



Launceston Network Operating Framework

October 2020

This report has been prepared by GHD for the Department of State Growth, prepared in conjunction with City of Launceston. This report outlines the Network Operating Framework developed with stakeholders, the process undertaken, and documents key discussions. The purpose of this report is to inform the development of program priorities in the Launceston network.

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Appendix A – Launceston Network Operating Framework, Transport Challenge
Identification, Programme Development and Potential Implementation Workshop 12th
& 13th March, 2019, Workshop Report

Appendix B – Strategic Network Maps

1. Network Operating Framework

A Network Operating Framework is an approach to network planning which transport authorities can utilise to consider all transport and road users, and the inter-relationships between land use, transport networks, and transport infrastructure and services. The framework provides a collaborative and integrated approach to managing the transport system through a 'one network' approach.

Development of a Network Operating Framework aims to recognise the diverse needs of transport and road users. Utilising a strategic and collaborative approach, stakeholders and road user groups have input into the development of the framework, which aims to understand the needs of users in the existing network, and focuses investment in future schemes that suit the needs and demands of its users.

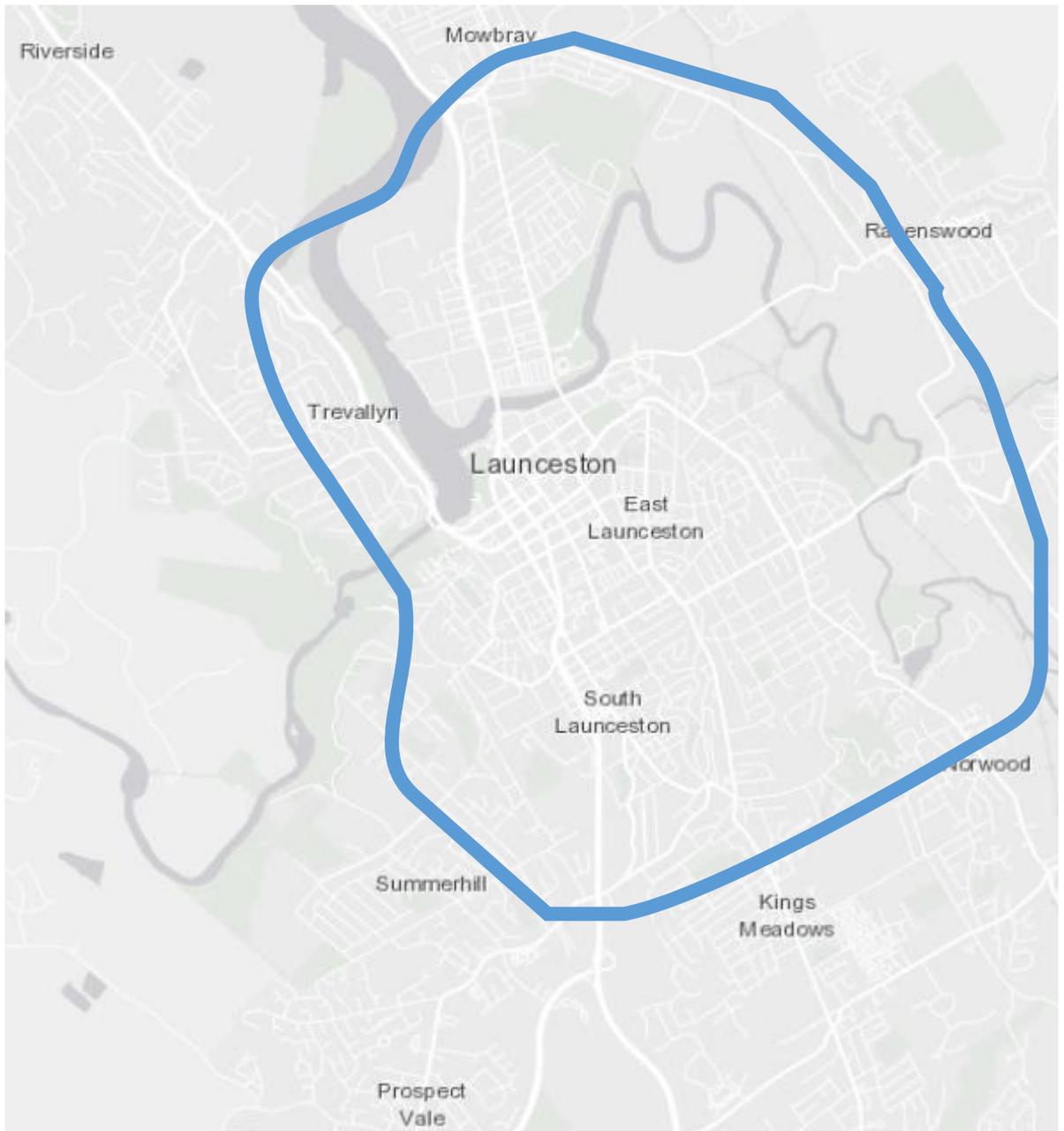
The Network Operations Framework takes the approach of considering the network needs of general traffic, freight, public transport users, people walking and riding bicycles while considering the inter-relationship of these modes with land use. It provides guidance on network operations planning and where to consider trade-offs in terms of relative encouragement between modes.

A Network Operating Framework aims to provide a 'backbone' to support the development of Network Operating Plans, to identify transport investments and to support investment decisions. The Network Operating Framework offers transport services providers and road agencies strategy guidance on how to respond to land use and transport network interactions in the road network. The Network Operating Framework will:

- Support decisions as part of a wider decision making framework
- Provide a collaborative approach to planning outcomes
- Take a wider view of the network
- Provide transparency in decision-making
- Compliment Business Case development and Master Planning
- Assist with informing understanding of network interventions
- Form an iterative process to encourage an integrated transport network.

1.1 Area of operation

The development of this Network Operating Framework (NOF) encompasses the inner Launceston area. For the purposes of this study, the inner Launceston area considered generally extends from Mowbray in the north to Punchbowl in the south, and from Trevallyn (West Tamar Road) in the west to St Leonards in the east. The Launceston NOF study focused on the area outlined in Figure 1 below while considering Greater Launceston as a wider area of influence.



Source: ESRI, OpenStreetMap

Figure 1 Launceston Network Operating Framework Focus Area

1.2 Network Operations Planning Process

The development of this Network Operating Framework was informed by the guidelines set out in the *Austrroads Network Operations Planning Framework* and *Austrroads Guide to Traffic Management Part 4: Network Management* (the *Austrroads Guide*). Figure 2 below outlines the two phases commonly associated with the Network Operations Planning process as per the *Austrroads Guide*. As indicated, the Network Operating Framework is the outcome of the initial Phase of the process. Each of the stages involved in the process are discussed below.

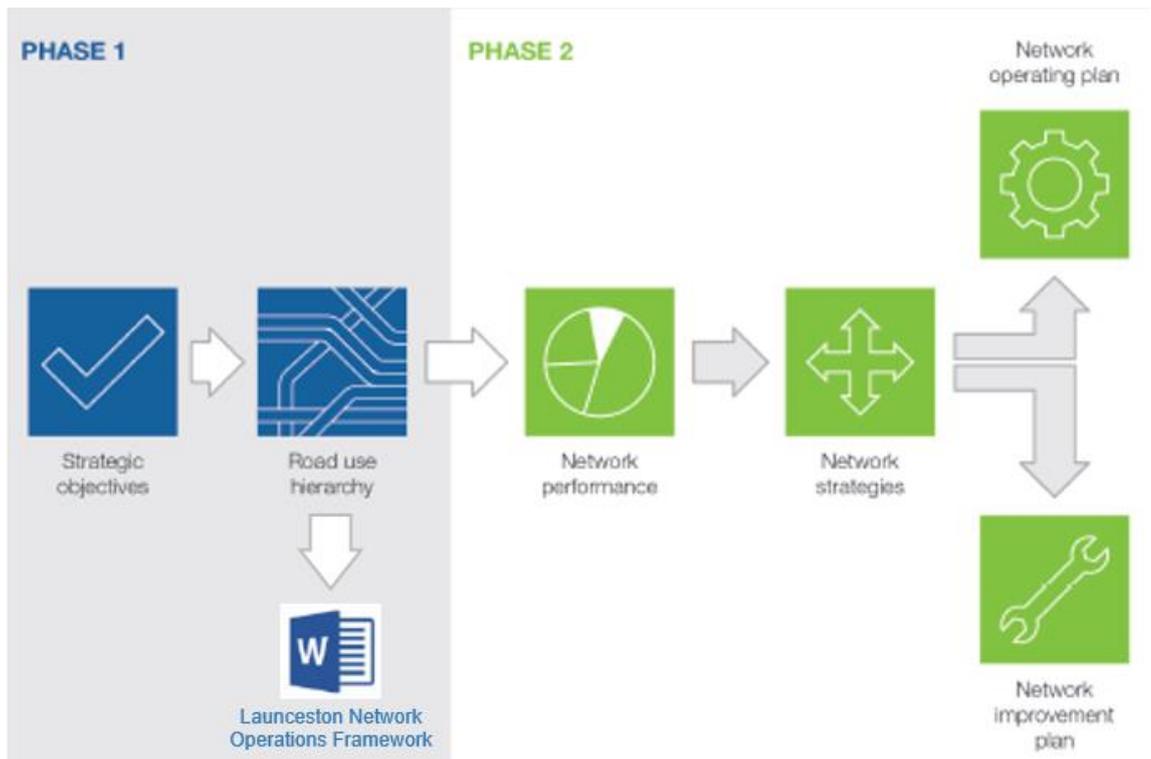


Figure 2 Network Operating Process

1.2.1 Strategic Objectives and Principles

Strategic Objectives and Principles set the strategic context and mode based aspirations for the network to inform the development of the Network Operating Framework. These underpin and guide the development of the strategic network. The development of Strategic Objectives outline the aspirations and approach for operations for each mode in the network. Strategic Objectives are developed for the following five modes:

- Pedestrians – people walking, using motorised scooters, and people with a mobility disability
- Bike riders – people riding a bicycle for commuting and/or recreation
- Public transport – Publicly available transport including tourist coaches and school buses
- General traffic – Private vehicles, taxis and small commercial vehicles i.e. couriers
- Freight traffic – Heavy commercial vehicles

Once the initial Strategic Objectives are developed, Principles corresponding to each road user mode are developed. The Principles provide guidance for how to apply the Strategic Objectives at a network level by attributing modal priority routes throughout the network.

For each mode there are Primary and Secondary Principles, to identify mode based route priorities. For general traffic, four levels of Principles are developed to allow a greater level of prioritisation (from local access through to preferred access routes) to recognise the extent general traffic operates on the network.

The following is an example of a Strategic Objective and Principles for people riding bicycles:

Strategic Objective: Provide a bike riding network for people on bikes as a safe and connected everyday mode of transport and recreation.

Primary routes: Direct convenient connections to town centre, schools and commercial centre.

Secondary routes: Connect residential catchments, recreational facilities and other key nodes.

Development of Strategic Objectives and guiding Principles draw on National, Regional, and local planning and policy literature with key stakeholders. These are refined through a collaborative session and tested through the development of the Network Operating Framework.

1.2.2 Network Links and Places

It is fundamental to the Network Operating Framework process to identify the key origins and destinations within the study area, as transport infrastructure and services enable and support movements between these places. During the workshop(s) and in the network assessment the land uses (key destinations and activity areas) are reviewed making additions and modifications where agreed.

The Principles for each transport mode are used to define priority connections throughout the network. This occurs in a workshop with stakeholders where priority connections are captured on large maps of the study area.

The defined strategic road network is developed into simple maps. These maps provide a framework outlining different modes priorities to allow for making decisions and trade-off between modes around the network. At a high-level, this assists with identifying the level of significance for each mode relative to other modes based on the assigned routes mode specific priority. Outputs from the interactive workshop sessions informed the mapping of the modal priority networks and Phase 2 tasks of the study.

1.2.3 Modal Priorities

By overlaying the defined modal networks for the different levels of priority, we are then able to understand areas of the network where we are trying to achieve multiple levels of priority. Through having a greater understanding of where the higher concentration of priorities are, this enables a further level of refinement to the network. In particular, to decide where trade-offs between modes needs to occur, or where interventions can support the network aspirations.

This stage would also include overlaying information such as Movement and Place objectives for the study area to provide an additional weighting and priority to different modes. This stage can be undertaken using the Austroads SmartRoads tool; however, it can also be undertaken using a GIS platform.

1.2.4 Network Performance (Performance Measures, Targets and Gap Analysis)

Once the modal priority maps are established, network performance data can be incorporated into the process. Existing performance data is used to provide a baseline upon which an assessment that identifies operating gaps between the base and performance targets can be undertaken. Performance targets are identified based on the assigned route priorities and reflect the activity areas. For example, in high activity areas pedestrians have higher levels of encouragement along and across priority routes compared with general traffic and so are assigned a higher aspirational performance target.

Performance assessment outputs are referred to as 'Operating Gaps' and can identify where the network is performing below aspirational targets. Operating gaps intend to guide where further investigation into network improvements could take place, and which modes should be prioritised.

1.2.5 Intervention Testing

Strategies developed to address network shortcomings come in a variety of responses and complexity levels. The NOF allows assessment of potential interventions against the strategic aspirations of the network. These assessments allow road controlling authorities to see how well

the response addresses performance short falls and the likely 'fit' within the strategic context of the network. The assessments are referred to as Network Fit Assessments and can be undertaken on planned or committed infrastructure improvement schemes.

Intervention testing can be undertaken at a strategic level using the priority mode networks defined or through the SmartRoads tool via either qualitative or quantitative measures.

1.2.6 Operating and Improvement Plans

Network Operating Plans and Network Improvement Plans are developed within the scaffolding of a Network Operating Framework which arises through considering and combining the above. The plans used to operate the network then maximise use of existing infrastructure while providing a sound basis for future transport planning.

2. Framework Development Process

2.1 Overview

The development of this Network Operating Framework (the Framework) incorporates ideas and information captured in workshop sessions run over two days in Launceston (see Section 2.2).

At the workshop stakeholders collectively developed:

- the strategic objectives, network principles (see Section 6.2)
- the network and place roles of each transport corridor (see Section 7)
- mode priorities for each of the five major modes of transport in the study area including walking, bike riding, public transport, general traffic and freight (see maps in Appendix B).

Using the strategic objectives and network principles identified during the workshop sessions, detailed assessment of the modal hierarchy maps were undertaken by stakeholders in order to finalise the Framework. This final stage of network definition included a review of any existing modal plans and strategies of the study area or area of influence as well as existing network data to guide the selection of priority routes.

The Framework can be considered a standalone strategic document that provides the foundation for planning and assessing the transport network. The next, more detailed, stage in the process focuses more on the specific network components – involving both quantitative and qualitative assessments of the network to understand prioritisation and performance under the strategic setting developed. This enables assessment of various network interventions and greater understanding of current network and multi-modal performance.

2.2 Stakeholder Consultation

Representatives from the following stakeholder groups were involved in the development of this Launceston Network Operating Framework during the workshops held 12th – 13th March 2019 in Launceston and subsequent detailed network definition:

- City of Launceston
- Department of State Growth
- Bicycle Networks Tasmania
- Tamar Bicycle User Group
- Royal Automobile Club of Tasmania (RACT)
- City of Hobart (Observers)

Further details regarding the outcomes of the workshop can be found in the *Launceston Network Operating Framework, Transport Challenge Identification, Programme Development and Potential Implementation Workshop 12th-13th March 2019, Workshop Report* included as Appendix A to this Framework.

3. Network Context

Launceston is located in the north of Tasmania, in Australia. It is Tasmania's second largest city located 198 kilometres north of the state capital Hobart. The important inter-regional road, Midland Highway links these two key Tasmanian metropolitan areas. A freight rail line runs largely in parallel to the highway between Launceston and Brighton.

Launceston acts as a regional hub, supporting and enabling access to services for adjacent municipal areas such as West Tamar, Meander Valley, Northern Midlands, George Town and Dorset. The transport network through and around Launceston is critical for the growth of these neighbouring economies, as well as for Tasmania in general.

Other key transport network features of Launceston include:

- Access to the port at Bell Bay and the northeast region from the south is predominantly through Launceston. The Midland Highway in the south, and the East Tamar Highway in the northeast, connect in central Launceston via the Bathurst Street and Wellington Street couplet and Goderich Street. The West Tamar Highway also connects via central Launceston to the suburbs of Legana and beyond.
- From the west, access into Launceston is via the Bass Highway. Alternative access from the west is via Frankford Road into Exeter, then via the West Tamar Highway to Launceston as well as north to Bell Bay via the Batman Bridge. Frankford Road is a lower category road in comparison to the Bass Highway.
- Travel in Launceston is currently car-focused. Journey to Work data from the 2016 census indicated that 89% of journeys to work in Launceston were by car only, 2% of journeys to work made using public transport and 6% walking as a means of travel to work. Bike riding to work was either not published or not included as a response option.
- Origin Destination data provided by the Department of State Growth indicate that during the morning peak, for trips starting outside of inner Launceston, between 50% and 60% finish in inner Launceston, with the remaining 40 – 50% passing through. Conversely, in the afternoon peak, of all trips destined for an outer region, about 50% originated in inner Launceston, with the remainder passing through inner Launceston.
- Launceston is a compact city with key activity areas situated within easy travel distance from the Launceston CBD, average commuting distances are around 9 km. Around 10% of the Launceston population lives within a 30 minute walk of the CBD, and 25% of the population live within a 30 minute bike ride of the CBD.
- Topographical and geographical constraints mean the transport network is relatively disconnected resulting in reliance on a limited number of roads and inefficient passenger transport routes.
- Council has invested over the years in formalising bike route networks and provision of facilities for users. Launceston's bike network is an identified 50 km of predominantly on-road routes principally designed for commuter bike riding.
- There are numerous bus operators working in and around Launceston connecting the region. Metro Tasmania predominantly operates within the urban area, with some corridors serviced every 10 minutes. Council fund a free Tiger Bus service providing a commuter function in the morning between Inveresk and the CBD and tourist transport to key parts of the city at other times.



Figure 3 View of central Launceston from north-west

3.1 Population Growth

The Greater Launceston Plan (GLP) indicates a projected population growth from 107,750 persons in 2011 to 124,050 persons by 2036. Whilst broader than the study area for the Network Operation Framework, the growth of the whole region is an important consideration as the current location of employment and the road network configuration means a number of trips from these surrounding areas start and finish within inner Launceston. Population estimates for the City of Launceston in 2016 indicated around 66,518 persons resided in the city.

The Launceston City Deal is a five-year plan to make Launceston one of Australia's most liveable and innovative regional cities. Two of the five key objectives of the deal focussed towards population and economic growth of the region. The success of the City Deal may lead to a greater population growth within the city centre than historically experienced, particularly with the relocation of the University of Tasmania Launceston Campus from Newstead to Inveresk and greater densification of residential living within the CBD.

The approach towards population and job growth within Tasmania generally is further supported by the Tasmanian Government's Population Growth Strategy. The Strategy aims to fulfil a population target of 650,000 Tasmanians by 2050.

4. Strategic Policy and Planning

This section outlines the plans and strategies developed that consider growth and development, and the transport network in the Launceston area.

Northern Tasmania Regional Land Use Strategy

The Northern Regional Land Use Strategy² sets out the strategy and policy basis to facilitate and manage change, growth, and development in Northern Tasmania to 2032. It is used to guide land use, development and infrastructure decisions made by State and local government, and by key infrastructure providers.

The Northern Regional Land Use Strategy describes the need to promote greater economic development, liveability, sustainability and governance in Northern Tasmania. Activities specifically identified in this strategy, which relate to the development of the Launceston NOF include transport networks, industrial development and integrated transport.

Greater Launceston Plan (2014)

The Greater Launceston Plan³ (GLP) is a framework designed to guide the sustainable development of Launceston and its surrounds between 2014 and 2034 and beyond. The aims of the GLP are outlined below:

- Provide a unified vision and consistent policy framework
- Provide an overarching metropolitan regional framework
- Provide a regional view of development priorities within the greater Launceston area
- Identify key city projects to be undertaken by the participating Councils
- Facilitate a consistent approach to the implementation of planning and development policy and initiatives

Greater Launceston Transport Vision (2020)⁴

The Greater Launceston Transport Vision will enable Launceston to achieve its economic, tourism and investment potential, while retaining and enhancing the existing character and liveability enjoyed by the community.

The Vision has been developed through collaboration between State and Local governments to meet the region's current and future transport challenges. It integrates with the Greater Launceston Plan and City Deal Vision to achieve the overarching goal of making Launceston Australia's most liveable regional city. The six elements identified by the Vision needed to achieve this goal are; attractive, safe, connected, equitable & accessible, efficient and sustainable.

The Vision will help facilitate efficient use of transport, enabled by the planning system to:

- Reduce the need to travel and the length of journeys
- Make it safer and easier for people to access services
- Minimise the impact of transport on communities
- Improve freight flows and freight access to key terminals

² https://www.planning.tas.gov.au/___data/assets/pdf_file/0003/332985/Northern-Tasmania-Regional-Land-Use-Strategy-27-June-2018.pdf

³ <https://www.launceston.tas.gov.au/Council/Strategies-and-Reports/Greater-Launceston-Plan>

⁴ <https://greaterlauncestontransportvision.com/>

- Provide efficient distribution of goods and services to business and the community
- Provide a choice of travel modes

Invermay Traffic Master Plan (2019-2020)⁵

As part of the significant growth and changes proposed to the Invermay area, the Invermay Traffic Master Plan was developed by City of Launceston to improve the safety and movement of people and freight through the area. Following investigations and consultation with the community 14 priority projects have been identified, including short, medium and long-term initiatives.

Greater Launceston Metropolitan Passenger Transport Plan

The Greater Launceston Metropolitan Passenger Transport Plan⁶ is a 10 year strategic document to guide future passenger transport development and investment. It includes support for prioritising pedestrian access and active transport to create a more ‘walkable city’. Future investment in transport will improve productivity by reducing transport times, supporting opportunities for active transport, and improving public transport connections.

City of Launceston Corporate Strategic Plan (2014 – 2024: 2019 Review)

The City of Launceston Corporate Strategic Plan⁷ articulates the City of Launceston’s key directions over a ten-year horizon. It focuses on the delivery of the outcomes and significant projects prioritised in the Greater Launceston Plan for the City of Launceston, while also incorporating organisational goals and deliverables. Key activity themes of the strategic plan include continuing to develop a strong connection between the City and the river, driving appropriate development opportunities as well as infrastructure, land use planning and transport solutions.

My Place My Future Plan (2019)

The My Place My Future Plan⁸ is a commitment under the Launceston City Deal which will support economic and job growth in Launceston’s Northern Suburbs. The aim of the plan is revitalisation of the suburbs which house one-third of Launceston’s population through improving lifestyle, social and economic outcomes.

The plan presents six areas of action:

- Enterprise growth
- Employment and wage growth
- Celebration of community strengths
- Liveability
- Strengthening the next generations
- Access

The plan contributes to the aim of making Launceston one of Australia’s most innovative and liveable regional cities by 2022.

⁵ <https://www.launceston.tas.gov.au/Business-and-Development/Major-Projects/Invermay-Traffic-Masterplan-2019-2020>

⁶ https://www.stategrowth.tas.gov.au/policies_and_strategies/framework/greater-launceston

⁷ <https://www.launceston.tas.gov.au/files/assets/public/council/reports-and-strategies/city-of-launceston-corporate-strategic-plan.pdf>

⁸ <https://www.launceston.tas.gov.au/Business-and-Development/Major-Projects/My-Place-My-Future>

Northern Integrated Transport Plan (2013)

The Northern Integrated Transport Plan⁹ was developed as a joint initiative between the Tasmanian Government, Northern Tasmania Development (NTD) and its eight member councils. It provides a framework to recognise and address transport issues within the Northern Region of Tasmania over a twenty year horizon. The plan sets up a framework to guide decision making and provides some priority actions.

Tasmanian Walking and Bike riding for Active Transport Strategy

The Tasmanian Walking and Bike riding for Active Transport Strategy¹⁰ aims to create a safe, accessible and well-connected transport system that encourages more people to walk and bike ride as part of their everyday journeys. The overarching objectives of this Active Transport Strategy support the priority areas of the Tasmanian Urban Passenger Transport Framework. This will be achieved through policy planning and land use, improved infrastructure, collaboration and creating a walking culture.

Launceston's Transport Future

Launceston's Transport Future is a framework, prepared by City of Launceston, which provides future direction for the planning of transport in Launceston. The framework has a focus on providing greater level of accessibility and transport options, and is informed by the following key documents:

1. Launceston Traffic Study
2. Launceston Pedestrian Strategy
3. Launceston Bike Strategy
4. Launceston Safer Roads Strategy.

The Framework compiles key findings from these studies and strategies to show how transport, in its broadest sense, has a part to play in key policy areas such as liveability, land use, safety, economy, health and the environment. The studies and strategies were used to develop six goals for the transport system:

Goal 1: Safer and healthy communities

Goal 2: A successful local economy

Goal 3: Efficient network management

Goal 4: Transportation integration

Goal 5: Protection of built and natural Environment

Goal 6: Increased travel choice

⁹ https://www.transport.tas.gov.au/__data/assets/pdf_file/0019/112393/Northern_Integrated_Transport_Plan_2013.pdf

¹⁰ https://www.stategrowth.tas.gov.au/policies_and_strategies/tasmanian_walking_and_cycling_for_active_transport_strategy

5. Land Use and Growth

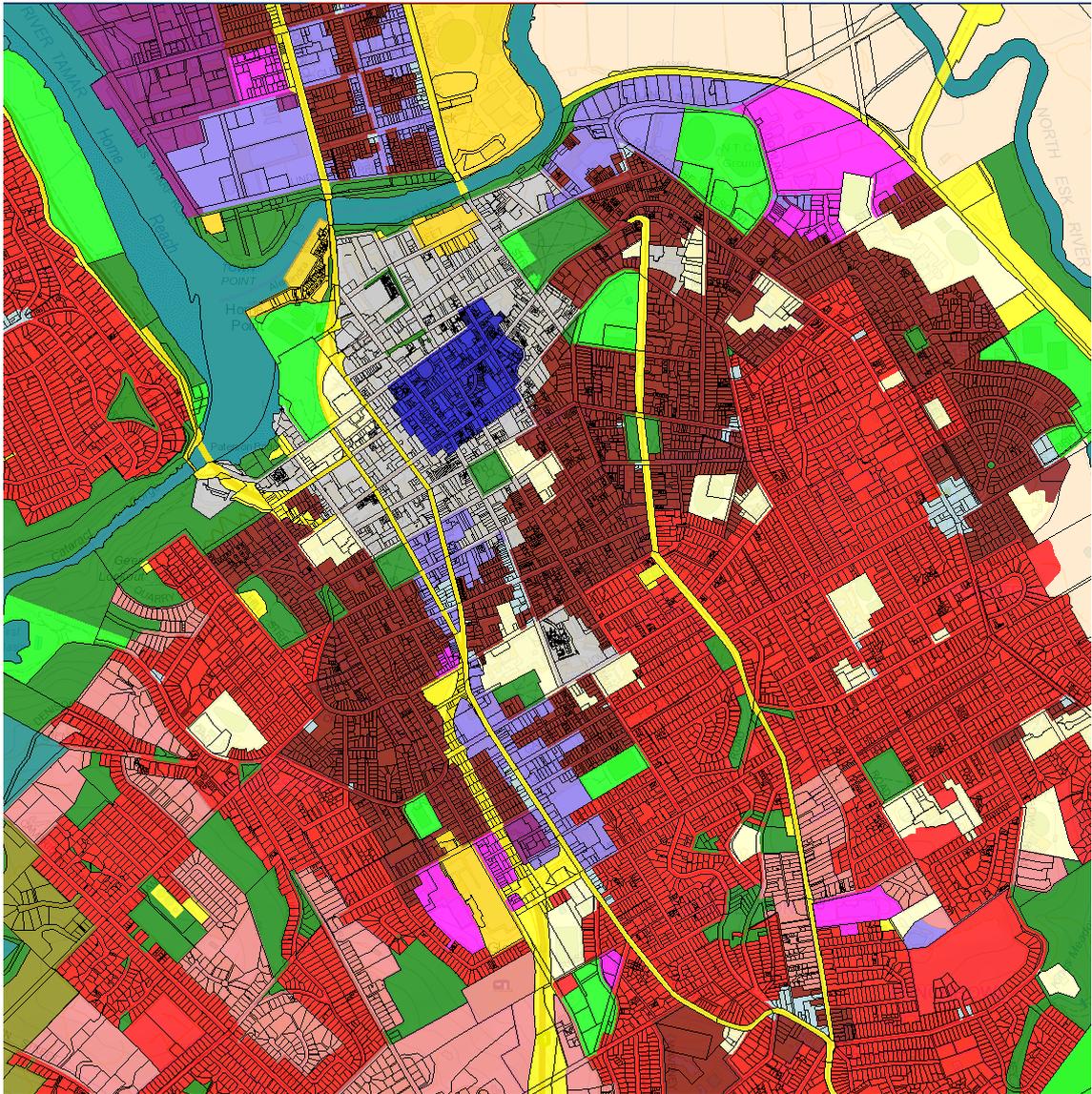
The Network Operating Framework is a process to integrate land use with the transport network. Land use planning and growth discussions formed an important part of the workshop sessions. The discussions conveyed a broader understanding of development and growth in the wider Launceston area that informed the development of the strategic maps.

Existing and future land uses and key activity areas were discussed in the workshop to encourage connections between key existing and future land uses during the strategic network mapping process. Key land use types identified include:

- Schools and community facilities
- The University of Tasmania Inveresk Campus precinct
- The Hospital precinct
- The Launceston Central Business District and commercial areas
- Residential areas and residential growth areas
- Industrial areas (Toll freight precinct and Invermay industrial area)

5.1 Launceston Planning Scheme

The inner Launceston area is generally composed of a Central Business zone surrounded by Urban Mixed Use, Inner Residential and pockets of Open Space and Recreation. The zoning map of Launceston is provided in Figure 4. On the northern side of the North Esk River, zoning is largely comprised of Commercial, Light Industrial, General Industrial and Inner Residential. The proposed site of the Launceston University of Tasmania campus at Inveresk is zoned Particular Purpose.



Legend

Cadastral Parcels



Tasmanian Interim Planning Scheme Zoning

- 10.0 General Residential
- 11.0 Inner Residential
- 12.0 Low Density Residential
- 13.0 Rural Living
- 14.0 Environmental Living
- 15.0 Urban Mixed Use
- 16.0 Village
- 17.0 Community Purpose
- 18.0 Recreation
- 19.0 Open Space
- 20.0 Local Business
- 21.0 General Business
- 22.0 Central Business
- 23.0 Commercial
- 24.0 Light Industrial
- 25.0 General Industrial
- 26.0 Rural Resource
- 27.0 Significant Agricultural
- 28.0 Utilities

- 29.0 Environmental Management
- 30.0 Major Tourism
- 31.0 Port and Marine
- 32.0 - 39.0 Particular Purpose

Topographic



Figure 4 Launceston Zoning Map¹²

¹² Source: Launceston Interim Planning Scheme, 2015

5.2 Land Use Development

University of Tasmania (UTAS)

The Northern Transformation is a \$300 million project that will see new campuses built at West Park in Burnie (\$40 million) and Inveresk in Launceston (\$260 million) in a partnership between the University and local, state and federal governments. The \$260 million relocation and redevelopment of University of Tasmania's main Launceston campus to Inveresk is the centrepiece of the City Deal. This is the largest single infrastructure investment in Launceston's history.

The State Government, the University and City of Launceston are working on the creation of a sustainable traffic management plan aimed towards reducing private vehicle use and traffic impacts on the Inveresk site itself to ensure the joint vision for the site to be safe, attractive and connected to the CBD is realised.

City Deal

The City Deal will support housing options in central Launceston that are better connected to local jobs and education, including the new university campus, and to support active transport. This will include identifying opportunities for in-fill development on vacant brown field and grey field land in the city centre and Launceston central area.

The City Deal will also deliver projects to help reduce the cost to the private sector of redeveloping underutilised buildings in the CBD for residential purposes, including student housing.

City Heart Project

Complementing the university campus redevelopment is a \$19.4 million investment in the City Heart project. This project will enliven Launceston's historic CBD and create a competitive, vibrant and compelling city centre for locals and visitors.

Included as a key project is the relocation of the bus interchange from St Johns Street. City of Launceston and Department of State Growth have committed to the development of an off-street facility in Paterson Street, which will require changes to the traffic flow (i.e. 2-way conversion) of Paterson Street and Charles Street, and other key streets to enable efficient operation of the interchange and to increase pedestrian safety.

North Bank development

The North Bank area of Launceston is currently undergoing a major change in land use. In addition to the established Bunnings and associated commercial developments on the site City of Launceston's North Bank Masterplan 2013 aims to create a new precinct on the northern edge of the city expanding the already well-established open space network along the riverfront, and improving the connectivity and user experience. The redevelopment so far includes the installation of a new pedestrian and bike riding bridge connecting North Bank to Seaport and the construction of Riverbend Park. Other land use changes include the development of the Silo hotel and the relocation of the national Automobile Museum of Tasmania to Lindsay Street.

Residential subdivisions/developments

The Greater Launceston Plan and My Place My Future Plan provide strategic direction for Launceston and surrounding region. The Greater Launceston Plan sets out the key physical plan of the Regional Framework Plan, providing strategic direction for the development and consolidation of Launceston and its suburbs and localities. The My Place My Future Plan is the

commitment in the Launceston City Deal to support economic growth and job growth through the revitalisation of Launceston's Northern Suburbs.

Hospital precinct developments

The Launceston General Hospital is the primary public health facility in northern Tasmania. There is a joint State and Federal Government project for a \$96.7 million capital works upgrade to the health precinct over three years.

Toll multi-modal freight hub

The Toll Transport hub at Dowling Street is an existing major intermodal transport depot for the north of the State. An approved redevelopment application includes the construction of new buildings and a rail link on Toll Group's site off Dowling Street, which will allow greater use of rail into the Launceston site.

Launceston Airport's Preliminary Draft Master Plan (2020)¹³

Launceston airport is located 14 kilometres south of the CBD on Evandale Road off the Midland Highway. Since 1998, use of Launceston Airport has grown from 550,000 to almost 1.4 million passengers per year. Forecasts indicate that the number of passengers coming through the airport each year will increase to nearly 2.5 million passengers by 2040. The 2020 Preliminary Draft Master Plan sets out the strategic plan for sustainable growth, drawing on strengths including 24-hour operations, efficient and reliable transport links, and, state and local government support.

¹³ Information source: <https://www.launcestonairport.com.au/source-assets/flipbook/index.html>

6. The Framework

6.1 Development of the Framework

When considering a balanced transport network approach using numerous transport solutions, it is important to consider how the different road user groups use the network.

This Network Operating Framework takes an integrated approach to support master planning, land use and mode prioritisation in Launceston. Within the study area, it is also important to consider the key factor of variable user numbers, which will affect the way the transport network operates, and its efficiencies.

The Network Operating Framework was developed using the *Austrroads Guide to Traffic Management*. This provides guidance on transport networks and network operation planning, and sets out the requirements for:

- Broad strategies and objectives of managing road networks to provide effective traffic management for all road users.
- Network needs for heavy vehicles, public transport users, pedestrians, cyclists and private motor vehicles.

The key challenge with developing Network Operating Frameworks is to provide an equitable and balanced approach to all of the demands on the road network including the space requirements to accomplish place objectives and integration with land use. To develop a Network Operating Framework that provides this required balance, consideration of the Movement and Place framework enhances the traditional approaches to network operating plans. This is described further in Sections 6.2.7 and 7.6.

6.1.1 Operating Framework Horizon

The Network Operating Framework horizon considers a future point in time based on population and land use growth assumptions to allow consideration of a future aspirational network function. This allows consideration of future changes in land use and growth to encourage forward thinking for network planning and avoiding a focus on current challenges only. Development of the strategic road network has this time horizon in mind to determine how stakeholders 'aspire' to operate the network. The time horizon reflects a 'step' towards the long-term aspiration for the network cognisant of the shorter-term requirements.

During the workshop, the stakeholders agreed a mid-range timeframe for both the transport network and land use is appropriate. As such, this Network Operating Framework considers a timeframe in the order of 10 years.

The timeframe allows focus on significant current changes occurring with the network outlined in Section 5 including key land use developments such as the University of Tasmania Inveresk Campus development.

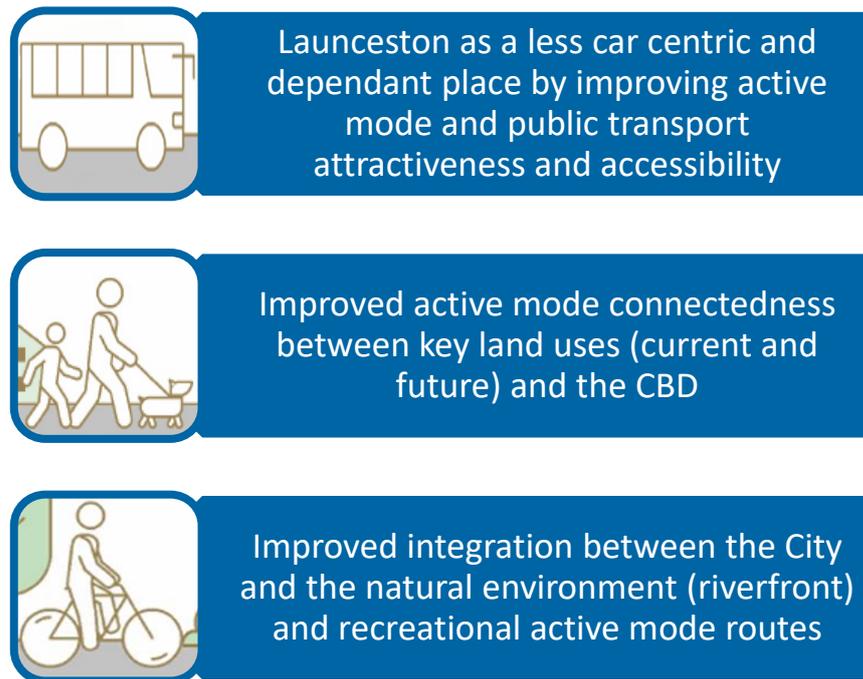
This Network Operating Framework also takes into consideration longer-term growth possibilities and land uses. This is to reflect how a number of factors could affect the rate of development, in residential and commercial. Transport planning needs to take into consideration any planned future development.

6.2 Strategic Objectives and Principles

Strategic objectives and principles provide a guideline for the development of a strategic road network. The strategic objectives of the Launceston NOF draw on stakeholder knowledge, existing policy and planning goals and the Greater Launceston Transport Vision to confirm the development of a common set of Strategic Objectives and Principles for the network.

Objectives for the Network Operating Framework were developed through stakeholder engagement workshop as part of the Preliminary Framework. The key objectives that the stakeholders were targeting as outcomes from the Network Operating Framework discussions are shown in Figure 5

Figure 5 Network Operating Framework – Key Objectives



The Strategic Objectives and Principles frame the aspirations of stakeholders in regards to the operation of the network as it relates to each mode.

The following section outlines the key themes, discussions and basis for the formation of each modes Strategic Objectives and corresponding Network Principles. A summary of the Strategic Objectives and Principles is included below.

6.2.1 Pedestrians

The visions and outcomes sought for pedestrians involve the promotion of greater movement of people through active modes such as walking and bike riding. There is a stakeholder desire to provide safe walking connections for users to encourage uptake of this transport mode. This includes connections around key land use areas and high amenity nodes such as hospitals, schools, the CBD and bus stops.

The key themes of the discussion were:

- The need to connect the residential areas (current and future), the riverfront, schools, UTAS Inveresk Campus, recreation areas, and commercial centres
- To provide strong connections from the CBD south towards the Hospital precinct

- Providing shared off-road facilities
- The couplet as an east-west accessibility restriction

The corresponding strategic objective and network principles formed are:

Pedestrians



Strategic Objective

A network for pedestrians* that provides enjoyable and commuter friendly connections within and throughout Launceston.

Principles

Primary pedestrian routes - Provide linkages that enable movement between the Gorge and the CBD, and between areas of high commercial and retail activity, education centres, and support connectivity to off-road trails.

Secondary pedestrian routes - Provide linkages to Primary routes to/from residential and commercial areas, recreational facilities.

* Pedestrian network principles consider all forms of active travel (i.e. people walking, running, using a mobility scooter or wheelchair) with the exception of people riding a bike

6.2.2 Bike riders

The visions and outcomes sought for people riding bikes are in line with those sought for pedestrians. Generally, the outcomes sought are to promote greater movement by people through active modes such as bike riding with a desire to provide and maintain outstanding bike riding facilities that encourage and enhance bike riding as a healthy active activity. This includes the further development of recreational off-road bike routes.

Discussions during workshop sessions between stakeholders supported the promotion of active transport. Stakeholders noted their respective objectives for people riding bikes should consider:

- Separation from general traffic
- Commuter bike riding connections to schools, hospitals and the CBD
- Recreational and 'Green' bike riding routes

The corresponding strategic objective and network principles formed are:

Bike Riders



Strategic Objective

Provide a bike riding network that connects communities to encourage bike riding as an everyday mode of transport to enable people to travel for work, education, social and recreational purposes.

Principles

Primary bike riding routes - Provide linkages for journey to work (suburbs to the CBD), journey to school, or journey to university purposes, and important off-road bike trails that are commonly used for both commuting and recreational purposes.

Secondary bike riding routes - Predominantly recreational routes along the riverfront, and some linkages that provide connections to primary routes.

6.2.3 Public Transport

Key themes in the discussion regarding public transport included providing strong connections between schools and residential catchment areas. In general, the discussion on public transport considered the need to cater for and consider:

- The need for a public transport node or hub in the CBD
- A north-south public transport spine
- Public transport connections between schools

The corresponding strategic objective and network principles formed are:

Public Transport



Strategic Objective

Promote a connected network for efficient movement between commercial centres and residential catchments to support public transport as an attractive mode of transport.

Principles

Primary public transport routes - The primary public transport routes in Launceston are routes carrying high frequency bus services. These bus services generally connect residential areas to the CBD or schools.

Secondary public transport routes - Local routes that compliment primary routes providing local access and connectivity.

6.2.4 Freight

Freight movement plays an important role in Launceston. There are significant inter-regional freight movements entering Launceston from the Bell Bay Port to the north and from Launceston Airport, south of the city. Many of these freight movements pass through the Toll freight precinct in the east of Launceston for distribution to local commercial, industrial and retail areas.

The key themes noted during the discussions regarding freight movement in the Launceston network considered providing efficient movement of freight to and from the aforementioned destinations. In particular, access to commercial and industrial areas while maintaining a need to minimise disruption on other transport modes and avoid areas with higher amenity land use.

The corresponding strategic objective and network principles formed are:

Freight



Strategic Objective

Provide a network that facilitates freight movement for local distribution and inter-regional distribution to a high level of efficiency avoiding areas of high amenity.

Principles

Primary freight routes - The primary freight routes in the Launceston network (current and future) were identified as routes that provided efficient inter-regional connections.

Secondary freight routes - Routes that provide last-mile connections for primary routes to commercial, industrial and retail centres.

6.2.5 General Traffic

General traffic movements typically occur on all road links throughout a transport network. While recognising that general traffic commonly has access to the entire road network, general traffic should also allow for other modal networks, promote mode choice, and provide safe journeys. The underlying approach taken in the development of the Launceston Network Operating Framework is the recognition of the fundamental need to make trade-offs in mode priority, beginning with general traffic.

A key theme of the discussion around general traffic in Launceston was that stakeholders want to work together to change the city's 'cultural dependence' on the car. Stakeholders consider a multi-modal approach to be most appropriate to drive travel behaviour change in Launceston. They also recognise prioritising public transport and active modes should lead discussions that come out of the development of the NOF.

The other key themes noted in stakeholder workshop discussions that informed the general traffic strategic objective and principles were:

- The need for efficient inter-regional routes linking major urban centres
- Provisions for outer suburb connections to the CBD and activity centres
- Inner suburb and intra-suburb connections
- Providing general traffic users with local accessibility and high access to amenity

The corresponding strategic objective and network principles formed are:

General Traffic



Strategic Objective

Promote a General Traffic network that enables public transport and active modes priority in higher amenity areas. Encourage routes that are safer and more predictable while making trade-offs in areas with high amenity.

Principles

Preferred traffic routes - The preferred traffic routes in Launceston provide for longer distance traffic avoiding areas of high land use conflict.

Traffic routes - Provides for general traffic connectivity with residential and commercial centres to preferred traffic routes.

Local primary access routes - Provides access routes to/from local destinations within the local area. May also provide circulation routes/Gateway routes.

Local secondary access routes - Collects and distributes between local primary access routes.

6.2.6 Road Safety

Providing safer road spaces for road users is a road management responsibility that road authorities undertake. Not only does this respond to social responsibilities, but by providing safer road spaces, the community benefits from freedom of access and movement.

The *National Road Safety Strategy 2011–2020* and the Tasmanian *Towards Zero Strategy 2016* both have the objective to improve road safety for all road users. The strategies fundamental vision is that no person should suffer fatal or serious injury on our roads. The strategies set out frameworks of how this is to be achieved.

To account for the uplift in road safety as per the state and national strategies, this Framework and the subsequent network assessment includes Safety as a theme. This sets the target level of service for road safety to be zero fatal and serious injuries through providing safety performance scores for each of the assessed road segments. The safety score is applied independently of other themes as road safety is a core requirement, regardless of the road users that are strategically identified.

Road Safety



Strategic Objective

An operating environment and transport system that do not result in death or serious injury as a consequence of errors on the roads

Principles

All Routes - All routes to provide a safe road space for all road users

6.2.7 Place

By defining Place as a network function in the Framework, a greater emphasis can be placed on the allocation of priority at a street level. This approach takes the benefits of traditional network operating plans and contextualises movement and access requirements in respect to land use requirements.

Streets are an extension to land use, attract activities and can be a destination in its own right. The Place function is the ability to access origins and destinations of travel and is based upon the degree of significance of a section of a street within a regional context. This can be determined by the number of visitors to the street (associated with retail, commercial and recreational trip attractors), the primacy of residential living or the historical/cultural value of the buildings on the street or the street itself. This Framework considers the competing demands of travel and freight, as well as destination and place based activities.

To do this, this Framework adopts elements of the movement and place methodology, and in particular the guidelines developed by Department of Transport Victoria. The strategic objective and principles for Place have been adopted by the guidelines and are provided below.

Place



Strategic Objective

Promote a network that recognises the importance of the community function of streets as spaces for social intersection.

Principles

Places of Street Activity (PA)

- | | |
|-----|--|
| PA1 | Nationally and state significant place of activity. People travel from across the country and state to experience and use the place. The place has a very large number of on-street staying activities e.g. shops and alfresco dining. |
| PA2 | Regionally significant place of activity. People travel from adjoining municipalities to experience and use the place. The place has a large number of on-street staying activities e.g. shops and alfresco dining. |
| PA3 | Municipal level of significant place of activity. People travel from across the municipality to experience and use the place. The place has visible on-street staying activities such as public seating and alfresco dining. |
| PA4 | Neighbourhood level of significant place of activity, serving people from immediate neighbourhoods, e.g. milkbars and local shops. |
| PA5 | Local level of significant place of activity. Places are generally quiet and a destination for people accessing residential properties |

Places of Off-Street Activity (PO)

- | | |
|-----|---|
| PO1 | State significant places (without on-street activity) generating very high demands on the transport network for high value and/or volume of people or freight movement. |
| PO2 | Regional significant places (without on-street activity) generating high demands on the transport network for high value and or volume of people or freight movement. |
| PO3 | Specialised places (without on-street activity) generating unique demands on the transport network for people or freight movement. |
| PO4 | Other places (without on-street activity) generating unique demands on the transport network for people and/or freight movement. |

7. Network Definition

An effective multi-modal transport network generally adopts a balanced approach to network prioritisation, taking into account the needs of all transport and road users. A Network Operating Framework utilises this type of approach through the development of a strategic road network that defines a roads priority by mode. The strategic transport network defines user priority by mode, place and time of day. This moves away from a traditional road classification hierarchy and focuses more on the need to recognise the variety of transport modes, their inter-relationships and the strategic intent for the network.

The following section outlines the strategic road networks for each of the identified modes. Each network sets out the aspirational hierarchy, which at this stage does not include any temporal differences. Network performance by time of day will be included in the subsequent Network Performance assessment.

Individual maps for each road use function are provided in Appendix B. The following functions of road use were included in the mapping of the strategic road network:

- Pedestrians
- Cyclists
- Public Transport
- Freight traffic
- General vehicle traffic
- Places of activity

During the stakeholder workshop an aspirational strategic road network for each road user group was established. The identified routes followed the principles defined earlier in the process.

Following the stakeholder workshop a detailed assessment led to some routes being modified to reflect any recent infrastructure or policy changes, or to provide a further level of completeness to routes that couldn't be completed in a workshop setting. Network changes were made whilst still maintaining alignment to the objectives and principles.

7.1 Pedestrians

The pedestrian network, in line with the defined strategic objectives, aims to promote walking (and other active modes excluding cycling) as a mode choice with safe, efficient, enjoyable and more direct connections. These connections are between areas of high commercial and retail activity, natural land features and recreational routes, and education and healthcare facilities. The mapping of off-road paths and trails was focussed on routes that intersected with the road network only.

The primary routes identified for pedestrians (both current and future) were connections between key locations. In Launceston, these primary routes are:

- within the CBD
- between the CBD and Launceston General Hospital
- between the Cataract Gorge and the CBD (separated facilities)
- between the riverfront and the CBD
- connections to central public transport stops

- connections to the university campus

The secondary pedestrian routes identified were routes that:

- link into primary routes
- connect to schools and residential areas on the outskirts of the CBD

7.2 Bike riding

The Launceston bike riding network strategic objective is to provide continuous journeys that safely connect communities for people on bikes to encourage bike riding as an everyday mode of transport. The network should enable people to travel by bike for work, education, social and recreational purposes.

Workshop participants identified the primary bike riding routes in Launceston as those providing linkages for regular journeys, such as journeys to work (suburbs to the CBD), journeys to school, or journeys to university. Participants noted specific primary routes as being:

- the bike ways adjacent to the East and West Tamar Highways, Paterson Street and Charles Street (which provide important CBD linkages)
- along the riverfront of the North Esk River (connecting to UTAS – Inveresk)

Holbrook Street is a future primary route due to its connection to the river front recreational trail.

The secondary routes identified in Launceston were predominantly recreational routes along the Tamar River (riverfront), and North Esk River as well as some connections to primary routes.

- Existing recreational routes recognised as secondary routes were Gilmore Street, Murphy Street, River Street and Kings Wharf Road, Alexandra Walk, and the West Tamar Fitness Trail. Vermont Road (north of the city)
- Trevallyn Road were identified as other secondary routes for the connections they provide to important primary feeders
- Abbott Street, Trevallyn Road and Connaught Crescent are included as secondary routes to increase connection of suburban areas to the CBD

A detailed review of the bike riding network was undertaken with stakeholders following the workshops to better inform this Framework. As part of the review a more complete network was mapped to improve the connectivity of proposed priority routes.

7.3 Public Transport

The strategic objectives for the public transport network target the provision of a connected network for efficient movement between commercial centres and residential catchments.

The primary routes identified in the public transport network were the high frequency bus routes that provided connection to and within the CBD from the north and south. They include:

- Invermay Road, William Street and St John Street (connecting to the CBD) from the north
- Charles Street, Wellington Street and Howick Street (connecting to the CBD) from the south

The two routes that are currently providing public transport access to the CBD from the east and west, are performing as secondary public transport routes but are recognised as potential future primary routes. These are:

- West Tamar Highway, including Brisbane Street and York Street (connecting to the CBD) from the west
- Elphin Road (connecting to the CBD) from the east

The secondary public transport routes identified were:

- Henry Street, Boland St, Innes Street and Cimitiere Street (connecting to the CBD) from Ravenswood
- Westbury Road (connecting to Wellington Street Primary route) from Prospect

There are a number of other routes not mentioned that are important local routes that compliment primary and secondary routes by providing local access and connectivity. In order to prioritise secondary routes, those with a higher number of existing services were chosen.

As discussed in Section 7.2, the bus interchange is proposed to be relocated from St Johns Street to Paterson Street within the planning horizon of this Framework. This results in significant changes to the routing of buses within the Launceston CBD, and introduces opportunities to reallocate parts of the network away from bus, freight and general traffic access to improve the function of pedestrians, bike riding and urban realm. As a result of the bus interchange relocating, Charles Street, George Street, Paterson Street and York Street have been identified as primary public transport access routes creating a CBD loop.

7.4 Freight

The goal of the freight network in Launceston was to provide an efficient network for the movement of goods and services. This involves the development of a freight network that facilitates freight movement for both local distribution and inter-regional distribution to a high level of efficiency and supporting the economy.

The primary routes identified in the freight network were routes that provided efficient inter-regional connections. These routes were identified as being:

- the East Tamar Highway
- the Midland Highway
- the Wellington Street / Bathurst Street Couplet
- the railway line east of the city providing connection to the Toll depot, a quarry in Mowbray, and the Port at Bell Bay.

The secondary freight routes were identified as last mile connections for the primary freight routes. They service the commercial, industrial and retail areas of Launceston, predominantly in and around the Central Business District. Cimitiere Street in the CBD and Forster Street in Invermay are examples of secondary freight routes in Launceston.

Workshop participants noted St Leonards Road as a potential future secondary freight route, providing a last mile link to the St Leonards industrial area. This St Leonards Road future secondary route would include a connection to Tasman Highway, a new connection between Henry Street and Hoblers Bridge Road, and a connection back to Midland Highway via the existing Johnstons Road/Quarantine Road/Kings Meadows Connector route.

7.5 General Traffic

The general traffic network, in line with the strategic objectives, aims to promote a network that focuses on customer journeys and promotes inter-modal connectivity from origin to destination. This network shall also encourage routes that are safer and more predictable while making trade-offs in areas with high amenity. The trade-offs seek to balance high access to desirable areas with the negative influence of traffic movement on amenity in these areas.

General traffic priority across the network was considered in four tiers of priority:

1. Preferred traffic route

A preferred traffic route is typically more inter-regional or long distance in function. They may take the form of an expressway and are typically expected to have limited levels of corridor access from abutting land uses and other (active) modes.

2. Traffic route

Traffic routes retain an important function for the movement of general traffic. However, there is the recognition that on these corridors there are competing modal priorities, cross movements and higher levels of abutting land uses.

Preferred traffic routes and traffic routes are distinguished by movements, modal use and access rather than by volumes. A network link may have a range of priorities influenced by population density, surrounding land use and changing form and function along corridors.

At a local level we also consider the following priority routes:

3. Local primary access route

Local primary access routes commonly connect traffic routes and provide access between key local destinations and areas of activity.

4. Local secondary access route

Local secondary access routes provide connections between primary local access routes.

Not all streets are prioritised as many streets simply provide end of trip connections such as residential streets and cul-de-sacs.

Preferred traffic routes in Launceston are the highways, which provide important inter-regional connections. Highways noted as preferred routes were:

- The Tasman Highway, Midland Highway and the East Tamar Highway/ Goderich Street.
- A new future link between Henry Street and Hobblers Bridge Road (where planning is currently underway). This route could also connect into Vermont Road and the East Tamar Highway at Mowbray in the future to increase the linkages between the northern suburbs and the Tasman Highway.

The traffic routes identified in the workshop were similar to those of the current network and function. General traffic routes include:

- the Bathurst Street / Wellington Street Couplet
- West Tamar Highway
- Vermont Road
- Elphin Road – Penquite Road
- Westbury Road
- Forster Street
- Hobblers Bridge Road
- Henry Street
- Routes through the CBD include York Street, Tamar Street and Cimitiere Street

Local primary access routes provide access to and from local destinations. These routes include roads such as:

- Invermay Road

- High Street – Talbot Road
- Lambert Street
- David Street
- Granville Street – Brougham Street – Hillside Crescent – Frederick Street
- Pomona Road – Pitt Avenue – Veulalee Avenue – Bald Hill Road – Gorge Road – Trevallyn Road

Local secondary access routes collect and distribute general traffic between primary local access routes. The local secondary access routes identified for Launceston encompass the City's CBD area and some of its surrounds including:

- Paterson Street
- William Street
- Charles Street
- Clarence Street – Abbott Street

7.6 Places of Activity

The goal of undertaking place mapping is to ensure that adequate consideration is provided at street level to the space and connectivity requirements to enable place based activities and achieve goals of improved liveability. Places of activity were mapped that have a direct influence at the street level as well as key Places of off-street activity, which have a greater need for access to be considered.

Areas within the study area that are considered places of state significant activity include:

- the majority of the CBD
- frontage of the Launceston General Hospital

These are areas that stakeholders have identified where prioritising liveability elements is important to the future network plan of Launceston.

Regionally significant areas of place include segments of key roads just outside the CBD, including:

- Charles Street
- St John Street
- Cameron Street
- Tamar Street
- York Street
- Paterson Street
- Brisbane Street
- Elizabeth Street

The remainder of sites focus on locally significant place areas such as Newstead, Sandhill, Trevallyn, and Invermay.

Off-street activity areas at a state significance level include:

- the Inveresk precinct (which contains the UTas campus and sporting precinct)
- the Cataract Gorge

Both of these sites attract visitors from across the State, and even nationally for sporting and entertainment events.

Other key sites noted as significant include:

- the Launceston General Hospital
- retail and restaurant precincts in the CBD and Seaport
- light industrial and trades retail precincts in Invermay and Racecourse
- recreation spaces such as Punchbowl Reserve, Kings Park, Heritage Park, and Tailrace Park

8. Next Steps

This Network Operating Framework focussed on the development of Strategic Objectives and Principles followed by a preliminary review by workshop participants around assigning network priorities. The networks have been refined to reflect existing modal plans and strategies, and introduces Place as a road network function to ensure the network reflects the way people use the road space. The following outlines the applications of this Network Operating Framework and the next steps.

The Framework sets the strategic objectives of the network, however, further analysis is required as part of Phase 2 to define the network by identifying baseline network performance related to safety and efficiency, and the relationship with other city initiatives and transport plans (as shown in Figure 6).



Figure 6 Network Operations Planning Process – Next Steps

Modal Priorities Refinement

By overlaying the defined modal networks for the different levels of priority, we will be able to understand locations of the network where we multiple levels of priority need to be achieved. Through having a greater understanding of where the higher concentration of priorities are, this enables a further level of refinement to the network. In particular, to decide where trade-offs between modes needs to occur, or where interventions such as new links, or changes to traffic signal operation can support the network aspirations.

Network Performance and Testing

Following the modal priority assessment, modal objectives will be translated into Level of Service (LoS) targets for each mode and each route allowing gaps in the performance on the

network to be better understood. A gap analysis will be undertaken to identify network areas that do not meet specified LoS targets by road link and by user group.

Network Strategies

The outcomes of the network performance review will lead to the identification of network strategies (Network Improvement Plans) and operational plans (Network Operating Plans) to be developed to respond to potential gaps. This would consider both the level of service gaps and the aspirational priorities for the modes in considering improvements.

Such strategies and plans may include, but not limited to:

- On-road bus priority plan
- Traffic signal priority plan
- Strategies to address any safety performance

Appendices

Appendix A – Launceston Network Operating Framework, Transport Challenge Identification, Programme Development and Potential Implementation Workshop 12th & 13th March, 2019
Workshop Report



Launceston

Network Operating Framework,
Transport Challenge Identification,
Programme Development and Potential
Implementation

WORKSHOPS - 12th & 13th March , 2019

Attendees

Attendee	Organisation	Attendee	Organisation
Rob Anderson	City of Launceston	Mark Iles	DSG
Richard Jamieson	City of Launceston	Garry Hills	DSG
Damien Fitzgerald	City of Launceston	Birgit Kruse	DSG
Geoffrey Stick	City of Launceston	Tim Bickerstaff	DSG
Michael Newby	City of Launceston	Sarah Poortenaar	DSG
Nigel Coates	City of Launceston	Alison Hetherington	Bicycle Networks Tasmania
Uriel Walters	City of Launceston	Jo Archer	RACT
Matthew Skirving	City of Launceston	Will Oakley	RACT
Sarah McCormack	City of Launceston	Tim Eldridge	GHD
Angela Moore	City of Hobart	Andrew Metge	GHD
Stuart Baird	City of Hobart	Erin Jackson	GHD
		Greg McGuire	GHD

Apologies for the workshop were:

Dan Verdouw – DSG

Martin Blake - DSG

Carmen Primo Perez – University of Tasmania

Neil Grose – Chamber of Commerce

Nicole Lucas – City of Launceston

Purpose and outcomes

Day 1

1. Understand land use planning, growth and key drivers
2. Discuss Network Planning in the context of Launceston
3. Understand what a Network Operating Framework is
4. Develop a Network Operating Framework for Launceston
5. Agree on a network timeframe for mapping the network and places
6. Strategic Objectives and Principles for each mode developed and agreed
7. Mapping strategic modal network (aspirational modal priorities)

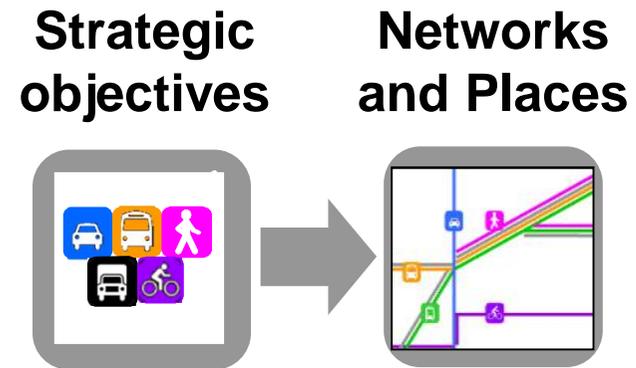
Day 2

1. Identifying what success looks like and desired outcomes from investing in Launceston
2. Identifying gaps in transport infrastructure, behaviours and land use to achieving the desired outcomes
3. Developing programmes for focus areas in Launceston using priorities and timeframes for delivery
 - i. Regional priorities
 - ii. CBD
 - iii. Suburban growth areas
 - iv. University of Tasmania (Inveresk Campus)

Network Operating Framework

The purpose of a Network Operating Framework (NOF) is:

- To understand land use planning, growth and key drivers
- Discuss Network Planning in the context of Launceston
- Support decisions as part of a wider decision making framework
- Provide a collaborative approach to planning outcomes
- Take a wider view of the network
- Provide transparency in decision-making



Interactive workshop sessions – Day 1



What are the key land use trip generators in Launceston?



What are the future challenges?

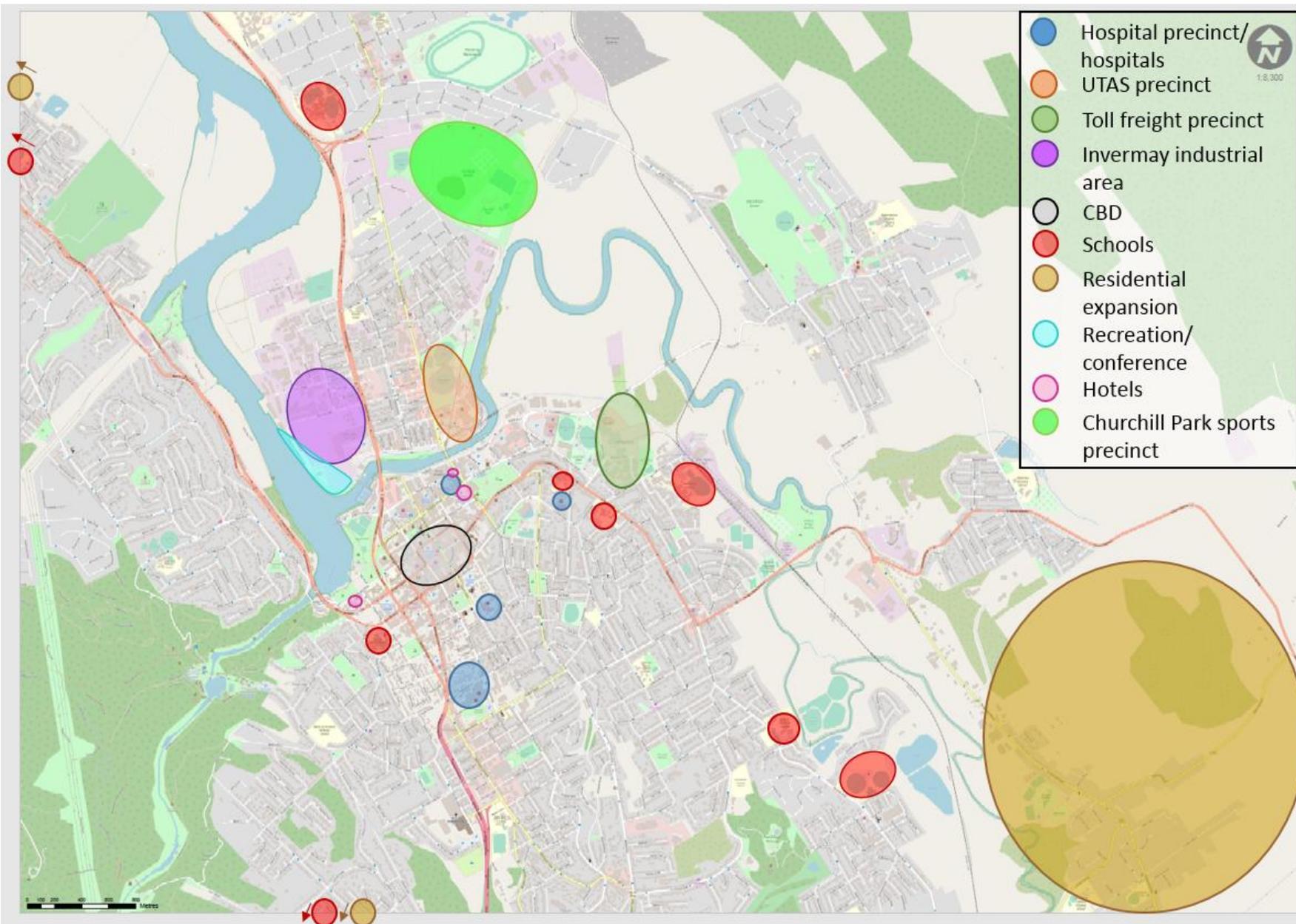


What are the strategic objectives for each mode and the primary and secondary routes?



Where are the key conflict points between modes?

EXERCISE 1: Land uses and trip generators



The land use map provided an overview of the trip generators in the Launceston area (now and future). At the start of the session all key trip generators were identified by the participants ranging from recent residential growth areas to education providers, hotels, the CBD and the hospital precinct.

The next session asked participants to narrow the identified trip generators to the key 5-10 sites within the Launceston area both now and planned future developments. Key sites are noted and displayed in the adjacent land use map.

EXERCISE 3: Strategic objectives and principles

Prior to mapping the primary and secondary routes for each mode, participants were asked to outline strategic objectives for each mode and key principles of how the network should be developed.

This exercise was undertaken by different groups for each mode of transport and discussed and agreed by the whole group to compliment the subsequent route identification and modal conflict exercises.

Common themes that emerged from the strategic objectives and principles for all modes centred on key themes of safe, direct, accessible, enjoyable, affordable and attractive.

	<ul style="list-style-type: none"> • Commuter cycling connections to schools, hospitals and the CBD • Separated cycle paths • Recreational cycling routes
	<ul style="list-style-type: none"> • Safe walking connections to schools, hospitals, the CBD and to bus stops • High amenity/ care nodes • Walking for recreation (in parks, along riverfronts)
	<ul style="list-style-type: none"> • Public transport connections from residential areas to hubs, the CBD, schools, hospitals, and local shops • Connecting different suburban centres and amenities • Major events and tourist sites
	<ul style="list-style-type: none"> • Efficient inter-regional connections and access to the Toll depot, port, rail facilities and industrial areas • Avoiding high amenity land uses • Last mile distribution connections to shops
	<ul style="list-style-type: none"> • Inter-regional routes linking major urban centres • Outer suburb connections to CBD and activity centres • Inner suburb and intra-suburb connections • High access to amenity, local accessibility



EXERCISE 3: Cycling networks

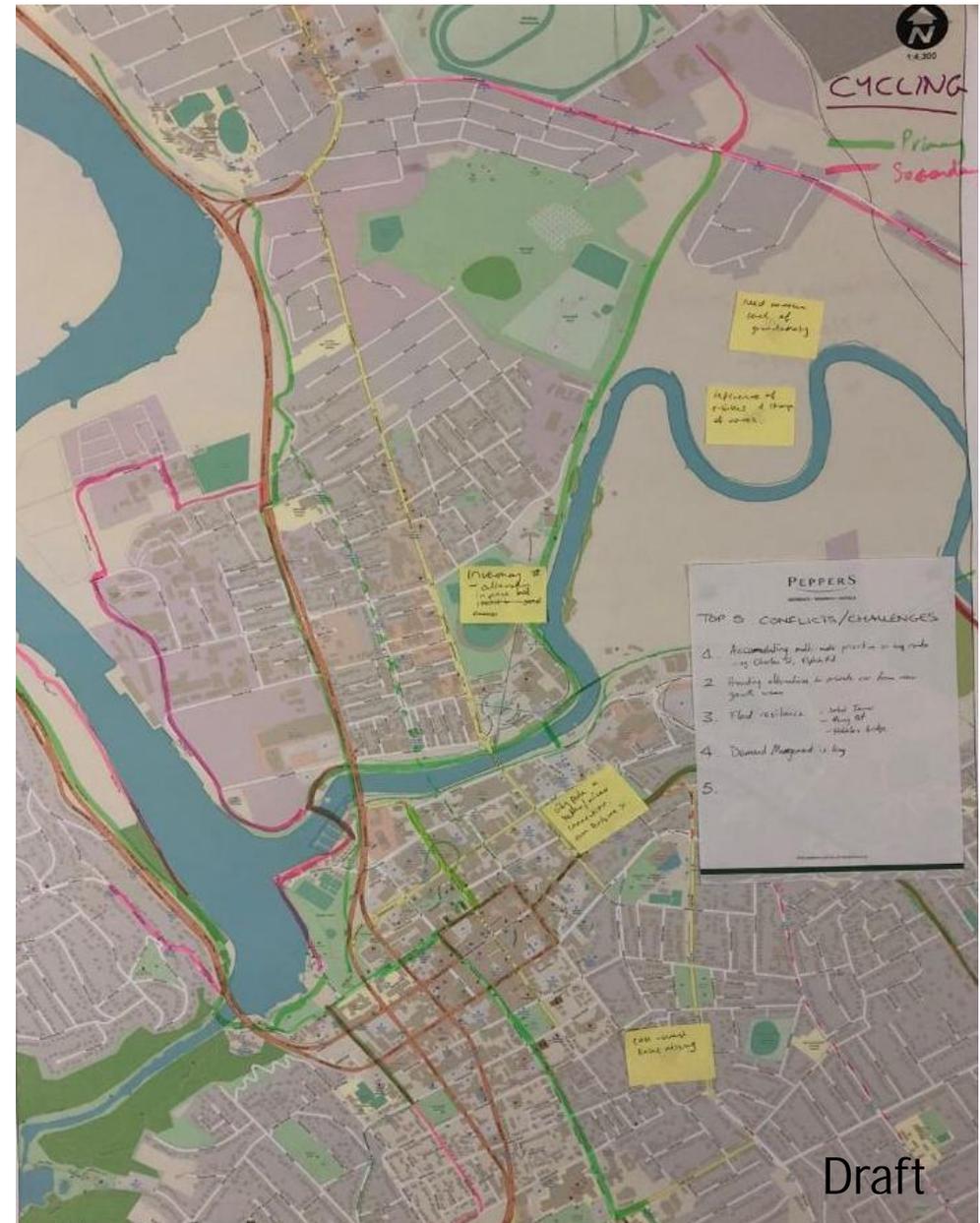
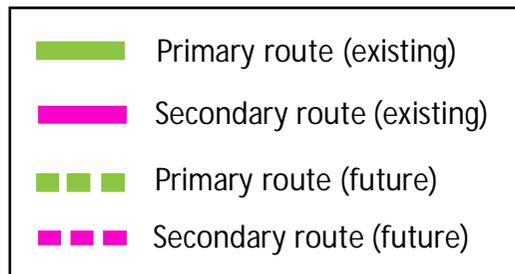
The majority of the groups identified the existing cycle trails and key corridors into the CBD as the primary cycle routes, mainly used by commuter cyclists.

Groups identified the primary existing cycling routes in Launceston as those that were most commonly used for journey to work (suburbs to the CBD), journey to school, or journey to university purposes. This included the cycleways adjacent to the East and West Tamar Highways, Brisbane Street and Elphin Road, Paterson Street connecting the highway to the CBD, Charles Street and Margaret Street. Other primary routes noted on the maps were the off-road cycle trails following the North Esk River north to Vermont Road.

The existing secondary routes identified in Launceston were predominantly recreational routes along the river front, and some connections to primary routes. Recreational existing secondary routes were recognised as Gilmore Street, Murphy Street, River Street and Kings Wharf Road, Alexandra Walk, and the West Tamar Fitness Trail. Vermont Road (north of the city) and Trevallyn Road were drawn on the map as secondary routes for the connections they provide to important primary feeders.

Holbrook Street was identified as a future primary route due to its connection to the river front recreational trail.

High Street and Abbott Street were recognized as becoming future secondary routes to increase connection of suburban areas to the CBD.





EXERCISE 3: Pedestrian networks

The workshop participants were asked to discuss and identify what they believed were the existing primary and secondary pedestrian routes in Launceston and to identify the likely future primary and secondary pedestrian routes.

The primary and secondary routes for pedestrians both current and in the future were to connect key local destinations including:

- The Gorge to the CBD
- Good pedestrian connections to central stops
- More inter-campus walking connections

	Primary route (existing)
	Secondary route (existing)
	Primary route (future)
	Secondary route (future)





EXERCISE 3: Public transport

In groups, the workshop participants were asked to discuss and identify what they believed were the existing primary and secondary public transport routes in Launceston and to identify the likely future primary and secondary public transport routes.

The primary routes were identified as routes carrying high frequency bus services. These bus services generally connected residential areas to the CBD or schools. These included the primary (existing route) of Elphin Road, West Tamar Highway, Invermay Road, and Charles Street.

An existing secondary route was identified by participants on Abbott Street linking East Launceston with southern suburbs.

Future secondary public transport routes would potentially provide improved east-west links to connect in with the north-south (existing) primary public transport routes in Invermay, Trevallyn, and West Launceston.

- Primary route (existing)
- Secondary route (existing)
- Primary route (future)
- Secondary route (future)





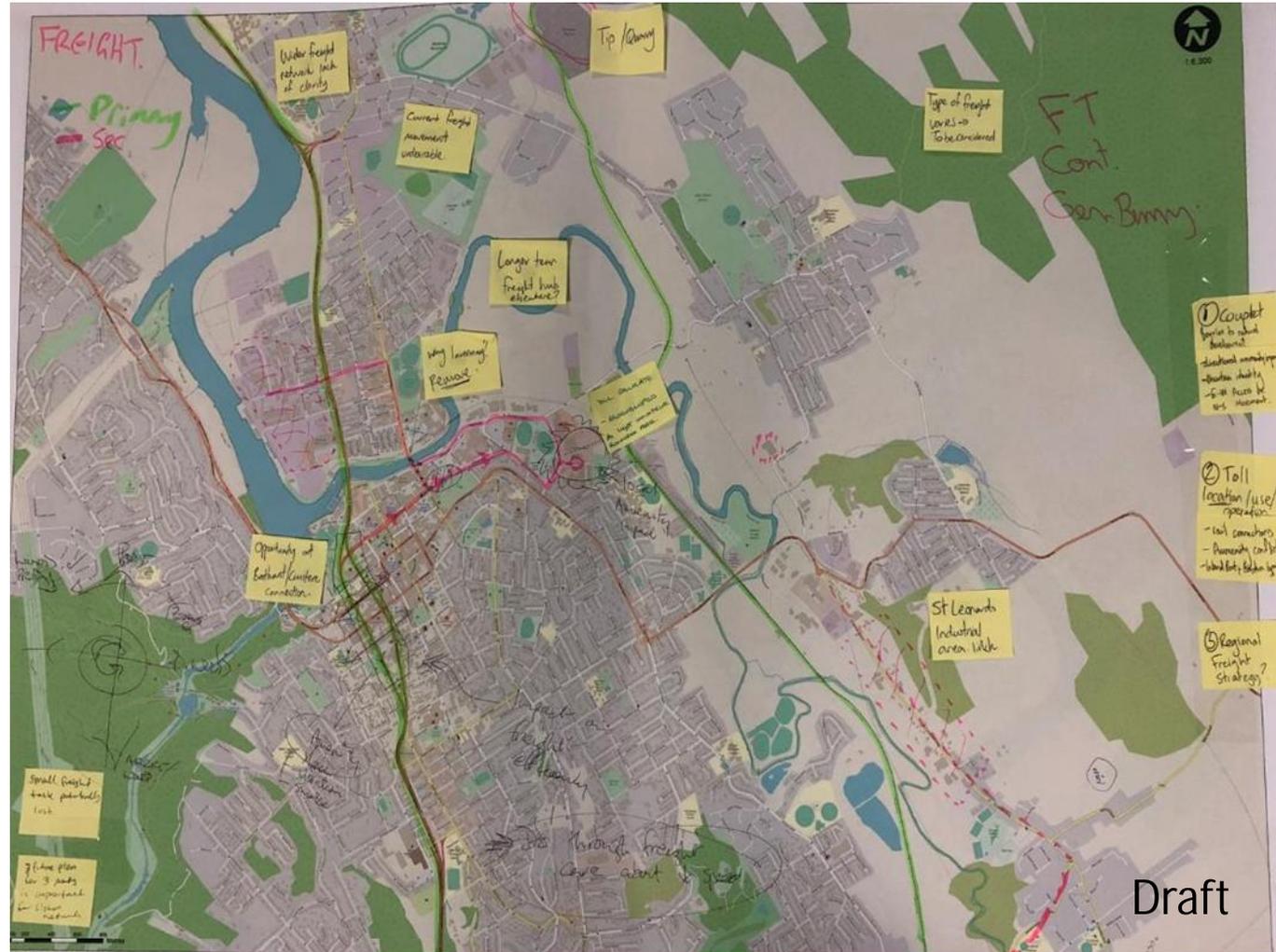
EXERCISE 3: Freight networks

Workshop participants identified the existing primary and secondary freight routes in Launceston as well as the likely future primary and secondary freight routes.

The primary routes, current and future, were identified as routes that provided efficient inter-regional connections. These being the East Tamar Highway, the Midland Highway, and the railway corridor east of the city providing connection to the landfill and quarry in North Launceston.

The secondary routes were last mile connections for primary routes. They service the commercial, industrial and retail areas of Launceston (For example, Cimitiere Street in the CBD and Forster Street in Invermay).

A future secondary freight route was identified on St Leonards Road to provide a regional link to the St Leonards industrial area.



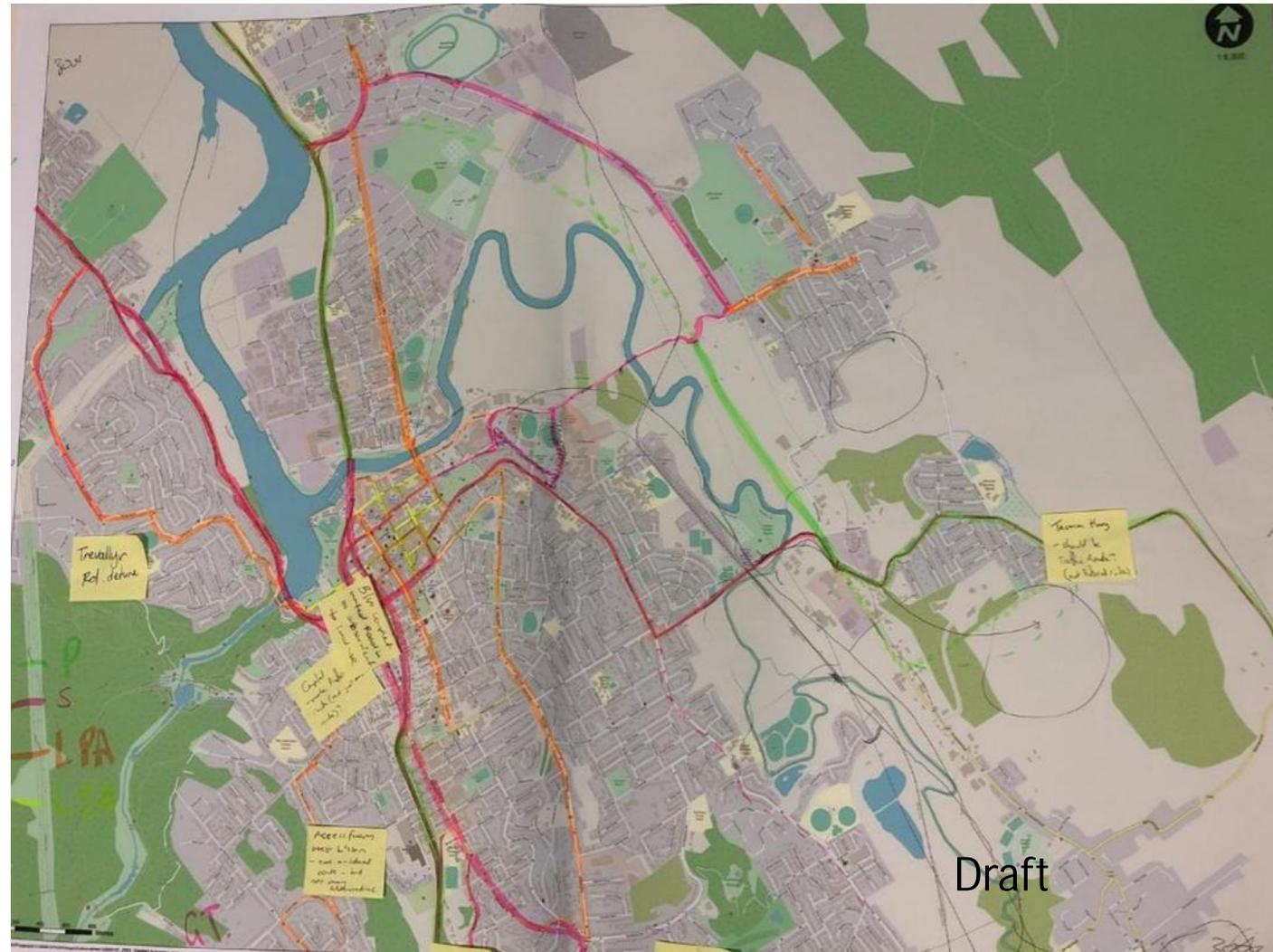
- Primary route (existing)
- Secondary route (existing)
- Primary route (future)
- Secondary route (future)



EXERCISE 3: General traffic

The workshop participants were asked to discuss and identify what they believed were the existing preferred traffic routes, traffic routes, local primary access routes and local secondary access routes for general traffic in Launceston and to identify the likely future general traffic routes.

The general traffic routes for the future were similar to those of the current network and function with a number of minor changes such as the detuning of Trevallyn Road. A potential future preferred route was noted as Penquite Road which will provide a more direct connection to the CBD from the south-east. A potential (long term) new local secondary access route to the east of the CBD connecting northern suburbs with the Tasman Highway was discussed, as well as a possible connection from this route into Vermont Road and the East Tamar Highway at Mowbray.

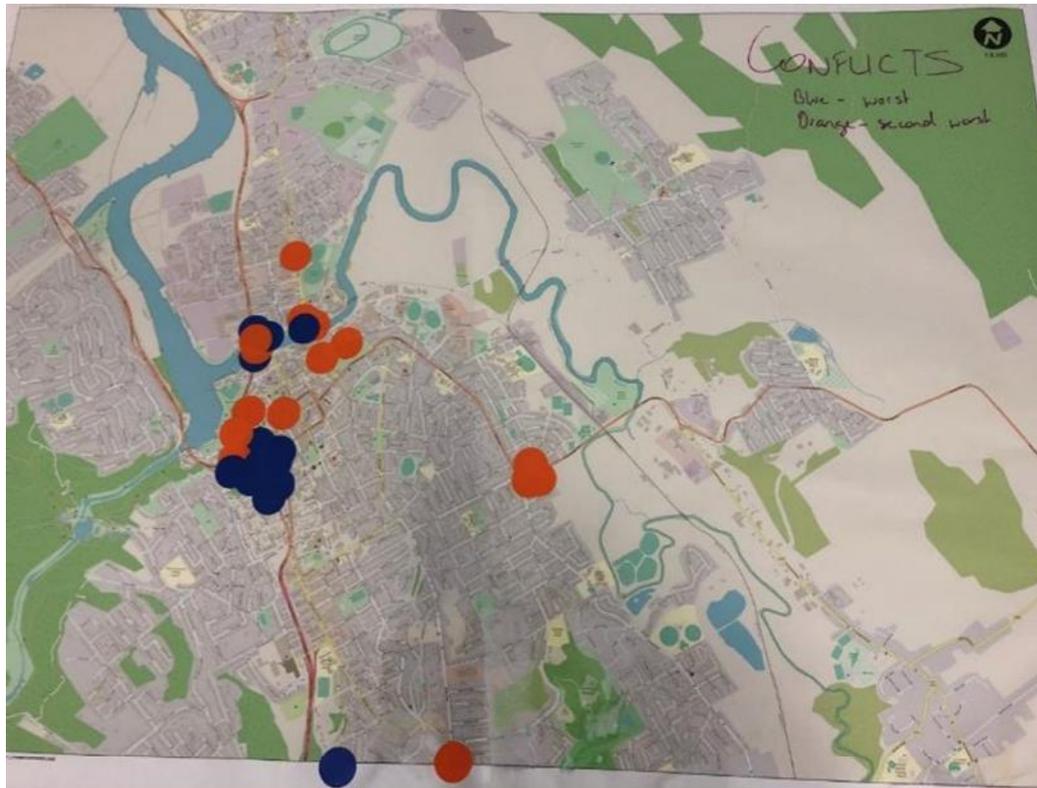


-  Preferred route
-  Traffic route
-  Local primary access route
-  Local secondary access route

EXERCISE 4: Network conflicts and opportunities

Exercise 4 involved workshop participants identifying locations in the Launceston transport network where conflicts occur and potential opportunities exist. These sites were identified using an interactive group activity where sites of potential conflict and opportunity were marked on two large maps with blue, orange and black stickers.

Conflicts



Opportunities



EXERCISE 4: Conflict points

UTAS precinct connections and access

River crossing at Tamar St Bridge

Access to commercial precinct (Lindsay St / Goderich St intersection) & Charles St Bridge

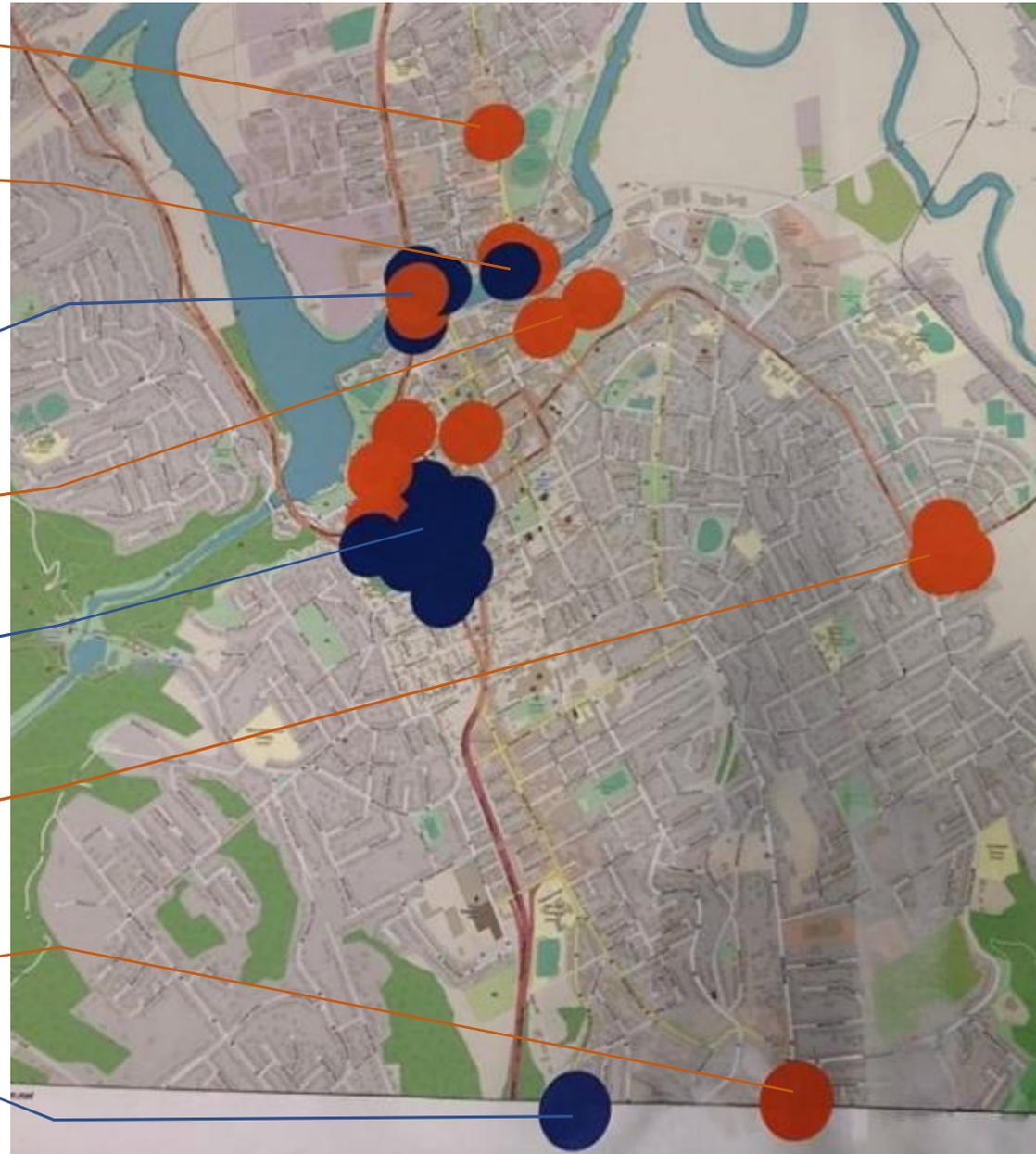
Cimitiere St corridor issues with freight movement demands

Bathurst St/ Wellington St Couplet: east-west severance and restrictive land use develop outcomes

Eastern city access convergence issues (Elphin Rd / Hobblers Bridge Rd/ Penquite Rd intersection)

Hobart Rd-

Westbury Rd-

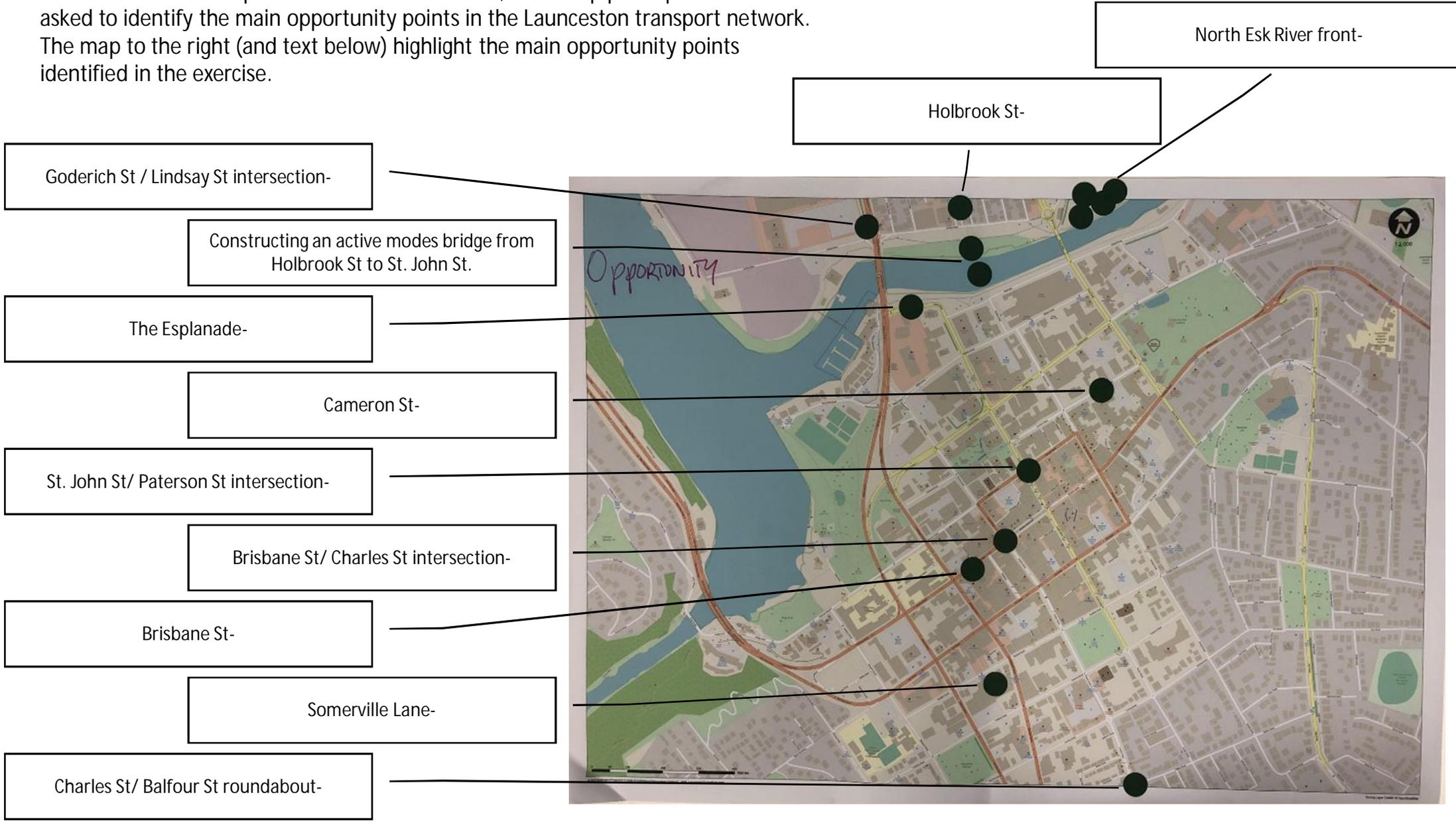


There was a strong relationship between the key conflict points identified, with multiple workshop participants identifying the same locations, often for different reasons, i.e. freight congestion occurs where there is also a safety issue for vulnerable users.

The map highlights the worst conflict points (marked with blue stickers) and second priority conflict points (with orange stickers) identified by the workshop participants.

EXERCISE 4: Opportunity points

Similar to the conflict point identification exercise, workshop participants were next asked to identify the main opportunity points in the Launceston transport network. The map to the right (and text below) highlight the main opportunity points identified in the exercise.



EXERCISE 6: Gap assessment and opportunities

In exercise 6 the workshop participants worked in groups and undertook a gap assessment of planned, proposed and potential investments for the cycling networks, pedestrian networks, public transport network, freight network and general traffic network in Launceston.





EXERCISE 6: Cycling networks

The gap assessment of the Launceston cycling networks identified the below listed planned, proposed and potential investments.

PROPOSED

- Rocherlea to Inveresk missing link
- River bend trail completion
- End of trip facilities (parking, showers, etc)
- A fully connected network with connections to key destinations
- Ride to school as a strategy to mode choice
- Shields to Holbrook Bridge cycle path and separated facilities
- Cycle paths being seen as an extension of the river (blue)
- Shared calmed networks



PLANNED

- Separate off-road cycle paths
- On-road non-separated cycle paths
- The construction of a university pedestrian bridge
- Invermay traffic masterplan



POTENTIAL

- E-bike strategy
- Increased respect for cyclists
- Elevated walkways and cycleways
- Do not think of topography as a barrier
- Behaviour and mindset change towards mode shift
- Education for motorists and cyclists
- Separated on-road facilities with network connectivity
- The provision of 8 – 80 infrastructure for all riders
- Change the perception of cycling being viewed as elite



EXERCISE 6: Pedestrian networks

The gap assessment of the Launceston pedestrian networks identified the below listed planned, proposed and potential investments.

PROPOSED

- CBD intersections to provide priority for pedestrians (St. Johns Street)
- Widen footpaths in key pedestrian areas
- Enhance the attractiveness of streets through provision of additional amenity
- Improve pedestrian connections from the CBD to the riverfront and Cataract Gorge



PLANNED

- Level and safe footpaths
- Lighting improvements and lighting consistency across the central area pedestrian network
- Wayfinding and signage improvements
- Better arterial road crossing points and safer intersections for pedestrians



POTENTIAL

- Improve pedestrian links into the CBD
- Create priority walking trails over Windmill Hill from the eastern residential areas to the CBD
- Improve walking connections around schools
- Make the pedestrian network from Invermay to the CBD safer and more inviting/ accessible for users
- Use land adjacent to footpaths to create an inviting urban realm
- Create a publicly accessible link between UTAS and the CBD
- Further development of COL walkability maps
- Pedestrian link from Holbrook St to St Johns St
- 'Green waves' for pedestrian on major routes



EXERCISE 6: Public transport

The gap assessment of the Launceston public transport network identified the below listed planned, proposed and potential investments.

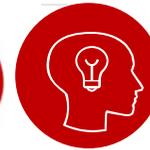
PROPOSED

- Improve bus stop facilities and amenity (increased shelters, benches and timetables)
- Provide real time information and encourage travel planning
- Implement bus priority measures on key corridors
- Reduce the price of public transport services to make them more competitive
- Create bus hubs to allow for easier transfer between modes and PT services
- Create satellite drop-off/ collection points



PLANNED

- Creation of PT routes that do not end in the CBD
- A shared/ common ticketing system
- PT services that connect suburbs
- Improved frequency and reliability of services
- A high quality bus network
- Integrate city bus connections with regional bus services
- Encourage travel planning



POTENTIAL

- Use advertising and travel demand management measures to increase patronage and mode shift (a culture change)
- Create designated bus lanes on key corridors or separate transit corridors
- Provide flexible routes and on-demand services
- Improve on board bus advertising
- Potential interchange proposal for urban and regional services
- Provide bike facilities such as bike cages and bike racks at PT hubs
- Provide smaller buses that run more frequently
- A light rail service

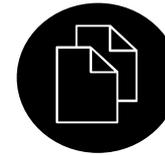


EXERCISE 6: Freight networks

The gap assessment of the Launceston freight networks identified the below listed planned, proposed and potential investments.

PROPOSED

- Improve the balance between land-use priority and accessibility
- Create a non-CBD freight route
- Provide a freight alternative to the couplet
- Provision for an Eastern Bypass



PLANNED

- Development of a DSG Regional Freight Strategy
- Gain more understanding of the origin and destination of freight tasks
- Greater understanding of relationship between local and regional freight



POTENTIAL

- Engage with the freight industry to understand their needs
- Conduct an industrial land use strategy
- Increase community understanding of the relationship between industry and freight movements
- Understand the community perception of different types of freight
- Carry out a couplet masterplan
- Research the future of rail and its ability to reduce the on-road freight task



EXERCISE 6: General traffic

The gap assessment of the Launceston general traffic network identified the below listed planned, proposed and potential investments.

PROPOSED

- Increase the capacity of existing roads to accommodate growth
- Provide alternative routes to driving through the heart of the CBD
- Gain more clarity around driver behaviour and route choices



PLANNED

- Examine the current locations of parking infrastructure
- Revisit the costs of parking and the pricing mechanisms in Launceston



POTENTIAL

- Increase the density of residents living in the CBD
- Improve route choice through suburbs
- Revisit the road hierarchy for Launceston and adjust if required
- Educate people about non vehicle mobility options
- Improve signage and wayfinding in the Launceston transport network
- Use travel demand management measures to drive cultural change away from travel by single occupancy vehicle
- Improve resilience of roading infrastructure against climate change
- Improve connectivity from eastern suburbs
- Reduce the number of vehicles travelling through the CBD

EXERCISE 7: Regional programme priorities

Building on the previous work completed identifying potential interventions by transport type, workshop participants were asked to identify their programme priorities across all transport modes at a regional level. Interventions were separated into categories by timeframe:

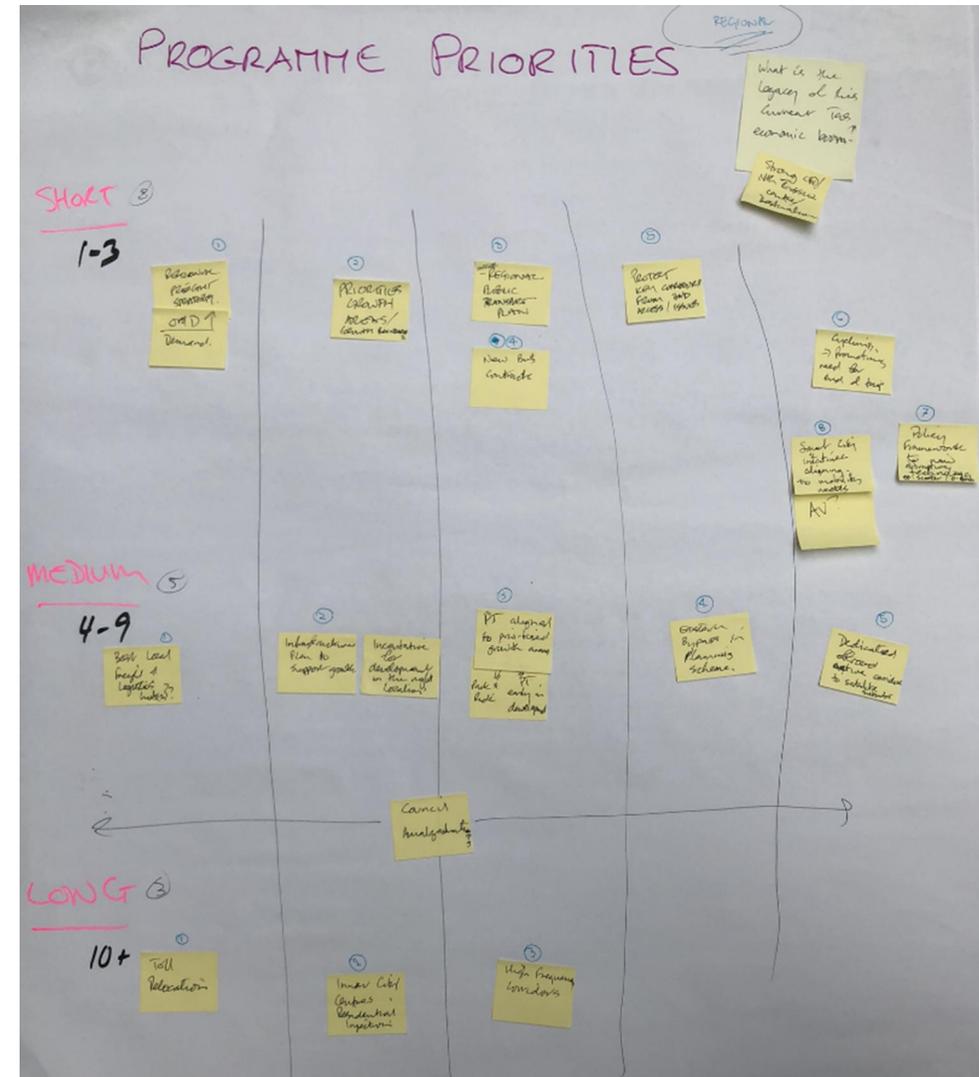
- Short-term 1 – 3 years
- Medium-term 4 – 9 years
- Long-term 10+ years

Short-term priority interventions included the development of a regional freight strategy, an inter-regional public transport plan, new bus contracts, cycling promotion, and a policy framework to new disruptive technologies.

Medium-term interventions included the development of local freight and logistics hubs, an infrastructure plan to support growth, public transport services aligned to priority growth areas, dedicated off-road active mode corridors to satellite suburbs, and an Eastern bypass being identified in the planning scheme. All of these interventions are underpinned by council amalgamation and co-operation.

Long-term interventions at a regional level were identified as a toll relocations, residential densification of inner city centres, and the construction of high frequency transport corridors to accommodate growth.

The workshop participants then split into three groups to identify programme priorities specifically for the CBD, Suburban Growth Areas, and the University of Tasmania (Inveresk Campus). Programme priorities for these areas are outlined on the three succeeding slides.



EXERCISE 7: CBD programme priorities

Short-term (1 – 3 year) CBD priority interventions included:

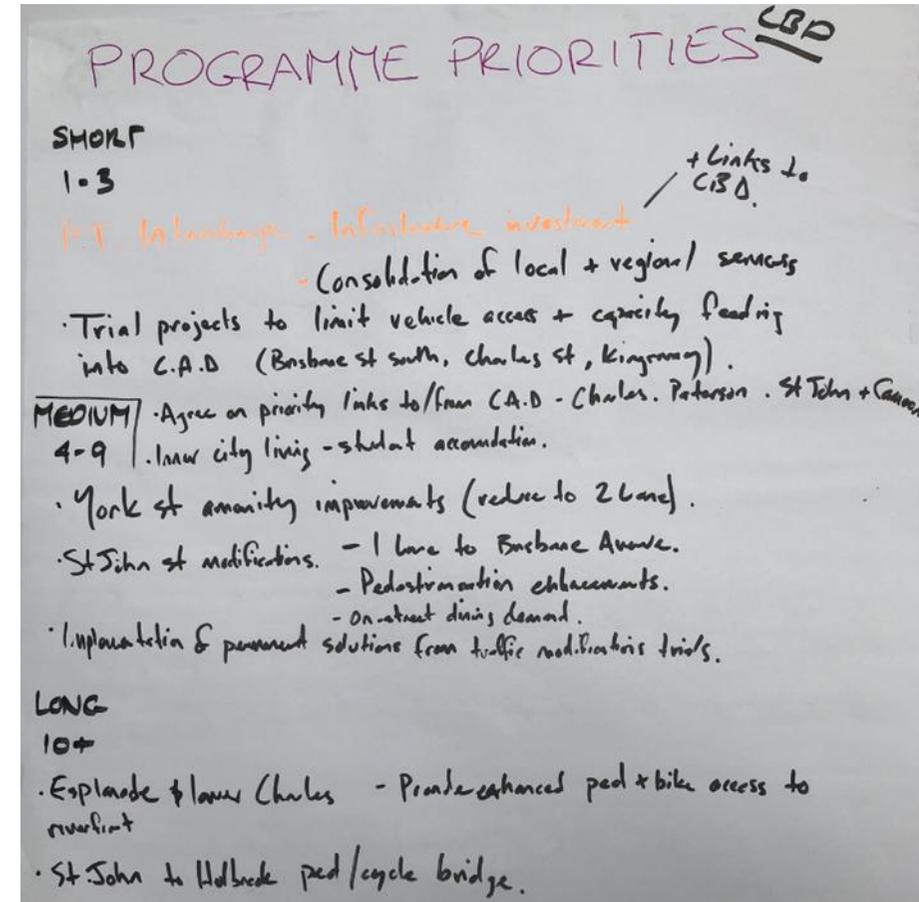
- The development of a public transport interchange, additional public transport links to the CBD and consolidation of local and regional public transport services
- Trial projects to limit vehicle access and capacities entering the CBD, particularly on the Brisbane Street South, Charles Street and Kingsway
- Agreeing the priority links to/from the CBD
- Providing inner-city living and student accommodation

Medium-term (4 – 9 year) CBD interventions included:

- Reduce York Street to 2 lanes and make amenity improvements
- Make modifications to St John Street including 1 lane to Brisbane Ave, pedestrian amenity enhancements and measures to satisfy the on-street dining demand
- Implement permanent traffic solutions developed from traffic modification trials

Long-term (10+ years) CBD interventions included:

- Improving pedestrian and cycle access on the Esplanade and lower Charles Street to the riverfront
- Construct a St. John Street to Holbrook Street active modes bridge



EXERCISE 7: Suburban growth programme priorities

Short-term priority interventions to support suburban growth (as identified by stakeholders) included:

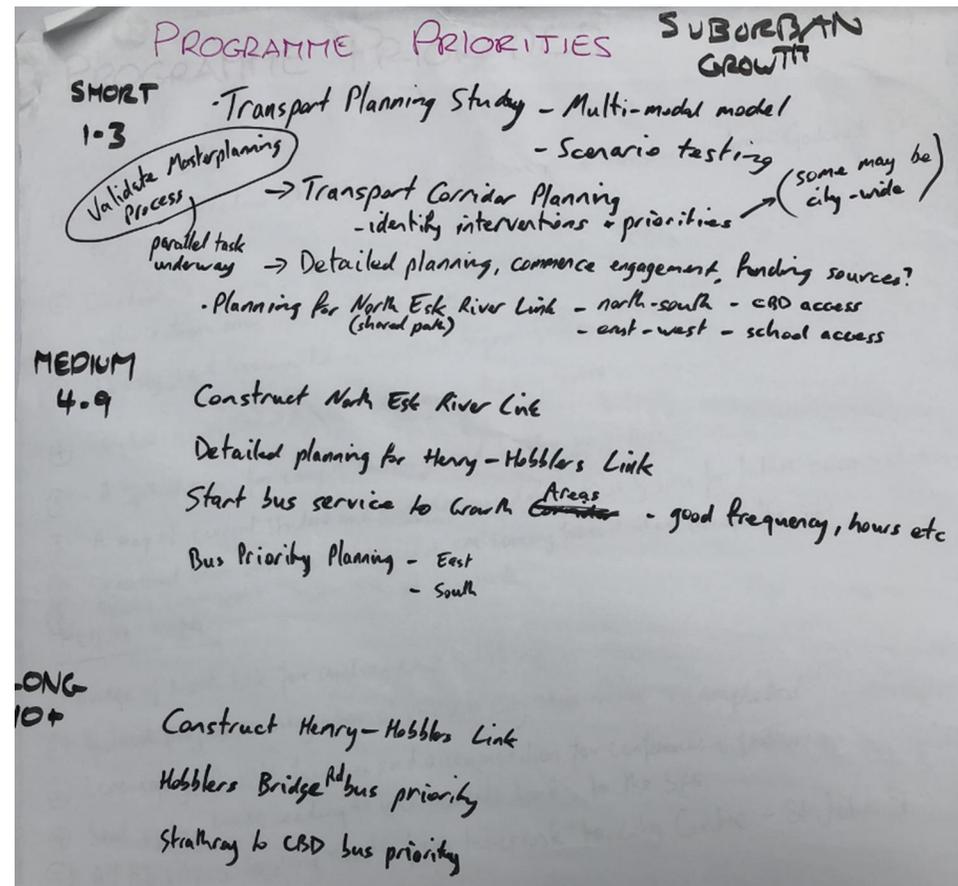
- Conducting a transport planning study and developing a multi-modal model and using it for scenario testing. This includes identifying interventions and priorities through transport corridor planning and detailed planning
- Planning for the North Esk River Link (shared path)

Medium-term interventions included:

- The construction of the North Esk River Link
- Undertaking detailed planning for the Henry- Hobblers Link
- Planning for bus priority services in the east and south of Launceston
- Commencing high frequency bus services into growth areas

Long-term interventions included:

- Constructing the Henry- Hobblers Link
- Providing bus priority on Hobblers Bridge Road
- Providing bus priority from Strathroy to CBD



EXERCISE 7: University of Tasmania (Inveresk Campus) programme priorities

One stakeholder group were tasked with identifying programme priorities and timings for transport interventions to support the UTAS Inveresk Campus.

Short-term priority interventions identified included:

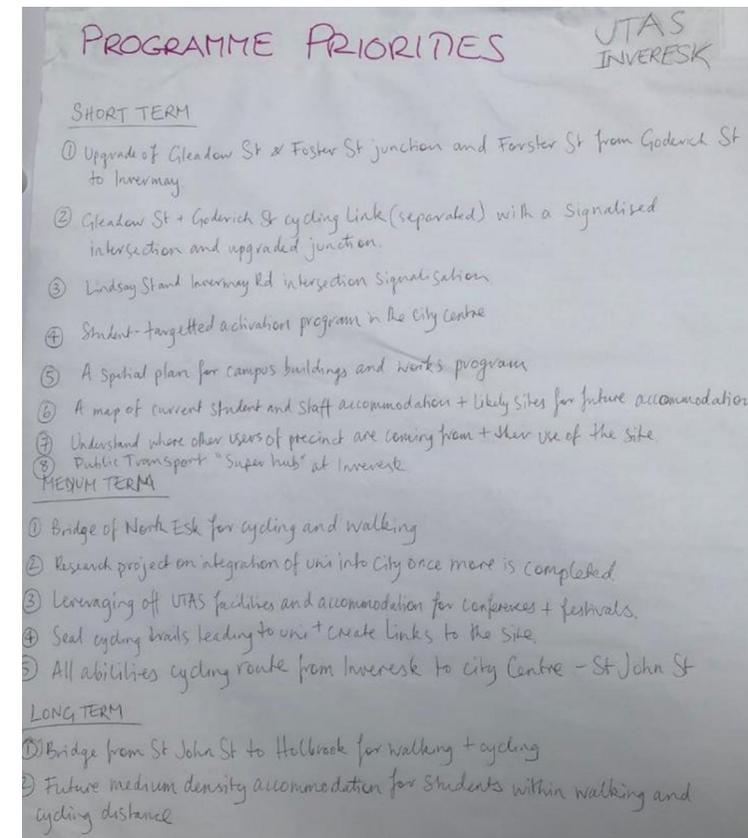
- The upgrade of Gleadow Street and Foster Street junction, and Foster Street from Goderich Street to Invermay
- Providing a separated cycling link from Gleadow Street to Goderich Street with a signalized intersection and upgraded junction
- Signalising the Lindsay Street and Invermay Road intersection
- Developing a student targeted activation programme in the City Centre
- Completing a spatial plan for campus buildings and works programme, and mapping current and future student and staff accommodation
- Gaining a better understanding of travel movements to and from the university precinct
- Creating a public transport super hub at Inveresk

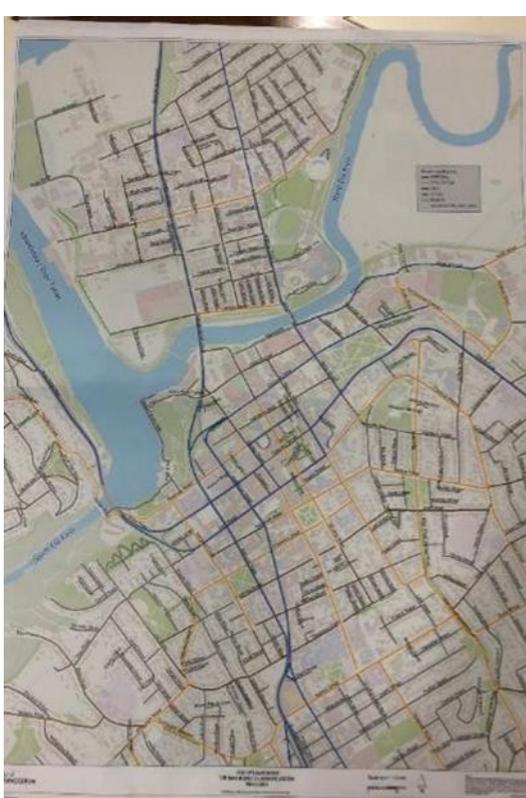
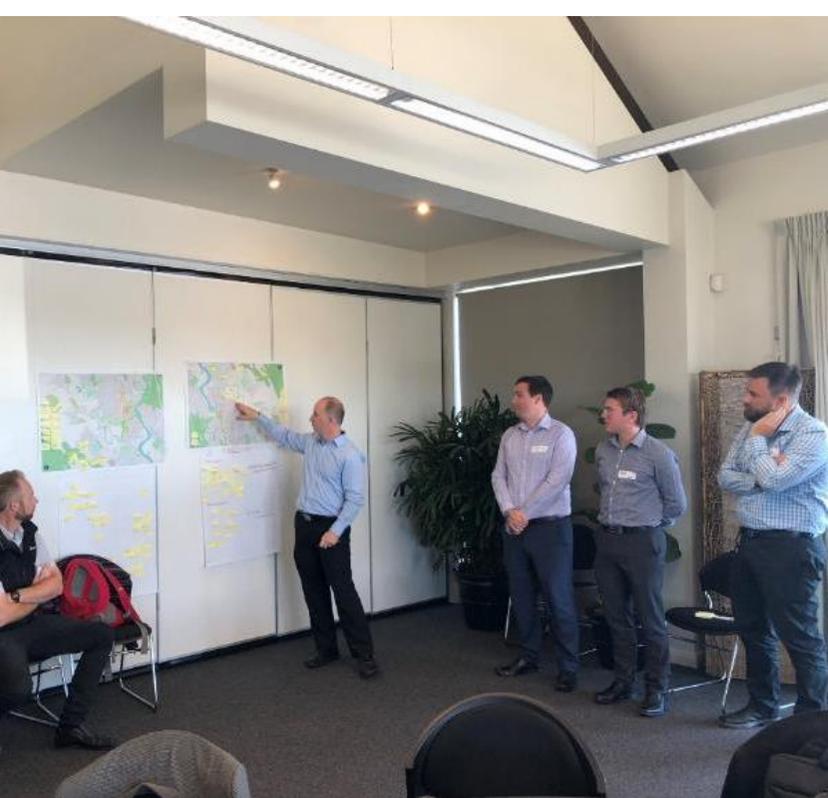
Medium-term interventions included:

- The construction of the North Esk active mode bridge
- Conducting a research project on the integration of the university campus into the city once more is developed
- Leveraging UTAS facilities and accommodation for conferences and events
- Sealing cycling trails leading to the university and creating links to the sites
- Create an all abilities cycling route from Inveresk to the City Centre and St. John Street

Long-term interventions included:

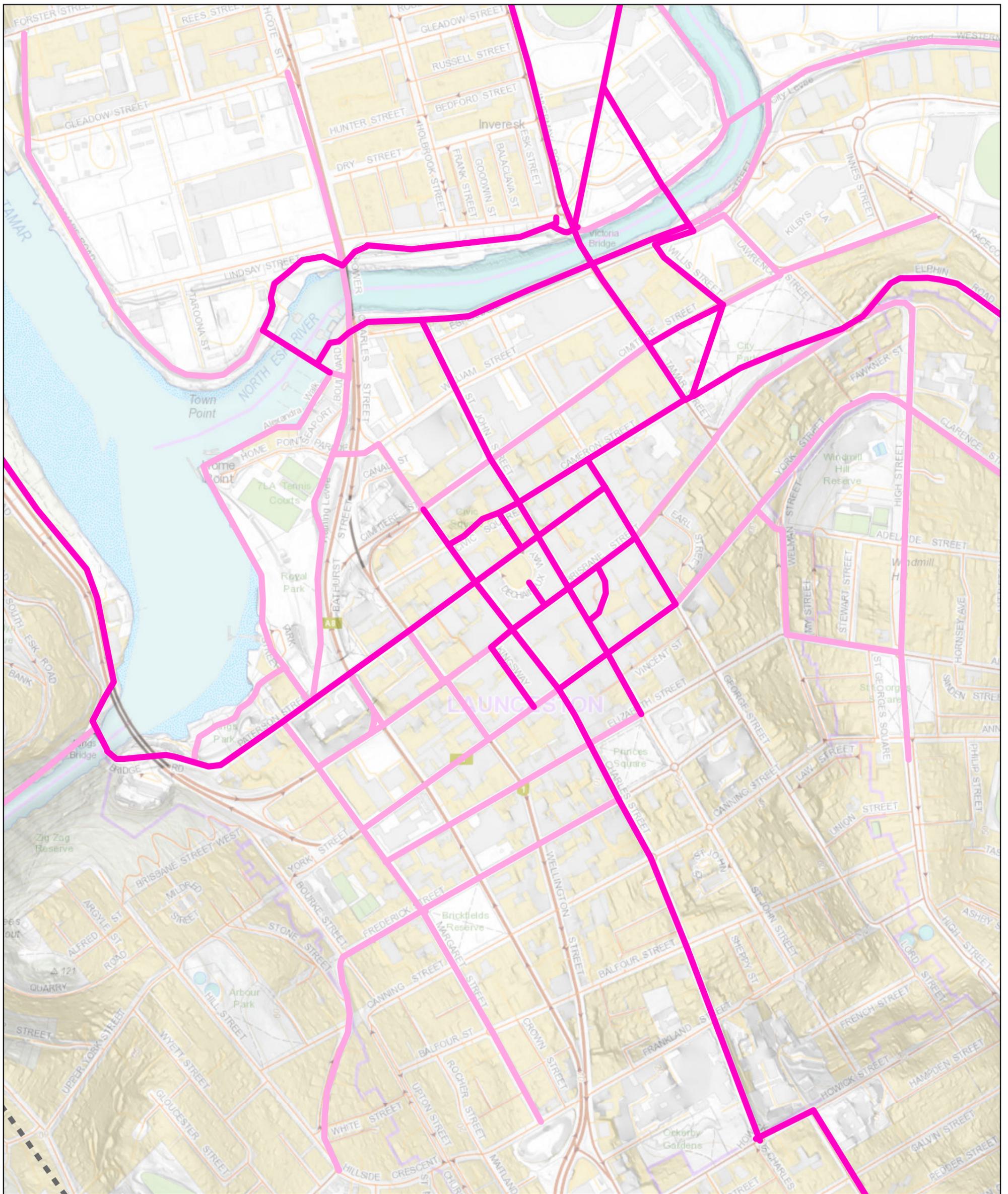
- Constructing an active mode bridge from St. John Street to Holbrook Road
- Providing future medium density accommodation for students within walking and cycling distance of the campus



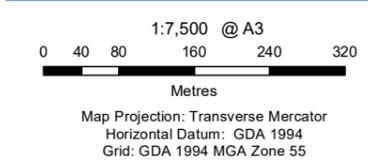




Appendix B – Strategic Network Maps



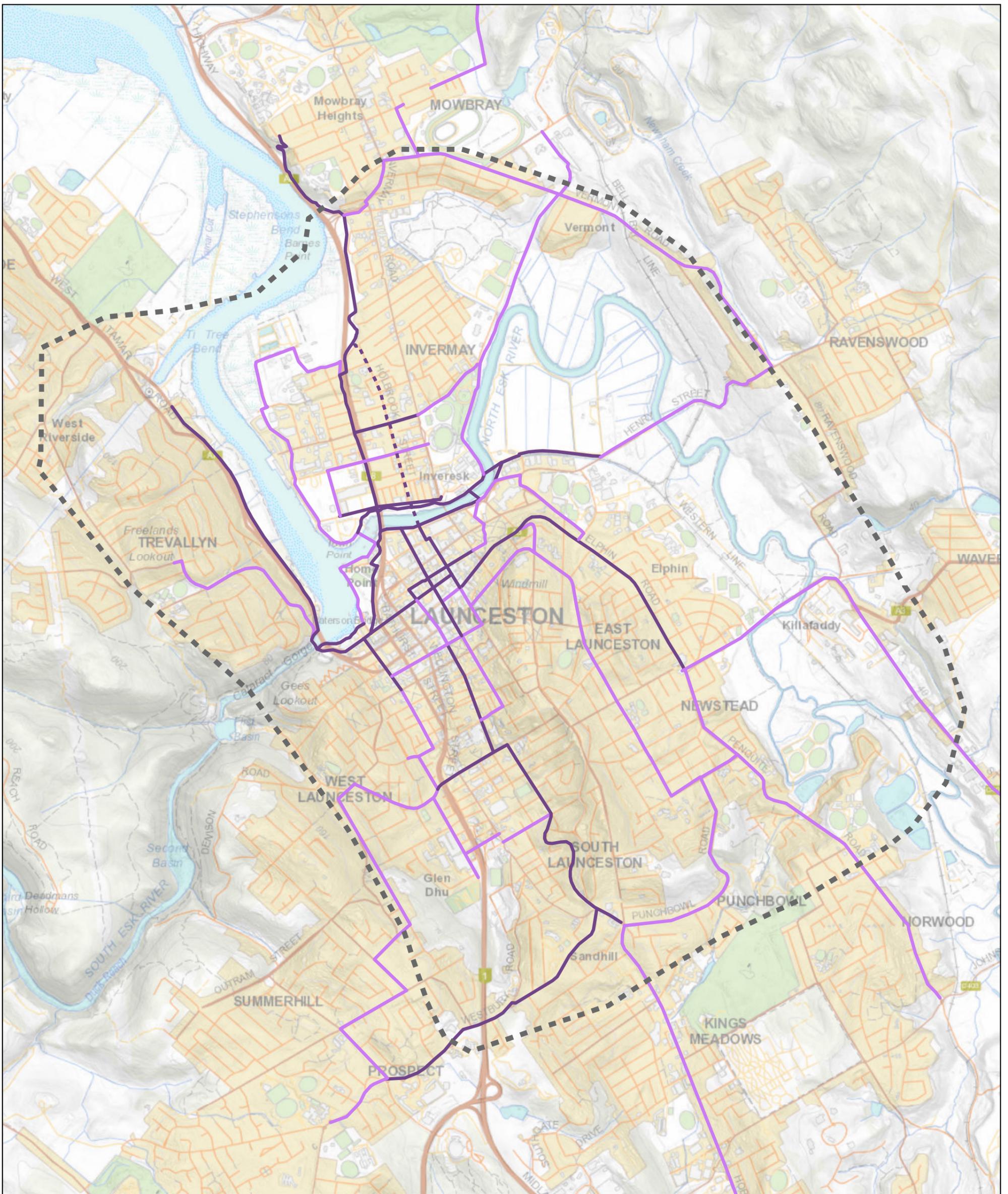
-  Study area
-  Primary
-  Secondary



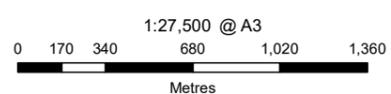
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Revision | D
Date | 20 Aug 2020

Pedestrians CBD



-  Study area
-  Primary
-  Future Primary
-  Secondary

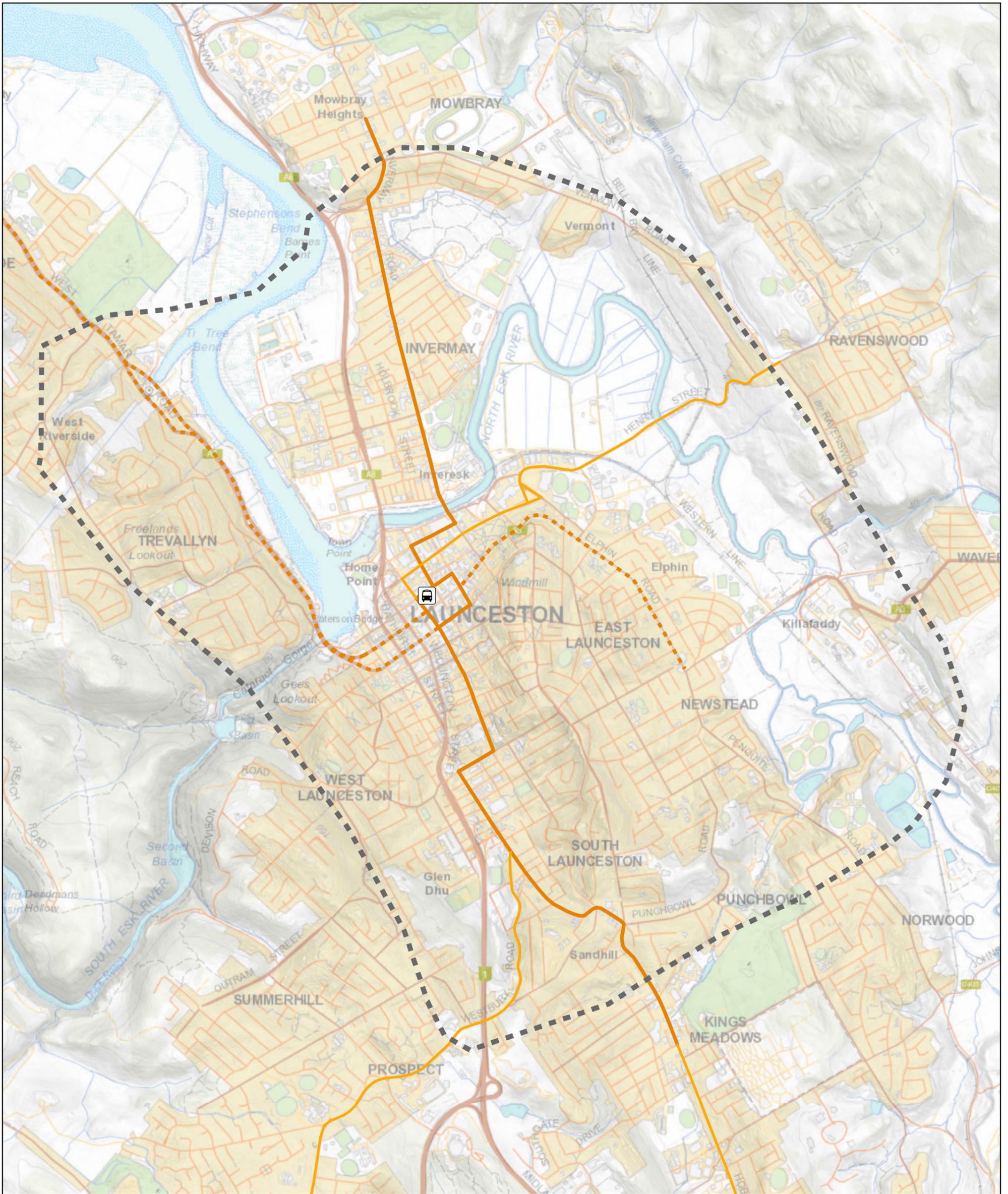


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Grid: GDA 1994 MGA Zone 55

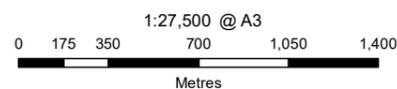
Department of State Growth
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Revision | G
Date | 20 Aug 2020

Bike Riding Inner Launceston



-  Study area
-  Bus interchange
- Bus route**
-  Primary
-  Secondary/Future Primary
-  Secondary

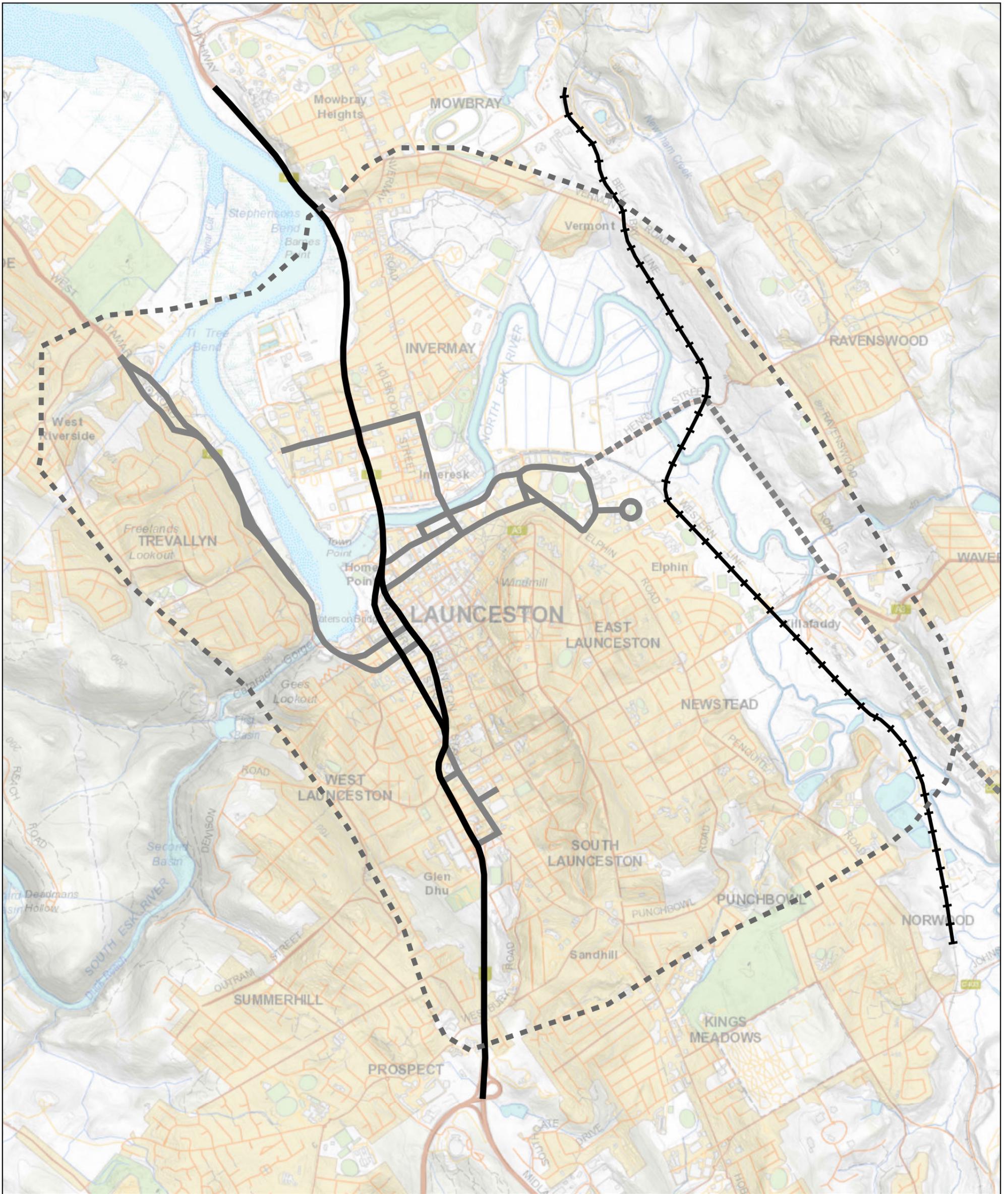


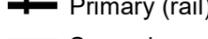
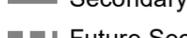
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 Grid: GDA 1994 MGA Zone 55

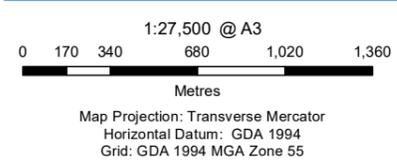
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Public Transport Inner Launceston



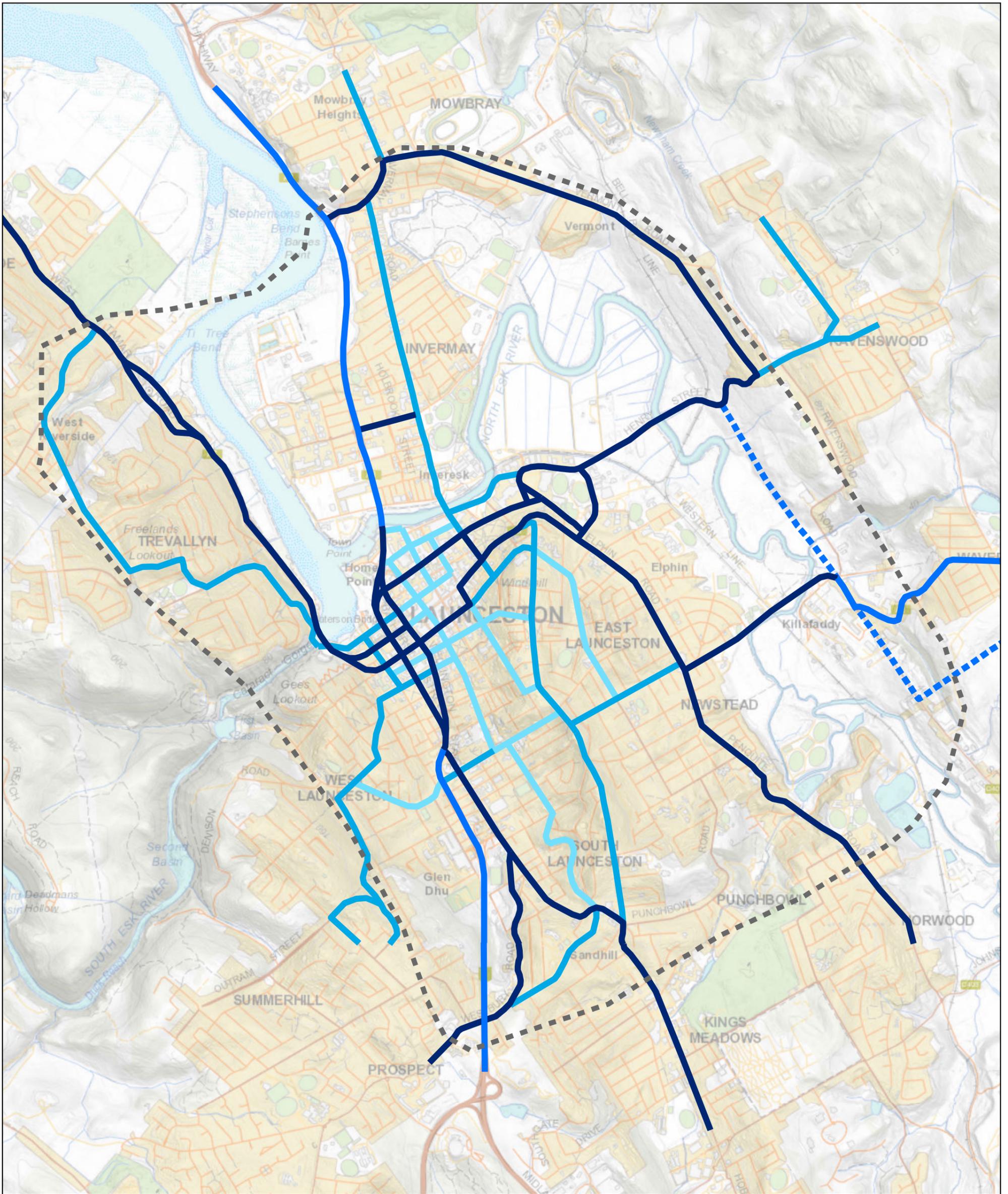
-  Study area
-  Primary
-  Primary (rail)
-  Secondary
-  Future Secondary



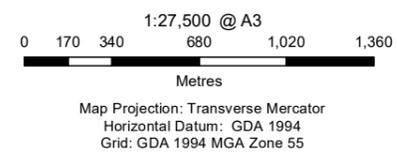
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**Freight
 Inner Launceston**

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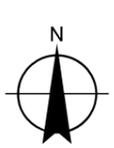
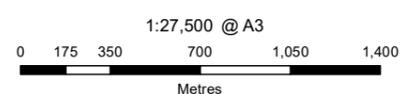
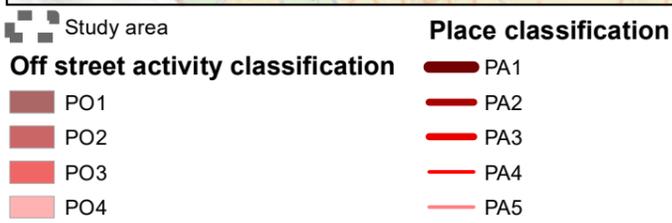
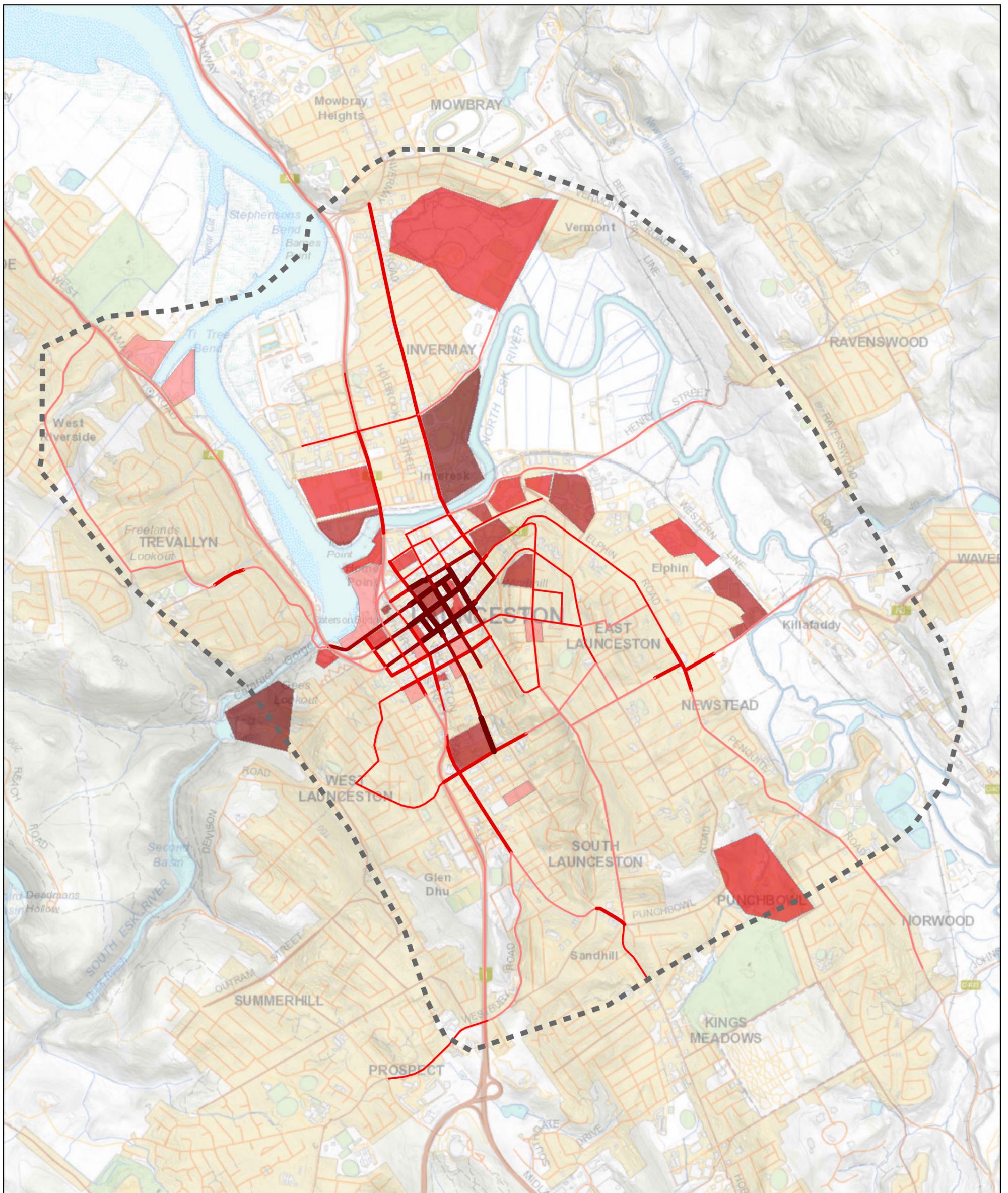
-  Study area
-  Traffic route
-  Preferred traffic route
-  Future preferred traffic route
-  Local primary access route
-  Local secondary access route



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General Traffic Inner Launceston



Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Places of Activity Inner Launceston

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Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
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