic Track	VicTrack / Grant Opportunity
	Stormwater management	Main road improvements	Short Term	Vic Track	VicTrack / Capital Works Budget as part of road improvements
	Nyora Community Park / Playground / Skatepark Upgrades	Demand / Funding driven	Medium Term	Council Parks & Gardens	Capital Works Budget / Grant Opportunities
	Rail trail	Regional initiative	Long Term	Council	Tourism-related Grant Opportunities
Community Infrastructure	Recreation Reserve improvements	Funding Driven	Medium Term	Council	Capital Works Budget / Developer Contributions / POS Contributions
	Primary School expansion	Demand driven	Medium Term	State	Education Department
	Integrated children's centre	With Primary School	Medium Term	Council	Capital Works Budget / Infrastructure Contributions Plan
	Community Hub	Demand / Funding Driven	Long Term	Council	Capital Works Budget / Infrastructure Contributions Plan

PLANNING & DESIGN & INFRASTRUCTURE RECOMMENDATIONS

The opportunities and proposed infrastructure shown on the Framework Plan, above (**Figure 13**) are explored in more detail in the following chapters of this report.

There are a number of detailed investigations (e.g. environmental) that will need to be addressed in greater detail as development occurs. Reference is made to these items in the relevant Precinct sections - **Chapter 2** and **Chapter 5**.

The following figures relate to specific items of proposed infrastructure or future strategic direction:

- Proposed Movement Network (**Figure 7**)
- Proposed Road Hierarchy (**Figure 8**)
- Proposed Footpath and Shared Path Network (**Figure 9**)
- Proposed Stormwater Management Plan (**Figure 11**)
- Proposed Open Space Network Plan (**Figure 12**).

In addition to the above, individual Precinct Plans in Chapter 5 illustrate specific infrastructure items proposed on a precinct-by-precinct basis. Those plans show the following:

- Proposed road seal (existing road reserves)
- Proposed kerb and channel
- Indicative (possible) location of new roads, to be determined as development occurs
- Indicative (possible) intersection upgrades and new roundabouts, to be determined as development occurs with final designs to be further investigated by Council subject to additional landowner and stakeholder input
- Proposed location of street tree planting
- Proposed location of new footpaths and shared paths.

As the population grows in Nyora and more detailed planning commences to implement this Strategy, the recommendations from this document will be further assessed and revised for implementation. Landowners and residents will have a chance to be involved again at the detailed design and implementation phase. Further work needing to be done includes:

- Detailed assessment of waterway health (e.g. Adams Creek) and establishment of a riparian zone to protect local creeks and vegetation in the waterway corridors, as relevant
- Detailed assessment about the quality, extent and condition of existing native vegetation, including on roadsides, to determine areas of significance that should be protected and enhanced
- Detailed assessment of new development with regard to the Giant Gippsland Earthworm habitat and other native species of fauna that should be protected
- Identification, given the flora and fauna assessments above, of possible habitat links for protection
- Identification of new areas of open space, based on the open space requirement for each precinct outlined in the **Chapter 5** Precinct Plans, and Council's existing policies for the siting and design of open space (e.g. parks).

The Framework Plan (**Figure 13**) shown overarching principles and the location of key opportunities for Nyora's future. It illustrates the vision and objectives which are responded to in the following chapters of this report, as detailed here.

4

TOWN CENTRE MASTERPLAN

4.1 TOWN CENTRE MASTERPLAN

VISION

The Town Centre will be a vibrant hub and focal point of Nyora. It will contain the primary retail, service and community facilities in a compact form, to enable easy walkability. Car parking will be provided close to the town centre, to ensure ease of access, and streetscape improvements will add to the area's distinct image and attractiveness.

TOWN CENTRE MASTER PLAN

The town centre master plan shows in detail the sites, approximate land area and the possible configuration of key buildings and civic spaces. It is informed by predicted demand and population growth. The plan has the following features:

- The town centre core shown in **Figure 14** reflects the likely direction of commercial development expansion towards Davis Street and Mitchell Street and includes the centrally located railway land and recreation areas as the civic focus.
- Mitchell Street will be reinforced as the main street with a clear and definable civic character, and Davis Street as the primary through town route. Pedestrian and cycle movement east-west across this street will also be facilitated through crossings. Hewson Street will have more importance as a functional entry point to the parking for the supermarket.
- Traffic and transport improvements in the town centre will include a roundabout at the corner of Mitchell Street and Davis Street.

The proposed roundabout at Mitchell Street and Davis Street will need to accommodate semi-trailers travelling north-south along Davis Street and service vehicles from other streets. The design will minimise impacts on Nyora Community Park as a result of the intersection upgrade and include space for pedestrian-priority (e.g. zebra crossings or raised zebra) crossings over the main roads.

In this location, a roundabout is considered to be the safest option (with narrower crossing widths for pedestrians than a signalised intersection and compared to current conditions) and the most appropriate for vehicle access/ traffic control. A roundabout will also slow traffic speeds through the town centre.

The plan introduces a new north-south pedestrian and cyclist link connecting Mitchell Street the Nyora Community Park to the future supermarket site. The proposed north-south link across the railway will be subject to further change if the railway were to begin operation again.

The laneway behind the Mitchell Street will be upgraded as an important service route, allowing one-way traffic movement from Davis Street and Hewson Streets, and left turns out. Widening of this laneway to accommodate one way traffic, can be achieved through development of the proposed supermarket site and use of design objectives to establish setbacks in the town centre Design and Development Overlay (DDO). The proposed laneway will be funded through developer contributions and in conjunction with the future supermarket development.

Mitchell Street will continue to be the primary civic destination where essential services are located and where a sense of arrival is communicated. This will be an important walking and cycling route and a place to experience Nyora's character and heritage Railway building. Henley Street will focus on community activities connecting the community centre, existing church and a future community hub at the corner of Hewson Street.

A community hub is proposed to be located adjacent to the existing community centre. The proposed building area is 1400m2, and there is sufficient area surrounding to accommodate parking and landscape. A small recreation space is also identified next to the hub.

FIGURE 14. DRAFT TOWN CENTRE MASTERPLAN

LEGEND

- Former Railway Line
- Existing Commercial Zone (C1Z)
- Existing Built Form
- Public Open Space (e.g. parks)

Public Open Space refers to publicly accessible land set aside for sport, recreation and community purposes and may include parklands, sporting fields, playgrounds, bushland and built areas such as civic squares, plazas or skate parks.

- Road Network
- Community Use
- Proposed Bus Stop Upgrade

PRECINCT STRUCTURE PLAN

- Proposed Built form- Short to medium term
- Proposed Built form- Potential long-term expansion
- Proposed Community Hub Open Space
- Proposed Car park
- Car park Access
- Pedestrian Link
- Vehicular Access
- Footpath
- Shared Path
- Landscaped Setback
- Active Frontage

N

0 100m

COMMERCIAL DEVELOPMENT

Retail floorspace within the town centre will need room to grow as the population of Nyora and surrounding areas increases, supported regionally by Loch and Poowong. Ideally, an increased population will eventually accommodate a supermarket, community centre building, and other retail uses in the town centre. The siting of these is critical for the long term viability of the centre, and it is important that retail and community buildings are in close proximity.

An indicative location for these commercial services has been shown on the Town Centre Masterplan. The ultimate location of these services, including the supermarket, may differ from that shown on the plans.

The location shown demonstrates the land area that will be needed for a large supermarket to be developed, including the area of car parking required.

If a small supermarket is attracted to develop in Nyora, the delivery timing of a full-scale supermarket would be delayed. According to economic and feasibility investigations undertaken in earlier stages of this study, some sites may already be able to accommodate a small local supermarket (for example, 1A Grundy Avenue or the former pub site, although this is currently being used for a pharmacy). However, neither of these sites is large enough to accommodate a full-line supermarket, meaning a developer seeking to contruct a full-scale supermarket may need to investigate the purchase and consolidation of existing lots in the town centre.

There is also a possibility that a proposal for a larger supermarket is undertaken prematurely, effectively leap-frogging the construction of a smaller supermarket.

To cater for this potential it would be ideal to have an area specified for a larger supermarket within the town centre and supported by planning policy, to avoid undesirable development of a supermarket outside the town centre. This would fracture opportunities for a lively and busy town centre hub in Nyora.

The supermarket entrance and parking should be positioned so as to be a part of the town centre, facilitating multiple visits to stores from one trip. If the supermarket were to be separated from the remainder of the town centre it is likely to be detrimental to the health of the rest of the retail environment, rather than supporting it.

In the medium to long term, a supermarket with high visibility from Davis Street, will become the retail anchor of the town centre. The size of the proposed site shown o n the masterplan reflects a supermarket appropriate for a medium to high growth scenario. The plan identifies both a short-term site for a small supermarket fronting Davis Street, and a future larger format site fronting Hewson Street, with speciality services to screen the building bulk. This plan allows for the small supermarket to be reused as demand grows.

The eventual development of a supermarket will be based upon the population to support it. Feasibility research has found that a small supermarket (400sqm) could be feasible in the medium term (10 years) based on medium population growth (2,173 people by 2026) and a larger supermarket with a floor area of 2,000sqm could be viable under a high growth scenario (5,174 people by 2036). The analysis shows that the catchment is unlikely to support a full line supermarket in the next 10 – 20 years.

The proposed site would accommodate a staged development of a small supermarket in the short term with enough room to accommodate parking, servicing and a future large format supermarket.

To ensure the proposed commercial precinct is not compromised by incremental residential development it is recommended that the residential

zoned land in the Davis Street, Hewson Street, Henley Street area be rezoned Commercial 1 as a priority action. This should occur in combination with the implementation of overlay controls to guide outcomes discussed in the strategy.

To the west, the proposed community centre will act as a community focus, drawing people for a variety of activities and functions. Locating it close to shops and facilities encourages 'spin-off' visits to these areas, adding to the vitality and economic prosperity of the township.

To the east of Davis Street, the former hotel building is a landmark on the main through route, and presents an opportunity for supporting uses such as a medical/health or restaurant/ café uses. Parking and access are challenging for this site and would need to be provided on Grundy Street.

Land on the eastern side of Davis Street, opposite the former hotel and facing the Recreation Reserve, is currently zoned Commercial 1. Development of this site for retail purposes should be discouraged as it would draw pedestrian movements across Davis Street. Consideration should be given to rezoning this land to facilitate medium density housing given its excellent proximity to the town centre.

URBAN DESIGN

The Nyora town centre has a country town feel where its buildings and landscape reflect a low density and historic character. These are valued features that should be built upon in the future layout and built form development.

The VicTrack land, which includes Nyora Community Park, is an underutilised, centrally located land area and could be an improved town asset for recreation, community facilities and gathering space for locals and visitors. The former railway building, currently used as the op-shop, could be renovated while its history is protected (by an existing Heritage Overlay), while also providing a location for community uses. The transport interest in this land is to be protected in the long term but VicTrack supports its utilisation for temporary uses such as this.

The buildings, landscape and civic spaces on Mitchell Street could be clearly defined to express the town character. Public space and landscape improvements such as street trees would enhance its continuity and presence, as would the introduction of shared paths, expanded footpaths and more defined car parking.

To protect the rural character of the township, building heights should not exceed a maximum of two storeys.

Davis Street, while providing the primary transport link, needs improved crossings to knit the eastern sections of the town with the primary school and recreation reserve. Similar to Mitchell Street, Davis Street would benefit from street trees and footpath upgrades or expansion of the footpath network further south and linking to Grundy Avenue, to improve the sense of arrival and provision for walking and cycling locally. The east side of Davis Street in particular will require active frontages to create an attractive entry to the Town Centre and encourage people to walk around the Town Centre.

Within the town centre there is sufficient land to accommodate commercial growth over time. This will include supporting retail along Mitchell Street that can be accommodated within the existing building character, which features moderately scaled buildings with pitched roofs and awnings projecting onto the street.

Larger format buildings such as a small to medium supermarket will need to be carefully managed to maintain the Main Street character. Siting, landscape and building setbacks of large format buildings will need to be defined so that they activate Davis Street, screen parking and effectively manage

the possible negative impact of service bays. Whilst overall there is sufficient commercially zoned land in the Town Centre, the identified supermarket site is considered to be the most suitable site for a supermarket and as such would need to be rezoned to the Commercial 1 Zone. It is also noted that the Commercial 1 Zone does also permit dwellings to be constructed.

STREETSCAPE CONCEPT DESIGN

The streetscape concept reflects the role of Mitchell Street as the main civic spine and the focus of the township. The Nyora Community Park is a locally significant public space within a prominent location in the town centre. As the population grows in future, park upgrades and improvements (including to the skatepark and playground) will be required to serve the larger community and retain the importance of this open space for residents.

The streetscape concept is combined with the town centre park design and has the following features:

- A clear streetscape geometry reflecting the frontages of properties along Mitchell Street.
- Three rows of street trees are introduced to provide a clear main street character with continuity of species and shade. The rows consist of each side of the road and cycle lane. Trees are identified at 15m intervals with space for car parking in between.
- Footpaths along the southern Mitchell Street frontage are extended to be 2.8m wide. Footpaths connect directly into the east west links across Davis Street.
- A shared path is located on the northern side of Mitchell Street between rows of trees. This 3m wide path would connect to the shared path network and could link to a future rail trail.
- Upgrades to the community park, including more street trees along existing paths through the park, will enhance the open space by attracting more people to stop in an attractive setting. Shelter and seating could allow the park to become a civic gathering or even open air event/market space.
- North-south pathways across the railway land, across a defined crossing on Mitchell Street and through a pedestrian laneway to the proposed supermarket site will define direct walking routes where there are currently barriers.
- V/line bus stops relocated to a more central location and passengers' drop-off will be located in a safer and more convenient meeting place.

The proposed Nyora Community Park concept design is included in the "Precinct A" plan, in **Chapter 5** (see **Figure 18**).

TOWN CENTRE CONCEPT IMAGES

The imagery over the following pages shows how the proposed policies may influence development in Nyora's town centre in future. The following views are shown:

- View along Mitchell Street looking west
- View along Davis Street looking south towards proposed supermarket site
- View of the Nyora Community Park from Davis Street, looking west.

These images show a possible long-term future for Nyora's town centre, and are intended to help show how the town centre might look as development progresses following proposed design objectives and guidelines.

FIGURE 15. MITCHELL STREET CONCEPT IMAGE

The Mitchell Street Concept Image shows implementation of a shared pedestrian and cycling path along the Nyora Community Park, street trees along both sides of the road, and parallel car parking along the shop fronts. The footpath has been widened to allow outdoor cafe/dining opportunities. Kerb and channel and piped drainage is shown along the road. As suggested in the town centre design objectives, buildings have been shown with a maximum of two storeys, and the upper level has been set further back to preserve the feeling of openness as a pedestrian at street level.

FIGURE 16. DAVIS STREET CONCEPT IMAGE

This is a view looking south down Davis Street, just south of the existing Nyora Pub site. Shops in the right-hand-side of the image show active frontages. This strip between the laneway and Mitchell Street could, in the very long-term, become a strip for small-scale retail or cafe/ restaurants. The image shows a new supermarket on Davis Street. A shared pedestrian and cyclist park has been provided across the road, connecting the southern part of Precinct B to Grundy Avenue as a key pedestrian route to the Primary School. Street trees are also shown along Davis Street.

FIGURE 17. NYORA COMMUNITY PARK CONCEPT IMAGE

This image shows the upgraded Nyora Community Park concept. A new roundabout at the Davis Street / Mitchell Street / Grundy Avenue intersection is shown on the left of the above image.

Extensive footpath links to the town centre and tree plantings are also shown in this concept image.

5

PRECINCT PLANNING

5.1 TOWN CENTRE (PRECINCT A)

VISION

As outlined in **Chapter 4**, the Town Centre will be a vibrant hub and focal point of Nyora. It will contain the primary retail, service and community facilities in a compact form, to enable easy walkability. Car parking will be provided close to the town centre, to ensure ease of access, and streetscape improvements will add to the area's distinct image and attractiveness.

LAND BUDGET

The town centre will undergo ad hoc changes and the timing of development will be dependent on population growth and the attraction of a major retailer.

The long-term role of retail opportunities on Mitchell Street will be for small business and shops, such as local businesses, medical centre, office uses in existing dwellings and specialty shops serving local customers not as reliant on passing trade (e.g. antiques, craft stores, cafés).

The residential land in Precinct A that surrounds the commercial centre will provide opportunities for residential intensification (potentially including higher density unit style development), increasing the immediate catchment for local businesses.

A precinct-wide Land Budget for the General Residential Zone in the town centre has been developed to assist in planning for infrastructure requirements and to understand the maximum capacity dwelling yield (shown in the table below). It is emphasised that this represents the optimal capacity and is unlikely to be fully realisable.

TABLE 7. PRECINCT A LAND BUDGET

	SQM	HA	%
Total Area of Titles	121,344	12.34	100
Encumbered Land			
▪ Land covered by significant vegetation	0	0	0
Public Open Space			
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	0	0	0
Net developable area*	121,344	12.34	100

Lot yield		
Existing lots	72 lots	*Residential land zoned General Residential Zone (GRZ1) within Precinct A.*
Gross lot yield	170 lots	*Assumes an average 15 dwellings per hectare density, 19m wide road reserves* *0% open space provision assumed given proximity to Nyora Community Park.*

FIGURE 18. PRECINCT A PLAN & NYORA COMMUNITY PARK DESIGN CONCEPT

LEGEND

- Precinct A
- Public Open Space (e.g. Parks)
- Former Railway Line
- Existing Street Trees

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Seal/Kerb and Channel - Existing Road
  Kerb and channel drainage proposed throughout where new roads are to be sealed
- Kerb and Channel
- Footpath
- Shared Path
- Traffic Management Works
- Facilities Upgrades (When sufficient funding is accumulated)
- Street Tree Planting

Nyora Community Park Upgrade

- Proposed Pedestrian Crossing Point
- Proposed Vegetation

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and as opportunities for infrastructure provision arise. Expected funding

N

0 200m

Proposed path network is indicative and final implementation will be determined as development occurs

INFRASTRUCTURE REQUIREMENTS & PRIORITIES

The proposed footpath and shared path upgrades from other precincts will terminate or pass through the town centre. It is important that footpaths are rolled out to coincide with development in other precincts and that the delivery of infrastructure in the town centre is also upgraded on an appropriate timescale as population increases.

Some infrastructure upgrades will be delayed until commercial demand increases (e.g. footpath connections beyond the core town centre) but will be important links once retail in the town centre becomes more viable.

Drainage and movement are key priorities that will support the future viability of Nyora.

Stormwater management for the town centre will be dealt with using water sensitive urban design techniques and should be timed to coincide with road upgrades.

Where footpaths are to be provided or upgraded, the following are priorities:

- Mitchell Street: expanded footpath in key commercial area (to enable footpath trading)
- Davis Street: footpath (to improve pedestrian safety)
- Grundy Avenue: shared path (to improve pedestrian safety to the Primary School and the Recreation Reserve)
- Henley Street, Hewson Street and Mitchell Street: footpath (so people can walk around the town centre and between key retail spaces)
- Walters Road: footpath (to connect residential area to town centre).

As shown in the town centre masterplan, street trees are proposed along both sides of main roads around the town centre, to beautify the area and provide a sense of arrival. It is recommended that the bus stops be relocated and upgraded within the town centre to more convenient locations, per the masterplan.

Traffic and parking modelling has resulted in an estimated a total Of 376 car spaces for the town centre precinct. This includes off street car parking identified on the Masterplan as well as on-street car spaces along Mitchell, Henley and Hewson Streets.

TABLE 8. PRECINCT A INFRASTRUCTURE PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	MECHANISM / APPROVAL AUTHORITY	FUNDING
Town Centre Improvements	Bus Stop Upgrades	Quick win	Short Term	Council Capital Works / Public Transport Victoria	Capital Works Budget / Public Transport Victoria
	Kerb and Channel / Piped Drains / Footpaths	Commercial development	Medium Term	Council Capital Works	Town Centre Special Charge Scheme / Developer Contributions
	Footpath widening / Streetscape Works	Commercial development	Medium Term	Council Capital Works	Capital Works Budget / Grant Opportunities

The estimated number of on-street spaces assumes parallel parking along both sides of Mitchell Street and Henley Street (except where there is existing 90 degree parking) and on one side of Hewson Street.

The potential long-term town centre car parking demand is calculated as 366 spaces, which is exceeded by the total identified car parking provision for 376 spaces.

The Traffic Impact Assessment Report confirms that sufficient car parking has been identified for the potential long-term town centre outcome.

As the population increases, upgrades to Nyora Community Park, playground in the railway reserve, and the railway reservation will be achievable. The community hub and upgrades to the Railway Station building will be dependent on population growth, but will be a priority once this occurs.

STRATEGY

The following development strategies will guide implementation and decision-making across Nyora as it grows. These strategies highlight short- to long-term goals and techniques for achieving the desired design and infrastructure outcomes Nyora needs now and into the future.

- Consolidate the town centre by encouraging new retail and community uses to locate in close proximity to each other and existing shops.
- Provide adequate car parking to ensure ease of access for shoppers and town centre visitors.
- Investigate all options to improve north - south accessibility across the VicTrack land.
- Develop built form guidelines for new development to define and reflect the key elements of the town character.
- Investigate options for intersection improvements that will assist in better access to the town centre. (i.e. Davis Street / Watts Road / Lang Lang-Poowong Road / Forster Road and Mitchell Street / Davis Street / Grundy Avenue junctions).
- Design flood retention and management methods to enable creation of usable public spaces.
- Develop a consistent suite of footpath and streetscape treatments and furniture to be implemented over time, providing a clear image and cohesive feel to the town centre, and utilising water sensitive urban design techniques where feasible.
- Resolve with VicTrack the future medium- to long-term use of vacant land, the station building, and the Nyora Community Park.
- Encourage the development of vacant and underutilised land in the town centre by landowner liaison and clear guidelines for future use.

In order to implement the proposed upgrade, relevant stakeholders will need to be engaged, including for public assets such as the town hall and the Nyora Community Park.

Bus stop on Davis Street looking south

5.2 DENSITY TRANSITION AREA (PRECINCT B)

VISION

The traditional residential area of Nyora, immediately to the south of the town centre, will provide a variety of housing types that are in close walking distance to a range of businesses and services.

The area will be ideally suited for families, first home buyers and older people looking to stay in town.

Design guidelines and streetscape treatments will ensure that the precinct retains a 'rural township' feel.

A key feature of the area will be access to a 'green corridor' that will provide opportunities for access to the wider open space network.

DEVELOPMENT POTENTIAL

Precinct B is an existing residential area, zoned General Residential Zone. A Development Plan Overlay (DPO) applies to part of the precinct. The area affected by the DPO has the largest lot sizes and therefore the greatest subdivision potential. The DPO is designed to ensure coordinated development as individual landowners or groups of landowners decide to subdivide.

It is anticipated that incremental residential growth will occur, in an urban style (i.e. typically residential). Existing subdivision patterns and the established nature of the residential area mean growth in Precinct B is likely to occur opportunistically over time, as landowners or developers decide to subdivide their existing lots. This may result in fragmented patterns of new development and will require careful coordination of road and drainage infrastructure improvements.

There are currently 80 lots in Precinct B, with 30 lots in the DPO area and 50 lots in the area not covered by the DPO. A precinct-wide Land Budget has been developed for Precinct B to assist in planning for infrastructure requirements and to understand its maximum potential dwelling yield (shown in the table below). It is emphasised that the maximum dwelling yield assumes that all land is subdivided. This is an unlikely scenario due to the fragmented subdivision and ownership pattern of the precinct, but it is important that infrastructure planning takes this potential into account.

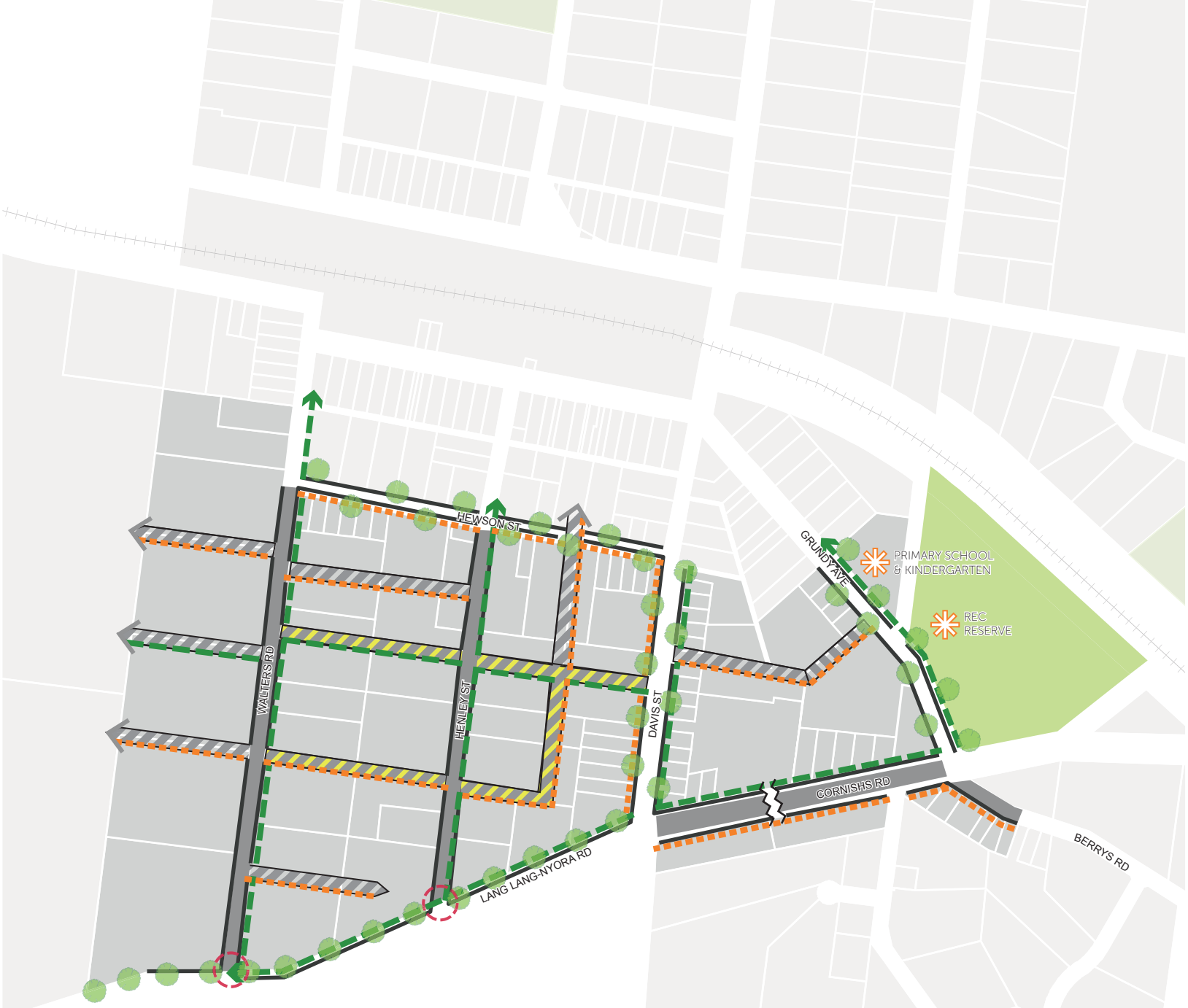
In the very long-term, as Precinct B develops and Precinct C comes onto line, Walters Road will become a key north-south route through Precinct B. Connections to Precinct C may be constructed from Walters Road and as a result the intersection at Walters Road to Lang Lang-Nyora Road may need to be upgraded in the very long-term to accommodate greater traffic at this location.

TABLE 9. PRECINCT B LAND BUDGET

	SQM	HA	%
Total Area of Titles	490,656	49.66	100
Encumbered Land			
▪ Land covered by significant vegetation	31,785	3.18	6.48
Public Open Space			
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	45,887	4.59	9.35
Net developable area*	425,238	42,53	86.67

Lot yield		
Existing lots	80 lots	*Includes land within and outside the DPO*
Gross lot yield	320 lots	*Assumes an average lot size of 750sqm, 19m wide road reserves, and a 10% public open space.*

FIGURE 19. PRECINCT B PLAN



LEGEND

- Precinct B
- Public Open Space (e.g. Parks)
- Former Railway Line

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Seal/Kerb and Channel - Existing Road
  Kerb and channel drainage proposed throughout where new roads are to be sealed
- New Road Connections
  Proposed new road connections shown in indicative location only. Final location will be determined as development occurs.
- Kerb and Channel
- Essential New Road Connection
  Refer to Proposed Storm-water Plan for more information - Drainage Trunk required in this approximate location
- Footpath
- Shared Path
- Intersection Upgrade (Very long-term)
- Facilities Upgrades (When sufficient funding accumulated)
- Street Tree Planting
- Emergency Vehicle Access Only

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as

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0 300m

New areas of public open space (e.g. parks) will need to be provided as development occurs in Precinct B. Their location will be determined as part of the development plan process, with input from Council. Refer to the Precinct B strategies section of the report for more information

Proposed path network is indicative and final implementation will be determined as development occurs

Future road layout to be determined by Development Plan.

Precinct B has been identified as a density transition area where the availability of reticulated sewerage enables the development of smaller lots than have traditionally been created in the township. These lots will have excellent access to the town centre and will therefore suit residents looking for lower-maintenance properties with easy access to shops and services.

Stormwater management is already an issue for Precinct B. Drainage and stormwater investigations have revealed that there is an existing need for a retention basin to service Precinct B and that drainage improvements are required to prevent flooding, particularly in the lowest lying areas to the west of the precinct. While drainage improvements can be expanded over time, it is likely that a stormwater trunk main will be necessary before any significant subdivision can occur within the DPO area.

The existing DPO enables staging of development through development plans for logical land units, as opposed to requiring one plan for the overall precinct. As such, a landowner, developer or a coalition of landowners may prepare land unit Development Plans, which will need to be consistent with the strategic directions for Nyora.

While this Strategy will provide the underpinning framework for the plan, additional investigations will be required to enable the design to be refined taking into account issues such as drainage requirements, traffic impacts, and environmental values.

The essential east-west links shown on the plan overleaf are indicative. During the Development Plan process, more road connections with footpaths and street trees will be required to improve walkability and connectivity.

In the short- to long-term (depending on the pace of new subdivision and development), the key road and path infrastructure priorities for Precinct B are:

- Creating a new east-west link with a footpath on one side and a shared path on one side. This has the potential to eventually extend from Walters Road in the west to Grundy Avenue in the east.
- Creating new access streets with footpaths on both sides, including additional east-west connections in the DPO area.
- Connecting Cornishs Road between Davis Street and Henrys Road. Access to this connection will be for emergency vehicles, cyclists and pedestrians only.

As development occurs and development plans are prepared, new areas of public open space (e.g. parks) will need to be provided in Precinct B, as follows:

- West of Walters Road in association with the waterway corridor
- Between Walters Road and Henley Street on flatter land that is easily accessible by road and foot
- Between Henley Street and Davis Street on flatter land that is easily accessible by road and foot
- East of Davis Street on higher ground.

In the medium- to long-term, Berrys Road (abutting the GRZ), Henley Street, Hewson Street (between Walters Road and Henley Street) and Walters Road (between Hewson Street and Poowong Road) will need to be sealed to accommodate increased traffic. Kerb and channel, piped drainage and footpaths should be constructed at the time the roads are sealed. Shared paths should be provided on one side of Henley Street and Walters Streets.

The east-west links will take longer to establish due to the incremental nature of development. The main east-west link between Davis Street and Walters Road should include a shared path on one side. Eventually this will connect all the way through to Grundy Avenue, to provide safe access to the Primary School and Recreation Reserve.

Avenues of street trees are proposed to create a sense of arrival to the town, create attractive avenues, and enhance the township character. In order to provide sufficient time for the trees to establish they should be installed in the short term along key existing roads and then progressively as new road are created. In Precinct B the priority areas for planting are:

- Hewson Street
- Lang Lang-Nyora Road
- New access (main) streets in Precinct B
- New east-west road through Precinct B and linking to Precinct C.

Areas of public open space will be created in accordance with the Development Plan.

TABLE 10. PRECINCT B INFRASTRUCTURE PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	MECHANISM / APPROVAL AUTHORITY	FUNDING
Transition Area	Drainage trunk main no. 1 / Easement	Precede development in northern part of the Precinct	Short Term	Council Capital Works / Developer Contributions	Council / Melbourne Water*
	New access streets / Drainage / Footpaths / Encumbered Open Space	Developer-led	Short Term	Planning permit(s)	Developer / Developer Contributions
	Existing road sealing / Kerb and Channel / Footpaths	Traffic demand / Funding Driven	Medium Term	Development Plan	Precinct B Special Charge Scheme
	Drainage trunk main no. 2 / Easement	Precede development in southern part of the Precinct	Medium Term	Council Capital Works / Developer Contributions	Council / Melbourne Water*
	East-west shared path	Completion of link	Long Term	Council Capital Works	Council / Developer Contributions
	Retarding basin	Development of Precinct B	Long Term	Council Capital Works	Council / Developer Contributions

*Melbourne Water funding contribution subject to preparation and implementation of a Development Services Scheme for drainage management.

Other proposed community facility improvements in Precinct B will include an expansion of the Primary School, inclusion of an integrated children's centre on the school site and upgrades to the Recreation Reserve. These improvements will be needed in the medium- to long-term as population increases. Expansion to the Primary School will be contingent on enrolment numbers and advocacy from Council to the State Government as the need emerges.

The layout of Precinct B will also need to accommodate long-term future connections into Precinct C. These connections will include the sealing of Walters Road to provide a north-south connection on the west of the township; and new direct east-west links that will complete the green corridor through the south. The green corridor will serve open space, shared path, environmental, and waterway management roles and support the integration of Precincts B and C.

STRATEGY

The following strategies outline how change should be managed and infrastructure implemented across Precinct B into the future:

- Define an east-west corridor as a key strategic element of Nyora's future development. The corridor would eventually link the long-term western growth area right through to the proposed development front to the north of the Lang Lang-Poowong Road.
- Design the east-west corridor to serve multiple purposes: stormwater management; recreation; habitat retention; and movement.
- Provide additional east-west connections through Precinct B to support efficient and equitable subdivision and development across multiple land holdings.
- Identify long-term street connections to Precinct C to the west.
- Identify appropriate locations for additional North-South road connections.
- Ensure that the design of open space, road alignments, new lots and building envelopes protect significant vegetation, large canopy trees and Giant Gippsland Earthworm habitat.
- Consult with land owners to confirm funding mechanisms, which could include special charge schemes (requiring 70% property owner support) or a Section 173 Agreement to ensure that the costs of infrastructure improvements (e.g. road sealing) are apportioned in an equitable and transparent manner.
- Encourage medium density and aged care development in close proximity to the town centre where commercial and community services are readily accessible.
- Introduce design and development guidelines into the South Gippsland Planning Scheme to ensure that future development achieves population growth without undermining the valued rural lifestyle character of Nyora.
- Encourage logical street layouts that allow for appropriate connections and walkability. Therefore, cul-de-sac street layouts should be minimised.
- Require approved Development Plans to address potential sites of Aboriginal cultural heritage sensitivity and biodiversity protection.

Given that there are a number of relevant stakeholders in the precinct, such as the Recreation Reserve Management Committee, there will need to be ongoing consultation to achieve these strategies.

5.3 LONG-TERM GROWTH AREAS (PRECINCTS C & D)

VISION

The areas to the north-west and west of Nyora will provide long-term residential development opportunities with strong linkages to the established areas of the township.

Delineation of these areas will provide certainty for community members and landowners. This will assist in protecting productive agriculture, residential amenity, and habitat.

The Nyora Development Strategy includes precinct plans that will provide a foundation for further detailed investigations and design work that will be required when existing development precincts are nearing completion.

DEVELOPMENT POTENTIAL

Precincts C and D are long-term growth areas. Change in these areas will eventually occur in an urban style, but these growth areas should not be rezoned until significant development has occurred in Precincts F and B. Similar to Precinct F, subdivision and development in Precincts C and D will be greenfield (the land is currently Farming Zone), staged according to a Development Plan, and developer-driven.

There are currently 3 lots in Precinct C and 2 lots in Precinct D. Precinct-wide Land Budgets have been developed to assist in planning for infrastructure requirements and to understand the maximum capacity dwelling yield (shown in the table opposite). It is emphasised that the maximum capacity shown is a theoretical exercise and the actual yield may be reduced by site constraints identified during the detailed design phase.

TABLE 11. PRECINCT C LAND BUDGET

	SQM	HA	%
Total Area of Titles	527,488	52.49	100
Encumbered Land			
▪ Land covered by significant vegetation	3,425	0.34	0.6
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	52,402	5.24	9.9
Net developable area*	471,621	47.62	89.4

Lot yield		
Existing lots	3 lots	*Farming Zone*
Gross lot yield	489 lots	*Assumes an average lot size of 750sqm, 19m wide road reserves, and a 10% public open space.*

TABLE 12. PRECINCT D LAND BUDGET

	SQM	HA	%
Total Area of Titles	154,459	15.46	100
Encumbered Land			
▪ Land covered by significant vegetation	0	0	0
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	15,455	1.5	10
Net developable area*	139,094	14	90

Lot yield		
Existing lots	2 lots	*Farming Zone*
Gross lot yield	144 lots	*Assumes an average lot size of 750sqm, 19m wide road reserves, and a 10% public open space.*

FIGURE 20. PRECINCT C PLAN

LEGEND

- Precinct C
- Former Railway Line

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Seal - Existing Road
  Kerb and channel drainage proposed throughout where new roads are to be sealed
- New Road Connections
  Proposed new road connections shown in indicative location only. Final location will be determined as development occurs.
- Kerb and Channel
- Piped Option or WSUD Option; depending on preference
- Footpath
- Shared Path
- Street Tree Planting
- Indicative Location of Public Open Space (POS)

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and a development plan is prepared. Development contributions are the main funding source expected for this precinct.

N

0 300m

Future road layout to be determined by Development Plan

Proposed path network is indicative and final implementation will be determined as development occurs

Future road layout to be determined by Development Plan

Proposed path network is indicative and final implementation will be determined as development occurs

FIGURE 21. PRECINCT D PLAN

LEGEND

Precinct D

PROPOSED INFRASTRUCTURE REQUIREMENTS

New Road Connections

Proposed new road connections shown in indicative location only. Final location will be determined as development occurs.

Footpath

Multi-Purpose Trail

Street Tree Planting

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and a development plan is prepared. Development Contributions are the main funding source expected for this precinct.

N

0 300m

Precincts C and D have been identified as long-term growth areas where lots created will be similar to urban style development with an average lot size of approximately 750sqm. Because Precincts C and D will be urban style, strong path connections to adjoining precincts and the township will be very important. This will mean that the development of adjoining areas, such as Precinct B, will need to make provision for movement and open space connections.

Precinct C provides a suitable location for the construction of a stormwater retarding basin to service the needs of Precinct B. This would be dependent on negotiation with the land owners as part of the preparation of a Development Plan for Precinct B.

All new roads will be constructed to an urban standard, with a sealed pavement, kerb and channel and piped drainage. New access streets to Precincts C and D and new connector streets to Precinct D should have street trees and footpaths on both sides, in keeping with the urban style of development proposed. The primary east-west connection to Precinct C should provide a direct link to Precinct B and include a shared path on one side, with a footpath on the other side. Traffic management will be required at major intersections for Precinct C connector streets. As Precinct C grows, an integrated drainage plan will be needed, considering a whole of development scenario. This will be actioned through negotiations with landowners as part of the preparation of a Development Plan.

Adjacent to Precinct D, street tree planting could be undertaken in the short term in order to delineate the town entrance. In the longer term footpaths should be constructed on both sides to improve connectivity to the town centre.

A staged approach to subdivision and development is proposed. Once development in Precincts B and F progresses, public open space will be developed in Precincts C and D. It is recommended that a DPO similar to the Precinct F DPO be prepared to logically manage and guide development and the delivery of open space and infrastructure in these precincts.

TABLE 13. PRECINCT C & D INFRASTRUCTURE PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	APPROVAL AUTHORITY	FUNDING
Long Term Growth Precincts	New connector roads / Access streets / Open space / Drainage / Shared paths	Developer-led	Long Term	Developer	Developer / Section 173
	Yannathan Road / Precinct F & D Intersection	Developer-led	Long Term	Developer	Developer / Section 173

STRATEGY

The following strategies outline how change should be managed and infrastructure implemented across Precincts C and D into the future: Design precincts around creek line linear parks that link into the wider town network.

- Identify strong connection points to established precincts utilising both street and open space networks.
- Ensure that planning for adjoining precincts includes the creation of access and open space linkages to long-term growth areas.
- Provide for a variety of lot sizes and housing types. Density should be greatest adjacent to the town centre with a gradual transition to larger properties at rural interfaces.
- Provide 'very long-term' road connection points at the rural interface to land outside the township boundary in the design of new subdivisions.
- Design subdivision layouts and lots to take advantage of expansive views to the surrounding countryside.

View into Precinct C from Walters Road

5.4 LOW DENSITY WITH INCREMENTAL CHANGE AREA (PRECINCT E)

VISION

The established low density and rural lifestyle areas of Nyora will continue to provide a high level of amenity characterised by larger lot sizes.

The availability of sewerage will create some limited opportunities for further subdivision and development. These opportunities are likely to be taken up incrementally, meaning that change will be relatively modest in the short to medium term.

Development guidelines will ensure that new development avoids the creation of battleaxe blocks and complicated access arrangements.

Over time, improved linkages to adjoining developments will be implemented to provide access to retail, community and recreational areas.

Drainage improvements will be prioritised to address localised flooding issues.

In the very long-term and subject to rezoning, the proximity of Precinct E to the town centre may create an opportunity for residents to subdivide their land down to urban densities.

DEVELOPMENT POTENTIAL

Precinct E should be regarded as an incremental change area. The style of development in this location is low density. Precinct E is an established large lot, low density residential area and the degree of change should be limited over the short- to long-term to preserve the rural lifestyle character and avoid over-burdening existing infrastructure. The availability of reticulated sewerage will create new opportunities for subdivision within the Low Density Residential Zone; however due to the large minimum lot sizes that apply subdivision is likely to occur in a dispersed and sporadic manner.

There are currently 92 lots in Precinct E. Precinct-wide Land Budgets have been developed for the precincts, to assist in planning for infrastructure requirements and to understand their maximum capacity (shown in the table below). It is emphasised that the maximum capacity assumes that all land is subdivided and that this is a highly unlikely scenario due to the fragmented ownership pattern.

TABLE 14. PRECINCT E LAND BUDGET

	SQM	HA	%
Total Area of Titles	633,521	63.35	100
Encumbered Land			
▪ Land covered by significant vegetation	38,377	3.84	6.06
Public Open Space			
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	43,358	43.36	6.84
Net developable area*	551,785	55.18	87.1

Lot yield		
Existing lots	92 lots	*A 2,000sqm minimum lot size applies where sewerage connection is provided.*
Gross lot yield	230 lots	*Assumes an average lot size of 2,000sqm, 19m wide road reserves. Pony Club treated as existing open space, no new open space required for Precinct E.*

FIGURE 22. PRECINCT E PLAN

LEGEND

- Precinct E
- Public Open Space (e.g. Parks)
- Former Railway Line

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Seal - Existing Road
  Kerb and channel drainage proposed throughout where new roads are to be sealed
- *Kerb and Channel*
- Footpath
- Shared Path
- Multi-Purpose Trail
- Street Tree Planting
- Traffic Management Works
- Long-Term Intersection Improvements
- New Road Connections (long-term)
  Proposed new road connections shown in indicative location only. Final location will be determined as development occurs.

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and development plans are prepared. Expected funding sources are development contributions, special charge schemes and government funding.

N

0 75m

Precinct E has been identified as an incremental change area. The land budget calculations above assume the retention of the current minimum lot size of 0.2ha (2,000sqm), which applies by default in the Low Density Residential Zone (LDRZ) where lots are connected to reticulated sewerage. The provision of reticulated sewerage has created subdivision potential that did not previously exist within the Precinct.

Drainage and movement are the key priorities that will support the future viability of Precinct E. Current infrastructure standards in these precincts are considered to be appropriate and consistent with their rural lifestyle character.

Drainage problems exist in parts of Precinct E, but these have the potential to be addressed through incremental rather than systemic improvements. To manage stormwater, it is proposed that Yannathan Road and Watts Road (abutting industrial areas) have piped drainage. These roads would also need kerb and channel.

The sealing of gravel roads should be a long term objective, depending on resident demand. The installation of kerb and channel and piped drainage is considered unnecessary provided the minimum lot size is not reduced below 2,000sqm. To avoid the creation of battleaxe lots, new access streets should be created. These should be sealed and serviced with swale drainage consistent with the existing network.

New footpaths (on one side of the road) and shared paths may be needed in the medium- to long-term in Precinct E, to improve pedestrian and cyclist mobility in these areas. The delivery of this infrastructure will be dependent on liaison between Council and landowners to determine the priority of connections.

To maximise connections it is recommended that design guidelines be developed to discourage the creation of inefficient, poor amenity battle-axe style subdivision. Where new paths are to be provided, the following sections are recommended:

- Forster Road - footpath
- Grayden Street - footpath
- Hatchs Road – shared path (to provide a connection to Davis Street path)
- Hogans Road - footpath
- Patman Drive - footpath
- Watts Road (abutting Industrial zone) – shared path
- Watts Road (abutting Low Density Residential Zone) - footpath
- Yannathan Road – shared path (to provide a connection to the Town Centre).

In the long term, depending on the delivery of Precinct F, new pedestrian and shared path connections should be provided between Precincts E and F.

There is an opportunity for an additional east-west link by upgrading Grayden Street in the very long term, depending on the rate of development. This may also require the upgrading of the Grayden Street / Yannathan Road intersection.

For Watts Road abutting the industrial zone, and Yannathan Road, street trees should be provided on both sides to beautify the town entrance and the industrial area. This could be undertaken in the short term in order to provide time for the trees to mature.

TABLE 15. PRECINCT E INFRASTRUCTURE PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	APPROVAL AUTHORITY	FUNDING
Low Density Precincts	Drainage improvements in Hatchs Road	Parallel with Precinct F	Medium Term	Council	Council / Precinct E Special Charge Scheme / S173
	Sealing / Footpath (one side) / Shared path	Resident demand driven	Medium Term	Council	Precinct E Special Charge Schemes / S173

STRATEGY

The following strategies outline how change should be managed and infrastructure implemented across Precinct E into the future:

- Set clear principles for subdivision resulting in high quality linked streets with houses fronting and avoiding battleaxe cul-de-sac style development.
- Encourage subdivision design that respects the habitat of the Giant Gippsland Earthworm, low-lying flood-prone areas, areas of significant native vegetation and areas of Aboriginal cultural heritage sensitivity. This could be achieved by including sensitive areas in public open space or by specifying lot sizes that address water management and ecological issues/features.
- Encourage coordination of subdivision proposals between land owners in order to optimise access and layout arrangements and shared infrastructure costs.
- Maintain the 'country town' character by implementing guidelines that encourage the planting of indigenous trees within nature strips and on private property.
- Ensure that land uses within the industrial precinct are compatible with adjoining low density residential development.
- Implement public realm improvements and design guidelines to improve the appearance of the industrial area and manage the interface with the low density residential area.
- Identify opportunities to improve vehicular and pedestrian accessibility between precincts, particularly to the town centre. Investigate the construction of unmade road reserves for this purpose.
- Work with the developer of Precinct F to manage stormwater flows within the boundaries of the precinct to better mitigate against downstream flood events.
- Investigate opportunities to address existing localised flooding issues, improve stormwater quality, and enhance recreation corridors.
- Engage with relevant authorities such as the EPA as required.

5.5 NYORA AT 5,000 (PRECINCT E)

As highlighted in the 'Vision' section for Precinct E above (see **Section 5.4**), there is potential for Precinct E to become a more urban-style residential precinct in the very long-term. Transitioning to an urban density (e.g. 750sqm lots sizes similar to the current proposal in Precinct F) would create the need for more traffic and stormwater management than is currently proposed for Precinct E.

As such, the diagrams included in this section are conceptual only, and the Strategy does not include a full assessment of how the transition to urban density would be managed. This work will need to be done in the future once Nyora's population has grown significantly (e.g. towards 5,000 people as the heading suggests). Such change may be as far off as Nyora in 2060.

A Design and Development Overlay in Precinct E can manage development now to facilitate higher density residential development in the very long-term.

Planning controls needed to manage Precinct E's transition to urban residential (e.g. with average lot sizes of 750sqm) would require rezoning to the GRZ and application of an overlay such as the Development Contributions Plan Overlay (DCPO) to ensure design objectives, street layouts and infrastructure funding could be collected as new development occurred. Again, this work would need to be undertaken over the long-term.

Subdivision and new development can already occur in Precinct E, however the minimum lot size is between 2,000-4,000sqm in the LDRZ. Design and development guidelines and objectives that are recommended for implementation under this draft Strategy will help to create a situation where good street layouts can be implemented in a long-term urban development in Precinct E that mean people can easily walk around and connect to the town centre.

CONCEPTUAL LOT LAYOUT

Figure 23 shows how subdivision with lot sizes at 750sqm may be implemented across Precinct E. In some areas, larger lot sizes would still be required to manage interfaces between land uses, such as between the Watts Road industrial area, adjacent to farmland to the west, and adjacent to the Pony Club area of public open space. Development in these interface areas would be managed as follows:

- IN3Z (Industrial Area): A transition area should be established using larger lot sizes adjacent to Industrial Area. The Industrial Area is an important asset to the local economy and larger lots around the periphery can act as a buffer to protect industry.
- Precinct F Interface: Long-term (>20 years) subdivision with lot sizes to 750m2 - 1,875sqm, would require new east-west streets to avoid battleaxe blocks. These could connect to future development to the east, or be configured as cul-de-sacs.
- The links shown to Precinct F are indicative for very long-term and as development occurs, development plans will need to consider links across Hatchs Road.
- Transition between Precincts E and F: depending on the way development in Precinct F progresses, the northern interface between Precincts E and F will need careful planning to ensure these areas are well-connected.
- Farmland Interface: Larger lot sizes could be maintained in this area to create a transition between higher density residential and existing farmland.
- Public Open Space (Pony Club) Interface: Land adjacent to the Pony Club presents an opportunity to have an interface and good connection with open space using design

guidelines (e.g. low or visually permeable rear fencing, to encourage passive surveillance of open space).

- As shown in the indicative subdivision plan (**Figure 23**), a minimum 20m setback for development is recommended around waterway corridor along Adam's Creek as Precinct E develops. The setback is intended to protect the riparian zone (the riverbanks and waterway) and will help protect the river health, biodiversity and native vegetation along the Creek. The 20m setback from each side of the river will also create space for recreation. This type of approach to waterway protection is recommended by Melbourne Water's guidelines for greenfield development (e.g. new development). The guidelines set out minimum standard setback widths to be applied depending on the size of the waterway and other factors; 20m, 30m or 50m are the standard distances.

Patman Drive

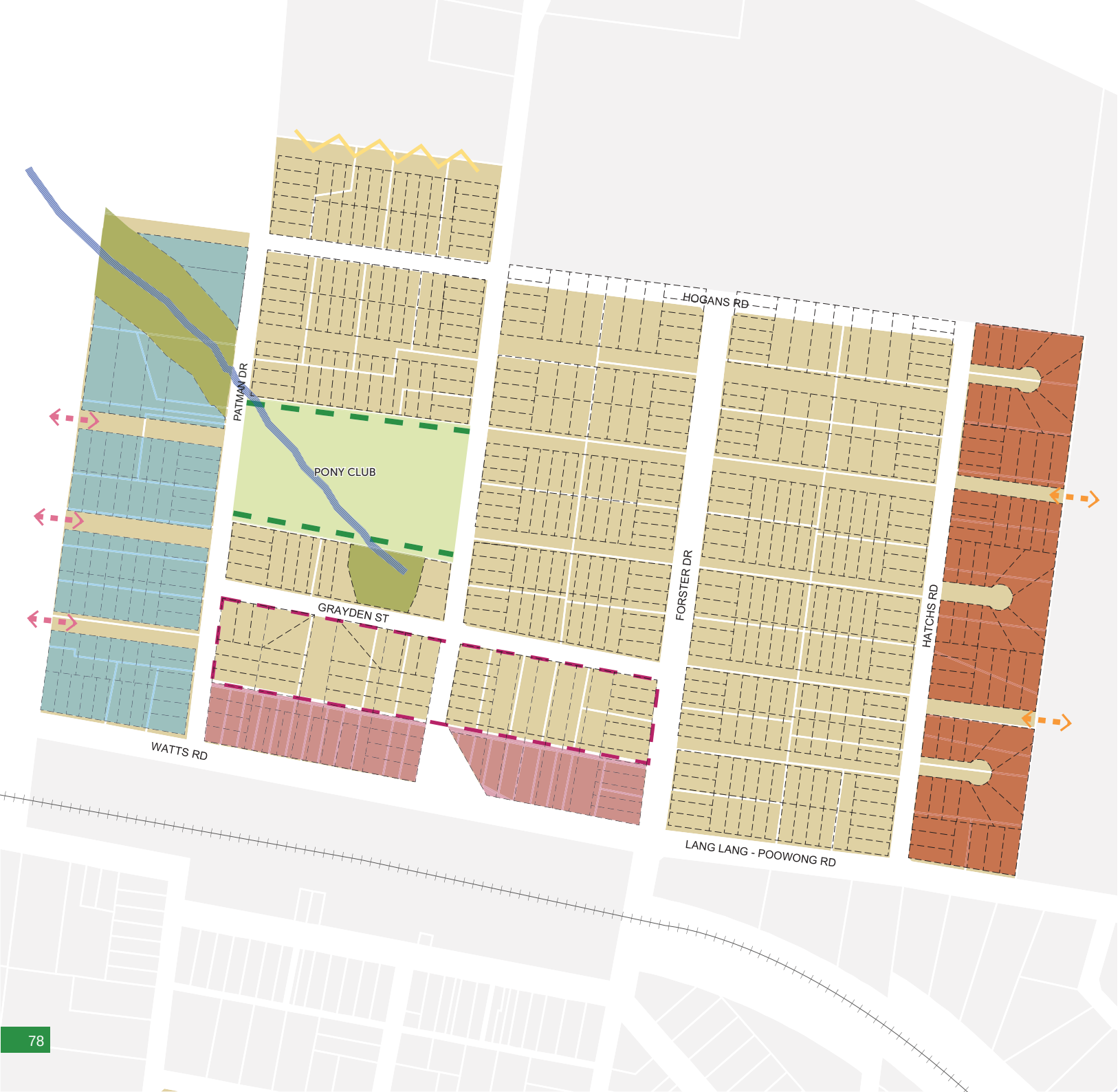

FIGURE 23. FUTURE (VERY LONG TERM) PRECINCT E CONCEPT PLAN

LEGEND

- Precinct E
- Surrounding Precincts
- Existing Industrial Area
- Industrial Zone Transition Area
- Public Open Space (POS)
- Adam's Creek with 40m riparian protection buffer
- Interface with Open Space
- Transition from Precinct E to F
- Pedestrian Links
- Possible Very Long-Term Connections
- Interface with Precinct F - Long-term (20yrs+) subdivision to 750m² - 1,875m²
- Interface with Farmland - Larger lot sizes

RATIONALE

Where possible, the roads have been located/shared equally, over existing property boundaries

LOT SIZE

Typical Lot Size - 750

Larger Lot Size - 1,700 - 1, 875

N

0 75m

planisphere © 2016

SUBDIVISION CONCEPTS FOR SUBDIVISION IN PRECINCT E (FOR DISCUSSION PURPOSES)

As highlighted in the 'Vision', **Figure 24, Figure 25** and **Figure 26** show how subdivision occurring in Precinct E today can be designed to ensure that higher densities could be achieved, and new streets could be well located in the future. The diagrams represent the following principles:

- Avoid battleaxe subdivision where possible.
- Where battleaxe subdivision cannot be avoided, locate driveways on side boundaries between lots to create opportunities for new roads in the long-term.
- Where two battleaxe subdivisions are to occur on existing neighbouring properties, locate the driveways along a common boundary to create opportunities for new roads in the long-term).
- In the long-term, locate new roads so that they are shared equally over existing property boundaries.
- Permeable rear fencing, to encourage passive surveillance of open space).

FIGURE 24. STAGE 1 – CONCEPTUAL LOT DESIGN FOR PRECINCT E (2,550-3,750 SQM LOTS)

In the early stages of this concept, individual lots may subdivide using a "battleaxe" layout (with driveway down the side). This type of subdivision can currently occur in the Precinct E, with a minimum lot size of 2,000sqm in the LDRZ if connected to sewer. This subdivision allows for the creation of one additional lot.

FIGURE 25. STAGE 2 – CONCEPTUAL LOT DESIGN FOR PRECINCT E (2,550-3,750 SQM LOTS)

In the middle stages of this concept, properties adjacent to the original landowner also start to subdivide their land. In this example, battleaxe driveways for all four new lots have been deliberately located on the outermost boundaries to allow for the eventual creation of new streets in future. This stage shows creation of four additional lots, with four properties being subdivided into two lots each. All lots are still designed with vehicle entry points on and houses fronting the original streets. In this scenario, lot sizes shown have an area ranging from approximately 2,500sqm to 3,750sqm.

FIGURE 26. STAGE 3 – CONCEPTUAL LOT DESIGN FOR PRECINCT E (750 SQM LOTS)

In the final stage of this concept, the lots created in Stage 1 and 2 are subdivided down to 'urban' residential lot sizes of around 750sqm. The location of driveways created by subdivision in the last two stages means these corridors can be turned into roads more easily and are already aligned. New lots can be oriented to front the original roads, while others can be oriented to face the new road connections. The creation of new road connections will also improve walkability around the Precinct. This layout shows a total of 32 lots, or an increase in 28 lots from the starting point of this concept.

5.6 SHORT TO MEDIUM TERM GROWTH AREA (PRECINCT F)

VISION

The short-to-medium term development of Nyora's north-eastern precinct will transform Nyora, stimulating the property market and bringing new residents to the township.

A feature of the development will be the creation of new linkages and open space areas that will eventually connect to the established areas of the township.

DEVELOPMENT POTENTIAL

Part of Precinct F has recently been rezoned from the Farming Zone to the GRZ1. The proposed development for the site will be urban style with typical residential lot sizes around 750sqm. The greenfield development of this site is likely to commence in the short-term. Subdivision and development in Precinct F will be developer-driven and change will be substantial.

The developer-driven change in Precinct F will be progressively managed through masterplanning as the land is subject to a Development Plan Overlay (DPO). The first stage is limited to no more than 200 residential lots. Streets, parks, waterways and other infrastructure will be laid out and a particular design/style chosen before development and subdivision starts. Indicative layouts have already been circulated by the developer, similar to the layout shown in the Precinct Plan, overleaf. The DPO that applies to Precinct F requires specific infrastructure to be provided by the developer, including a new public open space reserve containing sports fields. The DPO also requires lots along the southern and western boundaries of Precinct F to be greater than 800sqm.

There are currently 3 large lots in Precinct F. A precinct-wide Land Budget has been developed to assist in planning for infrastructure requirements and to understand the maximum capacity dwelling yield. It is emphasised that the maximum capacity shown below is a theoretical exercise and provides for more development than is currently proposed by the developer.

TABLE 16. PRECINCT F LAND BUDGET

	SQM	HA	%
Total Area of Titles	1,033,848	103.85	100
Encumbered Land			
▪ Land covered by significant vegetation	40,395	4.04	3.9
Public Open Space			
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	99,245	9.93	9.6
Net developable area*	893,400	89.34	86.5

*Assumes average lot size of 750sqm, 19m road reserve width and 10% public open space.

Lot yield		
Existing lots	3 lots	*Farming Zone*
Gross lot yield	927 lots	*Assumes an average lot size of 750sqm, 19m wide road reserves, and a 10% public open space.*

FIGURE 27. PRECINCT F PLAN

LEGEND

- Precinct F
- Public Open Space (e.g. Parks)
- Former Railway Line

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Footpath
- Shared Path
- Multi-Purpose Trail
- Intersection Upgrade (Very long-term)
- Traffic Management Works
- Street Tree Planting
- Storm-water Management (e.g. Retarding Basin)

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and a development plan is prepared. Development contributions are the main funding source expected for this precinct.

N

0 400m

The Precinct F subdivision / street layout shown below is indicative only and will be determined as part of Development Plan
Proposed path network is indicative and final implementation will be determined as development occurs
Footpath locations will be determined as part of the Development Plan in Precinct F

TABLE 17. PRECINCT F INFRASTRUCTURE PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	MECHANISM / APPROVAL AUTHORITY	FUNDING
Short Term Growth (Precinct F)	New connector roads / Access streets / Open space / Drainage / Shared paths	Developer-led	Short Term	Developer	Developer / Precinct F Section 173
Main Road Improvements	Lang Lang - Poowong Road / Precinct F Entrance	Development of Precinct F	Short Term	VicRoads	Developer
	Lang Lang - Poowong Road / Davis Street Intersection	Development of Precinct F	Short Term	VicRoads	Precinct F Section 173
	Shared Path - Precinct F to Grundy Avenue	Development of Precinct F	Short Term	Council	Precinct F Section 173 / Developer Contributions
Long Term Growth Precincts	Yannathan Road / Precinct F & D Intersection	Developer-led	Long Term	Developer	Developer / Section 173

Precinct F has been identified as a growth area where development will be logical and staged by the developer. Development of Precinct F will have a critical role in contributing to Nyora's population growth, and resulting ability to provide services and facilities on a shorter timescale. Linking Precinct F to the rest of the township by pedestrian and shared paths will be important to connect established areas to the new development.

New access streets shown on the indicative development plan will need to be delivered by the developer in the short- to medium-term and will be constructed as development occurs. All internal streets will be constructed to urban standards, with kerb and channel, piped drainage and footpaths.

The proposed open space network includes retarding basins and areas for passive and active recreation. It will form part of

an open space linkage that will ultimately connect with the Follett Drive parks, rail trail, Recreation Reserve, and the proposed east-west green link through Precinct B. As the natural northern boundary to Precinct F, Glovers Road will not be sealed, enabling significant and well-established vegetation to be preserved in that area.

As the primary entrance to Precinct F will be from Lang Lang-Poowong Road, the creation of safe pedestrian connections will be a priority. A shared path is proposed along the north side of the road from the entrance of the new estate to Davis Street and south to Grundy Avenue. This will provide a safe pedestrian and bicycle connection to enable access to the town centre, Primary School and Recreation Reserve. It is also recommended that street trees be provided on both sides of the road in this location to improve the town entrance.

Due to the increased traffic likely to be generated by the development, it is also recommended that the intersection of Lang Lang-Poowong Road be upgraded; and that the 60km/h speed limit be extended further east. The construction of intersection works will provide an opportunity to address stormwater management requirements on the northern side of the railway reserve.

STRATEGY

The following strategies outline how change should be managed and infrastructure implemented across Precinct F into the future:

- As part of the Development Plan preparation process, discuss the potential to enlarge the wetland and retarding basin, to cater for fully developed flows and treatment requirements from Precinct G. This could be undertaken in combination with an upgrade of the culvert capacity under the Lang Lang – Poowong Road to alleviate flooding and increase the developable land in this location.
- Work with the developer to address design issues, particularly to improve connections to established areas and better manage stormwater flows.
- Design open spaces and waterway treatments so that they integrate seamlessly with the adjoining precincts and create access and biodiversity corridors across the town (see also proposals for Precincts B and C).
- Ensure that new open space does not duplicate existing services in the township.
- Ensure that the development of the precinct is staged and coordinated to coincide with the provision of new community services and physical infrastructure improvements.
- Carefully target the expenditure of developer contributions to achieve the timely provision of infrastructure improvements and augmentation.
- Encourage the developer to communicate with local residents as part of the land-sales process.

5.7 LOW DENSITY & RURAL LIFESTYLE AREAS (PRECINCT G & H

VISION

The established low density and rural lifestyle areas of Nyora will continue to provide a high level of amenity characterised by larger lot sizes.

The availability of sewerage will create some limited opportunities for further subdivision and development. These opportunities are likely to be taken up incrementally, meaning that change will be relatively modest.

Development guidelines will ensure that new development avoids the creation of battleaxe blocks and complicated access arrangements.

Over time improved linkages to adjoining developments will be implemented to provide access to retail, community and recreational areas.

DEVELOPMENT POTENTIAL

Precincts G and H should be treated as limited change areas. The style of development in these locations is low density (Precinct G), and rural living (Precinct H). They are established large lot, low density residential areas and the degree of change should be limited to preserve the rural lifestyle character and avoid over-burdening existing infrastructure. The availability of reticulated sewerage will create new opportunities for subdivision within the Low Density Residential Zone; however due to the large minimum lot sizes that apply subdivision is likely to occur in a dispersed and sporadic manner.

There are currently 44 lots in Precinct G and 54 lots in Precinct H. Precinct-wide Land Budgets have been developed for the precincts, to assist in planning for infrastructure requirements and to understand their maximum capacity (shown in the table opposite). It is emphasised that the maximum capacity assumes that all land is subdivided and that this is a highly unlikely scenario due to the fragmented ownership pattern.

As there is limited development potential in Precinct G & H, this will create a buffer of lower density housing around the Speedway, which limits the number of residents affected by amenity impacts, such as noise from the Speedway.

TABLE 18. PRECINCT G LAND BUDGET

	SQM	HA	%
Existing lots	44 lots		
Gross lot yield	61 lots		
Total Area of Titles	352,833	35.28	100
Encumbered Land			
▪ Land covered by significant vegetation	49,470	4.95	14
Public Open Space			
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	19,503	1.95	5.5
Net developable area*	283,861	28,39	80.5

Lot yield		
Existing lots	44 lots	*A 2,000sqm minimum lot size applies where sewerage connection is provided.*
Gross lot yield	61 lots	*Assumes an average lot size of 4,000sqm, 17m wide road reserves. Due to existing areas of public open space, no additional open space has been included for Precinct G.*

TABLE 19. PRECINCT H LAND BUDGET

	SQM	HA	%
Total Area of Titles	623,949	62.40	100
Encumbered Land			
▪ Land covered by significant vegetation	256,049	26.50	42.5
Public Open Space			
▪ Unencumbered and encumbered (i.e. includes drainage works, waterways and creeks)	0	0	0
Net developable area*	358,900	35.89	57.5

Lot yield		
Existing lots	54 lots	*A 1 ha minimum lot size applies.*
Gross lot yield	33 lots	*No additional subdivision potential exists.*

View from Cornishs Road

FIGURE 28. PRECINCT G PLAN

LEGEND

- Precinct G
- Public Open Space (e.g. Parks)
- Former Railway Line

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Footpath
- Shared Path
- Multi-Purpose Trail
- Street Tree Planting

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and development plans are prepared. Expected funding sources are development contributions (Lang Lang Poowong Road only) and special charge schemes.

N

0 200m

Proposed path network is indicative and final implementation will be determined as development occurs

FIGURE 29. PRECINCT H PLAN

LEGEND

- Precinct H
- Public Open Space (e.g. Parks)
- Former Railway Line

PROPOSED INFRASTRUCTURE REQUIREMENTS

- Seal - Existing Road
  Kerb and channel drainage proposed throughout where new roads are to be sealed
- Kerb and Channel
- Footpath
- Multi-Purpose Trail

Refer to Proposed Storm-water Management Plan (Engeny, 2016) for detailed drainage and storm-water management infrastructure requirements.

RECOMMENDED PROPOSED INFRASTRUCTURE FUNDING MODEL

Final funding approach will need to be determined as development occurs and development plans are prepared. A special charge scheme is proposed to fund the sealing of Berry's Rd.

N

0 120m

Proposed path network is indicative and final implementation will be determined as development occurs

The introduction of reticulated sewerage has also created the potential for further subdivision in Precinct G. However, this Precinct is relatively recently established and has a curvilinear subdivision pattern. In order to avoid further fragmentation of this Precinct it is recommended that the Schedule to the Low Density Residential Zone be modified to raise the minimum lot size to 4,000sqm. This is consistent with the minimum that applied before reticulated sewerage was installed.

Precinct G should therefore be regarded as a minimal change area. The same classification should apply to Precinct H, where the land has already been subdivided to its maximum potential under the provisions of the Rural Living Zone. No change is recommended to the provisions that apply in Precinct H.

Current infrastructure standards in these precincts are considered to be appropriate and consistent with their rural lifestyle character.

The installation of kerb and channel and piped drainage is considered unnecessary provided the minimum lot size is not reduced below 2,000sqm. To avoid the creation of battleaxe lots, alternative access should be considered. These should be sealed and serviced with swale drainage consistent with the existing network.

New footpaths (on one side of the road) and shared paths may be needed in the medium- to long-term in Precinct G, to improve pedestrian and cyclist mobility in the area. The delivery of this infrastructure will be dependent on liaison between Council and landowners to determine the priority of connections. Where new paths are to be provided, the following sections are recommended:

- Follett Drive - footpath
- Ian Court – footpath.

STRATEGY

The following strategies outline how change should be managed and infrastructure implemented across Precincts G and H into the future:

- Investigate further guidelines to set clear principles for subdivision resulting in high quality linked streets as per the design guidelines shown in **Appendix B**.
- Avoid battleaxe and cul-de-sac style development.
- Encourage subdivision design that respects the habitat of the Giant Gippsland Earthworm, low-lying flood-prone areas and areas of significant native vegetation. This could be achieved by including sensitive areas in public open space or by specifying lot sizes that address water management and ecological issues/features.
- Maintain the 'country town' character by developing guidelines that encourage the planting of indigenous trees within nature strips and on private property.
- Identify opportunities to improve vehicular and pedestrian accessibility between precincts, particularly to the town centre. Investigate the construction of unmade road reserves for this purpose.
- Investigate opportunities to address existing localised flooding issues, improve stormwater quality, and enhance recreation corridors.

TABLE 20. INFRASTRUCTURE REQUIREMENTS & PRIORITIES

CATEGORY	WORKS	PHASING	COMMENCEMENT	APPROVAL AUTHORITY	FUNDING
Low Density Precincts	Sealing / Footpath (one side) / Shared path	Resident demand driven	Medium Term	Council	Precinct G & H Special Charge Schemes / S173

6

IMPLEMENTATION

6.1 STRATEGIC IMPLEMENTATION PLAN

This section outlines the strategic implementation recommendations for the Future Nyora Strategy, as follows:

- Infrastructure funding for specific items
- Funding models for items to be paid for through special charge schemes and Council rates revenue
- Proposed infrastructure works (**Table 22**, including implementation timing recommendations)
- Proposed planning precinct controls (refer to **Figure 30** and **Table 21**).

For detailed infrastructure cost estimates and a table of proposed infrastructure requirements per street/item, refer to **Appendix A**.

INFRASTRUCTURE FUNDING

The development of Nyora will require careful planning to make sure that physical and social infrastructure meets the needs of a growing and changing population.

New development will also provide funds and additional demand to fix a number of existing road and drainage issues.

Future infrastructure requirements for Nyora fall into four categories:

1. Items needed to address existing problems, or improve amenity and safety (e.g. sealing of unsealed roads, dealing with flooding, providing footpaths and shared paths);
2. Items needed to service new development (e.g. roads, footpaths, open spaces)
3. Improvements to existing infrastructure that will be needed to deal with a bigger population (e.g. road widening, installation of kerb and channel)
4. General township improvements that will benefit both existing and new residents and businesses (e.g. street trees, park and main street improvements).

The table overleaf provides an overview of expected infrastructure requirements, timing and funding. Each infrastructure item is categorised as outlined above.

All of these initiatives will require funding. This strategy provides guidance about how items will be funded, who will contribute to them, what they are likely to cost, and in what order they will be needed.

As the Strategy is a long-term plan some assumptions will need to be made, and flexibility built in, because implementation will involve multiple parties and funding is likely to become available gradually over time.

(1) Items needed to address existing problems, or improve amenity and safety

Most of these items will need to be funded through Special Charge Scheme and general rates. South Gippsland Shire has a policy which outlines when a special charge scheme could be undertaken:

- If Council contributes a third (33.33%) or more of the cost of the Scheme without the support of affected property owners; or
- If there is a minimum of 70% of property owner support in writing to contribute financially to the works Scheme.

Council would need land owner support for this method of funding to be successful. Council's (2014) Special Charge Scheme Policy is available on the Shire's website.

(2) Items needed to service new development

Developers will be expected to provide infrastructure on their land that is required for their development.

(3) Improvements to existing infrastructure that will be needed to deal with a bigger population

Council can collect development contributions for external infrastructure through legal (Section 173) agreements and development contribution plans (DCPs). These mechanisms provide for contributions to be collected towards the delivery of new infrastructure such as roads, intersections, drainage works, community facilities and open space. They cannot fund the entire cost, so the balance will need to be paid for by Council and, in some cases, other authorities such as VicRoads or Melbourne Water.

The draft Strategy proposes the introduction of Development Contribution Plan Overlays to collect funds for these types of items. At the time of writing the State-wide developer contributions system is being reviewed, so this recommendation will be reassessed before the Strategy is finalised in order to ensure that this is the best approach to take in Nyora.

(4) General township improvements that will benefit both existing and new residents and businesses.

Township improvements that are not directly linked to demand arising from new development will require funding from a combination of sources. Funding sources may include general rates, developer contributions, Federal or State Government grants, or contributions from authorities such as VicRoads, VicTrack, Melbourne Water and the Education Department.

This strategy provides direction about funding mechanisms and sources. Funding arrangements will need to be finalised prior to the completion of detailed planning arrangements, such as development plans. Consultation with stakeholders, particularly landowners, will be essential as part of these processes.

View fro