MITCHELL SHIRE COUNCIL

Wallan King and Queen Street Masterplan

FINAL Report

December 2021

Quality Assurance Record

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Revision No	G
Document Name/Reference	20001/ 211201_wallan king and queen street masterplan_final
Date of Issue	1 December 2021

Revision	Date	
A	31 March 2020	Initial draft for internal council review
B	26 May 2020	Amended draft following internal Council feedback
C	8 July 2020	Draft issued for presentation to Council
D	27 July 2020	Draft issued for community consultation
E	19 October 2021	Final draft issued for Council officer review
F	3 November 2021	FINAL for Council adoption
G	1 December 2021	Minor edits following councillor briefing

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Contents

List of Figures and Plans

1. Introduction

Mitchell Shire Council has commissioned this project, the Wallan King and Queen Street Masterplan (the 'Masterplan') to assist in coordinating development in the area covered by Development Plan Overlay Schedule 14 in the Mitchell Planning Scheme, which includes land generally between William Street in the north, the Mittagong Creek to the east, Watson Street and existing development along the south side of Queen Street to the south, and Windham Street to the west.

Council has previously completed the Wallan Structure Plan 2015 and the King and Queen Street (Wallan) Structure Plan 2014 and both have been implemented into the Mitchell Planning Scheme. As reference documents in the planning scheme both structure plans have undergone considerable agency and community consultation and consequently, have substantial buy-in by key stakeholders. The vision of these structure plans will guide the direction of the Masterplan.

The subject area (shown below) is zoned General Residential and is included within the Development Plan Overlay Schedule 14 and is very fragmented. However, with the absence of an approved Development Plan for the study area there is a risk of opportunistic development on a site by site basis. This is already evident to a degree but can be managed in the future with this Masterplan.

To achieve an integrated development outcome a Masterplan and Infrastructure Framework for the Wallan – King and Queen Street area is being prepared.

1.1. Purpose of the Masterplan

The purpose of the Masterplan is to provide a guide for developers and a decision-making tool for Council officers when considering future Development Plan and/or planning permit applications.

Although not acting as a Development Plan per se, it may allow that requirement to be waived for an appropriately robust planning permit application.

As the study area is not currently serviced with reticulated sewer and comprises fragmented land ownership with large allotments, generally in the vicinity of 6,000m^2, this Masterplan will provide an overall strategy for the delivery of an integrated development outcome. It will provide a clear and practical framework to ensure development occurs in an integrated and sequential way that delivers the required infrastructure for the future community.

Photo 1: Masterplan Area

2. Site and Context Description

2.1. Subject Site

The Masterplan study area is 80ha of land to the immediate east of the Wallan township. The land is bounded by Windham Street to the west, William Street to the north, Mittagong Creek to the east, and the Wallan Creek, Watson Street and existing development to the south.

The subject site contains approximately 180 individual properties, most of which are in the order of 6500-7000sqm in land area and generally long and rectangular in shape (Refer Figure 1). Some properties have already been further subdivided into 2 or more lots, mainly containing a battle-axe driveway type of arrangement.

The subject area contains some more recent conventional residential development, which is located in Raimeno Road/Nikolai Court and Elisha Court.

Photo 2: Raimeno Road recent development

The study area includes the Wallan Cemetery, which is central within the study area.

Photo 3: Wallan Cemetery

The topography of the land is gently undulating, with the land falling from its most elevated point in the north-western corner through to the Mittagong Creek and Wallan Creeks along the eastern and southern boundary. There is a defined low point centrally located between Queen and King Streets at the rear of existing properties, which is also evident from Windham Street.

Photo 4: Mittagong Creek (looking south from William Street)

Photo 5: View from Windham St at low point

Photo 6: View towards the south from king street, demonstrating low point

Photo 7: King Street, Large treed setbacks

The land is generally characterised by large lots with mostly established large single dwellings, gardens and outbuildings, with a significant amount of tree canopy coverage. There is a mix of native indigenous and exotic vegetation throughout the study area.

Photo 8: Example of some of the existing vegetation in the area

2.2. Surrounds & context

Town Centre and Community Facilities

The Wallan town centre is a robust activity centre with a range of commercial, civic and community facilities. It is well served with schools and public open space, with Hadfield Park being an iconic public park in the town centre and recent streetscape improvements in High Street substantially improving the public realm. The western part of the study area is near the town centre, with many of the facilities such as school, retail and community assets in the walkable catchment. A Site Context Plan is provided in Figure 2.

Photo 9: Recent landscape works in the Wallan town centre

Photo 10: Hadfield Park

Community Facilities that exist in the immediate vicinity include:

- Wallan Secondary College
- Hadfield Park (with a variety of recreation facilities)
- Wallan community park
- Mitchell Shire Council offices and library
- RB Robson Stadium
- Wallan Multipurpose Centre and Neighbourhood House
- Wallan Skate Park.

Surrounding road network

The site is surrounded by key connector and arterial streets. Watson Street to the south interchanges with the Hume Freeway to the immediate east of the subject land. The current interchange is a half diamond interchange (northbound), with a full diamond interchange currently being planned and designed through the State government's Wallan Area Network Improvements project.

Photo 11: Watson Street looking towards the freeway interchange

Watson Street is currently a two lane road, and it is proposed that it be upgraded to a four lane road to cater for the increased traffic flows that will come from being able to exit from the freeway when heading northbound once the full diamond interchange is constructed.

Photo 12: William Street, looking east

William Street to the north of the precinct provides access to a signalised intersection on High Street. The Wallan Structure Plan also identifies that William Street could provide for a further connection across the Hume Freeway to connect employment areas to the east with the township.

Windham Street, which forms the western boundary of the study area, has been gradually upgraded to kerb and channel over time, with some medium density infill development occurring along that edge. It provides good connectivity to services and facilities within the Wallan township.

Photo 13: Windham Street, looking south

Character of adjacent areas

There is recent low-density development to the north of William Street and the now well-established Hidden Valley development further to the north. The area to the north is outside the Urban Growth Boundary and is retained as low-density residential development.

Land immediately west of the study area is a mix of town centre and community uses, along with a range of residential options including established single dwellings, as well as some more recent redevelopment comprising medium density townhouses.

Land to the south of Queen Street comprises established single dwellings on typical suburban quarter acre lots.

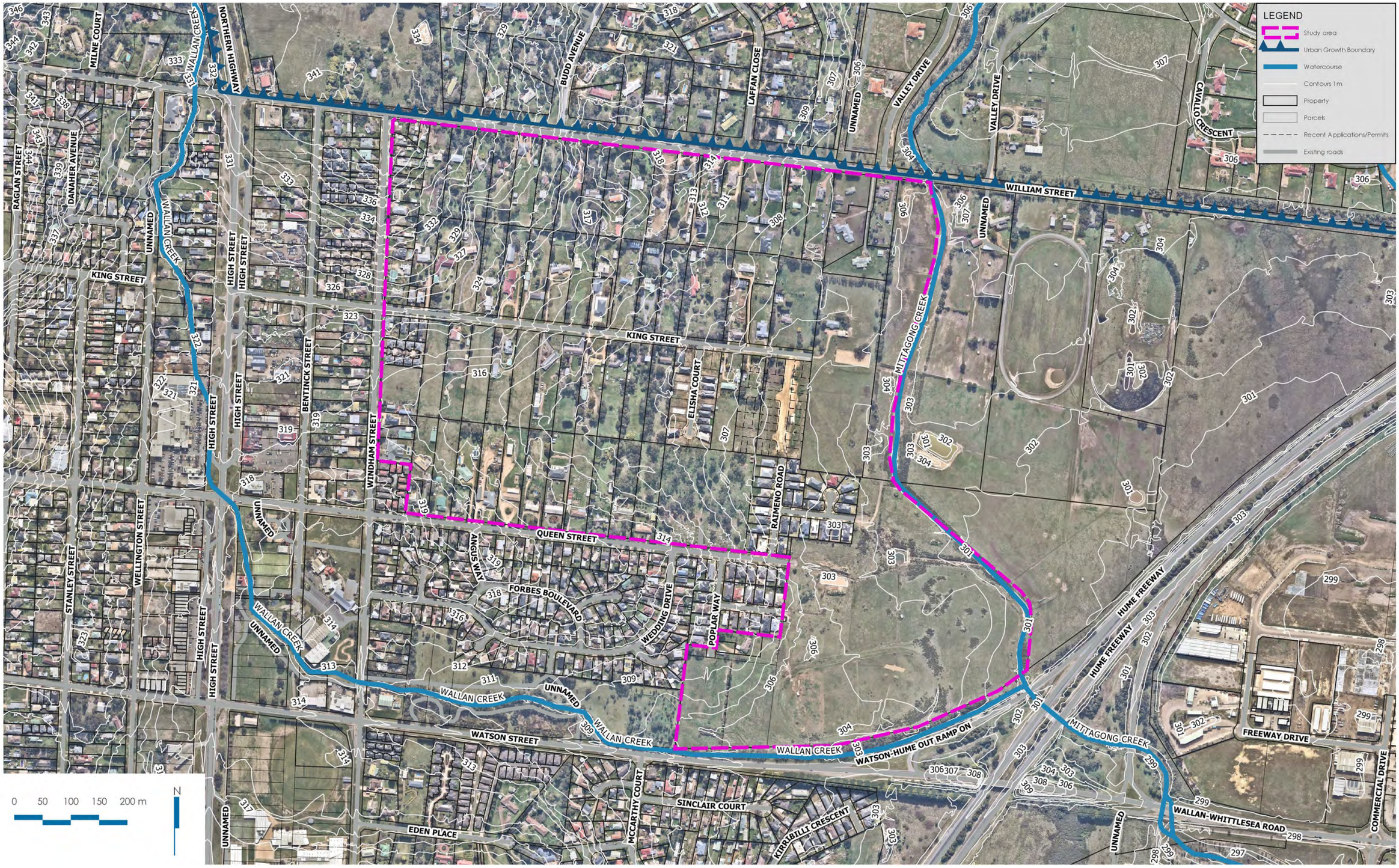


Figure 1: Masterplan Area

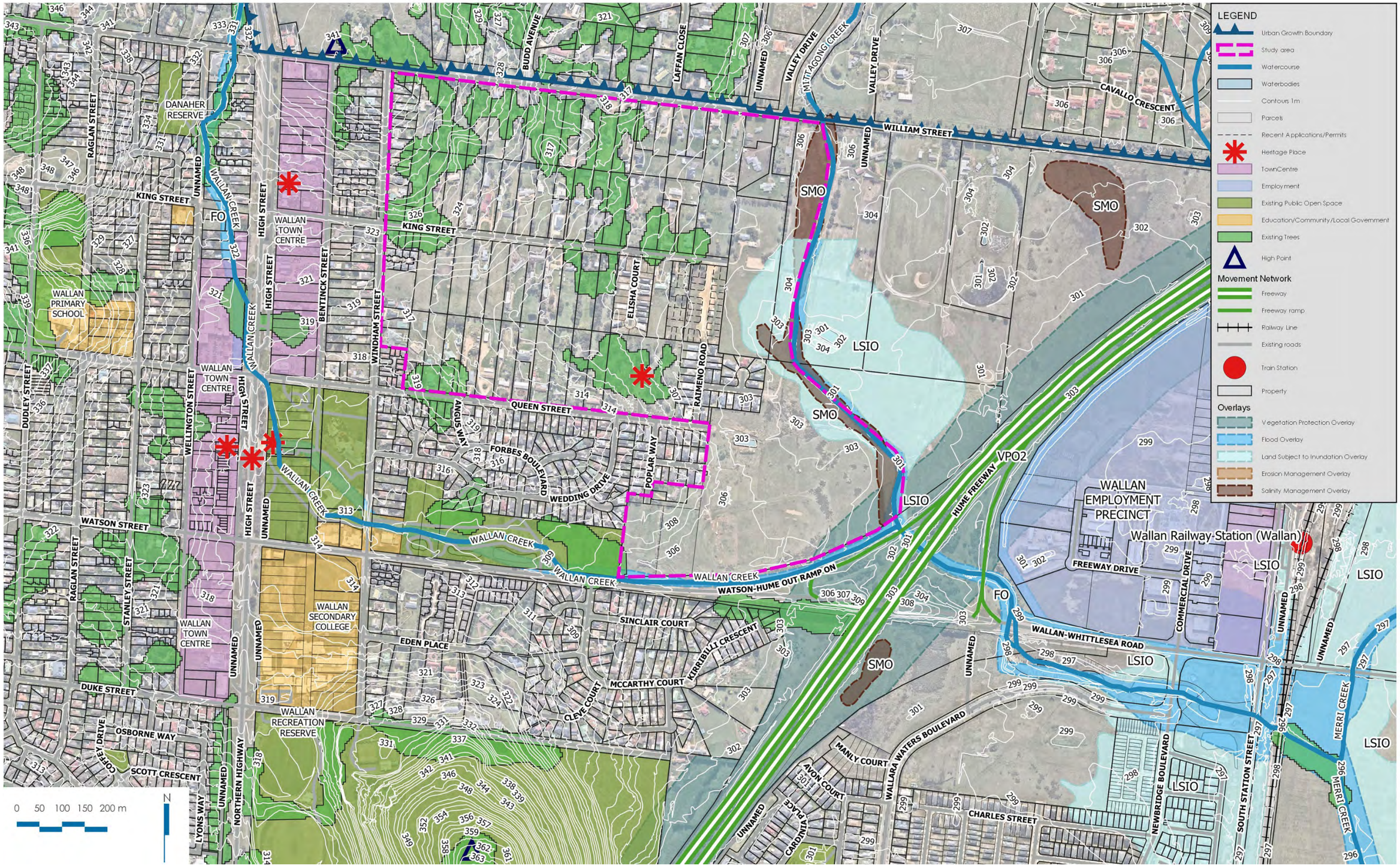


Figure 2: Site context

3. Planning Policy Context

Below is a brief outline of how the Masterplan fits within the current planning policy context of Wallan.

3.1. Strategic Planning Policy Context

3.1.1. Clause 21.11-9 (Wallan)

Clause 21.11 relates to the 'Local Areas of Mitchell Shire, and at Clause 21.11-9, Wallan is discussed. Wallan is intended to increase to a population of around 50,000 in the coming decades and is the southern gateway to the Mitchell Shire.

Key directions that are contained in this policy (and were developed in the 2015 Wallan Structure Plan further discussed below) include:

- Reinforcing Wallan's Country Town Character.
- Providing for sustainable growth and housing for all.
- Create opportunities for local employment.
- Create thriving, active and complementary local centres.
- Ensure people can move easily and safely throughout Wallan.
- Enhance Wallan's open space and environmental networks.
- Encourage a healthy mix of land uses that foster prosperity and activity.
- Make the Northern Highway a great 'country town' main street.
- Transform Wallan's shopping strip into a vibrant and engaging public space.
- Encourage a town structure that supports potential change and redevelopment.
- Develop a great modern Victorian 'country town'.
- Promote civic pride in the town centre.
- Make Hadfield Park an iconic open space.

Key outcomes desired in the policy of relevance to this Masterplan include:

- Provide a diversity of lot sizes throughout Wallan to create a range of housing, lifestyle and affordability choices.
- Respond to the natural environment and landscape setting.
- Support the conversion of inadequately serviced low density areas to residential development densities where urban services are provided and the devleopmetn is linked to the formation of the town centre.
- Include co-located services and facilities at the 'heart' of the town centre, to complement retail, commercial and public transport activities.
- Deliver infrastructure to improve access to and within the Town Centre for pedestrians and cyclists.
- Provide for the coordinated provision of services and drainage infrastructure across Wallan.
- Ensure that 95% of all households within Wallan are located within 400 metres of a future bus stop.
- Improve the existing footpath network across Wallan with a focus on key streets that provide access into the town centre.
- Facilitate development that provides passive surveillance over Wallan Creek.
- Provide for a greater intensity of land use and built form in the town centre periphery areas.

3.1.2. Wallan Structure Plan 2015

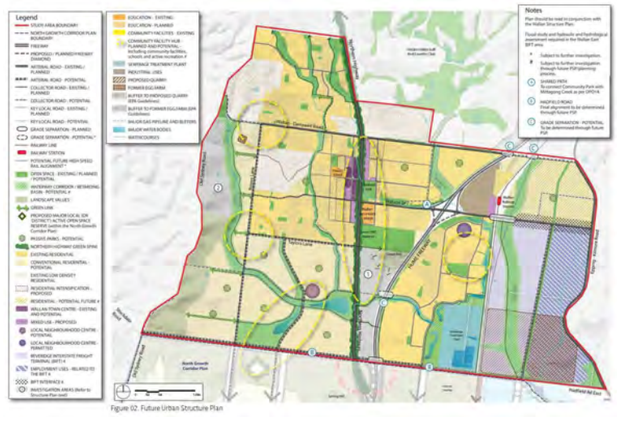


Figure 3: Wallan Structure Plan

The Wallan Structure Plan 2015 is a Reference Document in the Mitchell Planning Scheme. It provides a framework for the future growth of Wallan. The objectives and guidance in the Structure Plan have been implemented in Clause 21.11-9 of the Mitchell Planning Scheme.

Figure 4: Extract from Wallan Structure Plan

Specifically, in relation to the King and Queen Street area, the Structure Plan identifies the land as existing residential, and identifies the following key elements for the precinct:

- A potential for a passive park (open space) within the precinct.
- A potential key local road, connecting Watson Street to William Street.
- Potential for William Street to connect via a grade separated crossing to the east of the Hume Freeway.
- Mittagong Creek as a waterway corridor and retarding basin (potential).
- A shared path to connect the Community Park with Mittagong Creek as per DPO 14 requirements.
- The western end of the precinct is included in the 'Residential intensification – proposed' area associated with the town centre.
- Utilising King and Queen Streets, and the Wallan Creek corridor as 'green streets' and 'green links' connecting the town centre to Mittagong Creek.

The King and Queen Streets area is one of several planned residential growth areas in Wallan, which will cater for much of the town's planned growth. The Structure Plan also discussed the need for more housing choice.

Other specific measures in the structure plan that need to be considered in the preparation of the Masterplan include:

- Support the recommendations of the King and Queen Street Structure Plan and encourage lot consolidation through the precinct to realise residential development in this area.
- Investigate the potential to seek developer contributions as part of future redevelopment of established areas in Wallan.
- Consider ways to better integrate the Wallan township with Hidden Valley.

Community Infrastructure

In relation to community infrastructure, the Wallan Structure Plan identifies five potential locations for community infrastructure hubs. For the King and Queen Streets area, the hub is identified as the existing town centre area, given the proximity of this land to the town centre. The Masterplan identifies appropriate areas to provide for community facilities if required.

Servicing

The structure plan identifies the Mittagong Creek floodplain and Wallan Creek as key drainage and waterway assets in the area. The plan also identifies the limited capacity of existing sewer and water infrastructure for the township (as at 2015), which needs upgrade and review to accommodate the planned growth.

Walking and Cycling

The Structure Plan identifies that Watson Street is a 'Pedestrian Access Priority Improvement Street – Primary', and that King Street and William Street are both 'Secondary'. The plan also notes a Shared Path be included within the road reserve of William Street.

An off-road shared path is also indicated along the Mittagong Creek waterway corridor linking Watson St to William St, along with on road bike lanes along the north-south road connection linking these two roads.

Public Transport

Proposed bus routes are indicated along the future north-south connection between Watson and William St, and also connecting along the precinct's western boundary

(Windham Street). Key bus stop locations include the proposed intersection of both Watson Street and William Street and the north-south connection, and at the Queen Street/Windham Street intersection

Road Network

The Structure Plan promotes the use of the existing street network, supplementing it with the proposed north-south connector (25m) to connect Watson Street through to William Street. This would include a new signalised intersection on Watson Street.

Watson Street is proposed to be upgraded to a 4-lane arterial road.

Cross sections are also included in the structure plan, which are typical for new growth areas and will in the most part be suitable for use in this Masterplan area.

Open Space

A passive park is proposed to be located within the King and Queen St area, along with the encouragement for King Street and Queen Street to become 'green streets'. The structure plan also notes the need to retain existing trees, indigenous vegetation and significant landscape areas where possible.

3.1.3. King and Queen Street (Wallan) Structure Plan 2014

The King and Queen Street (Wallan) Structure Plan 2014 is also a Reference Document in the Mitchell Planning Scheme. The plan includes the subject land as well as land to the east between Mittagong Creek and the freeway, which is currently zoned Farming Zone. The plan was prepared as a basis for future decision making in the area, and to plan for infrastructure coordination.

The plan established the following Vision:

For the Precinct to evolve into a vital and distinctive neighbourhood of Wallan that builds on its unique settlement pattern, integrates with the broader urban and rural landscape and capitalises on its proximity to the town centre.

For the Precinct to be a well-connected and well-serviced part of Wallan that promotes a healthy, active lifestyle

It also was built around a set of key principles, which include the following:

1. Develop Wallan as a place that is within commuting distance to Melbourne with a semi-rural community character and environmental values.
2. Minimise the possible negative impact new developments may have on the existing township by improving safety and connections for all transportation methods within the local road network.
3. Provide adequate educational and community facilities, particularly local primary school, medical clinics and recreation facilities.
4. Ensure fair and equitable apportionment of developer contributions for infrastructure.
5. Encourage appropriate development sequencing and incremental development in a coherent and holistic manner.
6. Ensure that the existing wetland on Watson Street and the Mittagong Creek and Merri Creek form a linear open space network and wildlife corridor.

The plan also did some high-level assessment of cultural heritage and native vegetation to assist in informing the plan, but detailed work will be required at planning permit level to ensure these matters are addressed.

The plan went through a period of consultation with the community in 2012-2013.

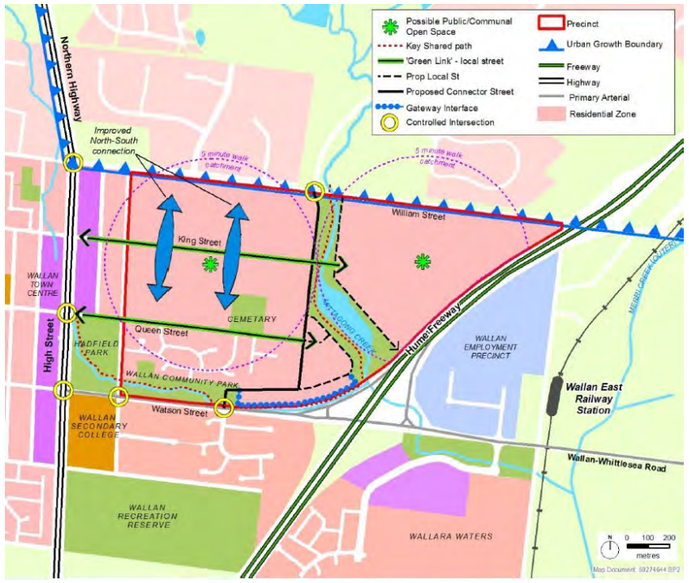


Figure 5: King and Queen Streets Structure Plan

The Structure Plan was developed to be a framework to guide development to identify the key principles rather than provide a development blueprint for the future subdivision. Relevant strategies for the land include:

- Support well-coordinated residential growth that enhances the semi-rural character of the area.
- Promote a mix of housing types.
- Prioritise walking and cycling.
- Encourage the retention of existing native vegetation and dwellings as part of the redevelopment of lots.
- Ensure the urban structure allows an interface between the denser development in the precinct and the surrounding land uses.
- Ensure ecological responsibilities under the Planning and Environment Act 1987 are met.
- Consolidate public open space provision along the Mittagong Creek corridor. Encourage the provision of smaller communal open space west of Mittagong Creek that are concentrated on remnant native vegetation.
- Support the upgrade of King and Queen Streets as boulevard style streets with extensive street planting as a key link in the precincts open space network.
- Facilitate the provision of a shared path that follows the Mittagong and Wallan Creeks.
- Promote the provision of public streets that provide through access to any development west of Mittagong Creek.
- Facilitate a new north-south connector street through development west of Mittagong Creek and the construction of a connection to Watson Street through development contributions.
- Direct the provision of Neighborhood Passive Open Space through development by means of planning guidance and S173 Agreements to be agreed through development plans at time of application.
- Support the augmentation of existing facilities through financial contributions to social infrastructure that can be collected by way of contribution levies to new development.
- Support the development of an equitable sharing of trunk service infrastructure costs across the Precinct through a development contributions plan.
- Discuss with Melbourne Water to determine the details of the Drainage Services Scheme and the implications this has for the management of stormwater and drainage assets.
- Co-operate with Yarra Valley Water to establish capacity requirements and costs in preparation for developing the S173 agreement to fund the construction of required sewerage infrastructure.

Implementation

The Structure Plan recommended the introduction of a Development Plan Overlay on the land. It also recommended several design controls which have been included in the DPO schedule since being implemented in the planning scheme.

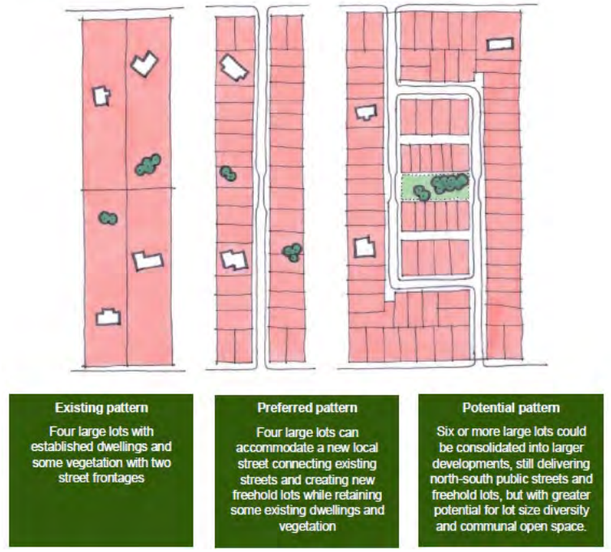


Figure 6: Examples of appropriate development pattern from the Structure Plan

Key matters the Structure Plan discusses include:

- Setbacks to King, Queen and William Streets of 8.0m for dwellings, transitioning to a lesser 4.5m setback at the western end of the precinct.
- Development proposals must be a minimum of 4 existing and typical adjacent lots and have street frontages (at least 80m) to two exiting streets.

- Ensure any remaining undeveloped lots are not unduly constrained by the proposed subdivision.
- Ensure a new local public street is created between King and William or King and Queen Streets at least every 160m along their length.
- Retain existing vegetation and dwellings that are of good quality.
- Maintain straight road alignments.
- Provide a range of lot sizes that provide for diverse housing options.
- Orientate the lots to front existing streets.

The Structure Plan also sets guidance for interfaces, street network, servicing etc which are used as a basis for the Masterplan.

Development Contributions

The Structure Plan discusses the need for development contributions to enable shared provision of infrastructure for the precinct. Given the structure plan also included land not within a residential zone, it discussed the following items as part of an Infrastructure Strategy for the area:

Community Infrastructure:
Collection of the Community Infrastructure Levy (which was then $900 per lot and is now capped for 2021-22 at $1225 per lot).

Drainage Infrastructure:
To be collected and funded as part of a Melbourne Water Drainage Services Scheme.

Sewerage Infrastructure:
To be funded by Yarra Valley Water and developers.

Open Space and Paths:
The provision of the land and development of a one hectare neighbourhood passive open space east of Mittagong Creek, and the land and development of approximately a one hectare linear passive open space along Mittagong Creek will require funding to be collected from the Precinct.

Roads and Streets:
The upgrade of King and Queen Streets and the construction of parts of the north-south connector street (including the intersections with Watson and William Streets) will require funding to be collected from the Precinct. This will most likely be in the form of a development contribution that will be applied on a land area basis.

3.1.4. Wallan Town Centre Plan and Urban Design Framework 2016

The Wallan Town Centre Plan and Urban Design Framework (WTCUDF) was adopted by Council on 19 September 2016. The WTCUDF is a guiding document that will shape the future development of the Wallan Town Centre. Wallan Town Centre is identified as a Major Activity Centre in the Northern Growth Corridor Plan (2012). The Key Directions for the Town Centre are:

- Direction 1 - Encourage a healthy mix of land uses that foster prosperity and activity.
- Direction 2 - Make the Northern Highway a great 'country town' main street.
- Direction 3 - Transform Wallan's shopping street into a vibrant and engaging public space.
- Direction 4 - Encourage a town structure that supports potential change and redevelopment.
- Direction 5 - Develop a great modern Victoria country town.
- Direction 6 - Promote civic pride in the Town Centre.
- Direction 7 - Make Hadfield Park an iconic open space.

The WTCUDF study area extends between Windham Street to the east and Stanley Street to the west, and Duke Street to the south and William Street to the north. The UDF abuts the Masterplan study area to the east.

The vision is that the Wallan town centre aims to continue its traditional role of providing generous facilities and offering a town-based lifestyle to existing and future residents and visitors alike.

The WTCUDF Masterplan indicates that land uses along Windham Street will be encouraged to be higher density residential, transitioning to commercial and restricted retail uses along High Street. The WTCUDF also identifies the need to signalise the High Street/King Street intersection, and to construct the western leg of King Street on the western side of High Street. It also requires provision of a roundabout at the Queen Street and Windham Road intersection. The plan also identified Windham, Watson, William, King and Queens Streets as being bus capable.

The WTCUDF also recognises Hadfield Park as a key facility within the town centre and considers further retail expansion of the town centre around Wellington Street/ Queen Street, to the west of High Street.

The Movement Network section of the WTCUDF identifies Windham Street/ William Street and King Streets as part of the secondary movement network around the town centre. In particular, the pedestrian network outlined in the WTCUDF identifies King Street as providing a primary pedestrian movement east-west, along with Queen Street. The WTCUDF includes cross sections for some relevant streets - King Street within the town centre will include a 7.0m carriageway with parking on both sides with outstands at intersections (20m road reserve). William Street adjacent to the current study area will provide a 7.0m carriageway, 1.7m bicycle lanes and 2.3m parking bays both sides with minimal verges with footpaths both sides.

The WTCUDF also identifies landscape themes and the east west streets – King, Queen William – are identified as 'east-west planting' and Windham Street is north-south, therefore has a different theme.

3.2. Zoning and Overlays

A plan showing the relevant zones and overlays is provided as Figure 10.

3.2.1. Zones

The subject land is mostly zoned General Residential 1 Zone, with the only exception to this being the Wallan Cemetery, which is zoned Public Use Zone Schedule 5.

The General Residential 1 zone seeks to:

- Encourage development that responds to the neighborhood character of the area.
- Encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.
- Allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

Subdivision requires a planning permit under the zone, and subdivision must meet the requirements of Clause 56 of the Mitchell Planning Scheme. Dwellings on lots 300sqm or above do not require any further planning approval.

3.2.2. Development Plan Overlay Schedule 14 King and Queen Streets (Wallan) Development Plan (DPO14)

The DPO 14 was introduced by Amendment C96 which implemented the findings of the King and Queen Streets (Wallan) Structure Plan 2014. It requires a development plan (DP) to address the following key principles:

- Minimise the possible negative impact new development may have on the existing township by improving safety and connections for all transportation methods within the local road network.
- Encourage appropriate development sequencing and incremental development in a coherent and holistic manner.
- Ensure that the existing wetland on Watson Street (Wallan Community Park) and the Mittagong and Merri creeks form a linear open space and wildlife corridor.
- Ensure fair and equitable apportionment of developer contributions.

DPO14 outlines the specific requirements for development in the King and Queen Street Masterplan area that this Masterplan needs to consider. Some of the key matters to point out are:

- A permit can be granted to use or subdivide land in the area, construct a building or construct or carry out works prior to preparation of a development plan as long as the Responsible Authority (Mitchell Shire) is satisfied that the proposal will not prejudice the future use or development of the land in accordance with Council's strategies.
- Permits must contain conditions that:
  - Implement the community infrastructure developer contributions obligations as outlined in the Structure Plan
  - And if not already resolved via 173 agreement, have requirements that implement the offsite (external) developer contribution obligations identified within the traffic impact assessment and pedestrian walkway and cycle path plan.

The Requirements for a DP:

- A DP can include the entire area or part of the area but must not unduly constrain future development of remaining undeveloped lots.
- Any DP for land fronting King, Queen or Williams Streets must meet all of the following minimum requirements:
  - Consist of a minimum 4 adjacent lots within a minimum area of 2.4ha.
  - Have street frontages to 2 existing streets
  - Provide a minimum frontage of 80m to both streets, and have an equal length of frontage to both existing streets
  - Provide a new public local street to connect King and William or King and Queen Streets (interval between north south streets approximately 160m).
  - The above can be waived if they are the eastern extension to King and Queen Streets as long as they meet the intent of the Structure Plan.
- A DP must include:
  - How each part of the land is to be developed and used, and a proposed subdivision layout showing a diversity of lot sizes.
  - Staging of the development, retention of existing dwellings if appropriate.
  - A transport impact assessment dealing with internal and external traffic and identifying costs for developer contributions as appropriate.
  - A noise attenuation plan to VicRoads satisfaction where required.
  - A pedestrian walkway and cycle path plan identifying proposed path locations and design, and how they connect with the surrounding network, and inclusion of a shared path in the Mittagong Creek land linking Watson and William Streets.
  - Timing, method and security of payment for the provision of any physical and community infrastructure.
  - An assessment of native vegetation consistent with DELWP native vegetation guidelines.
  - A landscape plan showing street trees and treatment of any public spaces, as well as location of existing native vegetation.
  - A civil infrastructure and drainage report that outlines how the development can be serviced.
  - Connection between the Mittagong Creek and Wallan Community Park consistent with the structure plan, including a shared path.
  - Interface treatment plan for Mittagong Creek prepared in consultation with Melbourne Water.

Consideration of approval of any DP submitted will need to ensure its compliance with the approved Structure Plan and also the views of the relevant authorities, as well as how development contributions have been addressed.

3.2.3. Other Overlays

Land Subject to Inundation Overlay (LSIO) and Floodway Overlay (FO)

The LSIO applies to the floodplain either side of the Mittagong Creek, and the FO applies to the Mittagong Creek and the Wallan Creek.

There are various permit triggers under each overlay, which can be dealt with through future permit application processes. Management of the floodplain and waterways will also be addressed by the draft Mittagong Creek Drainage Services Scheme which Melbourne Water are developing, which is discussed in Section 6.3 of this Masterplan.

Salinity Management Overlay (SMO)

The Salinity Management Overlay affects one parcel of land which includes the Mittagong Creek on William Street. There are permit triggers that would need to be addressed if development is to occur in the affected area. The SMO does not constrain development in the Masterplan area.

Heritage Overlay (HO292)

The Heritage Overlay 292 applies to the Wallan Cemetery land. No additional controls under the overlay apply. It is not envisaged that the cemetery land be impacted through the Masterplan.

3.3. Other Relevant Planning Controls

Areas of Cultural Heritage Sensitivity

Figure 7: Areas of Aboriginal Cultural Heritage Sensitivity (Source Vicplan March 2020)

Parts of the Masterplan area are included within an Area of Aboriginal Cultural Heritage Sensitivity as defined in the Aboriginal Heritage Regulations 2018. Any parcel that includes an Area of Aboriginal Cultural Heritage Sensitivity will be required to undertake a Cultural Heritage Management Plan if the land is intended to include a 'high impact activity' (ie. Subdivision of land into 3 or more lots).

The plan included in Figure 7 identifies these areas as they were mapped in September 2021, but it is noted that these can change as more sites of significance are discovered and that updated mapping should be checked prior to commencing any planning for subdivision or development. For further information about whether a Cultural Heritage Management Plan is required go to http://www.aav.nrms.net.au/aavQuestion1.aspx.

Bushfire Prone Area

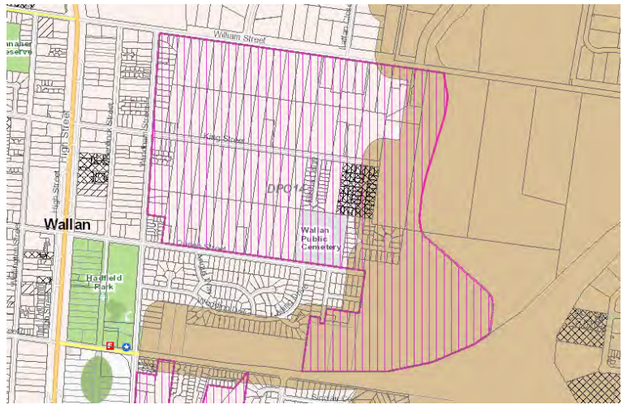


Figure 8: Designated Bushfire Prone Areas (Source: Vicplan March 2020)

The majority of the Masterplan area is within a Bushfire Prone Area, where special bushfire construction requirements apply. Planning permit applications for subdivision must address the relevant planning policy in relation to bushfire planning and protection. It should be noted that the areas designated as bushfire prone are reviewed by DELWP on a quarterly basis to address new development and changes in landscapes, so must also be reviewed prior to planning for development.

Clause 56: Residential Subdivision

Any residential subdivision within the Masterplan area will need to be designed in accordance with the requirements of Clause 56 of the Mitchell Planning Scheme.

3.4. Other relevant strategic projects

Government Land Standing Advisory Committee Tranche 29 - Wallan Area Network Improvements project (Amendment C129 to the Mitchell Planning Scheme)

The Department of Transport seeks to change the planning provisions on land required for the Wallan Area Network Improvements project, via Mitchell Planning Scheme Amendment C129mith. This was referred to the independent Government Land Standing Advisory Committee for consideration of and recommendations (via a report) on the suitability of the proposed planning provisions changes in March 2021.

The project seeks to:

- Combine the planning controls on the project land into one control namely the Specific Control Overlay 3 (SCO3).
- Incorporate the Wallan Area Network Improvements Project Incorporated Document, September 2020 into the Mitchell Planning Scheme.
- Apply the Public Acquisition Overlay 5 (PAO) to land proposed to be acquired for the project.
- Make the Minister for Planning (rather than Council) the responsible authority for future approvals.

Figure 9: Wallan Area Network Improvements project proposal

The proposed works will involve acquiring some additional land on the north side of Watson Street (within the Wallan Community Park) to accommodate the road duplication and will also create a signalised intersection at Watson Street and McCarthy Court immediately south of the Wallan King and Queen Street area.

Figure 10: Proposed Public Acquisition Overlay 5

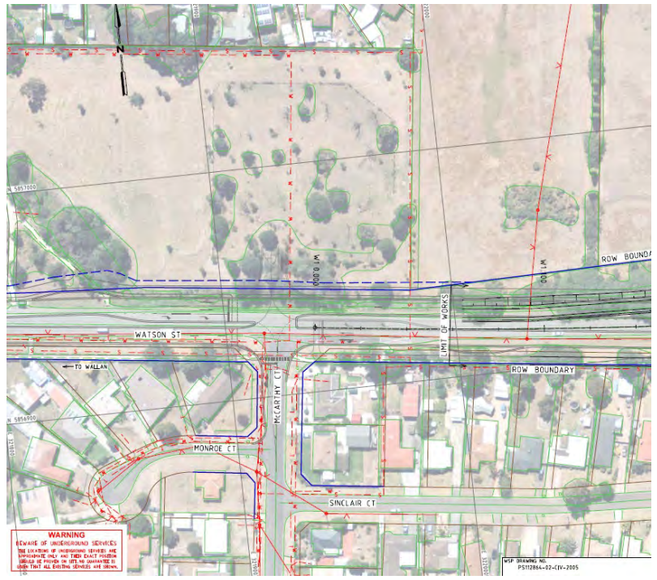


Figure 11: Proposed intersection at Watson St/ McCarthy Crt (Source: DOT exhibited drawings for Amendment C129mith)

The Minister for Planning is considering the report of the Standing Advisory Committee and a decision on this project is currently being awaited.

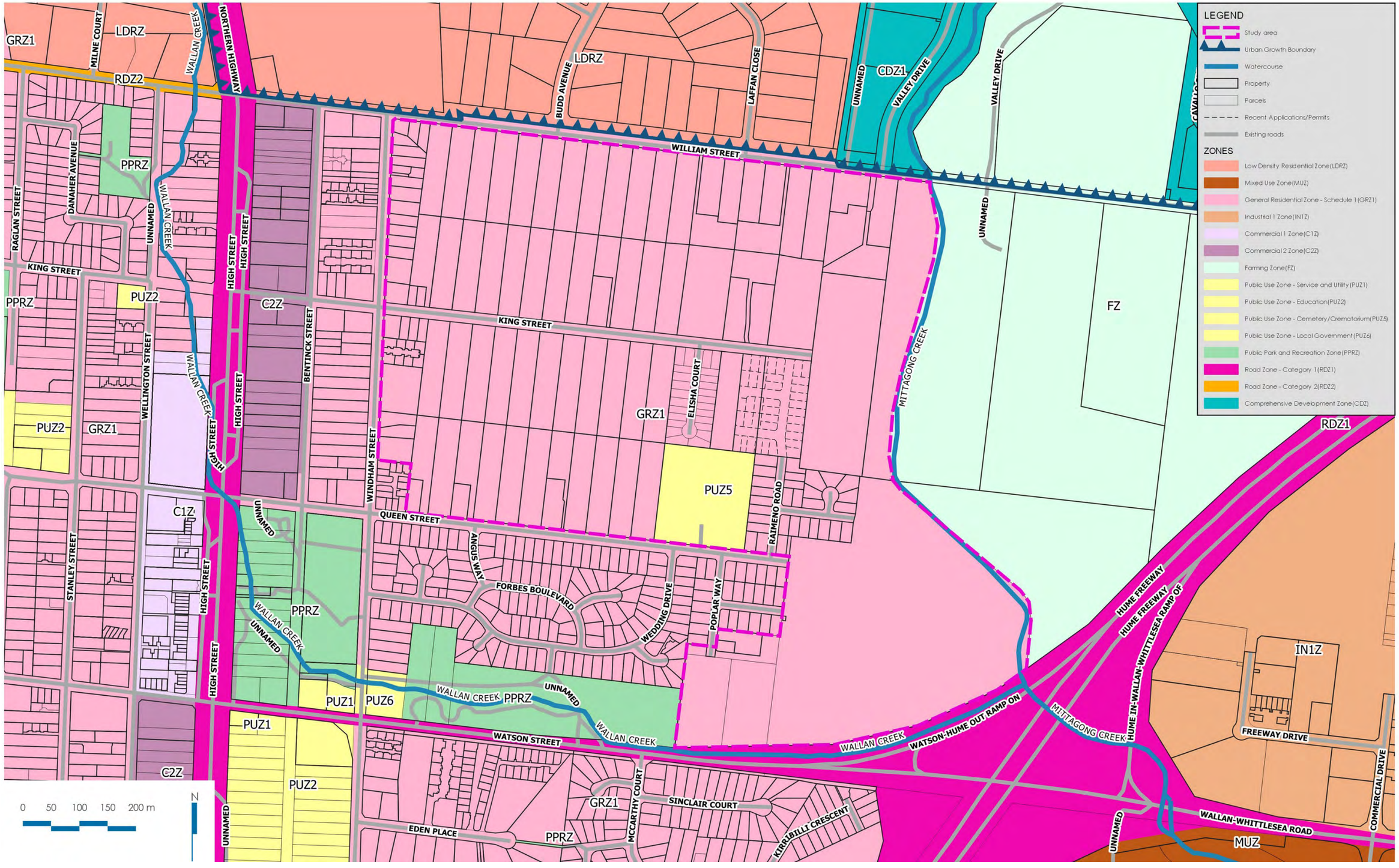


Figure 12: Planning Scheme Zones

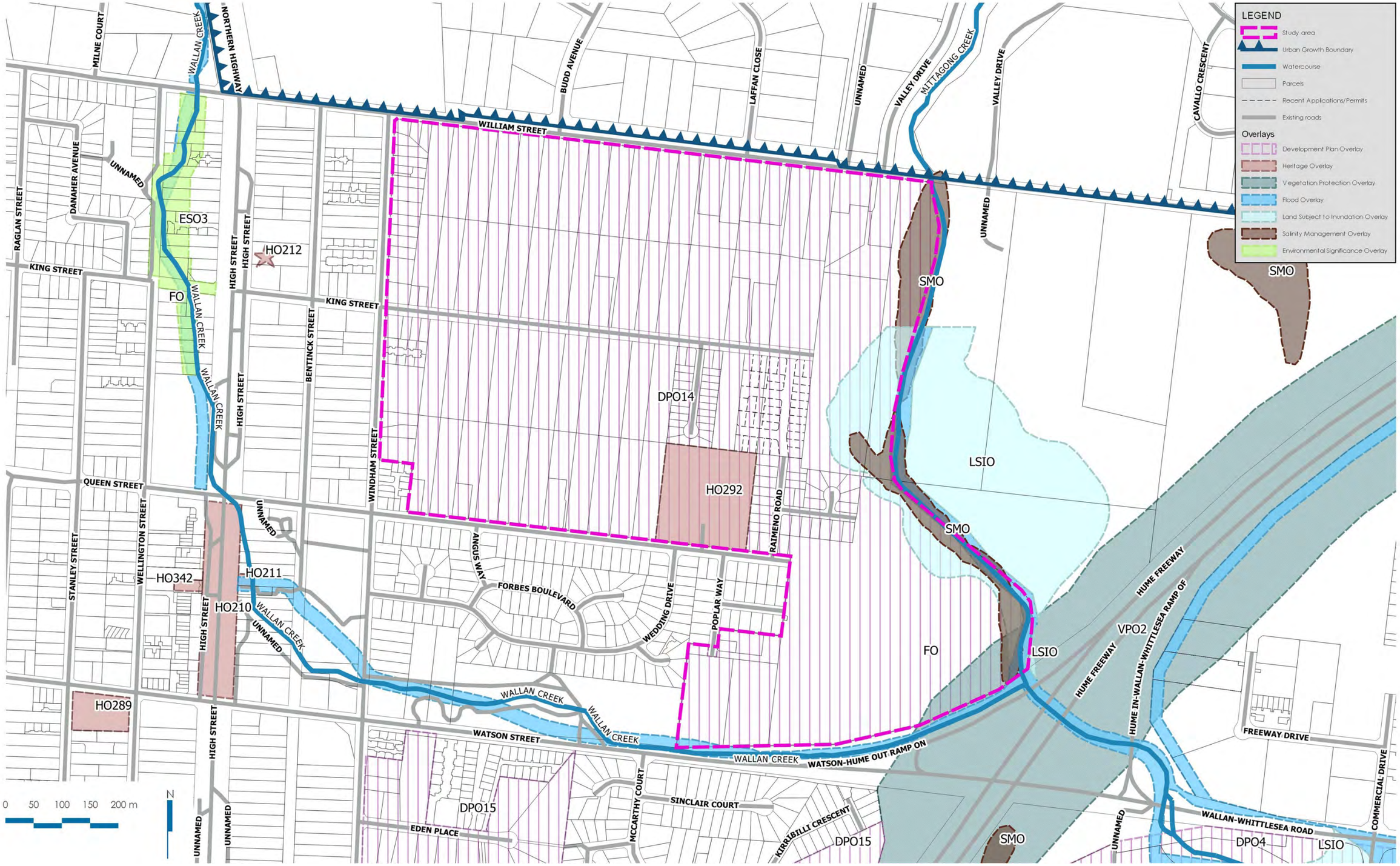


Figure 13: Planning Scheme Overlays

4. Background Investigations

In addition to the review of existing documents and policy, gathering data and information by meeting with Council officers and departments, and other authorities, the Masterplan has also reviewed current population statistics to assess growth and development in the Wallan area, and review the need or otherwise for additional community infrastructure in the Masterplan area.

4.1. Population projections and housing needs

As outlined in the available statistics produced by .IDcommunity, the Mitchell Shire is forecast to house a population of 48,969 in 2021, and to grow to 170,830 by 2041[1]. Wallan is forecast to take a substantial amount of that growth, with its population forecast to rise from 14,473 in 2021 to 48,890 by 2041, a 237.81% increase[2].

It has been assumed that the number of dwellings in Wallan will increase by an average of 530 dwellings per annum to achieve this population target[3]. Based on the forecast figures, there is also intended to be a significant gain in families in the area due to the increase in the available new and affordable housing provided as a result of growth areas within Wallan being developed for land and housing. Projections also indicate a gain of older adults and early retirees (50-64 years) who may be attracted to the semi-rural lifestyle, and potentially also the new housing opportunities.

The number of dwellings is forecast to grow from 4,026 in 2016 to 17,278 in 2041, with minor adjustment in the average household size to 2.92 people per household[4]. Most of the growth is intended to occur from 2027-2031, due to the increased housing development that will occur as the Precinct Structure Plans (PSPs) and other planning strategies progress through the approvals process.

The forecasts also indicate that the population increases will be fairly evenly spread across key age groups, with a 75.8% increase in population under working age, and an 82.5% increase in population of retirement age[5]. This analysis has relevance for the delivery of community infrastructure in Wallan, given the load that may be placed on children's services and aged care services.

Another key consideration in reviewing the potential demographics for the Masterplan area is the household types. The largest forecast increases are in the category 'Couple families with dependents' for Wallan, indicating the need to plan for delivery of family homes in the majority (approximately 40% of all households). Other key household types to plan for include one parent family and lone person households, which will continue to make up around 30% of the overall housing stock required.

In relation to dwelling size and type, in the Wallan-Beveridge area, dwellings with 4 bedrooms were most common in 2016, taking 43% of all dwelling stock. And looking at dwellings overall, only 5.2% of dwellings have 2 bedrooms or less within the Wallan-Beveridge area. Given the projected increase in one parent family and lone person households identified in some of the projections, there is a need to look at planning for some inclusion of smaller homes within the Masterplan area.

4.2. Review of Community Infrastructure Needs

As part of the Masterplan process for the King and Queen Street precinct a review of current planning policy and population forecasts, along with a range of consultation was undertaken.

As further outlined in the following Section discussing the proposed Masterplan, it is expected that the King and Queen Street Masterplan area should yield in the order of 973 lots/dwellings in addition to the currently subdivided/constructed 65 lots, giving a total of 1,038 lots/dwellings. Assuming a household size of 3.1[6], this yields a total of 3,219 residents living in the King and Queen Streets Masterplan area at full development.

Based on this projection, an additional 3,017 people will be living in the King and Queen Streets Masterplan area at full development.

The more than 3,000 additional residents in the area will generate significant demand for community services and facilities. This includes active and passive open space, libraries, community rooms, youth spaces, maternal and child health, kindergartens, and schools.

Council's *Integrated Community Services and Infrastructure Plan (2019 Update)* (the *ICSIP*) provides a comprehensive needs analysis for a range of community infrastructure across the municipality. The *ICSIP* provides an evidence base to inform the Shire's planning for, and investment in community infrastructure.

The *ICSIP* identified a shortfall in community infrastructure in Wallan across the short to medium term which is being driven by a range of factors, including population growth. This shortfall was measurable across the majority of community infrastructure types considered.

A key element of Council's community infrastructure approach has been the development of evidence-based community infrastructure provision ratios. The ratios, presented below highlight the demand driven by the increased population in the King and Queen Street precinct for a small selection of community infrastructure.

	Evidence-based provision ratios	Masterplan area demand
Kindergarten	80 enrolment places : 100 three and four year old children	1.91 33-place kindergarten rooms
Maternal and Child Health	1 MCH room : 130 newborns	0.5 MCH rooms

Given the potential population increase of over 3,000 people in the masterplan area, the *ICSIP* analysis and the provision ratios suggest that the masterplan area would require a new community facility to support the community as it grows.

Community Centres

Mitchell Shire Council is focused on ensuring the early provision of community infrastructure in order to maintain the liveability of communities. Council's planning and delivery of community infrastructure focuses on flexible, multi-purpose and multi-generational spaces within a network of community hubs. Connectivity, co-location and integration are key principles that guide Council's community infrastructure provision.

There is existing community infrastructure in the Wallan Town Centre and the proximity of the Masterplan to the Town Centre mean that these facilities will be easy to access for some new King and Queen Streets residents. However, these facilities do not have capacity to cater for the additional demand.

Options to locate a community centre within the Masterplan area are available. It is not recommended to nominate an exact location for a community centre in the Masterplan area in order to provide flexibility and allow for further investigation of need. Community centres require good access and are best located fronting wider connector or key local access level 2 roads.

William Street, King Street and Queen Street are all key local access level 2 or wider roads and are a minimum 20m wide. The north-south connector road connecting Watson Street and William Street (25m wide) in the east of the Masterplan area also provides the opportunity to appropriately locate a community centre on this road frontage. Potential locations for community centres are shown at Figure 19.

What the above analysis does do, is justify the need to require the Community Infrastructure Levy (CIL) from development within the Masterplan area to provide additional funds to support the augmentation of existing community facilities in the Wallan township or to fund facilities within the Masterplan area, subject to further investigation. An additional 973 dwellings will provide the potential for (973 x $1225 = $1,191,925) approximately $1.2 million (based on 2020/21 CIL rate). This can be used to assist in providing improvements and additional facilities at existing sites, provide

[1] www.forecast.id.com.au/mitchell/about-forecast-areas
[2] https://forecast.id.com.au/mitchell/about-forecast-areas?WebID=160
[3] https://forecast.id.com.au/mitchell/residential-development?WebID=160
[4] https://forecast.id.com.au/mitchell/population-households-dwellings?WebID=160
[5] https://forecast.id.com.au/mitchell/population-age-structure?WebID=160
[6] Council uses an average household size of 3.1 persons for Wallan. The current household size in Wallan is 2.74 with an increasing trend of intergenerational households. Across the Hume region, household size averages between 3.4 -3.65.

potential to purchase additional land to augment existing sites or purchase of land within the Masterplan area.

It is envisaged a new community infrastructure facility will be established in the Masterplan area with the location chosen to ensure accessibility as well as a complementary role within the regional network of community facilities. The new facility is likely to include multi-purpose community space, maternal and child health and early learning facilities. The new facility is envisaged to service residents from the King and Queen Streets Masterplan area in addition to residents in surrounding areas and developments, many of which do not have provisions for community infrastructure facilities within them. Other funding sources (e.g. CIL collections from surrounding developments), in addition to the CIL from the Masterplan area, could be used for the construction and establishment of the facility.

Open Space

As identified in the review of open space in the town, there is a lack of adequate active recreation facilities within Wallan. Council is currently working on the Green Hill Reserve plan as well as plans for Hadfield Park to assist in improving access to active recreation space, along with proposed new active open space reserves in PSP areas.

The projected population in the Masterplan area will generate additional demand for open space including both passive and open space. In reviewing the suitability of the King and Queen Street areas, it is considered that a number of factors including location and fragmentation of land ownership make it unsuitable for the provision of additional active recreation space. Thus, the additional demand on active open space (such as outdoor sporting fields and indoor courts) generated by the Masterplan area will need to be serviced by the surrounding areas.

The Masterplan will allow for additional local neighbourhood passive open space within the Masterplan area to cater for the increased population and provides for passive open space within 400m of at least 95% of all dwellings in accordance with VPA guidelines. The Mittagong Creek corridor provides an excellent opportunity to integrate open space with waterway and drainage corridors, and provision of some local open space along this space in addition to the waterway corridor encumbered land would be supported. This could provide opportunity for informal recreation, including playgrounds and seating and potentially fitness stations, as well as support for an important shared path trail linking north to south along the eastern edge of the established area of Wallan.

In addition, considering walkability and catchments to existing open spaces, a local park would be desirable within the block between King and William Street, to cater for local residents. As required in by the Mitchell Open Space Strategy, *"New social / family recreation open space is a priority in growth areas. Parks catering for this function need to be generous enough (minimum 1ha) for a perimeter trail and to able to cater for a range of activities: play, social sports, casual ball games, sitting and relaxing, and trail activities*."

4.3. Transport Assessment

Traffix Group have provided a transport assessment of the Wallan King and Queen Street Masterplan area.

Proposed road projects

There are a number of potential future transport infrastructure projects proposed within the vicinity of the site. A plan summarising these works is provided within Figure 11. These include:

- Upgrade works to Watson Street, to duplicate Watson Street, including providing a signalised intersection at Watson Street and McCarthy Court as part of the Wallan Area Network Improvements project.
- Completing the southern section of the diamond interchange with the Hume Freeway at Watson Street as part of the Wallan Area Network Improvements project.
- Signalising the intersection of King Street and High Street.
- Upgrade/duplication works to High Street/Northern Highway south of the Wallan township as part of the Wallan Area Network Improvements project.
- Future grade separation of the freeway at William Street to provide northern connectivity to the railway station and employment land in Wallan.

It is emphasised that the nominated works are at varying stages of planning and development and in many cases are subject to future funding. Of the nominated works it is noted that any future eastern extension of William Street to Epping Kilmore Road and associated grade separation would be a medium to long-term project.

Existing road network

Existing traffic volume information for roads in the vicinity of the Masterplan, have been sourced from Council and VicRoads. Figure 12 outlines existing daily traffic volumes in the vicinity of the site.

Traffic Generation

The *RTA (now RMS) Guide to Traffic Generating Developments* (2002) sets out traffic generation rates based on survey data collected in New South Wales for a range of land uses. This Guide is used by the Department of Transport (VicRoads) and is generally regarded as the standard for metropolitan development characteristics.

The RTA Guide sets out the following rates for standard residential dwellings:

- daily vehicle trips = 9.0 per dwelling
- weekday peak hour vehicle trips = 0.85 per dwelling

However, the RTA Guide states that ... *"The Australian Model Code for Residential Development (AMCORD) assumes a daily vehicle generation rate of 10.0 per dwelling, with 10% of that taking place in the commuter peak period. The use of these figures provides some allowance for later dual occupancy development."*

The Masterplan area comprises in the order of 180 existing dwellings. Following full development of the area it is anticipated that some 1,038 dwellings be provided, thus representing an increase of some 858 dwellings.

Conservatively applying a rate of 10 vehicle trip-ends (vte) per lot per day to the proposed net increase of 858 residential lots equates to a total of 8,580 additional vte per day following full development of the site.

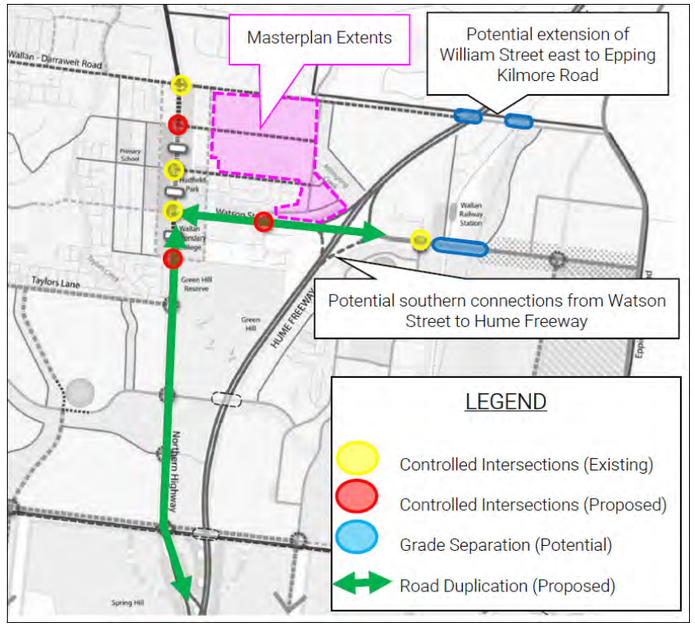


Figure 14: Potential Future Works

Source: Base image sourced from Wallan Structure Plan (December 2015)

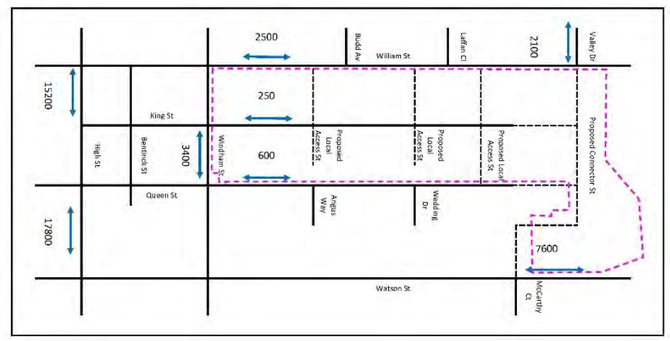


Figure 15: Existing Traffic Volumes

Intersections

The design and treatment of internal and external intersections will have regard to both traffic volumes as well as safety considerations. Further assessment of the intersections and proposed outcomes is included in Sections 5.3 and 6.2 of this report.

Safety Assessment

A review of the recent crash history has been undertaken for the past five years of available reported data (last updated 31st December 2019). The crash investigation area was bound by High Street (West), William Street (North), Watson Street (South) and McCarthy Court as well as Valley Drive (East).

Crash injury statistics are classified as follows:

- Fatal injury: at least one person was killed in the crash or died within 30 days as a result of the crash.
- Serious injury: at least one person was sent to hospital as a result of the crash.
- Other injury: at least one person required medical treatment as a result of the crash.

A summary of the reported casualty crashes is provided in Table 1.

Table 1: Casualty Crash Assessment

Location	Crash No. [1]		
	Fatality	Serious Injury	Other Injury
Signalised Intersections			
High Street / William Street	-	1	4
High Street / Queen Street	-	-	1
High Street / Watson Street	-	3	6
Watson Street / Windham Street	-	-	2
Other Intersections			
King Street / Windham Street	-	1	-
Watson Street / McCarthy Court	-	1	2
Queen Street / Windham Street	-	-	4
Total	**-**	**6**	**19**

[1] Includes all recorded crashes at or within 100m of the intersection.

Table 1 indicates that a total of 25 crashes, six resulting in serious injury and 19 resulting in other injury, have occurred within the vicinity of the site in the most recent recorded five-year period.

A detailed review of individual crash reports identified that three crashes involved pedestrians with none involving cyclists. Of the four recorded crashes at the Queen Street / Windham Street intersection three were DCA code 110 (cross-intersection) crash types. There were no further discernible crash trends identified within the assessment.

The above provides a summary of some key transport analysis data for the site. Further assessment of intersections and advice regarding proposed treatments and outcomes is provided in Section 5.3 discussing the movement network of the proposed masterplan.

5. Masterplan

5.1. Vision

This Masterplan aims to provide a clear framework for development of fragmented land that allows for an integrated subdivision outcome.

The area will provide an infill development to the existing Wallan township, providing key road and pedestrian linkages to link new residents to existing facilities and services. The Masterplan also provides for new assets for existing residents.

The Masterplan retains the ability to be flexible and adaptable to provide options for future developers in implementing the key objectives of the Masterplan.

5.2. Land Budget

Following is a land budget that outlines the key land requirements to be provided as part of the implementation of the Masterplan.

The land budget provides for a breakdown of land uses within the Masterplan and outlines projected lot yield based on a density assumed for the precinct.

Based on the figures outlined in the table, it is projected that the total yield for the Masterplan area could be in the order of 1038 lots/dwellings (973 new + 65 existing = 1038), with an estimated total population of 3,219 people at full development.

Further discussion of housing mix, movement network, open space and any other land uses is provided for in the following sections.

Where parcels are not shown to provide any public open space, planning permits issued will require a monetary contribution of 5% of the value of the land to be paid to council in lieu of the provision of land.

Table 2: Land Use Budget

PRELIMINARY LAND USE BUDGET - King and Queen Streets Wallan		
Plan Ref. 20001 dated 18/10/2021		
	HA	%TSA
TOTAL PRECINCT AREA	**80.40**	100%
Transport		
Non-Arterial Road(DCP Item)	3.00	4%
Non-Arterial Road- Retained Existing Road Reserve	2.41	3%
Non-Arterial Road-Road Widening	0.12	0%
SUB-TOTAL	5.53	7%
Open Space		
Uncredited Open Space		
Waterway and Drainage Reserve	4.47	6%
Sewer Pump Station buffer	0.38	0%
Cemetery	2.79	3%
SUB-TOTAL	7.64	10%
Credited Open Space		
Local Park	2.42	3%
SUB-TOTAL	2.42	3%
Other		
Utility Sub-stations/Facilities(acquired by relevant authorities)	0.06	0%
Existing Developed Land(65 lots)	3.66	5%
SUB-TOTAL	3.72	5%
TOTAL NET DEVELOPABLE AREA-RESIDENTIAL	**61.09**	**76%**
Lower Density Residential	4.10	5%
Conventional Density Residential	26.25	33%
Medium Density Residential (Potential)	17.70	22%
TOTAL RESIDENTIAL	48.05	60%
Roads	13.04	16%
POTENTIAL LOT YIELD (Total NDHa x Density)	**1038**	**Lots**
DENSITY	**17.0**	**dwellings/NDHa**
AVERAGE LOT SIZE	**463**	**m²**
POPULATION (IN EXISTING DEVELOPED)	**202**	**persons**
FUTURE POPULATION(@3.1avg. household size)	**3219**	**persons**

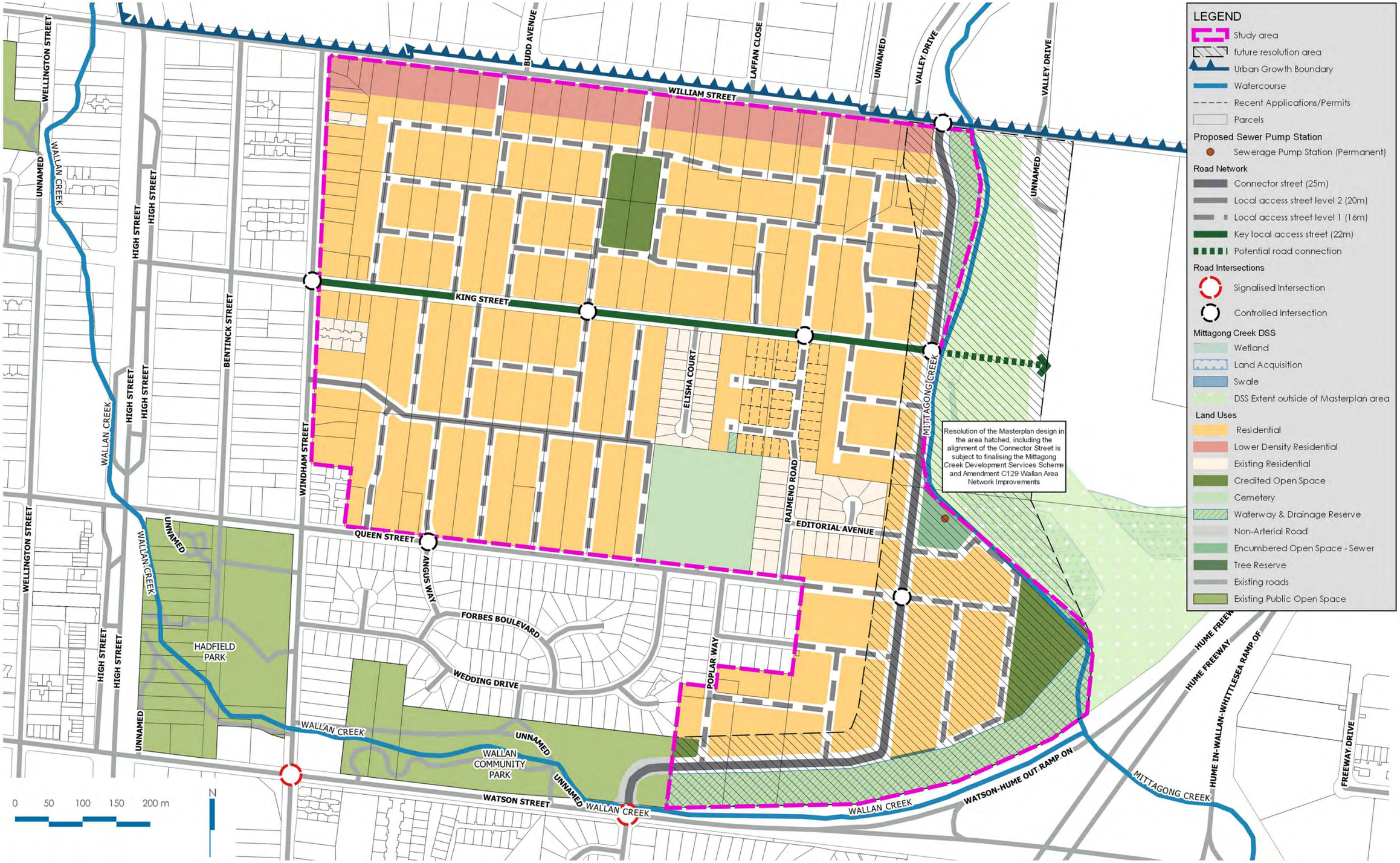


Figure 16: Masterplan

Figure 17: Movement Network

5.3. Movement Network

The Masterplan provides for a logical and sequential movement network, based on the existing grid system of streets that operates in the Wallan area.

Existing road network

William Street

William Street remains at its current cross section width. It is noted that the Wallan Structure Plan does indicate that William Street may in the future provide access across the Hume Freeway. Should this occur, some parts of William St are already wide enough, whilst any other road reserve widening could occur on the northern side of the road reserve.

King Street

King Street will provide for access to the central part of the Masterplan area. The Masterplan also identifies the potential for this to connect across the Mittagong Creek in the future, should land to the east be rezoned. As outlined in the traffic impact assessment, King Street will need to function as a Connector Street, providing a Shared Pathway within the road reservation. The current road reservation of King Street is 20m wide. To accommodate a Connector Street cross section, a minimum of 22m is required. The cross sections are provided in Figure 15. As such, a widening of the King Street road reserve is necessary. For practical reasons, this widening is best delivered on the north side of the existing reservation, given that some development has already occurred on the south side of King Street which would limit the ability to widen the road in the vicinity of those developments.

Queen Street

Queen Street remains as a local access street with a 20m road reservation.

Other local streets already constructed

Other local streets already created by existing subdivision remain, and future connections into those streets should transition appropriately to the existing pavement and cross section design.

Proposed road network

The proposed network in the precinct is based on a grid system, providing for a network that is based on the existing east-west grid in this area of Wallan.

The Masterplan provides an overall street network that includes both essential streets that need to be delivered to make the Masterplan and precinct work effectively, and an indication of an internal local access street network that can be delivered as per the plan or modified subject to more detailed design for smaller areas within the Masterplan area.

The plan allows for the flexibility to deliver local streets shared across properties, or entirely within a property (refer Section 5.6 below). The cross sections provided show how a street can be delivered to service one landowner if the adjoining landowner has not yet commenced the development process.

Street Hierarchy

The street hierarchy proposed for the Masterplan area (as shown on the Movement Network Plan at Figure 14 is as follows:

Table 3: Street Hierarchy

Street Type	Road Reserve Width	Description
Connector Street	25m	North South Connector Street (25m) which will connect Watson Street through to William Street and Valley Drive.
Key Local Access Street	22m	King Street - The existing road reservation will need to be widened on the north side by 2m to accommodate the required cross section.
Local Access Street – Level 2	20m	Queen Street - The extension of Queen Street through to the north-south connector will be 20m wide to match in with the existing constructed Queen Street alignment.
Local Access Streets	16m	All other streets as shown on the Masterplan.

It should also be noted that where local access streets abut public open space, the reserve width can be reduced to 14.5m given footpaths can be provided within the open space

Cross sections for all streets are provided in Figure 15.

Key streets

The Movement Network Plan in Figure 14 also identifies the key streets that are to be delivered to ensure the Masterplan movement network functions effectively. These streets have been located to ensure efficient and effective movement throughout the Masterplan area.

Other local streets shown on the plan that are not identified as 'key streets' can be modified through the detailed subdivision process if required. Further discussion on this is contained in section 5.6 below.

Intersections

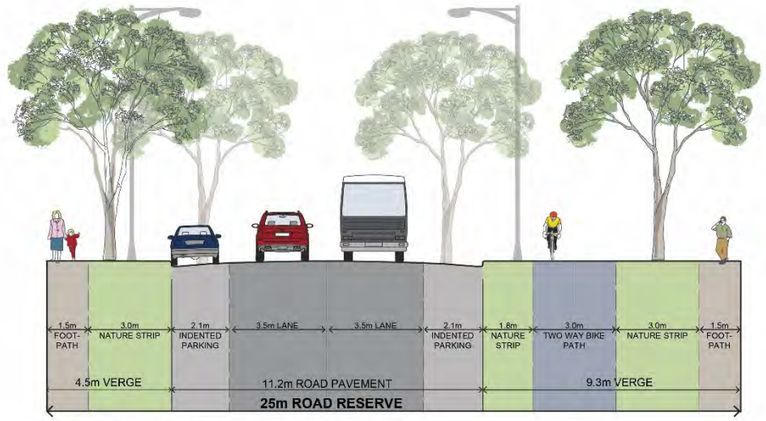
The design and treatment of internal and external intersections will have regard to both traffic volumes as well as safety considerations. As indicated on the movement network plan, all four-way intersections are to be controlled.

Key intersections for the study area include:

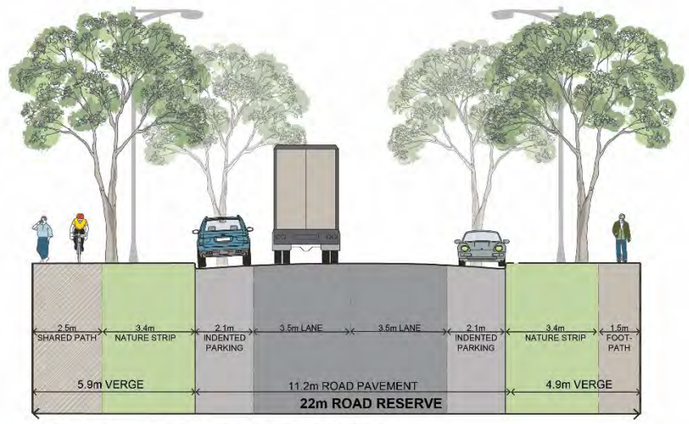
- Watson Street and North-South Connector Street (signalisation delivered as a part of Wallan Area Network Improvements project).
- William St/ Valley Drive/ North-South Connector Street controlled intersection.
- Controlled intersection at King Street and North-South connector.
- King Street and Windham Street controlled intersection.

The plan currently shows a staggered intersection at William Street/ Valley Drive/ North South Connector Street. Further investigation should be undertaken to consider realigning Valley Drive to create a four-way controlled intersection with a roundabout or signalisation.

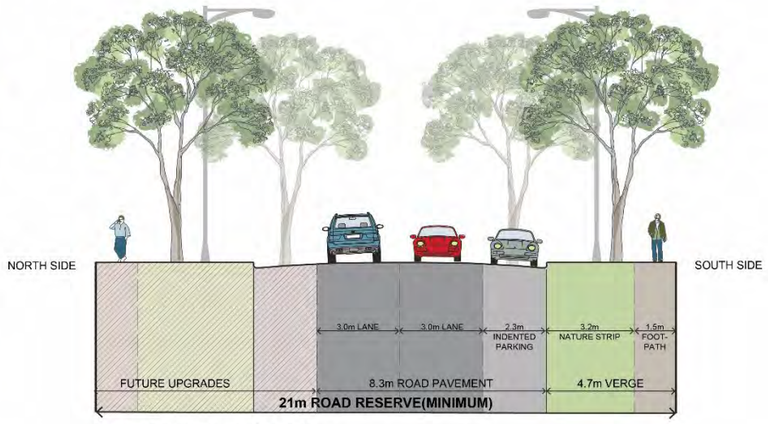
Further detail regarding these intersections is provided in Section 6.2.



Section 1. Connector Street (25m)

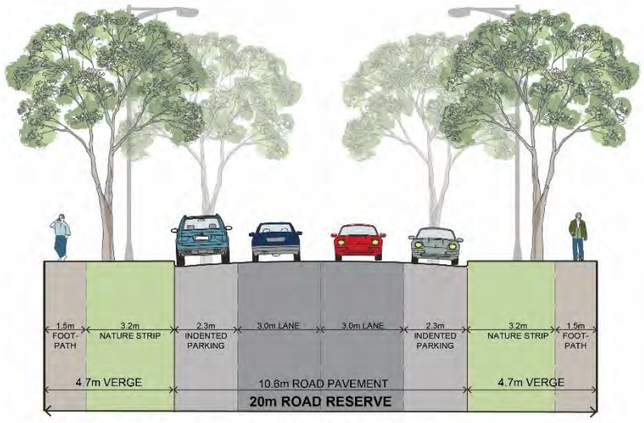


Section 2. Key Local Access Street (22m) - King Street

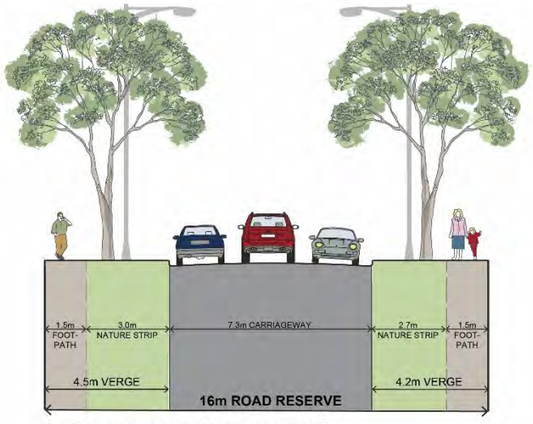


Section 3. William Street (Interim)

Note:
1.Proposed works do not preclude the ability for William Street to be upgraded, in future, to either a formal 21 m bus capable Access Street-Level 2 cross section or to duplication within the 38.5m road reserve.
2.In order to make the road bus capable based on current standards, the width of traffic lanes might be widened to 3.5m.



Section 4. Local Access Street Level 2 (20m)- Queen Street



Section 5. Local Access Street Level 1(16m)

Note:
1.Road reserve may be reduced to 14.5m where roads abut open space with the consent of the responsible authority.

Section 6. Interface with Mittagong Creek Drainage Reserve

NOTE: Detailed design within the precinct will determine if both the shared path and two way bike path are required.

Figure 18: Road Cross Sections

5.4. Open Space Networks and Community Infrastructure

As discussed in Section 4 above, the Masterplan area is in close proximity to existing public open space such as Hadfield Park, and as such, in reviewing the open space network in the area, much of the area is already within a walkable catchment to existing open space facilities. It is noted however that facilities at Hadfield Park are at capacity.

Given the projected increase in the number of dwellings and population that the area can contain, it is proposed to provide for additional open space in the area in the form of:

- A 1ha unencumbered Local Park centrally located between King and William Streets to provide for the local area, and located to take advantage of existing vegetation;
- A 1.32ha unencumbered local park annexed to the Mittagong Creek waterway corridor, to provide for additional open space opportunities along the creek corridor outside of the required drainage scheme land; and
- A small area of additional open space (0.1ha in the south-west corner that will add to the Wallan Community Park, to link it into the new neighbourhood and partially compensate for land lost for the road connection to Watson Street.

The location of these open spaces, and the walkable catchments to the spaces are shown in Figure 16. The local park (OS-1) is to be shared across 4 properties, to split the obligation between several landowners. The open space (OS-2) along the waterway corridor is contained within the larger parcel in the south-eastern part of the precinct. The total area of unencumbered (or credited) public open space to be provided within the Masterplan area equates to 2.42ha, which is about 3% of the total Masterplan area. Further discussion on contributions across the Masterplan area to enable the delivery of this open space is provided in Section 6 of this report.

The unencumbered open space described below is in addition to encumbered (uncredited) land in the Masterplan area, which includes approximately 4.5ha of waterway corridor land, the existing 2.8ha of Cemetery land, as well as approximately 0.44ha that will be encumbered as it is a buffer to the proposed sewer pumping station.

Table 4: Credited Open Space Summary Table

Park ID	Area (ha)	Type	Attribute
OS-1	1.00	Local Park	Neighbourhood Park
OS-2	1.32	Local Park	Neighbourhood Park
OS-3	0.1	Passive Recreation node	Small Park attached to Wallan Community Park
TOTAL	**2.42**		

5.4.1. Wallan Community Park integration

As outlined above, the proposed connection to Watson Street and the works associated with the Wallan Area Network Improvements project impact a portion of the Wallan Community Park. Approximately 2,589 square metres of the existing park will be required to accommodate the connector road link between the masterplan area and the McCarthy Court intersection. This also separates approximately 1,761 square metres of the current park area from the remaining portion.

Whilst there is an impact on the existing park, the Masterplan offers the opportunity to extend the open space network of the Wallan Community Park through to Mittagong Creek. Proposed OS3 provides 0.1ha of additional unencumbered open space to link the community park with the new community, as well as more than 4 hectares of reserve to accommodate the Wallan Creek drainage reserve. This provides the opportunity to extend the walking and nature-based offerings that the Wallan Community Park has through a more extended network of open space that will be delivered within the Masterplan area.

A concept plan provided in Figure 20 shows how the Masterplan can interact with the Wallan Community Park and can provide an overall net benefit to the open space network in Wallan.

5.4.2. Dog Park

The land within the Wallan Community Park that is currently utilised by residents as a fenced off dog park will become part of the road network for the King and Queen Street area. The 1.32ha OS2 local park located directly east of the Wallan Community Park will be investigated as a replacement dog park for the community.

5.4.3. Community Infrastructure

As discussed in Section 4.2 of this report, it is envisaged a new community infrastructure facility will be established in the Masterplan area with the location chosen to ensure accessibility as well as a complementary role within the regional network of community facilities. The new facility is likely to include multi-purpose community space, maternal and child health and early learning facilities.

Figure 19 indicates the potential area within the Masterplan that is suitable to deliver a community centre. An exact location for a community centre is not nominated in the Masterplan area in order to provide flexibility and allow for further investigation of need.

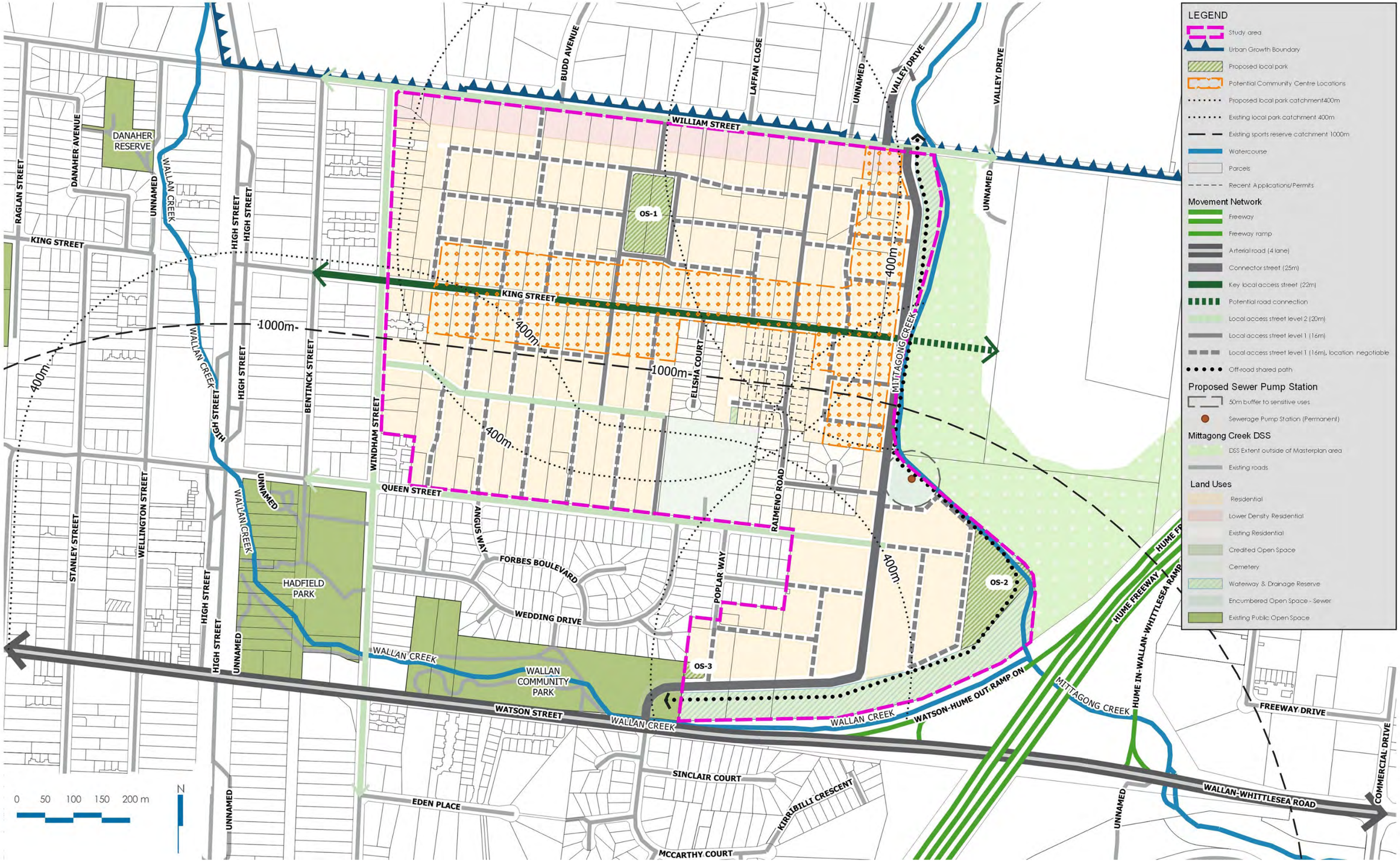


Figure 19: Open Space Network and Community Infrastructure

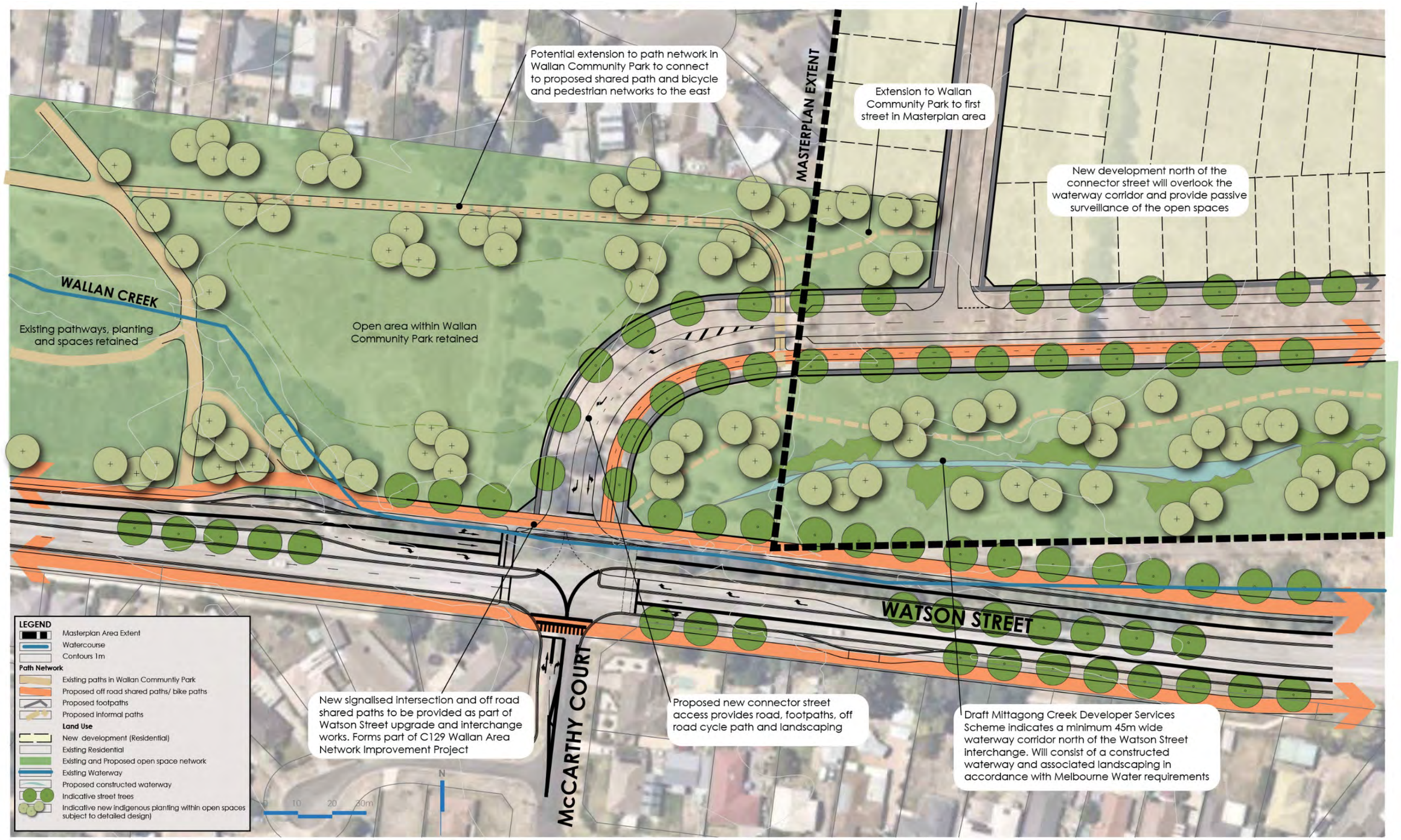


Figure 20: Wallan Community Park and Connector Street concept plan

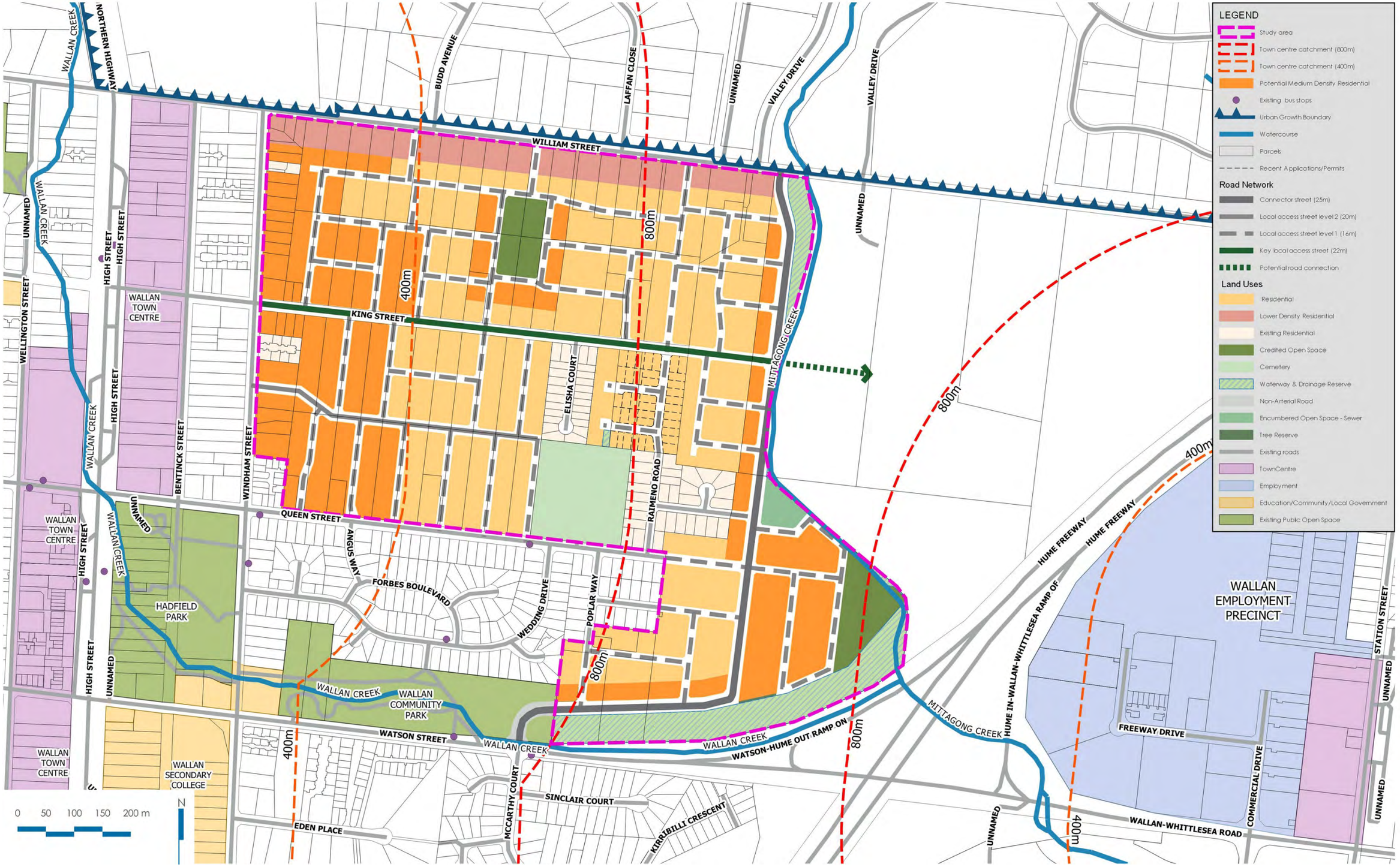


Figure 21: Housing and Lot Mix

5.5. Housing and Lot Mix

Housing types and lot mix will need to be responsive to the location of the land (within close proximity to the Wallan Town Centre), as well as reflective of the historical subdivision pattern in the area. Wallan also identifies with its country character and Direction B1 of the Wallan Structure Plan states to '*Reinforce Wallan's 'country town' character*.'

Lot Mix

Lots to be created by subdivisions in this area should generally fall into 3 categories:

- Lower density lots along the frontage to William Street
- Conventional residential lots across most of the precinct
- Medium Density development (including potential for townhouses on individual lots as well as sites for integrated medium density development).

It is expected that the precinct should achieve a minimum overall density of 17 dwellings per net developable hectare.

Lower Density Residential (800-1000sqm typical lot size)

The Lower Density Residential interface is included to provide a transition of slightly larger lots along that edge for the following reasons:

1. William Street is intended to (in the future) connect potentially to the east of the Freeway. Limited direct access to the road will allow for a better traffic and transport outcome.
2. William Street is the Urban Growth Boundary, and Low Density Residential zoned land exists on its north side.

Given the current blocks along William Street are in the order of 40m wide, an 800-1000sqm lot size is considered an appropriate transition along that edge. Lots are likely to be in the order of 20-25m wide x 40-50m deep to provide for a suitable transition along that edge.

Conventional Residential (400-600sqm typical lot size)

Most of the Masterplan area is to cater to a conventional residential lot size, and typical residential lots in the area are expected to be in the order of 400-600sqm.

Subdivision of land should be in accordance with the requirements of Clause 56 of the Mitchell Planning Scheme.

Medium Density Residential (lots less than 400sqm and integrated development)

Medium density residential development is encouraged within the Masterplan area. The Housing and Lot Mix plan in Figure 17 shows the preferred areas for medium density housing within the precinct. These have been shown based on the following criteria:

- Within the walkable catchment of the Wallan Town Centre;
- Adjacent to proposed open space and waterway corridors;
- Along key transport routes, which either provide (or can accommodate in the future) public transport; and
- Achieving in the order of 20% of the residential area for medium density housing.

Housing Typologies

As described in Section 4, Wallan's housing stock is dominated by dwellings consisting of 3 or more bedrooms. It is recognised that the Masterplan area will for the most part provide lots that will cater for 3+ bedroom dwelling stock.

In areas identified as suitable for medium density housing within the Masterplan, a diversity of housing styles and sizes should be encouraged. Dwellings with 2-3 bedrooms rather than more than 3 bedrooms are encouraged to be planned for in medium density developments within the Masterplan area.

Affordable Housing

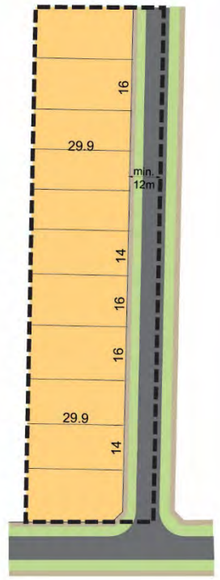
As part of the delivery of this Masterplan, consideration should be given to the provision of some affordable housing options within developments. Affordable Housing is defined in the Planning and Environment Act 1987 as "*housing, including social housing, that is appropriate for the housing needs of very low, low, and moderate-income households*". Proposals within the Masterplan area should consider including some affordable housing in their Development Plan and/or Planning Permit applications.

5.6. Subdivision Design guidance

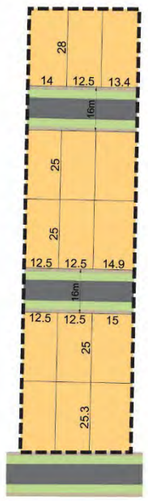
It is recognised that the Masterplan area is very fragmented, and in the most part is in single ownership of land parcels that are in the order of 40 x 160m (approximately 6500sqm) for the blocks between William and King Streets, and 40 x 170m (approximately 6800sqm) for blocks between King and Queen Streets. There are exceptions to this where blocks have been further subdivided to create battle-axe lots, but in general this is the main subdivision pattern in the Masterplan area.

To assist with planning for future subdivision of these lots, the following examples of how the larger blocks could be subdivided (depending on the requirements of the Masterplan for each individual lot) are provided. These show examples of how lots can be subdivided for conventional residential outcomes.

Options for road to be shared between properties or built in one or the other (depending on circumstances)



Shallower lots with lots entirely within properties providing east-west connection



Road entirely within single property creating shallower lots

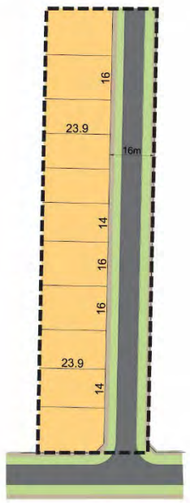
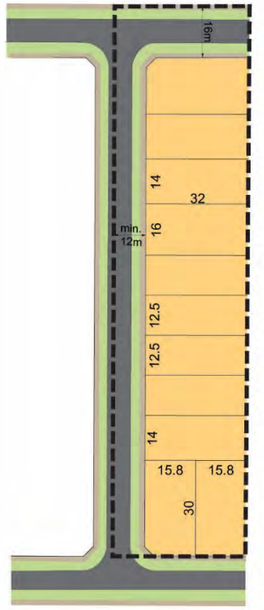
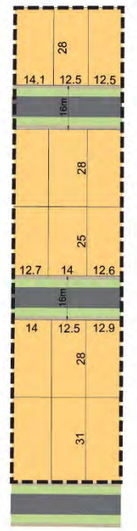


Figure 22: Optional block designs for 40 x 160m blocks between King and William Streets

Options for road to be shared between properties or built in one or the other (depending on circumstances)



Shallower lots with lots entirely within properties providing east-west connection



Road entirely within single property creating shallower lots

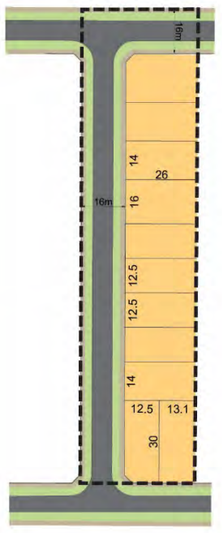


Figure 23: Optional block designs for 40 x 170m blocks between King and William Streets

Designing with existing vegetation

We also note that many of the existing lots have areas of native vegetation, or substantial trees that would be beneficial to retain within road reserves and areas of open space where possible. Some examples of how trees can be incorporated into road reserves and subdivision design successfully are shown below.

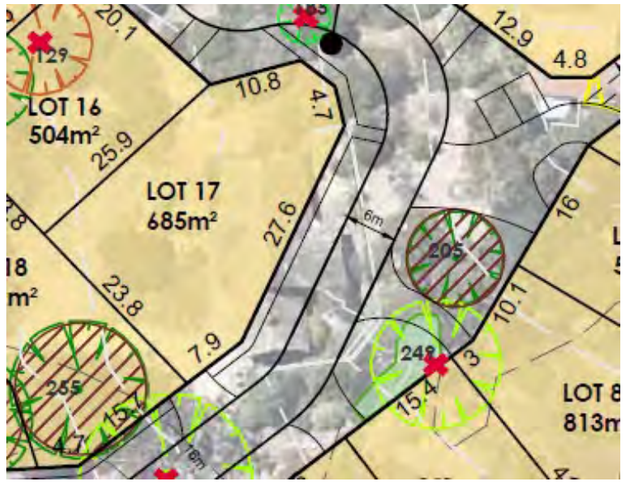


Figure 24: Examples of shifting/widening road reserve to meander around existing trees (photo sourced from www.nearmap.com.au)

Medium Density Housing design guidance

The Masterplan designates areas suitable for medium density housing. Medium Density housing can be provided in various forms, and it is encouraged to provide it in locations close to amenity and facilities such as closer to the Wallan Town Centre, and along interfaces with open spaces.

Lots less than 400sqm are one form of medium density housing. These can be provided in a number of ways:

1. Small shallow lots (ie. 16x16m), which allow for a built form that provides a consistent street presence with standard lots but provides for a diversity of housing product.
2. Narrow frontage lots with access from the street frontage (for example, 8.5 x 25m lots). Lots that are being accessed from the front are to be no less than 8.5m wide, so that garages do not dominate the streetscape.
3. Rear loaded townhouses. These are likely to be lots less than 8.5m wide, with garage access from a rear laneway. If these lots directly front a park or public space, there must be provision for a 'paper' road' of 3m wide along the frontage to accommodate postal access and appropriate address to the space.
4. Integrated medium density/ unit developments could also be considered on sites, considering the need to minimise long straight accessways, and provide a diversity of housing typologies.

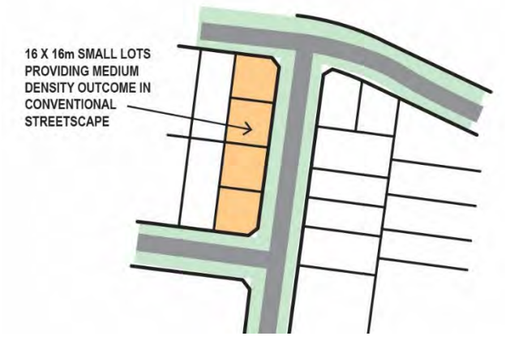


Figure 25: Small lots in a conventional streetscape

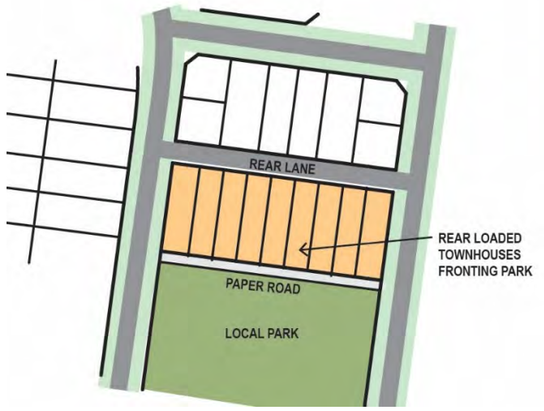


Figure 26: Example of rear loaded townhouses directly fronting park

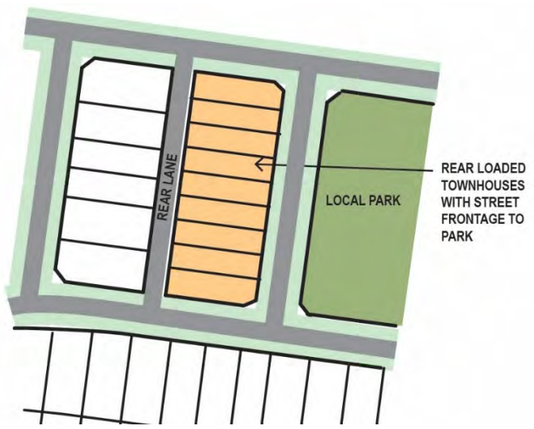


Figure 27: Example of rear loaded townhouses with street frontage

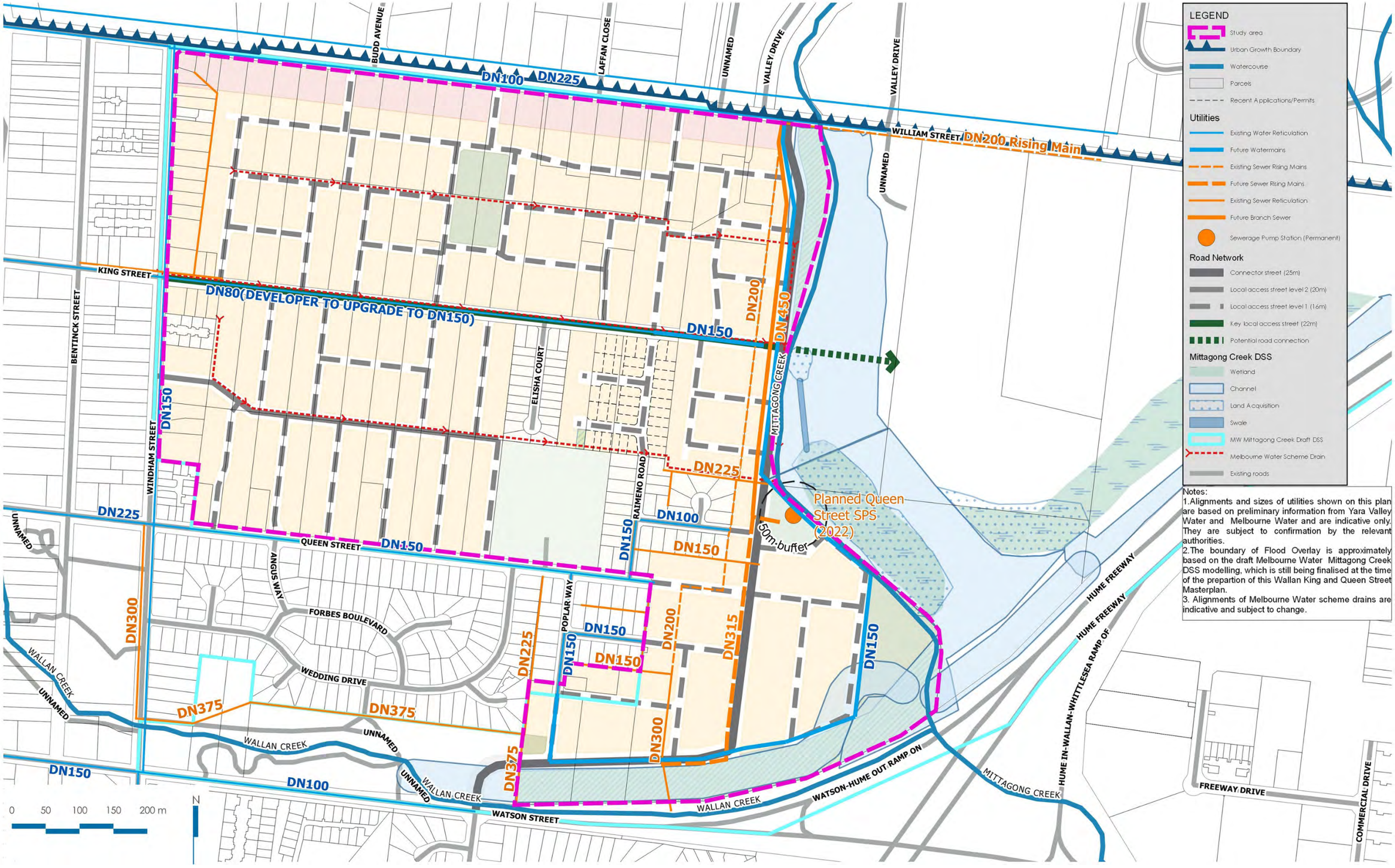


Figure 28: Infrastructure Strategy

6. Infrastructure Strategy

The Infrastructure Strategy for the land includes both the road and transport infrastructure and the servicing infrastructure required to enable development.

6.1. Provision of Physical Infrastructure

Infrastructure in the precinct is limited and will need to be constructed as development occurs. Following is an outline of the key infrastructure requirements for the precinct. The Infrastructure Strategy Plan shown in Figure 24 and the Staging Direction Plan shown in Figure 31 show the overall strategy for how infrastructure will need to be delivered for the precinct.

6.1.1. Water

Yarra Valley Water (YVW) is the relevant authority for water supply in the Masterplan area. There is currently provision of potable water supply within the precinct along the existing street network. However, ultimate development will require the extension and augmentation of existing water mains, as well as the provision of additional mains along the new street network. At the present time, there is capacity within the network for additional developments. However, developers will need to confirm with YVW by applying for Preliminary Servicing Advice and/or a Development Deed for the specific development site.

Some key points regarding the Water Strategy for this precinct are as follows:

- There is currently a DN80AC Water Main along King Street – this will need to be upgraded to a DN150 which will be triggered by development along this street. The cost of removal, disposal and construction of the new main will be borne by developers.
- A DN150 water main will need to be constructed around the precinct, with DN100 mains to be provided throughout the balance of the street network.
- YVW requires the existing DN225 Water Main on High Street to be extended to Wyndham Street, to improve supply for the precinct. The exact trigger for this will need to be confirmed by YVW.

Please refer to Figure 25 and Figure 26 for detail.

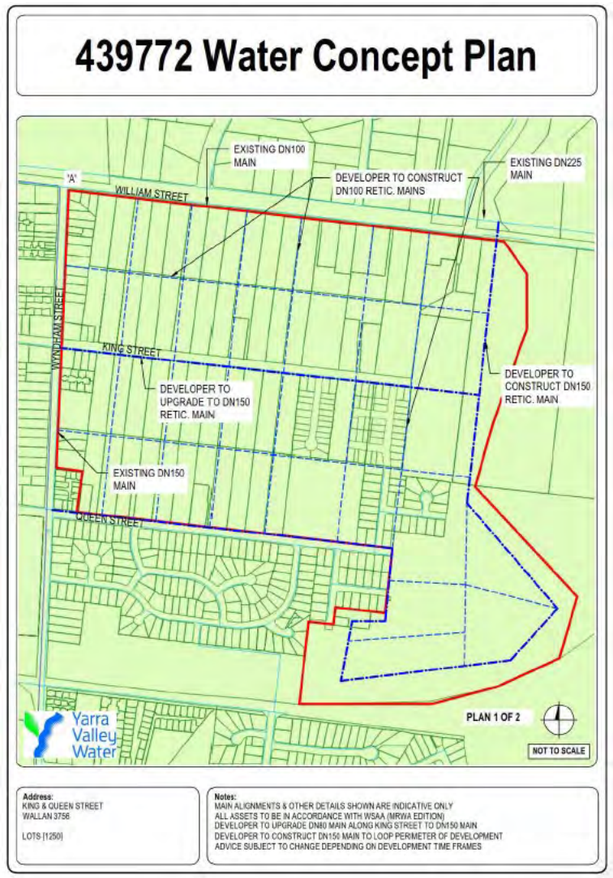


Figure 29: YVW Water Concept Plan (1)

Figure 30: YVW Concept Plan (2)

6.1.2. Sewer

Yarra Valley Water is also the sewerage authority in this area. The majority of the Wallan King and Queen Street Precinct is not currently serviced by sewer. This is the main barrier for re-development within this precinct. Without the construction of significant sewer infrastructure, development will continue to be restricted, as the costs associated with interim sewer pump stations and rising mains, or eduction are generally cost prohibitive.

YVW Servicing Advice shows that the ultimate major sewer infrastructure to be constructed for this precinct will consist of the King and Queen Street Sewer Pump Station and Rising Main, and the Mittagong Creek Branch Sewer (Stages 1 and 2). The King and Queen Street SPS and Rising Main is currently programmed for delivery in late 2021-early 2022 and the Mittagong Creek Branch Sewer (Stages 1 and 2) planned for 2026. YVW have advised that these assets will be reimbursed by YVW, however bring forward costs may apply if the timing of delivery of these assets is brought forward.

The overall precinct falls towards the Mittagong Creek which runs along the Eastern Boundary of the precinct. As the planned Branch Sewer and Sewer Pump Station are located along the creek, it is expected that development of this precinct will commence from the South-East (within the vicinity of the proposed SPS) and will then progress to the West/ North West to Windham and William Streets. Developers could develop ahead of sequence, however the cost of temporary pump stations and rising mains, or eduction would most likely make this cost prohibitive. Please refer to Figure 27 for detail.

Figure 31: YVW Sewer Concept Plan

6.1.3. Drainage

Mitchell Shire Council is the responsible authority for minor local drainage while Melbourne Water is the responsible authority for the provision of major drainage facilities and regional drainage networks and is responsible for the drainage outlet of lots greater than 0.4Ha. For lots less than 0.5Ha, Council will have to offer a stormwater outlet for future development of the property.

Melbourne Water has developed a draft layout for this precinct, named the Mittagong Creek Drainage Scheme – refer to Figure 28. This draft DSS is flexible in its design, and as long as the developers at the time of development meet the intent of the scheme design with their designs, Melbourne Water will assess all proposals. We note that at the time of writing this Masterplan, the drainage scheme is in draft form and design is still to be finalised.

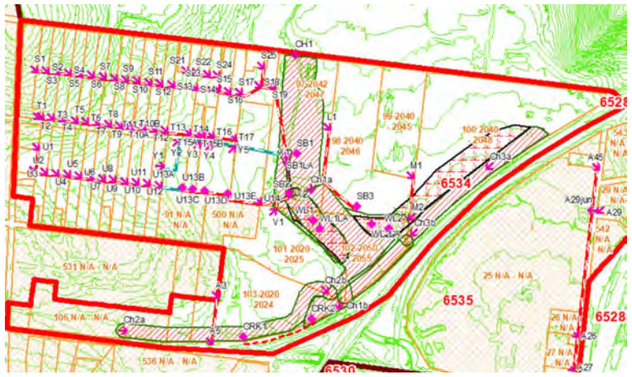


Figure 32: MW Mittagong Creek Draft DSS

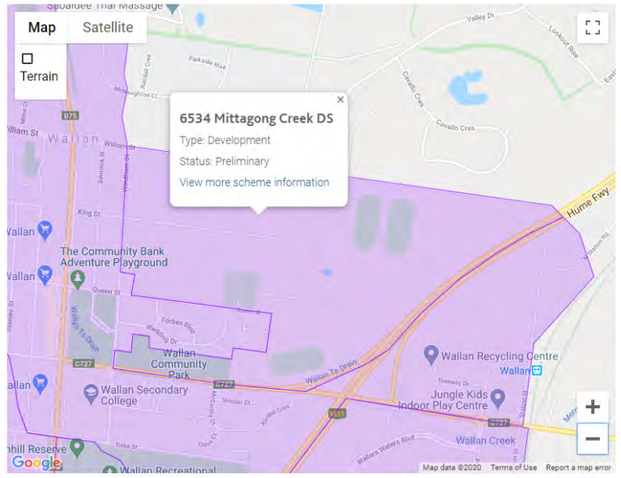
Preliminary Melbourne Water contributions for this scheme are $145,910/Ha for Hydraulic and $64,480/Ha for Water Quality (Refer to Figure 29). These contributions will be collected prior to statement of compliance and will fund the drainage scheme works.

The draft drainage scheme provides a formal waterway corridor, which will consist of a range of scheme works including sediment basins, wetlands and creek widening works to improve the hydraulic function and treatment of stormwater for this catchment.

The precinct has a natural grade which falls approximately 40 metres to the South East, from RL 339m AHD at the intersection of Windham Street/William Street to the southern-most part of Mittagong Creek just north of the freeway culverts at RL301m AHD. The existing contours for lots between King and Queen Streets (East of Windham Street) fall to the rear of the lots, which creates a gully that channels stormwater to the East into Mittagong Creek. The draft Mittagong Creek DSS provides a Melbourne Water scheme drain at the rear of these properties to collect and convey this flow via a piped system. Further, the Masterplan for the site proposes a road along the rear of the majority of these lots, which will further capture and convey flows to the creek, reducing potential for flooding through properties. This proposed road will also address the flooding issue along Windham Street, midway between King and Queen Streets, by capturing and channeling stormwater to the creek.

As land ownership in this precinct is extremely fragmented, land owners intending to develop will need to consider properties upstream and downstream of their site, as well as work with Council and MW to develop a drainage solution that will be practical and minimise impacts in the interim, whilst still conforming with the overall Scheme intent for the area.

At the time of writing, the exact boundary of the future Flood Overlay is still being finalised, due to flood modelling being undertaken by Melbourne Water and proposed planned works by the Department of Transport within close vicinity to drainage assets. As such, this information is only provided as a guide and exact boundaries and requirements are to be obtained by the relevant authority at the time of development.



No.	Greenfield scheme name	Current base rate (standard residential) ($/ha)				Rate changes		
		Hydraulic	Water quality	Includes scheme WQ works	Calculator	Effective date	Hydraulic	Water quality
6534	Mittagong Creek DS	$145,910	$64,480	Yes	Calculator			

1. Scheme on preliminary rates.

Figure 33: Mittagong Creek DS MW Contributions, sourced from the Melbourne Water website on 27/03/20.

6.1.4. Gas

APA is the responsible authority for the provision of gas supply for this precinct. A DBYD investigation has confirmed the presence of existing gas assets within the current street network. However, an application will need to be made to APA at the time of development/subdivision to confirm requirements for connection, construction of new assets and the requirement of augmentation of the existing network. Generally, developers are responsible for the provision of a shared trench (including excavation and backfilling) with APA supplying gas mains for developments at no cost. Additional costs may be applicable for required upgrades of the existing gas network and therefore should be confirmed with APA.

6.1.5. Telecommunications

NBN Co is the responsible authority for Telecommunications infrastructure for this precinct. The site has access to telecommunications infrastructure, as confirmed from a DBYD investigation of the precinct. Refer to extract from the NBN Co website confirming NBN service is available for this precinct.

Developers are responsible for the installation of pit and pipe infrastructure suitable for optical fibre installation as part of the National Broadband Network. An application will need to be made to NBN Co at the time of development/subdivision to confirm requirements for connection, construction of new infrastructure and/or upgrade of the existing network (if required).

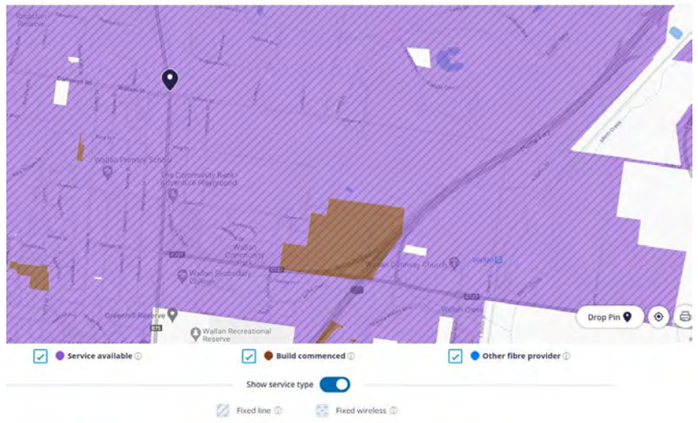


Figure 34: Extract from NBNco website showing availability of service

6.1.6. Electricity

Ausnet is responsible for the provision of electrical supply for this precinct. Currently there are several electrical assets located within and surrounding the site, as confirmed from a recent DBYD investigation. An application will need to be made to Ausnet at the time of development/subdivision to confirm requirements for connection, construction of new electrical infrastructure and/or augmentation of the existing network.

[7] Based upon a reaction time of 2.0 seconds

6.2. Transport Infrastructure

Further to the explanation of Movement Network in Section 5.3, following is additional detail regarding the justification of the transport network, and the detail of delivering that network.

Intersections

William Street Intersections

A total of three Access Street Level 1 connections linking the site and William Street are proposed. These connections are proposed to be staggered a minimum of 20m offset from existing side roads to the northern side of William Street.

A fourth connection to William Street is proposed through the provision of a connector street which is proposed to provide a north-south link between Watson Street and William Street. The connector street has been aligned to provide a cross-intersection with Valley Drive at William Street towards the eastern side of the Masterplan area.

The following considerations have been had in relation to the cross-intersection that is proposed for the Valley Drive / William Street / Connector Street intersection:

- It is anticipated that traffic to/from Hidden Valley will utilise Valley Drive as well as the Connector Street to access the Hume Freeway. Traffic volumes for this movement are expected to increase following the potential future provision of on/off-ramps on the southern side of the Watson Street / Hume Freeway interchange. In this regard, we It has been advised that these on/off ramps are funded and are likely to be constructed by the end of 2023.
- Existing traffic volumes along both William Street and Valley Drive are approaching the theoretical capacity of an Access Street, up to 3,000 vehicles per day, as per Clause 56.06 of the Mitchell Planning Scheme and Victorian Planning Authority (VPA) Guidelines.
- The potential future eastern extension of William Street to provide a connection to Epping-Kilmore Road.

Based on these considerations, primarily the anticipated traffic volumes, a roundabout or traffic signal treatment is anticipated for the Internal Connector Street / William Street / Valley Drive intersection. The monetary cost of the intersection treatment would be solely funded by developer contributions.

The vertical alignment of William Street varies along its length adjacent to the Masterplan area. Accordingly, an assessment has been completed of the vertical Safe Intersection Sight Distance (SISD) of the side road T-intersections that are proposed on the south side of William Street. The assessment has been completed in accordance with the SISD parameters specified within '*Austroads Guide to Road Design Part 4A – Unsignalised and Signalised Intersections*'.

Based on the existing 60 km/h speed limit of William Street a minimum SISD[7] of 123m is required in both directions along William Street. For all side roads a minimum SISD is achieved, based upon vertical sight distances. A summary of this compliance is shown in Appendix A of the Traffix Group assessment included as Attachment A to this report.

Corner splays are expected to be provided at all internal road connections with William Street in accordance with Clause 56.06 of the Mitchell Planning Scheme. The horizontal alignment of William Street is quite straight, and the standard splays are likely to be appropriate to ensure that horizontal sight distance requirements are met.

Based on the anticipated traffic generation of the site, and distribution throughout the road network, priority-controlled T-intersection treatments are anticipated for the three Local Access Street intersections with William Street. The suitability of interim/ultimate treatments at all locations would be subject to future analysis.

Internal Road Intersections

T-intersection treatments are predominately provided throughout the site, as far as practical. A minimum 20m stagger / offset is provided between opposing T-intersections, which is considered appropriate.

Controlled intersections are proposed at the following cross-intersections:

- King Street / Access Streets
- King Street / Connector Street[8]
- Queen Street / Access Street / Angus Way
- Queen Street / Connector Street
- Connector Street / Access Streets.

Based on the anticipated traffic generation of the site, and distribution throughout the road network, roundabout treatments are likely to be the preferred method of intersection treatment. Notwithstanding, traffic signals may be required in future at the King Street / Connector Street intersection. The specific interim / ultimate treatment at all locations are subject to future analysis.

The road network nominates a total of six cross-intersections within the site. Development contributions, both land and monetary, would need to be made for the delivery of these intersections, generally in accordance with the locations specified. Notwithstanding, there should be flexibility to allow for modifications to the number and / or location of cross-intersections throughout the site.

The number of cross-intersections should be minimised (as far as practical), however, in the event that developer(s) nominate additional cross intersections, over and above those specified within the masterplan, the land requirements and monetary costs would be solely at the cost of those developer(s) which derive direct access and benefit through such arrangements.

[8] A controlled intersection treatment allows for the provision of a future fourth (eastern) leg to the intersection, should there be future rezoning/development of land parcel(s) to the east.

Windham Street / King Street Intersection

The Windham Street / King Street intersection abuts the western boundary of the site. King Street currently comprises a 20m wide road reserve, proposed to be widened to 22m, with widening to occur on the northern side of the existing road reservation.

No existing corner splays are provided on the north-western and south-western corners of the Windham Street / King Street intersection. As the existing properties on these corners are located outside of the site any widening to accommodate a future roundabout or traffic signal intersection treatment would likely need to occur with the subject site. As discussed, any additional land requirements to accommodate the controlled intersection treatment (likely a roundabout) would be provided by developer(s) within the abutting development area.

The provision of a controlled intersection benefits both the masterplan area as well as the broader existing community. Notwithstanding, as this will be the key gateway / entrance to the masterplan area and having regard to the relatively low existing traffic volumes along King Street, the monetary cost of these works would be solely funded through development contributions.

Watson Street / Connector Street Intersection

It is understood that the Watson Street / McCarthy Court intersection will be signalised as part of the future duplication of Watson Street. As part of these works a fourth / northern leg will be provided which will form part of the future connector street. It is noted that there is a gap between the Masterplan boundary and the extent of the fourth / northern leg of aforementioned intersection. As part of the Masterplan, the connector street will need to be extended to tie into the fourth / north leg of the Watson Street traffic signals.

A concept layout plan of this future intersection is provided within Appendix B of the Traffix Group assessment included as Attachment A to this report for reference. We note that the traffic signal design has been provided by the Department of Transport[9] with our plan showing the proposed connector street alignment and path connections between the Masterplan area and Watson Street.

Having regard to the above, and noting that authority funding commitments for this intersection have already been secured, developer(s) financial contributions are expected for this intersection (northern leg only) and the broader Connector Street.

External Road Intersections

The following intersections may also require upgrades, having regard to likely traffic volumes following development of the site:

- High Street / King Street
- King Street / Bentick Street
- Queen Street / Bentinck Street
- Queen Street / Windham Street.

Based on existing and anticipated traffic volumes, and the proximity to High Street, roundabout treatments are considered the likely intersection treatment at the above locations (other than High Street / King Street). Notwithstanding, at King Street / Bentinck Street the installation of splitter islands in order to restrict the northern and/or southern intersection leg(s) to left-only movements presents an alternate design option. Similar treatments could also be provided at the Queen Street / Bentinck Street intersection, or alternatively the southern leg[10] which provides access to Hadfield Park either be removed or limited to entry only.

Based upon our review there are likely to be land constraints which may preclude or limit the delivery of a roundabout treatment at the above nominated Bentick and Windham Street intersections. Specifically, the absence of existing corner splays on abutting corner properties. Further investigations would be required to determine the feasibility of roundabout treatments at these locations.

Key Road Infrastructure

King Street

King Street roughly bisects the centre of the site and is proposed to provide a key connection to the Wallan Town Centre. King Street is a proposed Access Street Level 2, comprising a single traffic lane in each direction and indented parking on both sides of the carriageway.

A single 3.5m traffic lane is proposed in each direction, within the development area, to provide for a bus capable route. A footpath is proposed on the southern side of the carriageway and a 2.5m wide shared path on the northern side. The proposed shared path can be accommodated within the site (proposed 22m road reserve), however, external to the site land acquisition would be required (current 20m road reserve) to facilitate the 22m wide road reserve.

Prior to, or as alternative to land acquisition, there may be localised opportunities to provide a 2.5m shared path. Based upon a desktop review there are no existing street trees with the northern verge of King Street which would preclude the provision of a 2.5m wide shared path. Notwithstanding, further constraints to the provision of the shared path would be sub-surface utilities. Sub-surface utilities could be relocated, incorporated within the path, or the path narrowed for short segments.

William Street

William Street comprises a varying road reserve width. William Street, between High Street and to approximately 100m east of Windham Street, has a minimum 21m (approx.) road-reserve, with some minor widening occurring in the vicinity of High Street. Between Valley Drive and 100m (approx.) east of Windham Street, William Street has a road reserve of 38.5m (approx.). East of Valley Drive, William Street reverts back to a minimum 21m (approx.) road reserve.

Therefore, William Street predominately has a 38.5m road reservation abutting the site, narrowing to 21m at the eastern and western ends of the masterplan area.

The existing minimum 21m road reservation, and function of William Street, is generally consistent with that of an Access Street Level 2. A standard VPA Access Street Level 2 cross section comprises a 20m wide road reservation which includes a footpath on both sides of the roadway as well as a single and separate traffic (3m wide each) and parking (2.3m wide each) lane in both directions. In order to make the road bus capable based on current standards, and varying from the VPA cross section, the traffic lanes would need to be widened by 1m from 6.0m to 7.0m. Notably, the minimum reserve width of 21m is 1m greater than the standard 20m cross-section width which would enable the carriageway to be widened accordingly.

No plans or timeframes have been provided regarding any future upgrades and an ultimate cross-section of William Street. Such an upgrade would likely occur following any future extension of William Street to Epping-Kilmore Road. Having regard to this, and noting the rural interface nature of William Street, which we understand is to be retained, it is not considered that the sealed roadway surface be widened to 7m and / or formal parking lane(s) be provided. It is noted that any formal road widening would likely require significant drainage works and potentially require utility relocations and/or protection. Moreover, any visitor parking is anticipated to occur within individual properties, side roads and within the informal grass / gravel verge (consistent with existing conditions).

Furthermore, it is unlikely that any potential formal upgrade would be consistent with the ultimate configuration of William Street and we are satisfied that buses could be adequately accommodated should any potential bus route(s) be provided adjacent to the site under existing conditions prior to its potential future extension to Epping-Kilmore Road.

As part of the development of the masterplan area the following developer funded works would need to be provided, for the extents of the Masterplan area frontage to William Street:

- Provision of a formalised[11] footpath along the southern side of William Street.
- Provision of gravel, crushed road it similar on one or both sides, but predominately the southern side, of William Street to ensure that any informal on-street visitor / service vehicle parking can be accommodated clear of the existing formal sealed carriageway.

The proposed works would not preclude the ability for William Street to be upgraded, in future, to either a formal 21m bus capable Access Street – Level 2 cross-section or to duplication within the 38.5m road reserve.

North-South Connector Street

To assist with planning the area and confirming whether a north-south connector street is necessary, a sensitivity assessment was also undertaken to assess the potential impact of the connector street terminating prior to Watson Street, given the alignment has an impact on the existing Wallan Community Park. The full assessment is included in the Traffix Group report included in Attachment A to this report.

This assessment considered the traffic distribution and volumes through the area and onto surrounding streets with and without the north-south connector, as well as what the potential impacts would be on intersections and transport infrastructure through the area. It also looked at traffic amenity and undertook a traffic time assessment to see

[9] It is our understanding that the intersection design is continuing to be developed with provided plans preliminary in nature (for reference purposes only).

[10] Vehicle access to Hadfield Park, and associated car parking, is provided from both an extension of Bentinck Street and via Windham Street.

[11] The pavement type, concrete or gravel (or similar), would be based upon various factors such as urban design considerations, the existing rural character of the area, significant vegetation and tree root protection.

what the travel time impact would be on people both with and without the connector street.

In summary, this analysis found that there are significant benefits to the provision of a connector street connection through to Watson Street. These benefits primary include:

- Reducing the travel time / distance motorists have to travel between the Hume Freeway and subject site.
- Fewer external mitigating road/intersection works required.
- Allowing for greater flexibility in bus route connections through the site.

In addition to the above analysis, the draft Masterplan and assessment was referred to Department of Transport for comment following community concerns regarding the impacts on the Wallan Community Park. Department of Transport's response is included as Attachment B to this report, and states that:

"The Department of Transport supports the inclusion of a new connector road to link Watson Street and William Street as it will significantly assist in north-south connectivity as well as movements accessing the Hume Freeway and the Wallan East rail station. It will also significantly reduce demand and need for capacity improvements to Windham Street.

It is the Department's position that this connector road be aligned with the existing McCarthy Court intersection to alleviate the need for a staggered T intersection arrangement with McCarthy Court and therefore the need to consider split signals and signal phasing.

Signal phases would have an adverse impact by increasing the travel time for through movements along Watson St and ultimately could create queuing that would likely back up traffic movements exiting off the freeway, given the close proximity of the intersection to the Hume Freeway ramps."

As such, the Masterplan includes the connector street.

Public Transport

Bus routes currently operate along both Queen Street and Watson Street in the vicinity of the site. The site has been designed with a number of bus capable roads. Key bus capable roads and potential future routes are as follows:

- William Street[12]
- King Street
- Queen Street
- Watson Street
- Connector Street.

Cycling Infrastructure

Schedule 14 to the Development Plan Overlay (DPO) within the Mitchell Planning Scheme requires the construction of

"A shared path network which links the Wallan Community Park to the proposed Mittagong Creek and links Wallan-Whittlesea Road (Watson Street) to William Street via the Mittagong Creek reserve area."

Construction of the path within the Mittagong Creek reserve would be required as part of the development of the Masterplan area. It is understood that the path will be constructed along the northern side of Watson Street, along the site frontage, linking to the Wallan Community Park, as part of the Watson Street duplication project.

A 3.0m bike path is proposed within the connector street cross-section, consistent with VPA cross-sections for a 25m Connector Street. This bike path is proposed to connect to the existing shared path within the Wallan Community Park, with the indicative alignment of this connection shown within Appendix B of the Traffix Group assessment included as Attachment A to this report.

Additionally, a 2.5m shared path is proposed along the northern side of King Street throughout the masterplan area.

Careful consideration should be given to incorporating cycling infrastructure where roundabouts are proposed within the street network.

6.3. Development Direction and Staging

Based on the above infrastructure advice, and the issues with access to available services, the plan included at Figure 31 shows the preferred direction that development should take in the precinct. This is suggested to give landowners and developers an idea of where services will be coming from, to provide the most efficient development of the precinct.

Primarily, the direction of development should be from the south-east to the north west, given that the land falls to the south east and both the major sewer and drainage infrastructure will be delivered from that direction.

If landowners choose to develop ahead of infrastructure being available to their property, they will need to provide the additional connections to services along nominated road reserves as agreed with the relevant authorities. It is the preference that ultimate infrastructure be provided for rather than temporary solutions, to allow for efficient provision of infrastructure.

[12] Subject to authority approval, noting that the existing sealed carriageway width of 5-6m (varies) is proposed to be retained, with widening of road shoulders proposed.

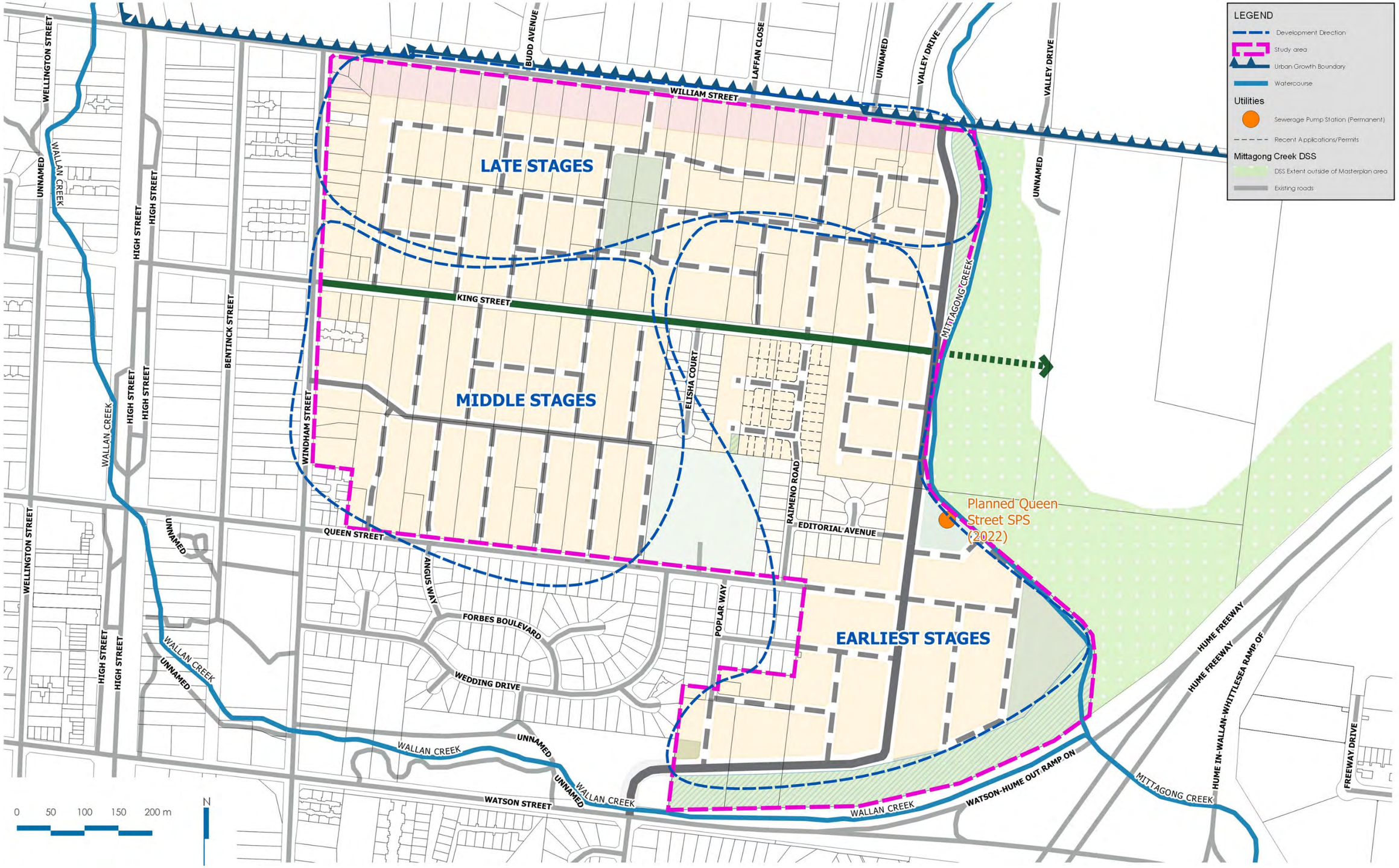


Figure 35: Development Direction

Figure 36: Development Contributions

6.4. Development Contributions

As outlined in DPO14, permits for development and subdivision within the Masterplan area must contain a requirement which will implement the developer contribution obligations relating to community infrastructure and which are identified within the King and Queen Streets (Wallan) Structure Plan 2014. These will be secured via permit conditions and a Section 173 agreement.

In addition, infrastructure required to be delivered that benefits the broader Masterplan area and, in some cases, the established surrounding area (ie intersections and connector street infrastructure) should be equitably shared between developers in the precinct. Items outlined in the below sections are those that are considered as part of development contributions and are shown for clarity on Figure 32. These contributions can also be implemented via a Section 173 agreement as outlined in DPO14.

6.4.1. Community Infrastructure

As outlined earlier in this Masterplan, payment of the Community Infrastructure Levy (CIL) is a requirement that applies to all development, and Council will collect the CIL as part of development to help fund community infrastructure. It is not intended that developers in this area be obligated to provide anything additional to this levy to fund community infrastructure.

6.4.2. Transport Infrastructure

The transport assessment nominates a number of intersection and transport infrastructure improvements that are likely to be required as part of the development of the masterplan area. It is emphasised that these requirements are both subject to authority input as well as detailed traffic assessments to identify the need, trigger and design of works to determine funding.

Key transport infrastructure identified to be delivered that will provide benefit to the entire Masterplan network includes:

- The north south connector street between Watson Street and William Street.
- the William Street/ North-South Connector/ Valley Drive intersection (noting that there will be an external contribution allocated to the traffic generated from Valley Drive to the cost of this intersection, as it is not equitable for the Masterplan area to fully fund it).
- Upgrade to the intersection of King and Windham Streets (also noting this may only be a percentage of total cost of the upgrade, as there is external demand from existing Windham St development traffic).

It is considered that the above transport infrastructure items are the higher order transport infrastructure items required to deliver the masterplan. Funding of these should be appropriately shared between the developers within the masterplan area. Other local streets and intersections are to be built and funded by individual land developers as part of normal subdivision works.

Whilst it is noted that King Street requires acquisition of land for widening, King Street is considered a Local Access Street and not a Connector Street, so the upgrade is to be provided as a part of normal subdivisional works. It is recommended that where possible, these upgrades be provided along multiple lot frontages at one time to maintain consistent streetscapes.

An estimate of the costs of the transport infrastructure works is to be developed by Council based on the cross sections and advice on intersection treatments in this Masterplan, and the costs will be allocated on a pro-rata basis based on the NDHa of each property as a proportion of the total NDHa of the Masterplan area. The required contribution for each proposed development/ land parcel will be included in the Section 173 agreement obligations as a requirement on planning permits for development in the Masterplan area.

6.4.3. Public Open Space contribution

In accordance with Clause 53.01 Public Open Space Contribution And Subdivision "*A person who proposes to subdivide land must make a contribution to the council for public open space in an amount specified in the schedule to this clause (being a percentage of the land intended to be used for residential, industrial or commercial purposes, or a percentage of the site value of such land, or a combination of both). If no amount is specified, a contribution for public open space may still be required under section 18 of the Subdivision Act 1988*".

No amount is specified in the schedule to the Clause in the Mitchell Planning Scheme for this land, so it is intended that Council would require 5% of each land parcel proposed to be subdivided to be provided either in land or in cash to satisfy the requirements of Clause 53.01 and the Subdivision Act 1988.

As outlined in Section 5 of this Masterplan, the requirements for provision of unencumbered land for public open space are shown on the Masterplan. It is recognised that 5 parcels of land in the Masterplan area are obligated under this plan to provide the land required to satisfy the open space needs of the future community. The parcels and their contribution percentage are as shown in the table below and on Figure 32:

Table 5: Open Space Contribution - equalisation

S.No.	Property Address	Standard Parcel Identifier (SPI)	Area (sqm)	Open Space ID	Open Space Required Land Contribution (sqm)	% Contribution	Area difference between 5% and land provided	% difference from required Open Space contribution of 5%
1	129 William Street Wallan	12-25/PP5822	6736	OS-1	2,356	35.0%	2,019	30.0%
2	133 William Street Wallan	13-25/PP5822	6072	OS-1	2,531	41.7%	2,227	36.7%
3	130 King Street Wallan	23-25/PP5822	6620	OS-1	2,458	37.1%	2,127	32.1%
4	134 King Street Wallan	22-25/PP5822	6046	OS-1	2,658	44.0%	2,356	39.0%
	156 Queen Street Wallan	*A/PS723780*		*OS-2*	*13,289*			
	156 Queen Street Wallan	*A/PS723780*		*OS-3*	*965*			
5	156 Queen Street Wallan	A/PS723780	139,622	OS-2 and OS-3	14,254	10.2%	5,203	5.2%

Where parcels are not shown to provide any public open space, planning permits issued will require a monetary contribution of 5% of the value of the land to be paid to council in lieu of the provision of land.

Given there are 7 parcels that will be providing in excess of the 5% in land, they will need to be compensated for the additional land to be acquired above 5%, and the monies collected by Council from other developments that are not providing land can be utilised to do that.

The land for the local parks will require a masterplan for their development. This could be prepared by the developer/s (should it become a more consolidated parcel), or if OS-1 is delivered as part of 4 separate developments, it is suggested that Council undertake a masterplan for the park and require its implementation to be funded by cash-in-lieu contributions from other developers.

6.4.4. Recommendation for further work

As outlined in Section 6.4.2 above, some further work to determine costing and external demand for the transport infrastructure is required before transport related development contributions can be finalised. We recommend this be completed as soon as possible to enable appropriate justification for any requested contributions.

Whilst the DPO14 allows for Council and developers to enter into a Section 173 Agreement for payment of contributions, a more conventional planning tool to secure development contributions is a Development Contributions Plan (DCP) and overlay. Once the costing work is complete, the Masterplan and associated costings could be used to prepare a DCP to implement both the transport and community infrastructure contributions into the planning scheme.

7. Requirements for future applications for subdivision and development in the DPO14

The purpose of preparing this Masterplan is to provide a more detailed vision and guidance in relation to the practicalities of implementing the objectives outlined in the King and Queen Street (Wallan) Structure Plan 2014 which was the basis for the creation of DPO14.

This Masterplan document has limitations in the level of detail it considers and does not answer all the requirements of the DPO14 schedule and therefore cannot be considered a Development Plan. But what it does is provide the overall framework for landowners to abide by when preparing both a Development Plan and a Planning Permit application for subdivision of land.

The DPO Schedule clearly states the following:

The Responsible Authority may grant a permit to use or subdivide land, construct a building or construct or carry out works before a development plan has been prepared to the satisfaction of the Responsible Authority provided that the Responsible Authority is satisfied that the proposal will not prejudice the future use or development of the land for the purpose of the zone or any other aspect of the Municipal Planning Strategy.

Subject to the applicant for a planning permit providing enough evidence to satisfy Council that their proposal for subdivision meets the desired outcomes of this Masterplan, and satisfactorily addresses the relevant Development Plan and Planning Permit requirements outlined in the relevant tables below, Council could be in a position to approve a planning permit for subdivision and exempt the applicant from the need to also apply for a Development Plan. Effectively, should the planning permit application meet all the DPO Schedule and Planning Scheme requirements, it can be considered 'deemed to comply' if it meets the requirements of this Masterplan. This has the potential to save applicants significant time and some cost savings, as well as Council the challenge of reviewing and approving multiple Development Plans within the Masterplan area.

7.1. Requirements for applicants for a planning permit

If an applicant is proposing a subdivision that is generally in accordance with this Masterplan, the applicant will need to provide (as a minimum):

- A Planning Report, outlining an assessment as to how the proposal meets the Masterplan and the DPO14 requirements, as well as Clause 56 and other relevant clauses of the Mitchell Planning Scheme.
- A site analysis plan, indicating the site opportunities and constraints as identified through the site investigations, to inform the development of the subdivision plan.
- A subdivision plan, showing how each part of the land is proposed to be developed and used, including lot sizes and dimensions, proposed development staging and how the proposal interfaces with adjoining properties (in accordance with the Masterplan).
- A native vegetation assessment of the land, and if vegetation is found and proposed to be retained and/or removed, an assessment addressing the Guidelines for the removal, destruction or lopping of native vegetation and the requirements of Clause 52.17.
- An arborists report (if vegetation exists on the site) to determine the suitability of trees for retention within the proposed subdivision.
- A landscape plan showing street trees and treatment of any public spaces, as well as location of existing native vegetation or other vegetation proposed to be retained.
- A civil infrastructure and drainage report that outlines how the development can be serviced.
- Pedestrian and cycle connections in accordance with the Masterplan.
- Traffic Impact Assessment, or an outline of how transport infrastructure identified in the Masterplan will be delivered by the proposed development if a traffic impact assessment is not deemed necessary given the size and/or location of the site.
- Timing, method and security of payment for the provision of any physical and community infrastructure via either a Section 173 Agreement with the landowner, or by an agreed permit condition that implements the requirements of the Masterplan in relation to contributions and infrastructure requirements.
- A statement regarding how the proposal can deliver a diversity of housing outcomes, including any provision of affordable housing.

In addition to the above, applicants may need to address and include the following, subject to where the land is located within the Masterplan area:

- A noise attenuation plan to VicRoads satisfaction (if required).
- A Cultural Heritage Management Plan.
- Relevant assessments to address the requirements of the Salinity Management Overlay.

Subject to meeting all of the above relevant requirements and satisfying any other relevant planning scheme controls for the proposal, the Masterplan could in these circumstances provide Council with the ability to exempt the applicant from the need to also prepare a Development Plan for the land.

7.2. Subdivision Design Assessment - Objectives and Guidelines

In addition to the Decision Guidelines in DPO14, some key design criteria have been developed through the preparation of this Masterplan that should be utilised by both applicants preparing a proposal for subdivision, and Council officers assessing proposals for subdivision. These include the following:

Objective 1: Retain existing vegetation within subdivision design where it can be retained to enhance public space

Consideration should be given to the following guidelines for retaining vegetation:

- Road cross sections should be varied to incorporate suitable existing trees in widened verges.
- Where vegetation is being retained, it should be included as incidental open space along streets.
- Design subdivision to include existing tree row plantings (if to be retained) along roads.

Objective 2: Provide for a diversity of lot sizes to encourage housing diversity

- Subdivisions should include a mix of lots including a variety of frontages and depths where possible to encourage a variety of housing forms and dwelling sizes.
- Subdivision on land identified in the Masterplan as suitable for medium density housing should include at least 50% of lots less than 300sqm.
- Subdivisions that retain lots around existing dwellings should demonstrate how the existing dwelling's lot can be further subdivided so it appropriately integrates with the surrounding lot layout.

Objective 3: Provide the option of shared road development to provide for effective implementation of the masterplan

- Where a subdivision proposes to build part of a road within their property, with the balance of the cross section (verge and footpath) to be built as part of a future development of the adjoining property, the proposal must indicate how the balance of the road is to be constructed on the adjoining property.

Objective 4: Consider the appropriateness of location for any proposed non-residential uses within the Masterplan area

- If a non-residential use (ie. Childcare, medical centre) proposes to locate within the Masterplan area, it should be located:
  - Along a Connector Street or Local Access Street Level 2/ Key Local Access Street that is also a Bus Capable Street.
  - On a corner site to provide for ample opportunity for safe and efficient access.

8. Conclusion

This Masterplan is a follow on from work previously prepared for the Wallan King and Queen Street area. It was commissioned to provide the next level of detailed planning for the area, to assist Council and landowners/developers in creating integrated development outcomes for the area of fragmented land that is near the Wallan Town Centre.

The Wallan King and Queen Street Masterplan provides the appropriate level of guidance and control to enable integrated residential development and growth to occur. It provides enough detail to ensure Council, authorities, landowners and developers understand the intent for how this area is to grow, and how development can progress in accordance with the DPO14 requirements.

Whilst this Masterplan is not being prepared as a Development Plan as it does not contain all the detail required by the DPO14 schedule, the Masterplan can provide Council and developers/ landowners with the framework to enable them to complete the required work (as outlined in Section 7 of this report) that can allow Council to consider a planning permit and development plan application, or exempt them from the requirements to submit a development plan.

The plan implements the vision for the area that has been developed through the Wallan Structure Plan and earlier strategic projects and ensures that development is provided in an integrated and connected way.

References

Aecom, *King and Queen Street (Wallan) Structure Plan* 2014

ASR Research, *Planning for Community Infrastructure in Growth Areas* April 2008'

Echelon Planning, Outlines, Patch Design + Plan and Cardo, *Wallan Town Centre Masterplan and Urban Design Framework* September 2016

Mitchell Shire and ASR Research, *Integrated Community Services and Infrastructure Plan* (December 2013)

Mitchell Shire Council, *Wallan Structure Plan* 2015

Mitchell Shire Council and @leisure, *Mitchell Open Space Strategy* 2013-2023

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Acknowledgments

We would like to acknowledge the inputs from:

- Department of Transport and VicRoads.
- Melbourne Water.
- Yarra Valley Water.
- Council departments.
- Landowners and community members who submitted to and reviewed the draft masterplan.

For their inputs to the development of this Masterplan.

Attachment A – Traffix Group Report

Traffix Group

Our Reference: G27897L-01D

7 May 2021

Urban Design and Management
1/114-126 Evans St
SUNBURY VIC 3429

Attention: Melinda Holloway

Dear Melinda,

Wallan King and Queen Street Masterplan – Transport Assessment

Traffix Group have been engaged to provide a transport assessment of the Wallan King and Queen Street Masterplan (the 'Masterplan').

The following outlines the key findings of our review, with this assessment forming supplementary information to the Masterplan being prepared by Urban Design and Management (UDM).

Background

There are a number of potential future transport infrastructure projects proposed within the vicinity of the site. A plan summarising these works is provided within Figure 1.

It is emphasised that the nominated works are at varying stages of planning and development and in many cases are subject to future funding. Of the nominated works it is noted that any future eastern extension of William Street to Epping Kilmore Road and associated grade separation would be a medium to long-term project.

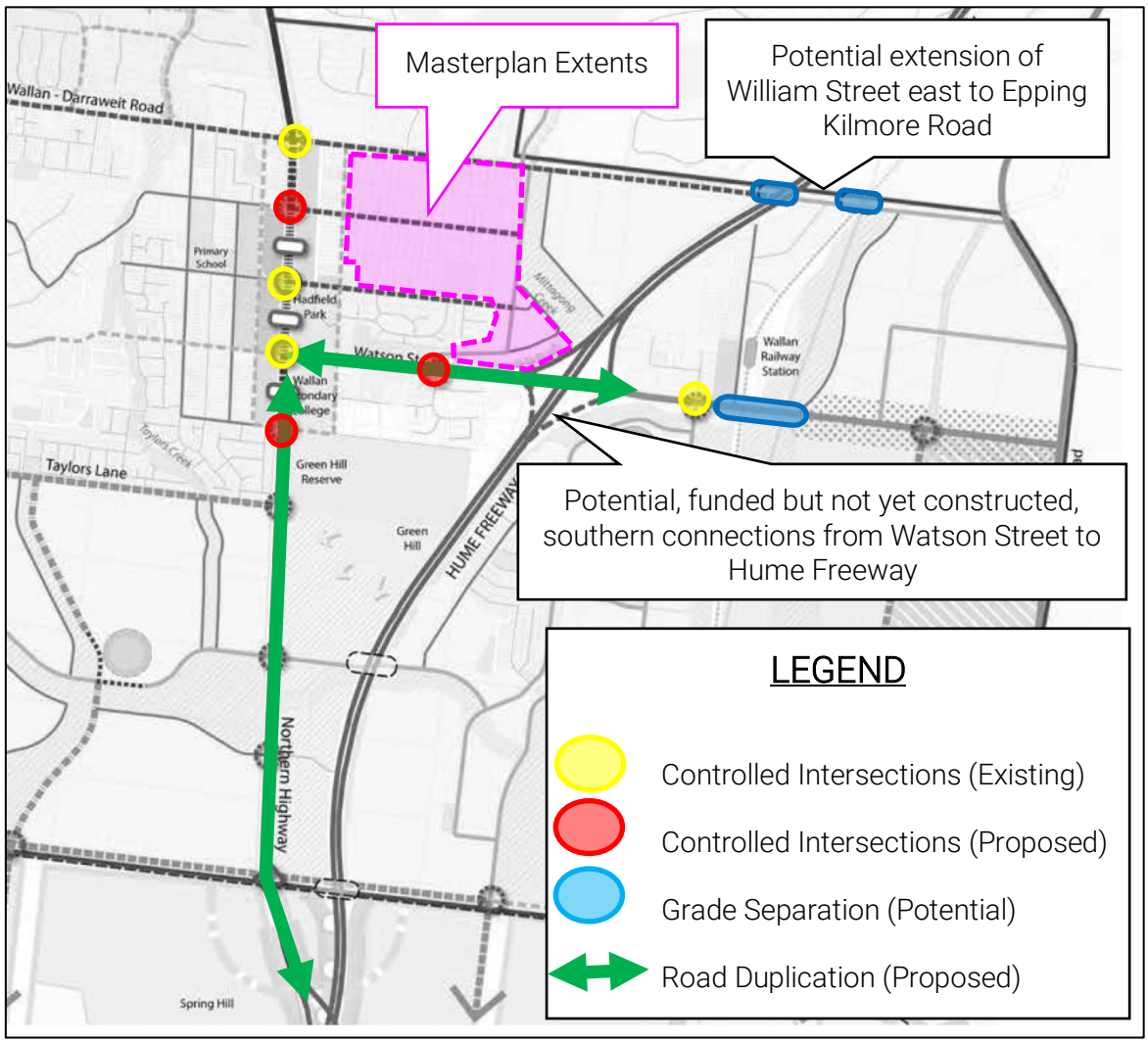

Figure 1: Potential Future Works

Source: Base image sourced from Wallan Structure Plan (December 2015)

Further to this, Figure 2 summarises the proposed internal road network layout and hierarchy.

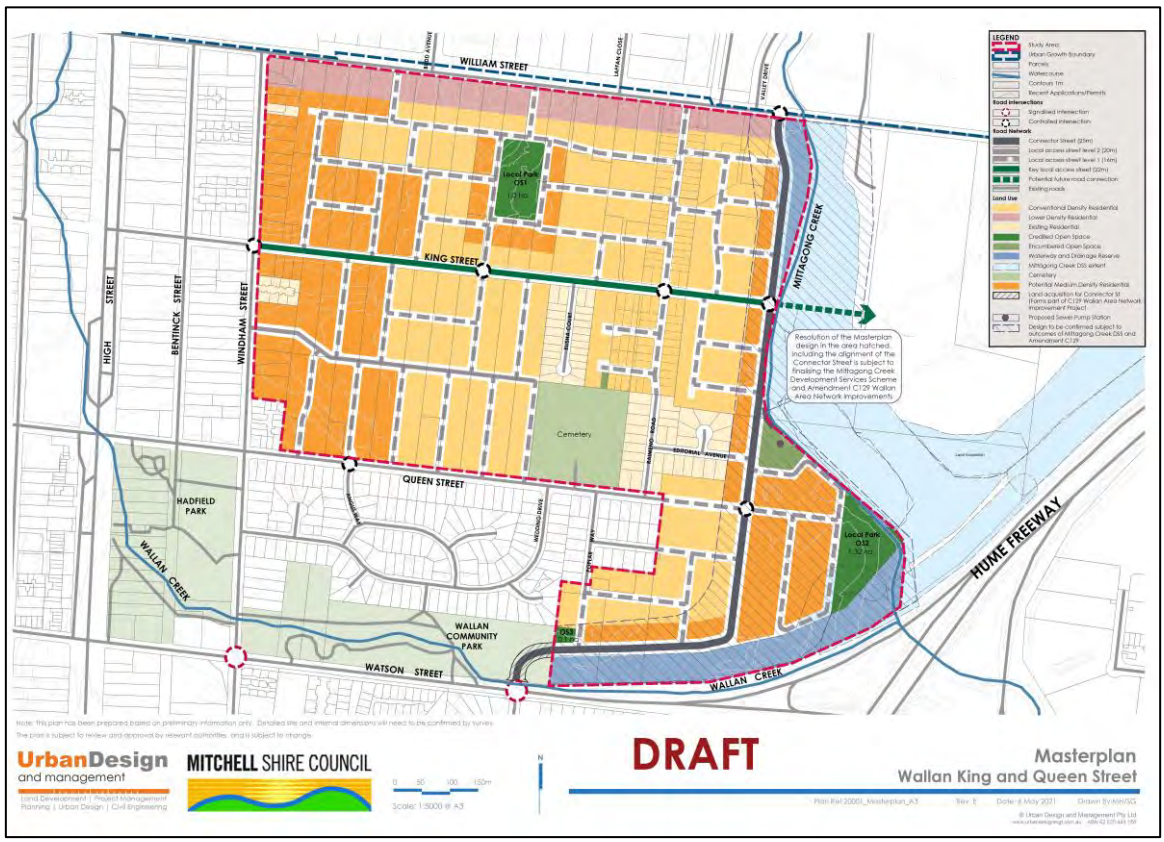

Figure 2: Proposed Road Network

Existing Road Network

Existing traffic volume information for roads in the vicinity of the Masterplan, have been sourced from Council and the Department of Transport. Figure *3* outlines existing daily traffic volumes in the vicinity of the site.

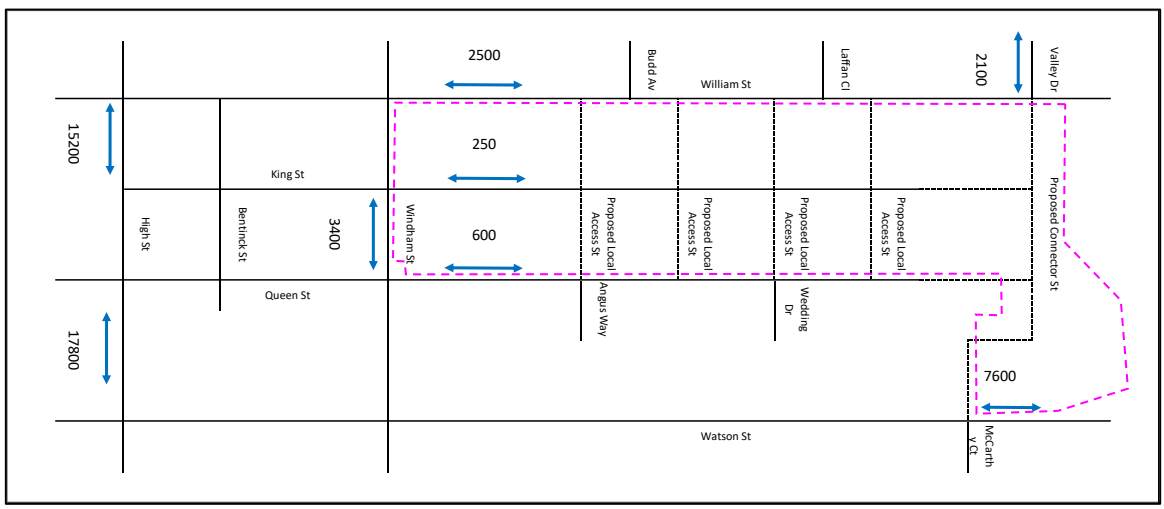

Figure 3: Existing Traffic Volumes

Traffic Generation

The *RTA (now RMS) Guide to Traffic Generating Developments* (2002) sets out traffic generation rates based on survey data collected in New South Wales for a range of land uses. This Guide is used by the Department of Transport (VicRoads) and is generally regarded as the standard for metropolitan development characteristics.

The RTA Guide sets out the following rates for standard residential dwellings:

- *daily vehicle trips = 9.0 per dwelling*
- *weekday peak hour vehicle trips = 0.85 per dwelling*

However, the RTA Guide states that ... *"The Australian Model Code for Residential Development (AMCORD) assumes a daily vehicle generation rate of 10.0 per dwelling, with 10% of that taking place in the commuter peak period. The use of these figures provides some allowance for later dual occupancy development."*

The Masterplan area comprises in the order of 180 existing dwellings. Following full development of the area it is anticipated that some 1,085 dwellings be provided, thus representing an increase of some 905 dwellings.

Conservatively applying a rate of 10 vehicle trip-ends (vte) per lot per day to the proposed net increase of 905 residential lots equates to a total of 9,050 additional vte per day following full development of the site.

Intersections

The design and treatment of internal and external intersections will have regard to both traffic volumes as well as safety considerations.

Safety Assessment

A review of the recent crash history has been undertaken for the past five years of available reported data (last updated 31st December, 2019). The crash investigation area was bound by High Street (West), William Street (North), Watson Street (South) and McCarthy Court as well as Valley Drive (East).

Crash injury statistics are classified as follows:

- Fatal injury: at least one person was killed in the crash or died within 30 days as a result of the crash.
- Serious injury: at least one person was sent to hospital as a result of the crash.
- Other injury: at least one person required medical treatment as a result of the crash.

A summary of the reported casualty crashes is provided in Table 1.

Table 1: Casualty Crash Assessment

Location	Crash No. [1]		
	Fatality	Serious Injury	Other Injury
Signalised Intersections			
High Street / William Street	-	1	4
High Street / Queen Street	-	-	1
High Street / Watson Street	-	3	6
Watson Street / Windham Street	-	-	2
Other Intersections			
King Street / Windham Street	-	1	-
Watson Street / McCarthy Court	-	1	2
Queen Street / Windham Street	-	-	4
Total	**-**	**6**	**19**

[1] Includes all recorded crashes at or within 100m of the intersection.

Table 1 indicates that a total of 25 crashes, six resulting in serious injury and 19 resulting in other injury, have occurred within the vicinity of the site in the most recent recorded five-year period.

A detailed review of individual crash reports identified that three crashes involved pedestrians with none involving cyclists. Of the four recorded crashes at the Queen Street / Windham Street intersection three were DCA code 110 (cross-intersection) crash types. There were no further discernible crash trends identified within the assessment.

William Street Intersections

A total of three Access Street Level 1 connections linking the site and William Street are proposed. These connections are proposed to be staggered a minimum of 20m offset from existing side roads to the northern side of William Street.

A fourth connection to William Street is proposed through the provision of a connector street which is proposed to provide a north-south link between Watson Street and William Street. The connector street has been aligned to provide a cross-intersection with Valley Drive at William Street towards the eastern side of the Masterplan area.

The following considerations have been had in relation to the cross-intersection that is proposed for the Valley Drive / William Street / Connector Street intersection:

- It is anticipated that traffic to/from Hidden Valley will utilise Valley Drive as well as the Connector Street to access the Hume Freeway. Traffic volumes for this movement are expected to increase following the potential future provision of on/off-ramps on the southern side of the Watson Street / Hume Freeway interchange. In this regard, we

have been advised that these on/off ramps are funded and are likely to be constructed by the end of 2023.

- Existing traffic volumes along both William Street and Valley Drive are approaching the theoretical capacity of an Access Street, up to 3,000 vehicles per day, as per Clause 56.06 of the Mitchell Planning Scheme and Victorian Planning Authority (VPA) Guidelines.
- The potential future eastern extension of William Street to provide a connection to Epping-Kilmore Road.

Based on these considerations, primarily the anticipated traffic volumes, a roundabout or traffic signal treatment is anticipated for the Internal Connector Street / William Street / Valley Drive intersection. The monetary cost of the intersection treatment would be solely funded by developer contributions.

The vertical alignment of William Street varies along its length adjacent to the Masterplan area. Accordingly, an assessment has been completed of the vertical Safe Intersection Sight Distance (SISD) of the side road T-intersections that are proposed on the south side of William Street. The assessment has been completed in accordance with the SISD parameters specified within '*Austroads Guide to Road Design Part 4A – Unsignalised and Signalised Intersections*'.

Based on the existing 60 km/h speed limit of William Street a minimum SISD[1] of 123m is required in both directions along William Street. For all side roads a minimum SISD is achieved, based upon vertical sight distances. A summary of this compliance is shown in Appendix A.

Corner splays are expected to be provided at all internal road connections with William Street in accordance with Clause 56.06 of the Mitchell Planning Scheme. The horizontal alignment of William Street is quite straight, and the standard splays are likely to be appropriate to ensure that horizontal sight distance requirements are met.

Based on the anticipated traffic generation of the site, and distribution throughout the road network, priority-controlled T-intersection treatments are anticipated for the three Local Access Street intersections with William Street. The suitability of interim/ultimate treatments at all locations would be subject to future analysis.

Internal Road Intersections

T-intersection treatments are predominately provided throughout the site, as far as practical. A minimum 20m stagger / offset is provided between opposing T-intersections, which is considered appropriate.

Controlled intersections are proposed at the following cross-intersections:

- King Street / Access Streets

[1] Based upon a reaction time of 2.0 seconds.

- King Street / Connector Street[2]
- Queen Street / Access Street / Angus Way
- Queen Street / Connector Street
- Connector Street / Access Streets.

Based on the anticipated traffic generation of the site, and distribution throughout the road network, roundabout treatments are likely to be the preferred method of intersection treatment. Notwithstanding, traffic signals may be required in future at the King Street / Connector Street intersection. The specific interim / ultimate treatment at all locations are subject to future analysis.

The road network nominates a total of six cross-intersections within the site. Development contributions, both land and monetary, would need to be made for the delivery of these intersections, generally in accordance with the locations specified. Notwithstanding, there should be flexibility to allow for modifications to the number and / or location of cross-intersections throughout the site.

The number of cross-intersections should be minimised (as far as practical), however, in the event that developer(s) nominate additional cross intersections, over and above those specified within the UDM plan, the land requirements and monetary costs would be solely at the cost of those developer(s) which derive direct access and benefit through such arrangements.

Windham Street / King Street Intersection

The Windham Street / King Street intersection abuts the western boundary of the site. King Street currently comprises a 20m wide road reserve, proposed to be widened to 22m, with widening to occur on the northern side of the existing road reservation.

No existing corner splays are provided on the north-western and south-western corners of the Windham Street / King Street intersection. As the existing properties on these corners are located outside of the site any widening to accommodate a future roundabout or traffic signal intersection treatment would likely need to occur with the subject site.

As discussed above, any additional land requirements to accommodate the controlled intersection treatment (likely a roundabout) would be provided by developer(s) within the abutting development area.

The provision of a controlled intersection benefits both the masterplan area as well as the broader existing community. Notwithstanding, as this will be a key gateway / entrance to the masterplan area, and having regard to the relatively low existing traffic volumes along King Street, the monetary cost of these works would be solely funded through development contributions.

[2] A controlled intersection treatment allows for the provision of a future fourth (eastern) leg to the intersection, should there be future rezoning/development of land parcel(s) to the east.

Watson Street / Connector Street Intersection

It is understood that the Watson Street / McCarthy Court intersection will be signalised as part of the future duplication of Watson Street. As part of these works a fourth / northern leg will be provided which will form part of the future connector street. It is noted that there is a gap between the Masterplan boundary and the extent of the fourth / northern leg of aforementioned intersection. As part of the Masterplan, the connector street will need to be extended to tie into the fourth / north leg of the Watson Street traffic signals.

A concept layout plan of this future intersection is provided within Appendix B for reference. We note that the traffic signal design has been provided by the Department of Transport[3] with our plan showing the proposed connector street alignment and path connections between the Masterplan area and Watson Street.

Having regard to the above, and noting that authority funding commitments for this intersection have already been secured, developer(s) financial contributions are expected for this intersection (northern leg only) and the broader Connector Street.

External Road Intersections

The following intersections may also require upgrades, having regard to likely traffic volumes following development of the site:

- High Street / King Street
- King Street / Bentick Street
- Queen Street / Bentinck Street
- Queen Street / Windham Street.

Based on existing and anticipated traffic volumes, and the proximity to High Street, roundabout treatments are considered the likely intersection treatment at the above locations (other than High Street / King Street). Right/left-turn lane treatments within High Street at King Street may be required due to the increase in traffic volumes or potentially the future provision of traffic signals (as nominated within the Wallan Structure Plan).

At King Street / Bentinck Street, the installation of splitter islands in order to restrict the northern and/or southern intersection leg(s) to left-only movements presents an alternate design option. Similar treatments could also be provided at the Queen Street / Bentinck Street intersection, or alternatively the southern leg[4] which provides access to Hadfield Park either be removed or limited to entry or exit only.

Based upon our review there are likely to be land constraints which may preclude or limit the delivery of a roundabout treatment at the above nominated Bentick and Windham Street intersections. Specifically, the absence of existing corner splays on abutting corner

[3] It is our understanding that the intersection design is continuing to be developed with provided plans preliminary in nature (for reference purposes only).

[4] Vehicle access to Hadfield Park, and associated car parking, is provided from both an extension of Bentinck Street and via Windham Street.

properties. Further investigations would be required to determine the feasibility of roundabout treatments at these locations.

Transport Infrastructure

King Street

King Street roughly bisects the centre of the site and is proposed to provide a key connection to the Wallan Town Centre. King Street is a proposed Access Street Level 2, comprising a single traffic lane in each direction and indented parking on both sides of the carriageway.

A single 3.5m traffic lane is proposed in each direction, within the development area, to provide for a bus capable route. A footpath is proposed on the southern side of the carriageway and a 2.5m wide shared path on the northern side. The proposed shared path can be accommodated within the site (proposed 22m road reserve), however, external to the site land acquisition would be required (current 20m road reserve) to facilitate the 22m wide road reserve.

Prior to, or as alternative to land acquisition, there may be localised opportunities to provide a 2.5m shared path. Based upon a desktop review there are no existing street trees with the northern verge of King Street which would preclude the provision of a 2.5m wide shared path. Notwithstanding, further constraints to the provision of the shared path would be sub-surface utilities. Sub-surface utilities could be relocated, incorporated within the path, or the path narrowed for short segments.

William Street

William Street comprises a varying road reserve width. William Street, between High Street and to approximately 100m east of Windham Street, has a minimum 21m (approx.) road-reserve, with some minor widening occurring in the vicinity of High Street. Between Valley Drive and 100m (approx.) east of Windham Street, William Street has a road reserve of 38.5m (approx.). East of Valley Drive, William Street reverts back to a minimum 21m (approx.) road reserve.

Therefore, William Street predominately has a 38.5m road reservation abutting the site, narrowing to 21m at the eastern and western ends of the masterplan area.

The existing minimum 21m road reservation, and function of William Street, is generally consistent with that of an Access Street Level 2. A standard VPA Access Street Level 2 cross section comprises a 20m wide road reservation which includes a footpath on both sides of the roadway as well as a single and separate traffic (3m wide each) and parking (2.3m wide each) lane in both directions. In order to make the road bus capable, based on current standards, and varying from the VPA cross section, the traffic lanes would need to be widened by 1m from 6.0m to 7.0m. Notably, the minimum reserve width of 21m is 1m greater than the standard 20m cross-section width which would enable the carriageway to be widened accordingly.

No plans or timeframes have been provided regarding any future upgrades and an ultimate cross-section of William Street. Such an upgrade would likely occur following any future extension of William Street to Epping-Kilmore Road. Having regard to this, and

noting the rural interface nature of William Street, which we understand is to be retained, it is not considered that the sealed roadway surface be widened to 7m and / or formal parking lane(s) be provided. It is noted that any formal road widening would likely require significant drainage works and potentially require utility relocations and/or protection. Moreover, any visitor parking is anticipated to occur within individual properties, side roads and within the informal grass / gravel verge (consistent with existing conditions).

Furthermore, it is unlikely that any potential formal upgrade would be consistent with the ultimate configuration of William Street and we are satisfied that buses could be adequately accommodated should any potential bus route(s) be provided adjacent to the site under existing conditions prior to its potential future extension to Epping-Kilmore Road.

As part of the development of the masterplan area the following developer funded works would need to be provided, for the extents of the Masterplan area frontage to William Street:

- Provision of a formalised[5] footpath along the southern side of William Street.
- Provision of gravel, crushed rock or similar on one or both sides, but predominately the southern side of William Street, to ensure that any informal on-street visitor / service vehicle parking can be accommodated clear of the existing formal sealed carriageway.

The proposed works would not preclude the ability for William Street to be upgraded, in future, to either a formal 21m bus capable Access Street – Level 2 cross-section or to duplication within the 38.5m road reserve.

Public Transport

Bus routes currently operate along both Queen Street and Watson Street in the vicinity of the site. The site has been designed with a number of bus capable roads. Key bus capable roads and potential future routes are as follows:

- William Street[6]
- King Street
- Queen Street
- Watson Street
- Connector Street.

Cycling Infrastructure

Schedule 14 to the Development Plan Overlay (DPO) within the Mitchell Planning Scheme requires the construction of:

[5] The pavement type, concrete or gravel (or similar), would be based upon various factors such as urban design considerations, the existing rural character of the area, significant vegetation and tree root protection.
[6] Subject to authority approval, noting that the existing sealed carriageway width of 5-6m (varies) is proposed to be retained, with widening of road shoulders proposed.

"A shared path network which links the Wallan Community Park to the proposed Mittagong Creek and links Wallan-Whittlesea Road (Watson Street) to William Street via the Mittagong Creek reserve area."

Construction of the path within the Mittagong Creek reserve would be required as part of the development of the Masterplan area. It is understood that the path will be constructed along the northern side of Watson Street, along the site frontage, linking to the Wallan Community Park, as part of the Watson Street duplication project.

A 3.0m bike path is proposed within the connector street cross-section, consistent with VPA cross-sections for a 25m Connector Street. This bike path is proposed to connect to the existing shared path within the Wallan Community Park, with the indicative alignment of this connection shown within Appendix B.

Additionally, a 2.5m shared path is proposed along the northern side of King Street throughout the masterplan area.

Infrastructure Contributions

Schedule 14 to the DPO is the nominated mechanism to provide infrastructure contributions to fund the works nominated within this and similar assessments. Funds would be secured by way of future Section 173 agreements with developer(s). These agreements will cover both monetary contributions and any land component (which is compensable) that must be set aside by developers, at the time of development.

The above assessment nominates a number of intersection and transport infrastructure improvements that are likely to be required as part of the development of the masterplan area. It is emphasised that these requirements are both subject to authority input as well as detailed future traffic assessments to identify the need, trigger and design of works.

Sensitivity Assessment

Preamble

Our above assessments assume the provision of a road network as identified within the Masterplan. We have also been requested to complete a sensitivity assessment to assess the potential impact of the connector street terminating prior to Watson Street. We understand that any such modification would see the connector street alignment generally retained (as outlined with the Masterplan) with the connector street terminating within the subject site, immediately east of the Wallan Community Park.

Traffic Distribution

We have assessed the likely future traffic distribution[7] to/from the site for both scenarios (i.e. with and without the connector street link through to Watson Street). The distributions have been summarised in Figure 4 and Figure 5.

[7] Distribution assumes the future provision of the Hume Freeway on/off ramps on the southern side of Watson Street

We have assumed the following distribution of traffic to/from the external road network, when having consideration for the existing traffic distributions:

- 40% of site generated traffic will be distributed to/from the east via Hume Highway,
- 40% of site generated traffic will be distributed to/from the south via High Street[8],
- 10% of site generated traffic will be distributed to/from the north via High Street, and
- 10% of site generated traffic will be distributed to/from the south via Windham Street.

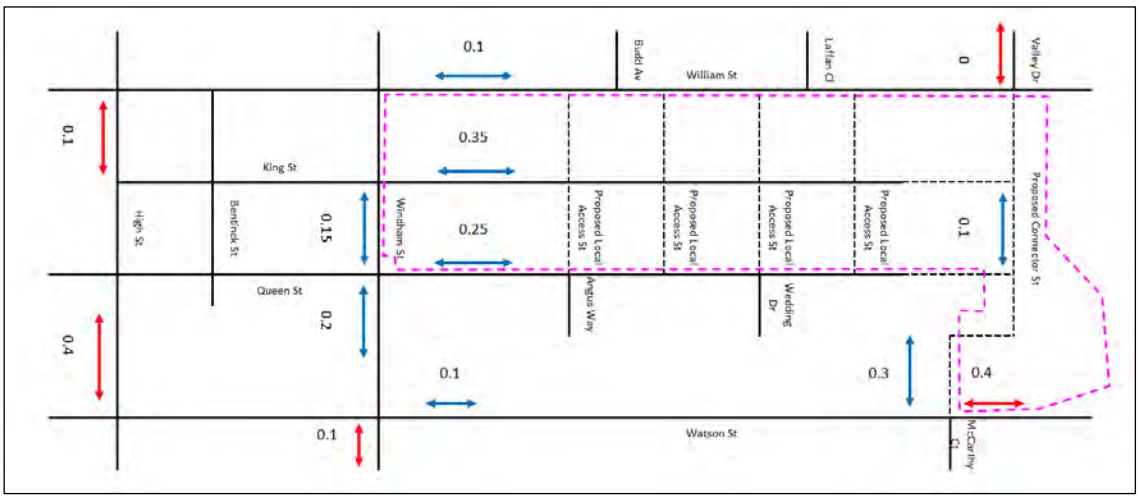

Figure 4: Traffic Distribution - Connection Provided

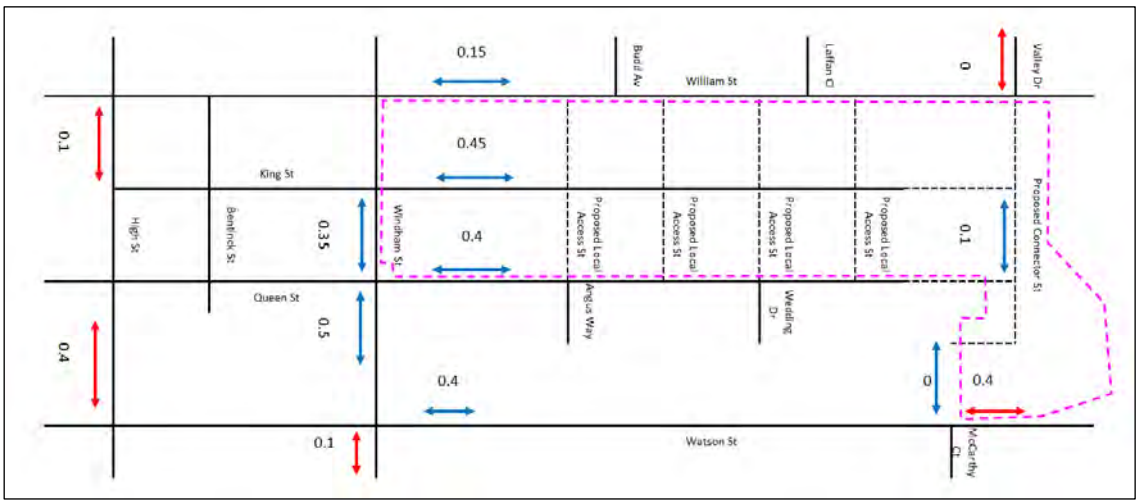

Figure 5: Traffic Distribution - No Connection Provided

As shown within Figure 5 it is anticipated that the absence of a connector street connection to Watson Street would result in a redistribution of traffic volumes. Of

[8] We note that some motorists will utilise/cross High Street in accessing retail uses located on the western side of High Street. As such, our High Street assessment is considered to retain an element of conservatism.

particular note significant increases in the distribution of site generated traffic on Windham Street and Watson Street is anticipated under this scenario.

Traffic Volumes

Based on the above traffic distributions, and a net increase of 9,050 additional vte per day following full development of the site, Figure 6 and Figure 7 have been prepared to illustrate the anticipated site generated traffic volumes under both scenarios.

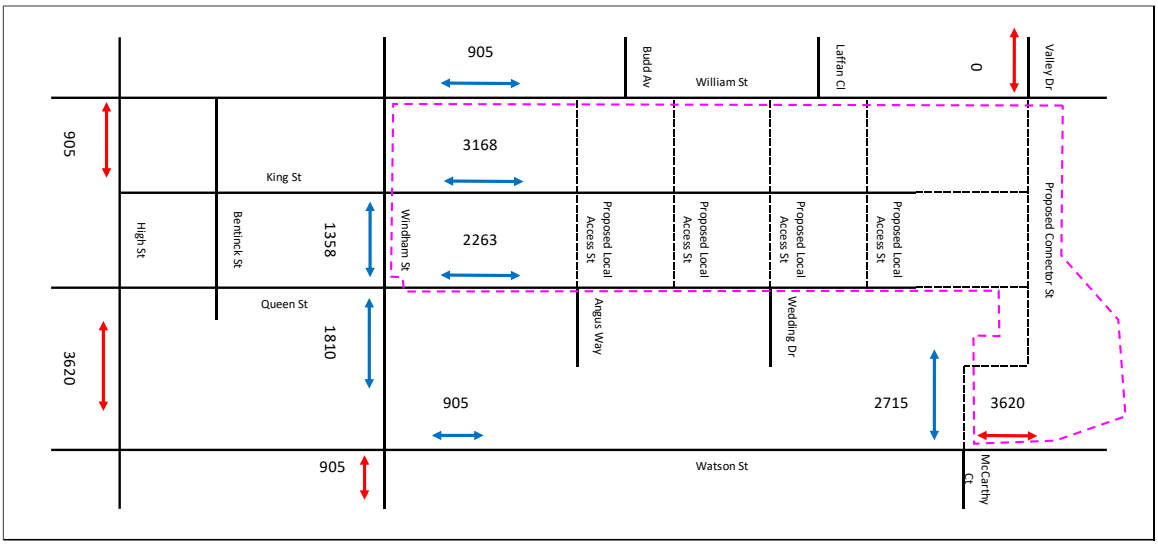

Figure 6: Site Generated Traffic Volumes (Daily) - Connection Provided

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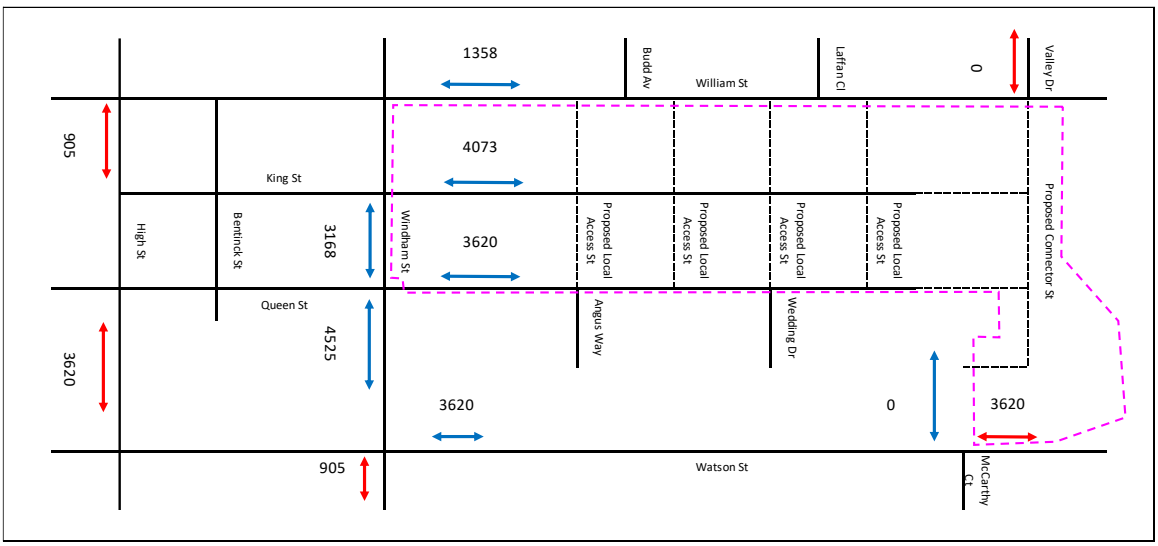


Figure 7: Site Generated Traffic Volumes (Daily) - No Connection Provided

As shown above, this equates to some 2,715 additional vehicle movements on Windham Street and Watson Street, in the vicinity of their intersection, in the event that the connector street connection through to Watson Street is not provided.

Importantly we note that the above relates solely to site generated traffic. It is also expected that some traffic to/from Hidden Valley Estate (i.e. via Valley Drive) would utilise the connector street in accessing the Hume Freeway. This traffic would be re-distributed to Windham Street and High Street, in the event that the connector street connection through to Watson Street is not provided.

Indeed, the provision of a connector street may re-distribute existing traffic from surrounding properties to the west and south of the Masterplan area. This may result in additional traffic utilising the connector street (assuming a connection is provided through to Watson Street) in favour of existing routes (i.e. Windham Street).

At this time, post development future year scenario traffic volumes have not been prepared, other than the additional traffic associated with the site itself. That is, we have not sought to determine additional traffic due to surrounding development or roadworks (i.e. Watson Street duplication and southern Hume Freeway ramps).

Intersections & Transport Infrastructure

Our above assessment outlines a number of potential and likely intersection and transport infrastructure requirements, based on the proposed road network. In the event that the connector street connection through to Watson Street is not provided the following additional works may be required:

- Windham Street / William Street Intersection – Potential provision of turn lanes, primarily associated with traffic traveling between the Hume Freeway and Valley Drive. Such works may include a left-turn lane on William Street (east approach) and separate left (short) and right (long) turn lanes on Windham Street (south approach).
- Windham Street / Queen Street Intersection – Greater likelihood of traffic signals being required or potential additional traffic lanes on approach/departure from any roundabout treatment, particularly on Windham Street.
- Windham Street / Watson Street – Potential additional works to increase intersection capacity. Such works may involve the provision of a second right-turn lane[9] on Watson Street (east approach) and the provision of dedicated left-turn lane[10] on Windham Street (north approach).

Additionally, the redistribution of traffic under the no connection scenario results in increases to several internal and abutting roads. This may result in some of these roads exceeding their theoretical mid-block traffic capacity. As a result, there is greater likelihood that roads may need to be widened, most likely Queen Street and Windham Street, to allow for this additional traffic. Such widening would seek to provide for a single traffic lane in each direction, clear of any on-street or indented car parking.

[9] Would also require the provision of a second northbound traffic lane on Windham Street (north approach) and associated road widening.

[10] Plans provided by the Department of Transport of the Watson Street / Windham Street intersection indicated that a shared left/through traffic lane be provided on Windham Street (north approach).

Traffic Amenity

Any removal of the identified future connector street connection through to Watson Street will result in some motorists taking different travel routes in accessing the Hume Freeway and Wallan East. In order to quantify this impact we have prepared a traffic time assessment for five different origins within the development, as indicated in Figure 8, for both connector street scenarios.

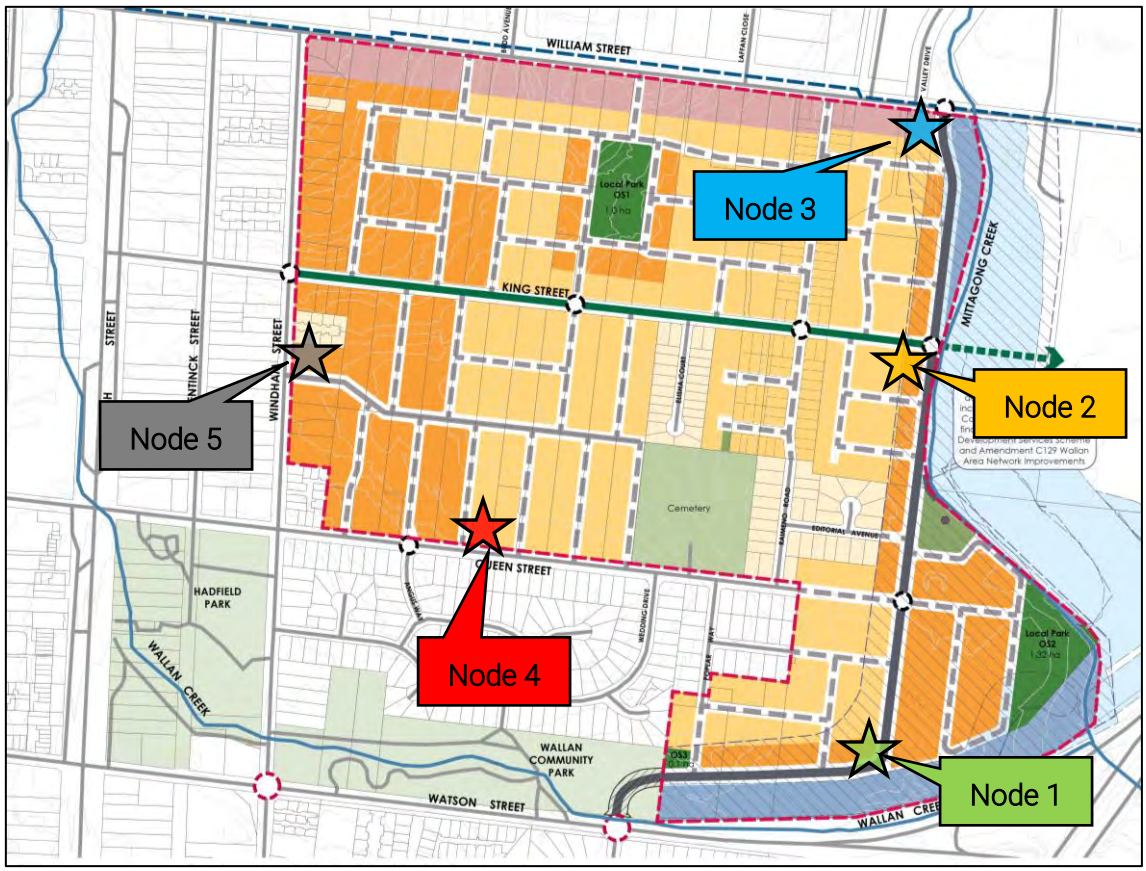


Figure 8: Node Diagram

In undertaking these assessments, we have measured the length of each road link and determined the total length for routes to and from Hume Highway. By way of example the route assessment for 'Node 1' is illustrated at Figure 9.

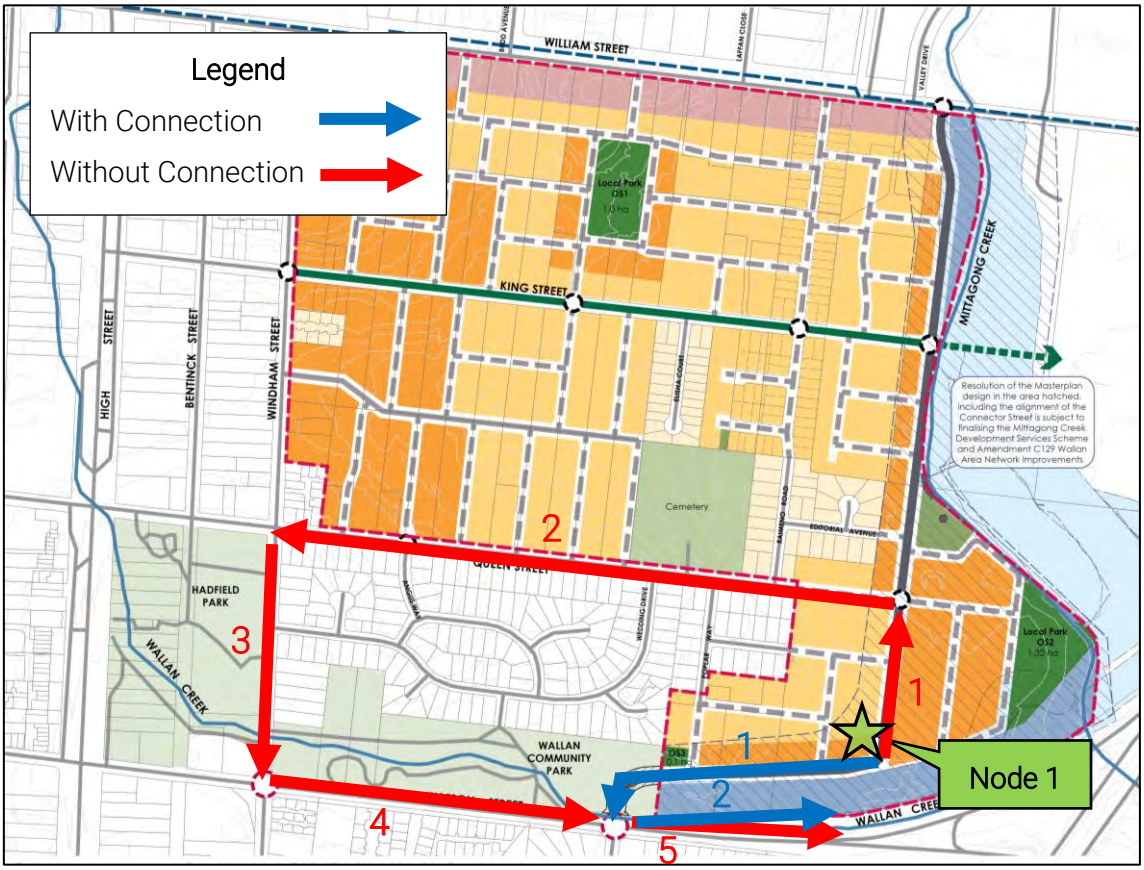


Figure 9: Node 1 Link Diagram

We have then applied time estimates for each road link, which includes an average speed along various road classifications, and time delays at associated intersections as presented at Appendix C. The greatest time delay is for right-turn movements at signalised intersections, with local road intersections considered to have considerably lower average delays.

Furthermore, we have assumed the average speed along all of the development's internal roads will be 40km/h rather than the default 50km/h to allow for delays associated with waiting for motorists to enter/exit driveways, passing each other when a car(s) is informally parked kerbside, etc. The existing posted speed limit has been adopted for the assumed travel speed of all external roads[11].

It is important to note that these times are estimates only, with the exact travel times dependent on the specific conditions of the relevant road network which will be different at different times of the day and on different days of the week. The time a motorist

[11] It is noted that Watson Street changes from 60km/h to 80km/h a short distance to the east of the Windham Street intersection. Given that vehicles will potentially be required to stop at both the Windham Street/Watson Street and Watson Street/McCarthy Court intersections, we have adopted an average speed of 60km/h for this length of road.

arrives at each signalised intersection within the cycle or phase sequence will also have an impact on the overall travel times.

The results of our assessments are summarised at Table 2 and Table 3.

Table 2: Travel Time Assessment Results – Access to Hume Highway

Node	Travel Time – With Connection (sec)	Travel Time – without Connection (sec)	Travel Time Saving With connection (sec)
1	66	252	- 186
2	113	279	- 166
3	145	335	- 190
4	157	151	+ 6
5	219	146	+ 73

Table 3: Travel Time Assessment Results - Access from Hume Highway

Node	Travel Time – With Connection (sec)	Travel Time – without Connection (sec)	Travel Time Saving With connection (sec)
1	111	272	- 161
2	158	394	- 136
3	190	413	- 223
4	187	241	- 54
5	244	206	+ 38

On the basis of our assessments, it is clear that the majority of the nodes throughout the site would experience significant travel time savings for the scenario in which the connector street connects through to Watson Street.

Whilst the node 5 assessment results in an assumed slower travel time, this may not occur in reality due to two reasons. Firstly, providing a connector street connection through to Watson Street will more evenly distribute traffic and reduce delays along most roads, particularly Windham Street. Secondly, for the purposes of our assessment we assume that motorists will utilise the connector street in accessing the Hume Freeway from node 5. In reality, if this route takes longer than other routes (i.e. via Windham Street) then motorists will typically adjust their route to complete the quickest and/or most convenient vehicle route.

On the basis of the above considerations, as well as orderly transport planning there is considered to be significant benefits to the provision of a connector street connection through to Watson Street. These benefits primary include:

- Reducing the travel time / distance motorists have to travel between the Hume Freeway and subject site.

- Fewer external mitigating road/intersection works required.
- Allowing for greater flexibility in bus route connections through the site.

We trust our above assessments are of assistance. Please contact David Trotter or Nathan Woolcock at Traffix Group if you require any further information.

Yours faithfully,

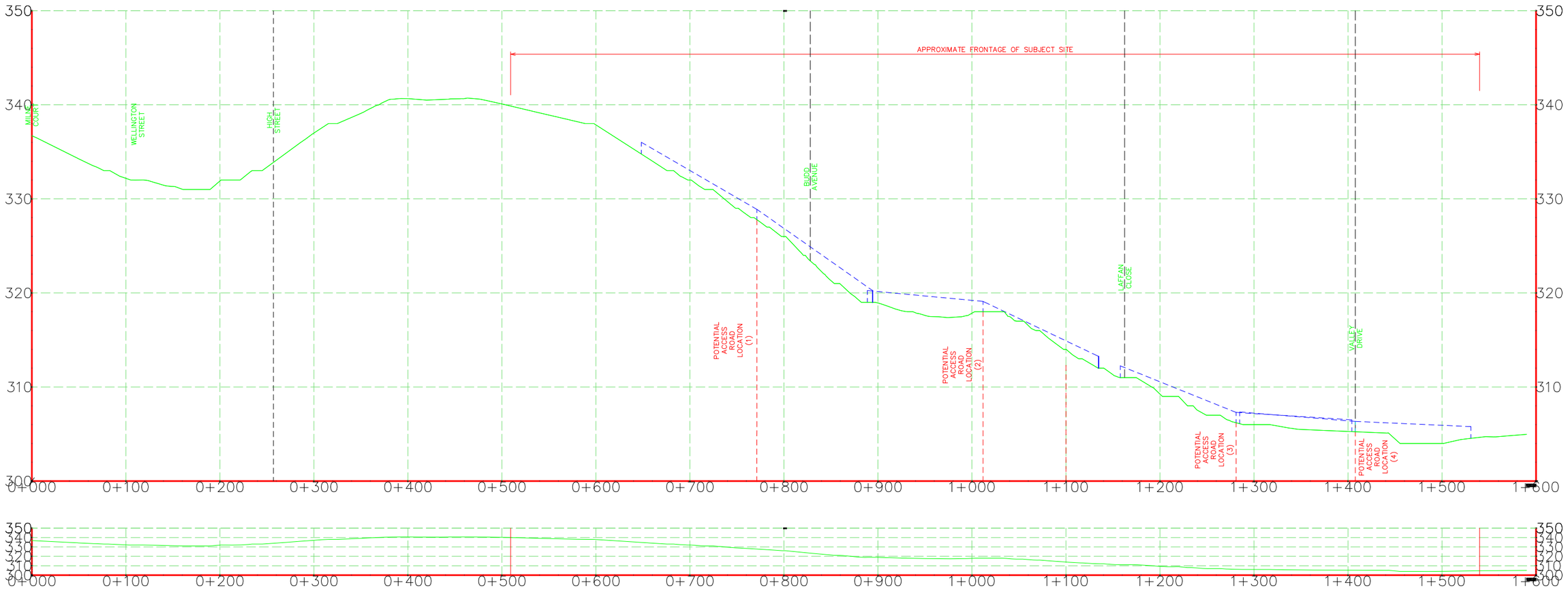
TRAFFIX GROUP PTY LTD

NATHAN WOOLCOCK
Director

Appendix A

Safe Intersection Sight Distance Assessment

SAFE INTERSECTION SIGHT DISTANCE MEASUREMENTS



REV.	REVISION NOTES	REVISION DATE
A	ORIGINAL ISSUE	21-04-20

GENERAL NOTES:

DESIGNED BY: K. BULLOCK 21-04-20

CHECKED BY: D. TROTTER 21-04-20

FILE NAME: 27897-01

ISSUE: A

Traffix Group

Level 28, 459 Collins Street
MELBOURNE VICTORIA 3000
TEL : (03) 9822-2888

KING STREET & QUEEN STREET, WALLAN

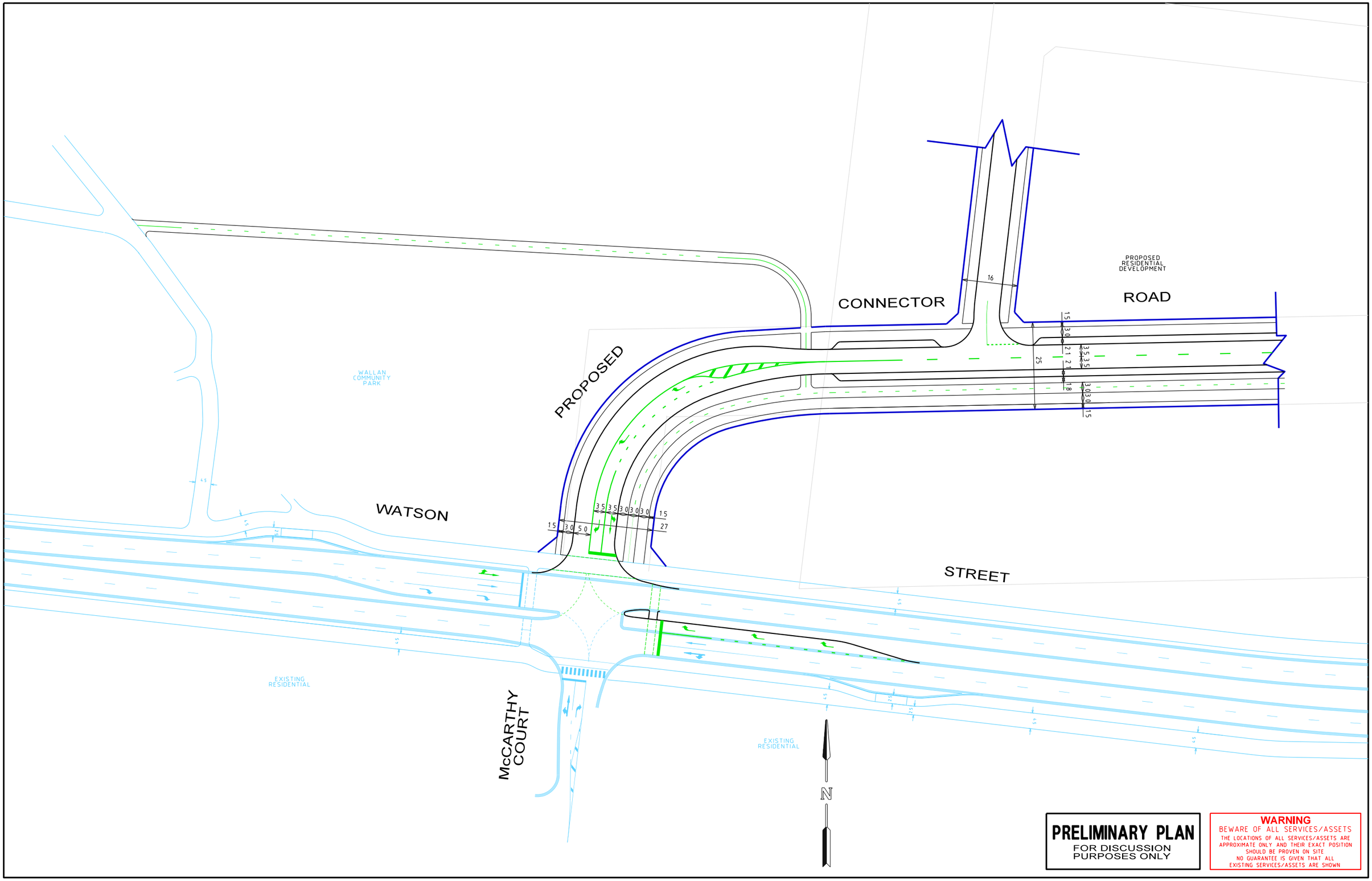
SAFE INTERSECTION SIGHT DISTANCE MEASUREMENTS

MASTERPLAN AND INFRASTRUCTURE STRATEGY

SCALE: AS ABOVE | SHEET NO.: 1 | JOB NO.: 27897

Appendix B

Concept Functional Layout Plan - Watson Street / Connector Street



ISSUE	ISSUE DESCRIPTION	ISSUE DATE

GENERAL NOTES

1 BASE INFORMATION FROM SUPPLIED FILES
(200414-MP-KING and QUEEN ST WALLAN-REV B FOR TRAFFIX DWG & X-PS112864-CIV-D200 DWG)
2 ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL
3 MAIN ROAD - WATSON STREET (SPEED ZONE 80km/h)
4 ALL PROPOSED FOOTPATHS AND PRAM CROSSINGS ARE TO BE CONSTRUCTED WITH TACTILE GROUND SURFACE INDICATORS TO DDA COMPLIANCE GUIDELINES REFER TO AS 1428.4 2009

DESIGNED
G RAKITA 15 MAR 2021

CHECKED/APPROVED
D TROTTER 15 MAR 2021

FILE NAME
G27897-00-00.dgn

Traffix Group
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Melbourne, Victoria 3000
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PROPOSED CONNECTOR ROAD ALIGNMENT
WALLAN
MITCHELL SHIRE
FUNCTIONAL LAYOUT PLAN

SCALE 1:500 (A3) 0 2.5 5 7.5 10
SHEET No.
DWG No. G27897-01-01

Appendix C

Travel Distance and Travel Time Estimates

Node 1				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	215	40	19.35	10
2	911	40	81.99	30
3	367	50	26.424	15
4	501	60	30.06	30
5	200	80	9	0
TOTAL	**2194**	**metres**	**251.824**	**seconds**
With Connection				
1	472	40	42.48	15
2	200	80	9	0
TOTAL	**672**	**metres**	**66.48**	**seconds**

Node 2				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	70	40	6.3	10
2	903	40	81.27	15
3	365	50	26.28	30
4	367	50	26.424	15
5	501	60	30.06	30
6	200	80	9	0
TOTAL	**2406**	**metres**	**279.334**	**seconds**
With Connection				
1	992	40	89.28	15
2	200	80	9	0
TOTAL	**1192**	**metres**	**113.28**	**seconds**

Node 3				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	55	40	4.95	10
2	924	40	83.16	15
3	343	50	24.696	30
4	365	50	26.28	30
5	367	50	26.424	15
6	501	60	30.06	30
7	200	80	9	0
TOTAL	**2755**	**metres**	**334.57**	**seconds**
With Connection				
1	1346	40	121.14	15
2	200	80	9	0
TOTAL	**1546**	**metres**	**145.14**	**seconds**

Node 4				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	286	40	25.74	15
2	367	50	26.424	15
3	501	60	30.06	30
4	200	80	9	0
TOTAL	**1354**	**metres**	**151.224**	**seconds**
With Connection				
1	625	40	56.25	15
2	691	40	62.19	15
3	200	80	9	0
TOTAL	**1516**	**metres**	**157.44**	**seconds**

Node 5				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	285	50	20.52	30
2	367	50	26.424	0
3	501	60	30.06	30
4	200	80	9	0
TOTAL	**1353**	**metres**	**146.004**	**seconds**
With Connection				
1	285	50	20.52	15
2	911	40	81.99	15
3	691	40	62.19	15
4	200	80	9	0
TOTAL	**2087**	**metres**	**218.7**	**seconds**

Node 1				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	200	80	9	30
2	501	60	30.06	60
3	367	50	26.424	10
4	911	40	81.99	5
5	215	40	19.35	0
TOTAL	**2194**	**metres**	**271.824**	**seconds**
With Connection				
1	200	80	9	60
2	472	40	42.48	0
TOTAL	**672**	**metres**	**111.48**	**seconds**

Node 2				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	200	80	9	30
2	501	60	30.06	60
3	367	50	26.424	30
4	365	50	26.28	30
5	903	40	81.27	60
6	70	40	6.3	5
TOTAL	**2406**	**metres**	**394.334**	**seconds**
With Connection				
1	200	80	9	60
2	992	40	89.28	0
TOTAL	**1192**	**metres**	**158.28**	**seconds**

Node 3				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	200	40	18	30
2	501	40	45.09	60
3	367	50	26.424	30
4	365	50	26.28	30
5	343	50	24.696	60
6	924	60	55.44	5
7	55	80	2.475	0
TOTAL	**2755**	**metres**	**413.405**	**seconds**
With Connection				
1	200	80	9	60
2	1346	40	121.14	0
TOTAL	**1546**	**metres**	**190.14**	**seconds**

Node 4				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	200	80	9	30
2	501	60	30.06	60
3	367	50	26.424	60
4	286	40	25.74	0
TOTAL	**1354**	**metres**	**241.224**	**seconds**
With Connection				
1	200	80	9	60
2	691	40	62.19	0
3	625	40	56.25	0
TOTAL	**1516**	**metres**	**187.44**	**seconds**

Node 5				
Link	**Distance (m)**	**Speed (km/h)**	**Travel Time (s)**	**Delay at Next Intersection (s)**
Without Connection				
1	200	80	9	30
2	501	60	30.06	60
3	367	50	26.424	30
4	285	50	20.52	0
TOTAL	**1353**	**metres**	**206.004**	**seconds**
With Connection				
1	200	80	9	60
2	691	40	62.19	0
3	911	40	81.99	10
4	285	50	20.52	0
TOTAL	**2087**	**metres**	**243.7**	**seconds**

Intersection Delays		
Intersection Type	Movement	Delay (s)
Local-Local	Left-In	0
	Left-Out	5
	Right-In	5
	Right-Out	5
Local-Connector	Left-In	0
	Left-Out	10
	Right-In	5
	Right-Out	10
Connector-Connector	Left-In	10
	Left-Out	10
	Right-In	10
	Right-Out	15
Signalised	Left	15
	Through	30
	Right	60
	U-Turn	60

Attachment B – Department of Transport correspondence

Department of Economic Development,
Jobs, Transport and Resources

52 Clarke Street
Benalla Victoria 3672
PO Box 135
Benalla Victoria 3672
Telephone: (03) 5761 1863
Facsimile (03) 5762 4980
DX 214467

:

Mitchell Shire Council
Attention: Sean Greer
113 High Street
BROADFORD. VICTORIA 3658

Dear Mr Greer,

RE: King and Queen Street, Wallan Master Plan - Proposed Connector Road

I refer to your email dated 3 September 2021 in relation to the proposed north-south connector road alignment as proposed as part of the King and Queen Street master plan.

The Department of Transport supports the inclusion of a new connector road to link Watson Street and William Street as it will significantly assist in north-south connectivity as well as movements accessing the Hume Freeway and the Wallan East rail station. It will also significantly reduce demand and need for capacity improvements to Windham Street.

It is the Department's position that this connector road be aligned with the existing McCarthy Court intersection to alleviate the need for a staggered T intersection arrangement with McCarthy Court and therefore the need to consider split signals and signal phasing.

Signal phases would have an adverse impact by increasing the travel time for through movements along Watson St and ultimately could create queuing that would likely back up traffic movements exiting off the freeway, given the close proximity of the intersection to the Hume Freeway ramps.

As mentioned in your email, it is understood that the proposed road will impact on existing park land. However, it is noted that the park will be directly impacted and extended as part of the proposed re-alignment and widening of the Mittagong Creek by Melbourne Water along the north side of Watson St to manage flood mitigation.

Please contact Leah Smith (Mob. 0419 397 229) should you wish to discuss this matter further.

Yours sincerely

Steve Bowmaker
Regional Director
Department of Transport – Hume Region

14 / 09 / 2021

VICTORIA State Government