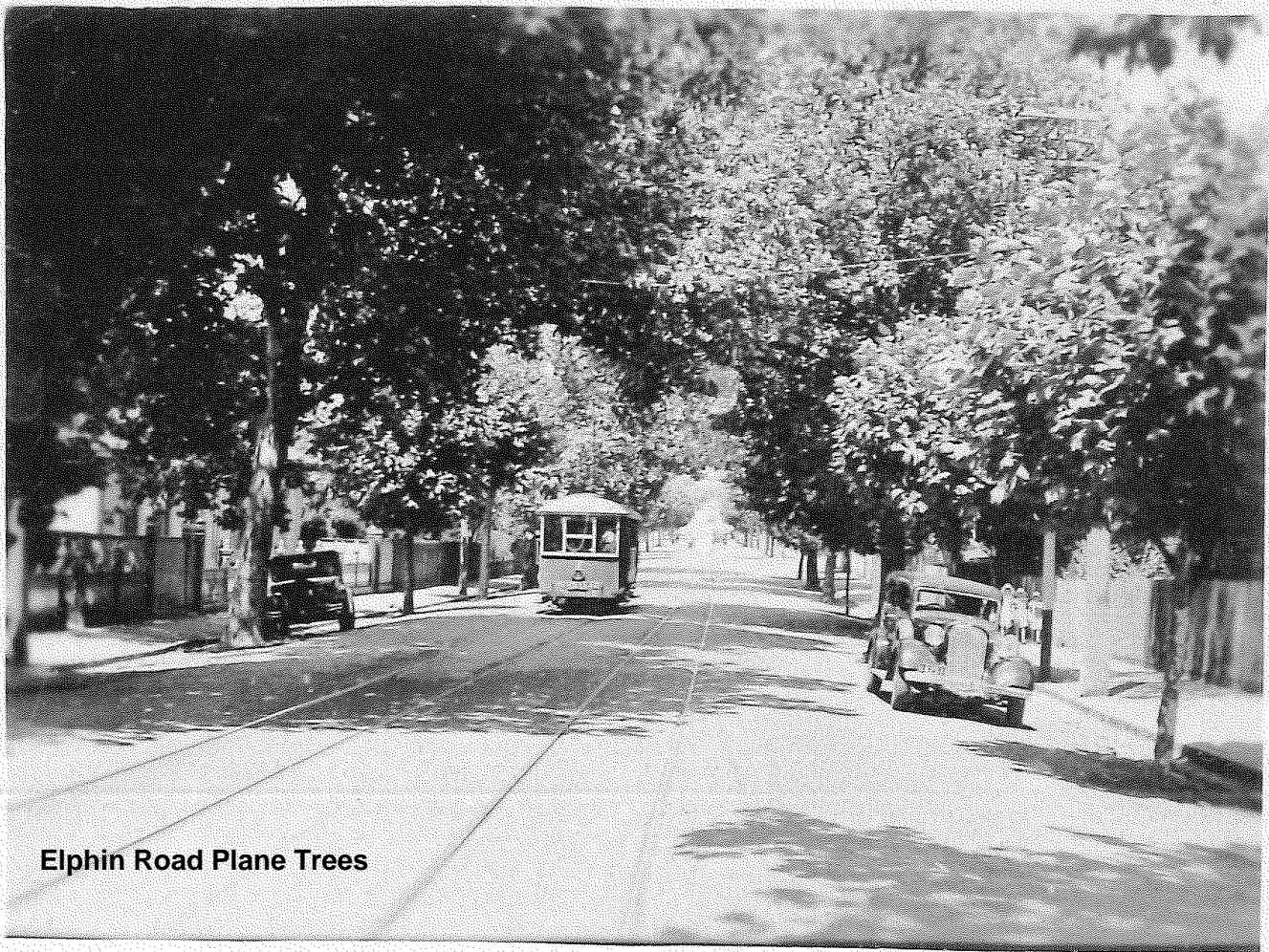


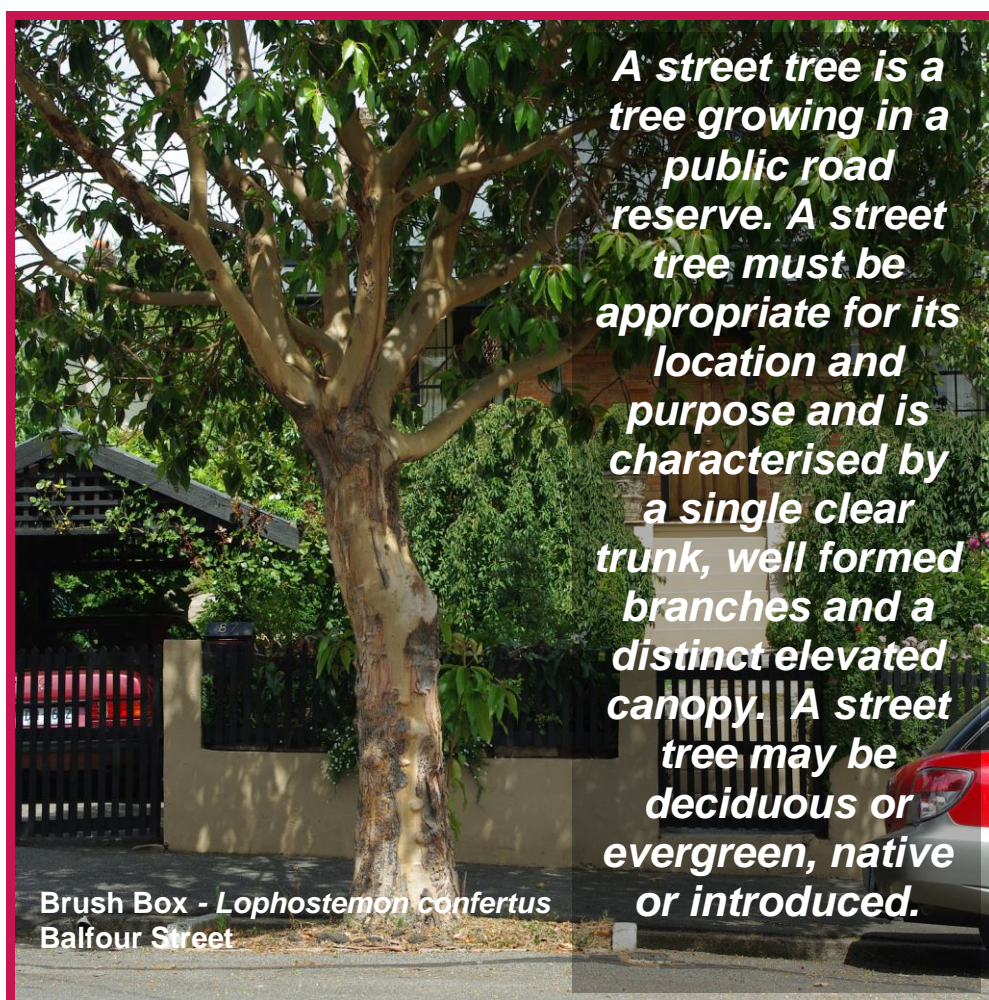
Launceston Street Tree Strategy 2012



Elphin Road Plane Trees

Contents

Introduction.....	4
Vision	4
Objectives.....	5
Strategy Area	5
Strategic Documents, Policies, Standards, Legislation and Reports Related to Street Trees.	6
Street Tree Values and Benefits	8
Street Tree Considerations	10
Street Tree Analysis	13
Communication Plan	15
Strategy Plan.....	18
Implementation Plan.....	26
Appendices.....	31

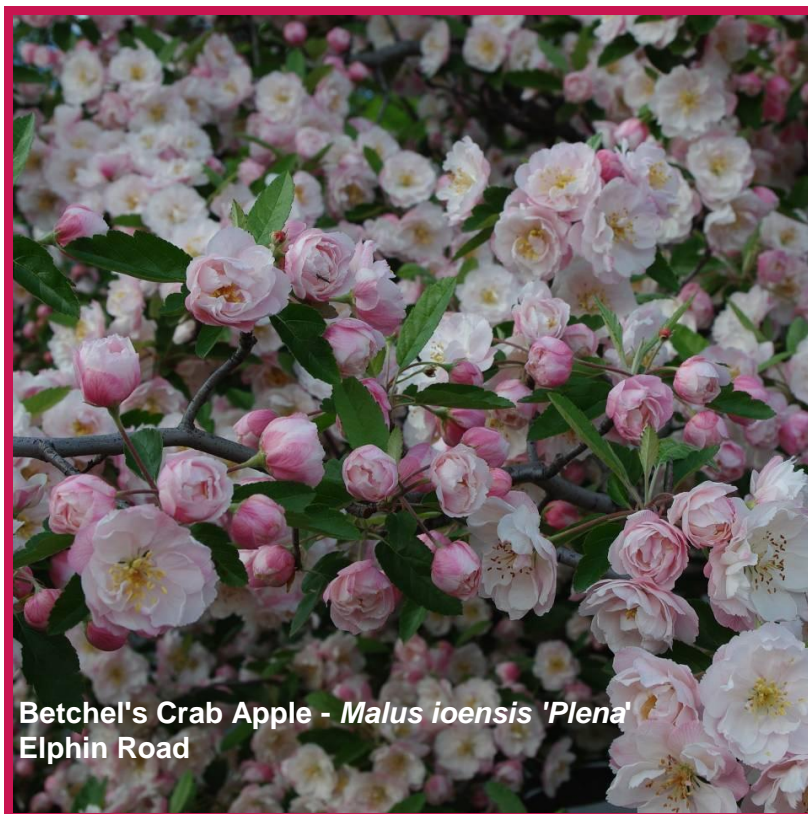


Summary

This strategy has been developed to provide a coordinated, strategic approach to the planting of street trees in Launceston. A review of the current street tree situation has identified many areas that would benefit from additional street tree planting. This strategy is more than just a tree planting plan and will seek to improve some of Launceston's highest profile streetscapes through the addition of carefully selected trees. This is a working document that will be subject to continual review with a major review at the end of ten years.

Trees provide many environmental, social, economical, functional, health and amenity benefits and are an important part of our city. There are numerous street tree planning considerations that need to be addressed to ensure the most suitable trees are planted in appropriate locations. Sourcing funding, developing partnerships, seeking sponsorship and undertaking community consultation will be important steps in implementing this strategy.

The implementation plan prioritises areas for planting by identifying ten linkages or nodes to be planted every two years over the life of the strategy. This is in addition to regular and ongoing street tree planting in the residential streets. The strategy includes a process for record keeping, measuring and reviewing progress.



Acknowledgements

The development of this strategy has been guided by the Street Tree Advisory Committee, chaired by The Hon. Don Wing with membership including Alderman Ivan Dean, Alderman Rosemary Armitage, Gus Green (Lions) Kevin Watkins (Rotary), Andrew Smith (LCC), Peter Stacey (LCC), Niall Simpson (LCC) and Chris Moore (LCC).

Introduction

Launceston is renowned for its leafy parks containing an abundance of significant trees, a legacy of park development during the Victorian period. By contrast its street trees, especially in high profile areas in around the city are comparatively small with very few notable avenues present.

Part of the reason for this imbalance is that Launceston has never had a street tree planting or management strategy. Planting has focused on the "ready to plant" nature strips, predominantly in the outer suburbs and some high profile streets and roads in and around the city. Difficult sites in the Central Activities District (see Strategy Area Map on page 5) have mostly been left without planting. A street tree strategy is required to address the imbalance, providing a more equitable spread of trees and an improvement in Launceston's green infrastructure.

Streetscapes contribute strongly to the image of a city and provide one of the first impressions that visitors and residents form whether they are passing through, visiting or staying. Street trees are a major component of streetscapes so it is important that they are planned for and managed in a strategic and sustainable way.

Climate change has been a major consideration in developing this strategy. Even small changes in temperature, rainfall and other environmental conditions can have an influence on the establishment of street trees. Considering street trees can have a long life it is important that climate change be taken into account when selecting species, locations and determining management techniques. Proven performance of a selected species in a particular environment must be a prime consideration.

Although focused on tree planting, this strategy is not a planting plan as such and hence will be providing strategic direction for the addition of trees city wide. This will be achieved through identifying, prioritising and planting "missing links" and iconic areas in Launceston, including the Central Activities District. Although the Central Activities District is significant the strategy will not simply start in the centre of the city and work outwards. To ensure a more balanced approach to budgeting and resourcing, the planting of the primary and secondary elements will be evenly distributed over the ten years of the strategy. Streets in the central activities district will be evenly distributed throughout the ten years.

This strategy will complement any recent or current strategies for Launceston such as the 2010 Launceston Public Spaces and Public Life report undertaken by Gehl Architects.

This will be a ten year strategy starting in 2011 with a major review in 2021. The implementation of this strategy will be dependant on funding from both internal and external sources.

Vision

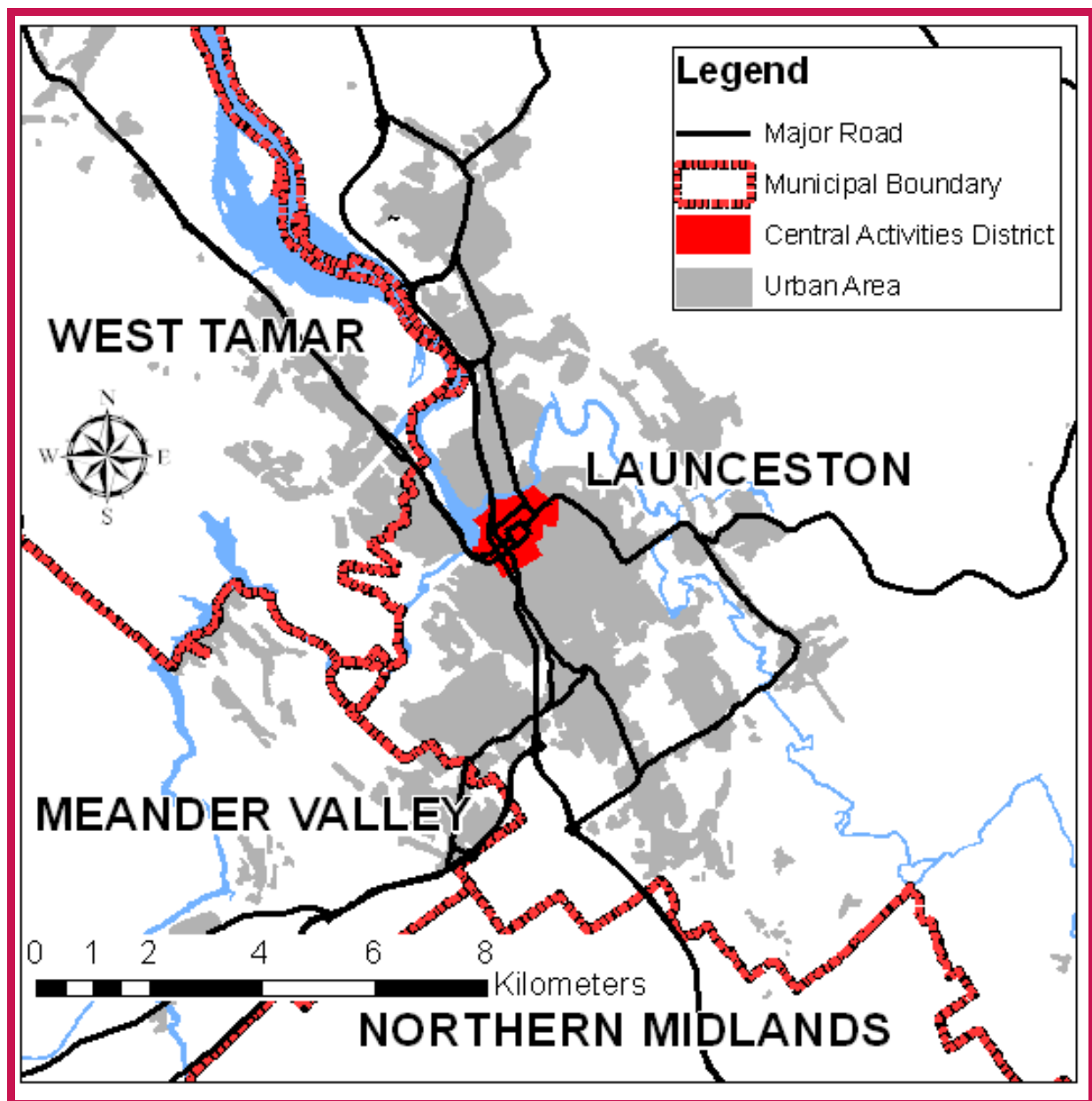
A liveable green network with attractive and useable tree-lined streets connecting areas of interest for all road and footpath users to safely experience and explore the city.

Objectives

- Increasing Launceston's green infrastructure through strategic street tree planting
- To provide a consistent and coordinated approach to street tree development
- To encourage the people of Launceston to embrace the greening of their city
- To encourage community and business involvement in the street tree planting plan
- Ensure street trees remain healthy and viable
- Provide attractive and leafier streetscapes

Strategy Area

The strategy applies to all of the Launceston City Council urban area and any primary or secondary links that cross over into rural areas or other municipalities.



Strategy Area Map

Strategic Documents, Policies, Standards, Legislation and Reports Related to Street Trees

Links to Council's Strategic Documents and Policies

Launceston City Council Launceston Community Plan May 2010

Preferred Future 1: A Sustainable Environment

PF1.3 Strategy Three: Plan for green space and native vegetation areas.

Actions already underway or completed:

Planting trees along appropriate streets and roads.

Maintaining and enhancing vegetation in parks, waterfront and recreational areas.

The Street Tree Strategy supports the above goals and strategies.

Launceston City Council Strategic Plan 2008-2013

Priority Area 1: Natural Environment

Goal: Sustainable management of natural resources, parks and recreational areas.

Strategy 1.3. Enhance and maintain parks and recreation areas, including river edges.

Strategy 1.4. Initiate Council and Community Action on Climate change.

The Street Tree Strategy supports the above goals and strategies.

Launceston Vision 2020

This vision documents the community's vision, priorities, goals and values for 2020.

Major priority areas identified within this vision include the Natural Environment, Built Environment, Social and Economic Environment and Cultural Environment. The Street Tree Strategy will assist in fulfilling many of the goals required to fulfil Vision 2020, in particular goals that enhance the city and its liveability.

26-PI-005 Council Tree Management Policy

This policy applies to all street, landscaping, park, bushland trees etc on land owned or maintained by the Parks and Recreation Department. The purpose of this policy is to set the broad direction for the ongoing management, operation and levels of service for trees on Launceston City Council owned or maintained land.

Trees planted under the Street Tree Strategy will be subject to the above policy.

10-PI-002 Sun Protection in Public Places Guidelines Policy

The purpose of this policy is to provide an on-going increase of passive protection of the community from exposure to ultra violet radiation.

Street trees are recognised as a means of reducing UV exposure.

Australian Standards Related to Street Trees

AS 4373:1996 Pruning of Amenity Trees

This standard has been adopted by Council and must be applied to all pruning of street trees.

Legislation Related to Street Trees

Launceston City Council Reserves, Parks and Gardens By-Law No. 4 of 2009

This By-Law regulates, controls and protects all Council land including nature and median strips.

Launceston City Council Planning Scheme 1996

Where applicable Scenic Protection provisions for street trees must be adhered to as part of this planning scheme.

Launceston Public Spaces and Public Life January 2011 - Gehl Architects

This report identifies a fragmented green network in Launceston. The report states that the city centre is wrapped around a number of fine parks although the connections between the parks are generally poor. Street trees are currently concentrated around parks, Brisbane Street (the Avenue) and residential areas. The appearance of the city will be greatly improved by the future planting that is currently proposed.

Recommendations from this report that support or link to this strategy include:

- Develop a green connected Launceston. Develop a network of clearly identifiable, recreational cycling and walking routes that link the city centre with the riverfront, City Park, Royal Park, Prince's Square, Brickfields Reserve, Windmill Hill Reserve but also links to Cataract Gorge Reserve and Trevallyn Nature Recreational Area (west), Kate Reed Nature Recreational Area (south), Hoblers Bridge Reserve (east), Heritage Forest and York Park (north).
- Develop a network of green boulevards. Identify key streets that lead to the city centre eg. Bathurst Street and Wellington Street. Develop a boulevard strategy for turning these key streets into clearly identifiable boulevards offering good conditions for walking and cycling as well as including public transport and vehicular traffic.
- 'Greening the desert'. Develop an open space streetscape 'Planting Strategy': Plant 200-300 trees every year. Supplement the general street tree strategy by a flexible planting strategy, introducing temporary greenery in selected spots. Use different types and species to create individual identities for different streets and areas

The Street Tree Strategy will fulfil the above recommendations from the Gehl report.

Street Tree Values and Benefits

General Value

Trees are an intrinsically valuable part of the environment, in particular the built environment and are greatly appreciated by the community. They provide environmental, social, economic, health, amenity and functional benefits. Although applying a monetary value is not always useful, larger street trees can have a substantial monetary value, one that increases with time. This value is often reflected in nearby property values.

Image and Identity

Streets trees can provide a very strong sense of identity to a street and local area, especially where avenues of the same species are used. Street trees are often the element that people associate with a particular street, Elphin Road's crab apples and Campbell Street's paperbarks are an example of this. Street trees can also reflect the history of an area, providing an important link with the past, Invermay Road's plane trees for example.

Improve Visual Amenity

Street trees will improve the visual amenity of a place by complementing architectural features, softening the hard surfaces of the built environment and screening undesirable features. This is further enhanced through the introduction of natural sound, scent and movement into the environment.

Habitat and Biodiversity

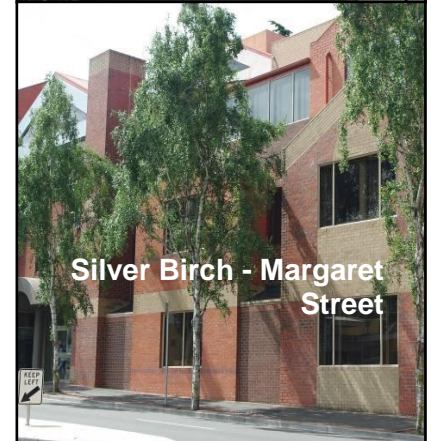
Street trees assist in maintaining and enhancing biodiversity in the urban environment and provide habitat for a wide range of bird and animal life. They also assist in providing wildlife corridors for migratory species.

Climate Change

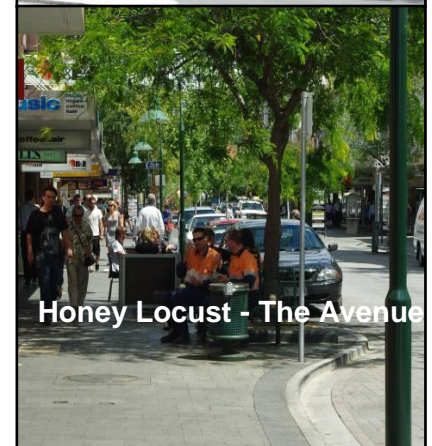
Climate change can refer to any long-term significant change in the weather patterns of an area. Examples of this may include an increase in temperature or precipitation. The planting of trees can assist in moderating the effects of climate change. Trees absorb carbon dioxide from the atmosphere, locking up carbon that in turn helps regulate the earth's climate. On a local level street trees can also assist in fighting climate change. Their shade lowers the local temperatures of hard surfaces by 3 - 5°C. They reduce evaporation from the soil, retaining moisture in soil. Indirectly street trees can reduce heating or cooling requirements in nearby buildings therefore reducing power consumption. It is important that the right tree species are chosen to suit and adapt to a changing climate.



Crab Apple - Elphin Road



Silver Birch - Margaret Street



Honey Locust - The Avenue



Brush Box - Balfour Street

Reduce Air Pollution

Street trees improve our air quality and therefore our health. Trees absorb carbon dioxide (CO₂) and release oxygen (O₂). As part of this process the tree stores carbon in its roots, trunk, branches and leaves. Newly planted trees tend to grow quickly and will sequester carbon quicker than an older, more mature tree. Trees also reduce air pollution by intercepting and filtering harmful gases and airborne particle pollution, such as car fumes.

Contribution to Urban Water Management

In some situations street trees can intercept and slow stormwater which reduces the impact of flooding and erosion. There is also an opportunity to utilise stormwater for irrigation of street trees. This approach can reduce peak stormwater flows relieving pressure on stormwater infrastructure and the reliance on potable water.

Health and Wellbeing

Trees improve and enrich health and wellbeing, in the built environment they are one of the main connections people have with nature. In addition tree shade can provide a direct health benefit by protecting people from harmful UV radiation and can facilitate outdoor activities.

Legibility of the Street Network

Street trees can help with vehicle navigation by providing visual cues. Trees can indicate to drivers a change in direction and slope giving them time to adjust speed and directions accordingly. Careful location of trees can protect drivers from blinding sun at dawn and dusk or can be used near hazards such as embankments. Trees can also act as a backdrop to traffic lights by screening out background lights and distractions.

Traffic Calming

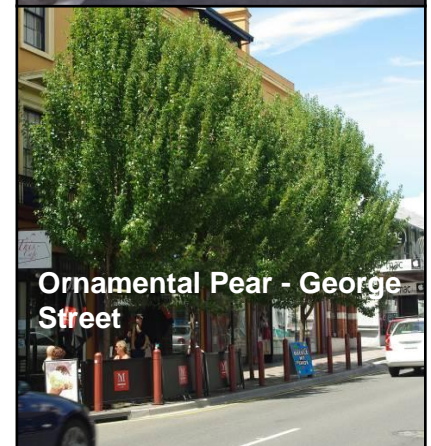
Selective planting of trees can moderate traffic flow and excessive speed. Denser planting of trees can indicate to drivers a need to take caution as it creates a sense of enclosure. Street trees also provide a barrier between traffic lanes as well as cars and pedestrians.

Economic Benefits

Street trees add value to adjacent properties. Deciduous trees can reduce energy costs by cooling in summer through the shading of buildings but not increase winter heating costs as they allow winter sun to enter buildings.



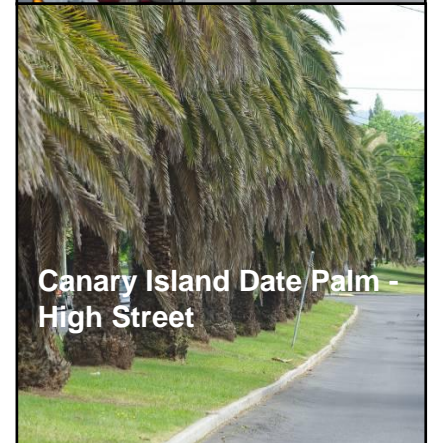
Poplars - Goderich Street



Ornamental Pear - George Street



Poplars - Goderich Street



Canary Island Date Palm - High Street

Street Tree Considerations

Services and Pavement

Above ground and underground service locations have an impact on the provision of street trees. Services will need to be identified for each planting site and appropriate clearances must be maintained. Sites must be properly prepared to minimise pavement lifting by tree roots. Good service planning for subdivisions and developments is required so future planting locations will not be compromised. Selecting the right species will minimise many of the problems associated with services and pavement.

Pruning and Maintenance

Street trees require a regular and ongoing maintenance program which is necessary for the health of the trees as well as for the safety of the public and other assets. It is important that the right tree is chosen for a location to minimise these management and maintenance issues. Where possible water sensitive urban design initiatives should be incorporated into planting locations.

Species Selection

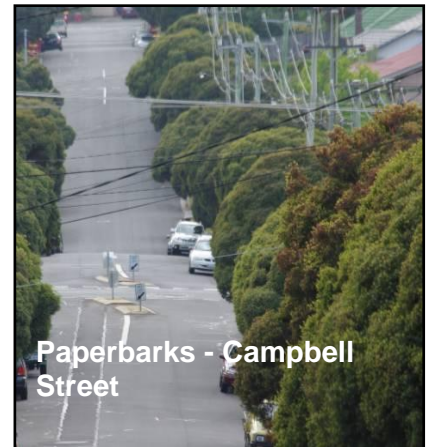
The cost of purchasing, planting, watering and establishing a new tree is significant and it therefore important that the species chosen can be relied upon to perform in the required way. The characteristics of each species needs to be evaluated. Trees that naturally form a single trunk will be preferred over large shrubs that require training. Longer lived species will be preferred as they provide a better return for investment. Proven performance of a selected species in a particular environment must be a prime consideration; this strategy is not a trial. In addition species selected must be resilient to climate change.

Size of Planting Stock and Sourcing Trees

Planting stock can vary from tube stock through to large semi-mature trees. Small stock is cheaper to grow and plant but is more susceptible to damage and has little initial presence. Large stock can be expensive to grow and plant but is far more resilient to damage, creating an instant presence. Larger stock will be planted in the primary links and nodes, smaller stock can be considered for the secondary and supplementary links and nodes. Planting stock can be sourced through the Council Nursery.

Planning Scheme and Heritage

Any planning scheme or heritage requirements must be considered when planning for street trees. There are a number of classified precincts in the central activities district and some of the major routes leading in and out of the central activities district.



Paperbarks - Campbell Street



Crab Apple - Frederick Street



Tree Protection - The Avenue



Tree Planting - Charles Street

Design Issues

Tree planting sites need to be carefully selected. In many cases site conditions will be less than ideal and will need significant improvement for trees to be planted. Above and below ground conditions need to be assessed along with a range of other environmental, social and political issues. Properly constructed planting pits and careful species selection will overcome many of the past problems associated with tree roots such as uneven footpaths, broken kerbs and damaged road services. Council needs to be proactive when negotiating new subdivisions and developments to ensure provision is made for good quality sites. Not all planting designs will be avenues or boulevards but may be treed corridors achieved through clump plantings or strategically placed specimens.

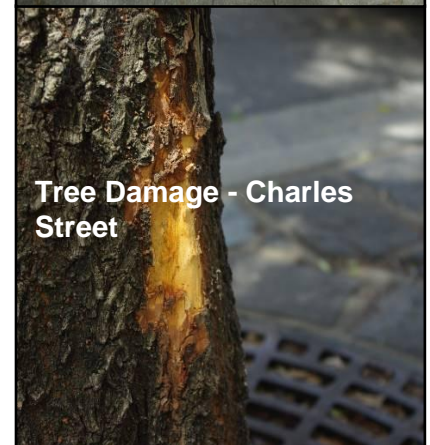
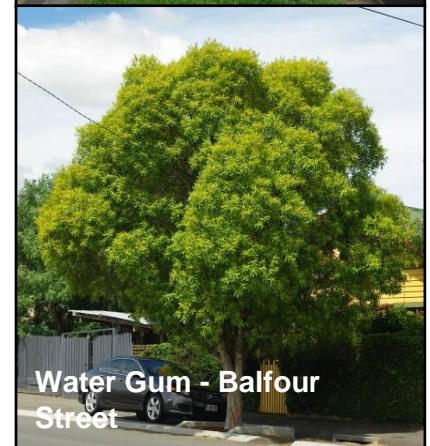
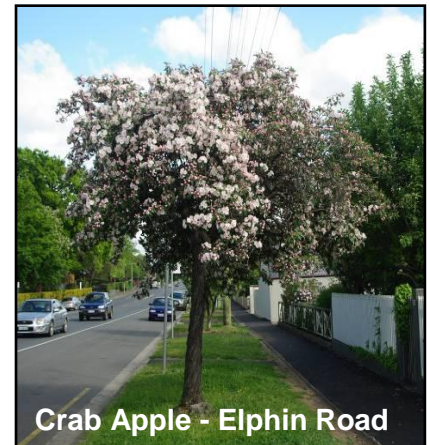
Tree Planting Pits

In residential areas grassy nature strips are traditionally used for tree planting and native soils are sufficient to ensure long term tree establishment. In the central city and other retail areas the below ground areas are more intensively developed so alternate planting methods have to be used. There are often competing uses for the ground level area above proposed root zones, such as pedestrians, parking and traffic, all which can adversely affect root development. In addition the below ground material may also be unsuitable for growing trees.

Such sites require the removal and replacement of existing material with a planting mix and the creation of a reinforced planting zone able to take the loads of pedestrians and cars while allowing root growth. This includes utilising structural soils and structural root cells, products that are incorporated into the planting pit that are able to transfer the surface loads to the sub-base whilst providing an uncompacted volume for the development of an adequate root ball. These methods allow for the planting of trees in previously unplantable situations whilst facilitating the joint use of green infrastructure and pedestrian or vehicular movement. These methods will also protect existing adjacent assets and allow the incorporation of some service assets into the planting pits.

Vandalism and Protection

Street tree vandalism while prevalent in all areas is particularly noticeable in the city centre and other high profile areas. Crime prevention through design, community education, planting larger trees and appropriate protection can help minimise vandalism.



Traffic Vision

Maintaining vision for road users both on the road and when entering or exiting property is very important. Consideration must also be given to street lighting, sign visibility and traffic lights.

Road Type and Vehicle Speed

Type and use of road is important, whether it is a major highway, arterial road or minor road and whether it travels through a commercial, shopping or residential area. The road user must also be considered. Maintaining parking is important in the central activities district although this needs to be balanced with making Launceston a more pedestrian friendly city.

Council has developed some local standards in the absence of clear state or national guidance for dealing with traffic management or tree planting.

1. Where the 85thile speed is less than 55 kph and where parking normally occurs a minimum clear zone of 1 metre shall be maintained from the edge of the travelled way and any street tree.
2. Where the 85thile speed is between 55 and 65 kph a minimum clear zone of 3 metres shall be maintained unless the street tree is behind the kerb line or a kerbed outstand.
3. Where the 85thile speed exceeds 65 kph the Austroads guidance shall be used.
4. When trees are located within the carriageway the edge of the traffic lane shall be delineated.
5. Any street tree planting using the carriageway pavement shall be referred to DIER for approval.
6. These standards will be reviewed as national research provides more guidance in this area.

Street Cleansing

The cleansing of streets, gutters and footpaths is an important part of Council's operations. The location and design of tree pits and tree surrounds should consider cleansing requirements including the size of cleansing machines and methods of cleansing. Areas that trap leaves and other debris should be avoided. For access purposes trees should not be planted next to roadside gully pits.

Street Tree Analysis

According to GIS records Launceston has approximately 18,000 street trees made up of approximately 260 species. The top 20 species account for 10800 trees. These are:

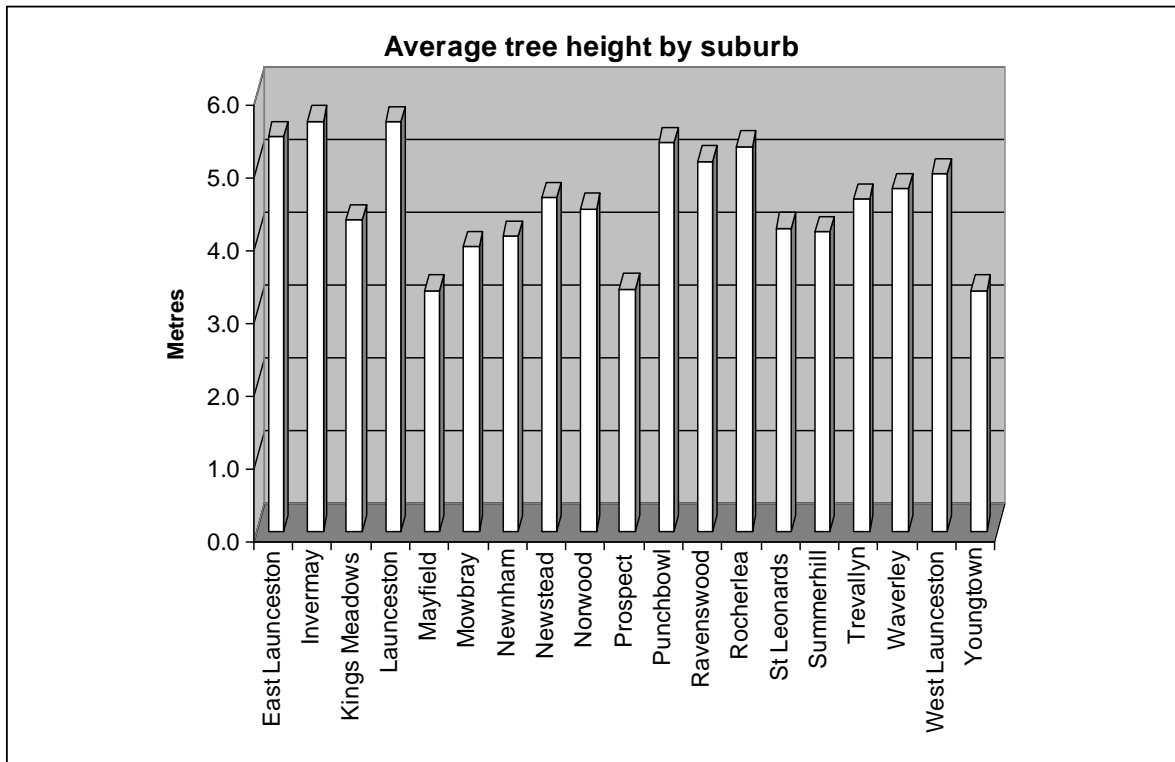
1)	Double Pink Flowering Plum - <i>Prunus blireana</i> 1582
2)	Snow in Summer - <i>Melaleuca linariifolia</i> 1212 (Australian native)
3)	Photinia - <i>Photinia robusta</i> 984
4)	Single Pink Flowering Plum - <i>Prunus cerasifera</i> 'Nigra' 746
5)	Willow Bottlebrush - <i>Callistemon salignus</i> 722 (Australian native)
6)	Flowering Cherry - <i>Prunus serrulata</i> 589
7)	Silver Birch - <i>Betula pendula</i> 464
8)	Pittosporum - <i>Pittosporum eugenoides</i> 367
9)	Weeping Bottlebrush - <i>Callistemon viminalis</i> 322 (Australian native)
10)	Prickly Leaved Paperbark - <i>Melaleuca stypheloides</i> 318 (Australian native)
11)	Elvins Flowering Plum - <i>Prunus</i> 'Elvins' 289
12)	Common Ash - <i>Fraxinus excelsior</i> 262
13)	Rose of Sharon - <i>Hibiscus syriacus</i> 233
14)	Silver Wattle - <i>Acacia dealbata</i> 218 (local native)
15)	Mountain Ash - <i>Sorbus aucuparia</i> 218
16)	Common Lime - <i>Tilia europaea</i> 215
17)	Betchel's Crab Apple - <i>Malus ioensis</i> 214
18)	Claret Ash - <i>Fraxinus oxycarpa</i> 205
19)	Blackwood - <i>Acacia melanoxylon</i> 190 (local native)
20)	English Elm - <i>Ulmus procera</i> 189

The breakdown of species shows a high proportion of the *Prunus* genus. Due to climatic conditions this genus has not performed well in some locations over the last few years and needs to be progressively replaced with more adaptable species.

Species selection has sometimes been limited because of services. Due to overhead power lines and limited growing space there is a high proportion of smaller trees that have been trained as street trees, including *Photinia*, *Pittosporum*, *Callistemon* and *Hibiscus*. While these smaller trees are better suited to these confined situations, where space permits larger single trunk trees with elevated canopies should be planted. These trees generally require less pruning and training than smaller multi-trunked trees.

The current street tree palette of around 260 individual species is too large to be managed effectively; ideally the palette should be much smaller. This high number is indicative of isolated local level planning highlighting the need for a city wide street tree strategy.

Average tree height varies for each suburb depending on when the suburb was first planted, individual tree ages, available planting space and overhead services. Average tree height will be used as one of the measures for the trees planted in the linkages and nodes identified in this strategy.



There are obvious gaps in street tree plantings across the city. These are most noticeable in areas without grassy nature strips, generally the Central Activities District and other shopping centres such as Mowbray and Kings Meadows. Other noticeable gaps are along roads with no residential development. The details of each street as identified in this review are recorded in the tables starting on page 17 in this strategy. The information in the tables has been used as the basis for developing planting strategies.



Communication Plan

Consultation

The consultation process needs to reflect the changing focus of the different stages within the strategy.

The stages include:

1. **Development - Internal**
2. **Development - External**
3. **Adoption**
4. **Implementation**

Please note: This strategy is a high level document and a guiding instrument only.

1. Strategy Development - Internal

Goal; Approval in Principal.

What:

- To outline the intent and the focus of the strategy
- To ensure allied asset manager's roles are considered
- To ensure asset longevity is maintained.

The section has been completed in consultation with the Launceston Street Tree Strategy Committee.

2. Strategy Development - External

Goal; Endorsement.

WHAT;

To communicate with stakeholders and the wider community about the intent and scope of the strategy.

WHO;

The private sector and associations (see bulleted underneath), stakeholders and the community.

- Launceston Cityprom
- Launceston Chamber of Commerce
- Launceston residents and ratepayers
- Launceston Ratepayers Association
- Service Clubs
- Tasmanian Bicycle Users Group (TBUG)
- Schools
- Horticultural Clubs
- Landcare and Greencare

Non Government Organisation's (NGO's) and interests groups will also be directly approached.

HOW;

The consultation with the private sector will be by:

- Presentations to their associations by the Parks Planner and the Landscape Architect.

The consultation with the community will be through a number of methods, some of which will include:

- The LCC webpage
- Your Voice Your Launceston (an online community engagement tool)
- A Town Hall Customer Service Centre display

The Launceston Street Tree Strategy Committee will then review the public feedback and prepare the final draft for the adoption stage.

3. Adoption

Goal; Ownership.

WHAT;

Endorsement of the completed Street Tree Strategy.

WHO;

The Launceston City Council.

HOW;

- The agenda item with background information will go to Council for consideration
- A presentation will be made to the Strategic Planning and Policy Committee (SPPC).
- Launch the completed strategy (including a media release)
- Distribution of the strategy to key people, champions and ambassadors.

4. Implementation

Goal; Planting Works

WHAT;

Commencement of elements as outlined in Strategies implementation plan.

WHO;

Community consultation for businesses and residences will be undertaken prior to implementation of the individual elements;

The following external service providers will be approached individually as the individual elements are progressed through concept and design development.

- Ben Lomond Water
- Metro Tasmania
- Dial Before You Dig (DBYD)
- Launceston Traffic Committee

These will be approached individually as the individual elements are progressed through concept and design development.

A typical Consultation plan for an element would be;

STEP ONE

- A concept is prepared for the individual element explaining planting theme, species and proposed locations
- Council representatives meet face to face with each business and property owner in the first instance and then by letter and phone to discuss the concept

STEP TWO

- Immediately prior to construction properties will be advised of construction dates and times
- For elements containing predominantly residential properties communication would be by a letter drop
- The Council Communications department will issue a media release for each project or stage.
- High profile spokespeople who live/work in the streets being planted will be used to endorse the strategy, particularly in the early stages (e.g. using service clubs to show they're getting behind the tree planting)
- Taking advantage of Council road engineering developments and their community engagement process

Partnerships

Partnerships will be an important part of this strategy and can be developed during the Concept Plan and Planting Plan stages. Partnerships should be fostered with a range of government, non-government, community and volunteer organisations. These could include neighbouring Councils, DIER, UTAS, Landcare, NRM, Service Clubs, Aurora, schools, businesses or similar organisations. Organisations could be encouraged to adopt a street or a tree. Consideration can also be given to forming a street tree friends group.

Sponsorship

Sponsorship will be sought to implement the strategy. Plaques will not be permitted on or near trees although acknowledgement can be considered through other means. Sponsorship acknowledgement could be done on the Council website.

Budget

An ongoing budget will be needed to achieve this strategy. Money will need to be budgeted internally while external funding sources such as grants and sponsorship should be sought. Grant funding may be sought under different areas such as tourism, recreational trails, environmental works, sustainability and liveable neighbourhoods.

Other potential sources of funding include:

- Local businesses which would benefit from street trees being planted on or in proximity to their business.
- Local schools who could also care for the trees in the vicinity of their school
- Service clubs who could undertake a whole planting element or part of one as a project
- Memorial planting for individuals or organisations
- Donations or bequests

Strategy Plan

Planting Linkages or Nodes


Each definable planting area is a linkage or node. Linkages are corridors that link one area to another. Linkages can be Primary or Secondary. Nodes are central points where people regularly gather. Nodes can be Primary or Secondary. All other planting areas are precincts. Precincts are larger areas, generally covering a suburb or area with similar characteristics. The Street Tree Strategy Plan provides a spatial representation of the planting linkages and nodes.

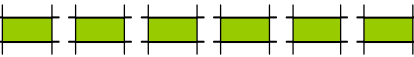
Linkage and Node Character


Character will be defined for each of the linkages and nodes and will be based on the underlying precinct.


Street tree planting outside of the defined linkages and nodes will continue as part of Council's ongoing street tree planting program. Existing trees and neighbourhood character will continue to guide species selection for these areas.

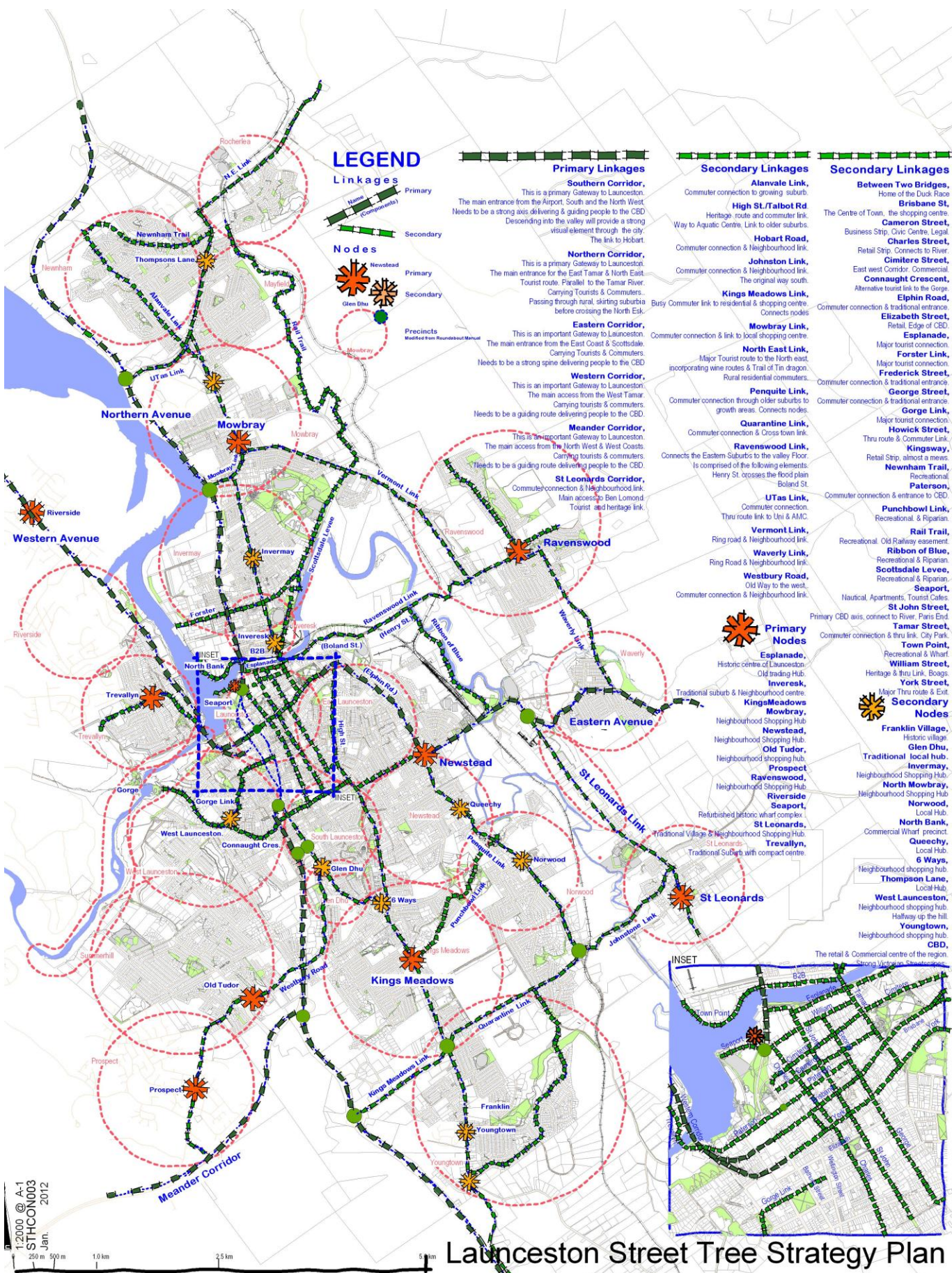
Key to Tables and Strategy Plan

 Primary Linkage
Major roads or streets that link areas to each other

 Secondary Linkage
Roads, streets or recreational trails that link areas to each other

 Primary Node
Major shopping centres or meeting points

 Secondary Node
Minor shopping centres or meeting points



LEGEND

Linkages

- Primary
- Secondary
- Precincts (Modified from Roundabout Manual)

Nodes

Primary

Secondary

Primary Linkages

Southern Corridor.
This is a primary Gateway to Launceston. The main entrance from the Airport, South and the North West. Needs to be a strong axis delivering & guiding people to the CBD. Descending into the valley will provide a strong visual element through the city. The link to Hobart.

Northern Corridor.
This is a primary Gateway to Launceston. The main entrance for the East Tamar & North East. Tourist route. Parallel to the Tamar River. Carrying Tourists & Commuters. Passing through rural, skirting suburbia before crossing the North Esk.

Eastern Corridor.
This is an important Gateway to Launceston. The main entrance from the East Coast & Scottsdale. Carrying Tourists & Commuters. Needs to be a strong spine delivering people to the CBD.

Western Corridor.
This is an important Gateway to Launceston. The main access from the West Tamar. Carrying tourists & commuters. Needs to be a guiding route delivering people to the CBD.

Meander Corridor.
This is an important Gateway to Launceston. The main access from the North West & West Coasts. Carrying tourists & commuters. Needs to be a guiding route delivering people to the CBD.

St Leonards Corridor.
Commuter connection & Neighbourhood link. Main access to Ben Lomond. Tourist and heritage link.

Secondary Linkages

Alanvale Link.
Commuter connection to growing suburb.

High St/Talbot Rd
Heritage route and commuter link. Way to Aquatic Centre. Link to older suburbs.

Hobart Road.
Commuter connection & Neighbourhood link. The original way south.

Johnston Link.
Commuter connection & Neighbourhood link. Connects nodes.

Kings Meadows Link.
Busy Commuter link to residential & shopping centre. Connects nodes.

Mowbray Link.
Commuter connection & link to local shopping centre.

North East Link.
Major Tourist route to the North east, incorporating new routes & Trail of Tin dragon. Rural residential commuters.

Penquite Link.
Commuter connection through older suburbs to growth areas. Connects nodes.

Quarantine Link.
Commuter connection & Cross town link.

Ravenswood Link.
Connects the Eastern Suburbs to the valley floor. Is comprised of the following elements: Henry St. crosses the flood plain - Boland St.

UTas Link.
Commuter connection. Thru route link to Uni & AMC.

Vermont Link.
Ring road & Neighbourhood link.

Waverly Link.
Ring Road & Neighbourhood link.

Westbury Road.
Old Way to the west. Commuter connection & Neighbourhood link.

Secondary Linkages

Between Two Bridges.
Home of the Duck Race

Brisbane St.
The Centre of Town, the shopping centre.

Cameron Street.
Business Strip. Civic Centre, Legal.

Charles Street.
Retail Strip. Connects to River.

Climero Street.
East west Corridor. Commercial.

Connaught Crescent.
Alternative tourist link to the Gorge.

Elphin Road.
Commuter connection & traditional entrance.

Elizabeth Street.
Retail. Edge of CBD.

Esplanade.
Major tourist connection.

Forster Link.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.

Frederick Street.
Commuter connection & traditional entrance.

George Street.
Commuter connection & traditional entrance.

Gorge Link.
Major tourist connection.

Howick Street.
Major tourist connection.





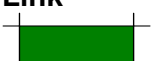
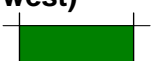

1:2000 @ A-1
STHCON003
Jan. 2012









Launceston Street Tree Strategy Plan


























Primary Linkages:






	Description	Current tree status and requirements	Implementation
Eastern Avenue 	Long, vehicle and tourist link. Major entrance into city from east of Launceston.	Moderately well treed. Mostly developed nature strips	See Implementation Plan. Consultation with DIER may be required.
Elphin Road 	Medium, vehicle, pedestrian and tourist link. Major entrance into city from east	Generally well treed. Mostly developed nature strips	See Implementation Plan
Northern Avenue 	Long, vehicle and tourist link. Major entrance into city from East Tamar	Few street trees present. Mostly grassy roadsides or developed nature strips	See Implementation Plan. Consultation with DIER may be required.
Southern Avenue 	Long, vehicle and tourist link. Major entrance into city from south of Launceston.	Few street trees present. Mostly grassy roadsides or developed nature strips	See Implementation Plan. Consultation with DIER may be required.
St Leonards Link 	Medium, vehicle link. Major entrance into city from St Leonards and rural areas south east of Launceston	Moderately well treed. Mostly developed nature strips or grassy roadsides	See Implementation Plan
Western Avenue (north west) 	Long, vehicle and tourist link. Major entrance into city from West Tamar.	Few street trees present. Mostly developed nature strips	See Implementation Plan. Consultation with DIER may be required.
Meander Avenue 	Long, vehicle and tourist link. Major entrance into city from south west.	Few street trees present. Mostly grassy roadsides or developed nature strips	See Implementation Plan. Consultation with DIER may be required.

Secondary Linkages







	Description	Current tree status and requirements	Implementation
Alanvale Link 	Medium, vehicle and pedestrian link.	Generally well treed. Mostly developed nature strips	See Implementation Plan
Between Two Bridges 	Short, pedestrian and tourist link.	Few trees present. Mostly grassy developed parkland	Can be achieved as part of ongoing projects. Suitable for planting by community groups.
City Brisbane Street /The Avenue/ Mall 	Short, vehicle, pedestrian, tourist and retail link. On street dining present.	Moderately well treed. Tree pit construction required	See Implementation Plan
City Cameron Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
City Charles Street 	Short, vehicle, pedestrian, tourist and retail link. On street dining present.	Moderately well treed. Tree pit construction required	See Implementation Plan
City Cimitiere Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
City Elizabeth Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
City Frederick Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
City George Street 	Short, vehicle, pedestrian, tourist and retail link. On street dining present.	Moderately well treed. Tree pit construction required	See Implementation Plan
City Kingsway 	Short, vehicle, pedestrian, tourist and retail link.	Generally well treed. Tree pit construction required	See Implementation Plan
City Paterson Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan






	Description	Current tree status and requirements	Implementation
City St John Street 	Short, vehicle, pedestrian, tourist and retail link.	Moderately well treed. Tree pit construction required	See Implementation Plan
City Tamar Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
City William Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
City York Street 	Short, vehicle, pedestrian, tourist and retail link.	Few street trees present. Tree pit construction required	See Implementation Plan
Connaught Crescent 	Medium, vehicle, pedestrian and tourist link.	Moderately well treed. Mostly developed nature strips	See Implementation Plan
Esplanade 	Short, vehicle, pedestrian and tourist link.	Moderately well treed. Mostly developed nature strips. Tree pit construction may be required along southern side	Can be achieved as part of ongoing projects
Forster Link 	Medium, vehicle and pedestrian link.	Generally well treed. Mostly developed nature strips	See Implementation Plan
Gorge Link 	Medium, vehicle, pedestrian and tourist link.	Moderately well treed. Mostly developed nature strips	See Implementation Plan
High Street /Talbot Road 	Medium, vehicle, pedestrian and tourist link.	Generally well treed. Mostly developed nature strips	See Implementation Plan
Hobart Road 	Medium, vehicle, pedestrian and retail link.	Moderately well treed. Mostly developed nature strips	See Implementation Plan
Howick Street 	Short, vehicle and pedestrian link	Moderately well treed. Mostly developed nature strips	Can be achieved through normal planting
Johnston Link 	Medium, vehicle link.	Moderately well treed. Mostly grassy roadsides or developed nature strips	Can be achieved through normal planting.
Kings Meadows Link 	Medium, vehicle link.	Moderately well treed. Mostly grassy roadsides	See Implementation Plan
Mowbray Link 	Short, vehicle link.	Moderately well treed. Mostly grassy roadsides. Tree pit construction may be required at eastern end	See Implementation Plan

	Description	Current tree status and requirements	Implementation
Newnham Trail 	Medium, cycle and pedestrian link.	Moderately well treed. Mostly developed parkland	Can be achieved through normal park planting. Suitable for planting by community groups.
North East Link 	Medium, vehicle, pedestrian and tourist link.	Few street trees present. Mostly grassy roadsides or developed nature strips	Can be achieved through normal planting. Consultation with DIER may be required.
Penquite Link 	Medium, vehicle and pedestrian link.	Moderately well treed. Mostly developed nature strips	See Implementation Plan
Quarantine Link 	Medium, vehicle and pedestrian link.	Generally well treed. Mostly developed nature strips	Can be achieved through normal planting
Rail Trail 	Long, cycle and pedestrian link.	Moderately well treed. Mostly undeveloped grassy land	Can be achieved through normal park planting. Suitable for planting by community groups.
Ravenswood Link 	Short, vehicle and pedestrian link.	Few street trees present. Mostly grassy roadsides or developed nature strips	See Implementation Plan
Ribbon of Blue 	Medium, cycle and pedestrian link.	Generally well treed. Mostly developed parkland	See Implementation Plan. Suitable for planting by community groups.
Scottsdale Levee 	Medium, cycle and pedestrian link	Few trees present. Mostly developed parkland or flood levee	Can be achieved through normal park planting. Suitable for planting by community groups.
Seaport 	Short, vehicle, pedestrian and tourist link.	Moderately well treed. Mostly developed parkland	See Implementation Plan








	Description	Current tree status and requirements	Implementation
Town Point 	Short, cycle and pedestrian link.	Few trees present. Mostly undeveloped grassy land.	Can be achieved as part of ongoing projects. Suitable for planting by community groups.
UTAS Link 	Short, vehicle link.	Moderately well treed. Mostly grassy roadsides or developed nature strips	See Implementation Plan
Vermont Link 	Medium, vehicle and pedestrian link.	Moderately well treed. Mostly grassy roadsides or developed nature strips	See Implementation Plan
Waverley Link 	Medium, vehicle and pedestrian link.	Moderately well treed. Mostly grassy roadsides or developed nature strips	Can be achieved through normal planting
Westbury Road 	Long, vehicle, pedestrian and tourist link.	Moderately well treed. Mostly developed nature strips	See Implementation Plan




Primary Nodes:

	Description	Current tree status and requirements	Implementation
Inveresk 	Medium, retail and tourist node	Moderately well treed. Tree pit construction required	See Implementation Plan
Kings Meadows 	Large, retail node	Few trees present. Tree pit construction required	See Implementation Plan
Mowbray 	Large, retail node	Few trees present. Tree pit construction required	See Implementation Plan
Newstead 	Medium, retail node	Few trees present. Tree pit construction required	See Implementation Plan
Olde Tudor 	Medium, retail node	Few trees present. Some developed nature strips. Tree pit construction may be required	See Implementation Plan
Prospect (MVC) 			Within Meander Valley Council

	Description	Current tree status and requirements	Implementation
Ravenswood 	Small, retail node	Few trees present. Some developed nature strips. Tree pit construction may be required	See Implementation Plan
Riverside (WTC) 			Within West Tamar Council
Seaport 	Medium, retail and tourist node.	Few trees present. Tree pit construction may be required	See Implementation Plan
St Leonards 	Medium, retail node	Few trees present. Mostly developed nature strips. Tree pit construction may be required	See Implementation Plan
Trevallyn 	Small, retail node.	Few trees present. Mostly developed nature strips. Tree pit construction may be required	See Implementation Plan

Secondary Nodes

	Description	Current tree status and requirements	Implementation
Franklin Village 	Small, retail node.	Few trees present. Mostly developed nature strips	Can be planted as part of linkage
Glen Dhu 	Small, retail node.	Moderately well treed. Some developed nature strips. Tree pit construction may be required.	Can be achieved through normal planting
Invermay 	Medium, retail node.	Few trees present. Tree pit construction required	See Implementation Plan
North Mowbray 	Small, retail node.	Few trees present. Mostly developed nature strips.	Can be planted as part of linkage
Norwood 	Small, retail node.	Moderately well treed. Mostly developed nature strips.	See Implementation Plan
Queechy 	Small, retail node.	Moderately well treed. Some developed nature strips. Tree pit construction may be required.	Can be planted as part of linkage
Six Ways 	Small, retail node.	Moderately well treed. Some developed nature strips. Tree pit construction may be required.	See Implementation Plan

	Description	Current tree status and requirements	Implementation
Thompsons Lane 	Small, retail node.	Few trees present. Mostly developed nature strips. Tree pit construction may be required	See Implementation Plan
West Launceston 	Small, retail node.	Few trees present. Mostly developed nature strips. Tree pit construction may be required	Can be planted as part of linkage
Youngtown 	Small, retail node.	Moderately well treed. Some developed nature strips. Tree pit construction may be required.	See Implementation Plan

Implementation Plan

A strategic approach will be adopted. This will be achieved through identifying and prioritising the linkages and nodes described in this strategy. Although the central activities district is important the strategy will not simply start in the centre of the city and work outwards.

There are 68 separate linkages and nodes identified in this strategy. It is proposed that 50 of these will be planted over the ten year life of this strategy, an average of 5 every year.

To ensure a more balanced approach to budgeting and resourcing the planting of the primary and secondary elements will be evenly distributed over the ten years of the strategy. Streets in the central activities district will be evenly distributed throughout the ten years.

Larger linkages and nodes can be staged over longer periods than two years as required with the scheduled year used as a starting point.

The remaining 18 linkages and nodes may be planted within the ten years of this strategy through existing planting programs or as a part of other projects if resources allow this. Linkages and nodes not planted over the ten years will be reevaluated as part of the review of this plan.

Scheduling of the linkages and nodes will also take into account road development projects and particular linkages and nodes may be rescheduled to coincide with other works.

Outside of the identified linkages and nodes regular planting and public requests for replacement trees can be made by contacting Councils customer service centre.

Planting Schedule 2011/2012 and 2012/2013

Primary Linkages;



City Wellington Street (completed)
Northern Avenue

Secondary Linkages;



City Charles Street
City Frederick Street
City Kingsway
City William Street
High Street /Talbot Road

Primary Nodes;



Inveresk
Kings Meadows
Newstead

Planting Schedule 2013/2014 and 2014/2015

Primary Linkages;



Southern Avenue
Western Avenue (north west)

Secondary Linkages;



Alanvale Link
City Brisbane Street/ The Avenue/ Mall
City George Street
City Tamar Street
Mowbray Link

Primary Nodes:



Mowbray
Ravenswood

Planting Schedule 2015/2016 and 2016/2017

Primary Linkages;



Eastern Avenue
Meander Avenue

Secondary Linkages;



City Elizabeth Street
City Paterson Street
City St John Street
Elphin Road
Gorge Link

Primary Nodes;



Seaport
Trevallyn

Secondary Nodes;



Invermay

Planting Schedule 2017/2018 and 2018/2019

Primary Linkages;



St Leonards Link

Secondary Linkages;



City Cameron Street
City York Street
Connaught Crescent
Forster Link
Kings Meadows Link
Vermont Link
Westbury Road

Primary Nodes;



St Leonards

Secondary Nodes;



Six Ways
Youngtown

Planting Schedule 2019/2020 and 2020/2021

Secondary Linkages;



City Cimitiere Street
Hobart Road
Penquite Link
Ravenswood Link
Ribbon of Blue
Seaport
UTAS Link

Primary Nodes;



Olde Tudor

Secondary Nodes;



Norwood
Thompsons Lane

Concept Plan

A Concept Plan will be developed for each element. This plan will expand on the design themes of each element such as species, planting theme, cultural and contextual elements, creating an identity for each linkage and node. The feasibility of planting an element can be determined at this stage. This plan will provide the information to enable the development of construction documentation. The concept plan will include and enable meaningful community engagement and identify any partnerships that can be utilised at planting time. Appendix 1 provides a species selection method and Appendix 2 provides a street tree palette to choose from. Appendix 3 contains an example Concept Plan.

Planting

Planting will be guided by the Concept Plan, detailed construction documentation and Council policies and procedures. A traffic management plan will need to be developed for all roadside plantings. Species selection will be dealt with during the Concept Plan development for each planting element.

New Subdivisions and Developments

Where appropriate all new subdivisions and developments should include street tree plantings. Tree species and locations can be determined using the guidelines in this strategy and other applicable documentation.

Maintenance Plan

Primary maintenance of street trees will be undertaken by the Launceston City Council Tree Maintenance Unit according to existing programs, standards, policies and procedures. New trees will be watered for at least three years after planting. Damaged trees will be replaced where appropriate or feasible according to standard Council procedure.

Record Keeping

All new trees will be recorded by Council's Data Officer with information stored in the Council's GIS and corporate database. Records will also be kept of sponsors and partners for trees and streets.

Measures of Success

Measures of success can include but should not be limited to:

- Increase in number of street trees across the city

- Increase in average street tree height within the linkages and nodes identified in this strategy.

- Increase in street canopy cover across the city

- Completed links and completed nodes

Review of Strategy

This strategy will be subject to continual review every two years plus a full review at the end of the ten year period.

Appendices

Appendix 1 Species Selection Method

Longevity

Ideally longer lived species should be given preference.

Appearance

Street trees need to be aesthetically pleasing with at least one significant feature such as colourful autumn leaves, flowers or similar

Adaptability and Hardiness

Street trees must be able to cope with the modified urban environment and changes associated with this environment.

Structural Integrity

Street trees must be as structurally stable as possible.

Undesirable Characteristics

The following characteristics are generally undesirable and should be avoided when selecting trees:

- Invasive or weedy tree species
- Invasive root systems
- Severe allergy or irritation causing
- Excessive fruit or nut drop
- Poisonous
- Excessive limb drop

Form

Trees with a specific type of form such as columnar or fastigiated crowns should be considered in situations where the available growing space does not allow for a broader crown. Trees that naturally form a dominant single trunk will be preferred over trees with a more branching habit such as Photinia or Pittosporum that have to be trained into a tree form.

Exotic or Native

Indigenous species may be suited to the local environmental conditions, however the growing conditions in an urban setting, particularly a street situation, are very different from natural conditions. These conditions include soil compaction, higher nutrient levels and altered drainage patterns, often indigenous species cannot cope with these microclimates within the built environment. Many exotic species have been in cultivation for hundreds of years and over that time they have been specifically bred for superior performance in the urban environment. They have been hybridised and selected for their vigour in urban growing conditions, ensuring uniformity of size, shape and growing habit.

Deciduous or Evergreen

Deciduous trees can have advantages over evergreen trees as they provide both summer shade and winter sun. Apart from light and warmth winter sun reduces the development of moss and algae on pavements, a potential slipping hazard in such high use areas. Deciduous trees lose all of their leaves in a relatively short time frame leading to increased maintenance requirements for a short period. By contrast evergreen trees drop their leaves all year round evening out maintenance requirements.

Appendix 2 Street Tree Strategy - Core Street Tree Palette

This is not a comprehensive list of trees for street tree planting in Launceston, rather it is a palette to guide species selection. Individual species for each linkage or node will be determined during the development of the Concept Plan.

Some frost and cold sensitive species have been included. While these are not suitable for all situations, they may be used in sheltered locations where frosts are unlikely to occur. Climate change may provide more opportunities to plant these species as well.

Botanical Name	Common Name	Current Location in Launceston (if applicable)	Mature Height in Urban Environment	Form	Feature	Evergreen or Deciduous
Acer campestre	Field Maple	Elizabeth Street Car Park front bed	7 metres	oval	Yellowish autumn foliage	deciduous
Acer platanoides 'Crimson Sentry'	Norway Maple	Jamison Street West Launceston (species)	7 metres	columnar	Dark purple leaves	deciduous
Acer rubrum 'Fairview Flame'	Red Maple	Maitland Street Reserve (species) - grown as a park tree	11 metres	oval	Red autumn foliage	Deciduous
Acer rubrum 'October Glory'	Red Maple	Maitland Street Reserve (species) - grown as a park tree	12 metres	oval	Red autumn foliage	Deciduous
Acmena smithii	Lilly Pilly	City Park southern edge - grown as a park tree	5 metres	conical	Mauve berries	Evergreen
Aesculus hippocastanum	Horse Chestnut	Ormsley Street Kings Meadows	13 metres	round	White flowers	Deciduous
Aesculus x carnea	Red Horse Chestnut	Similar to Aesculus hippocastanum	12 metres	round	Red flowers	Deciduous
Alnus cordata	Italian Alder	Chant Street East Launceston	10 metres	pyramidal	Textured leaves	Deciduous
Alnus jorullensis	Evergreen Alder	Northcote Street Invermay	10 metres	pyramidal	Textured leaves	deciduous

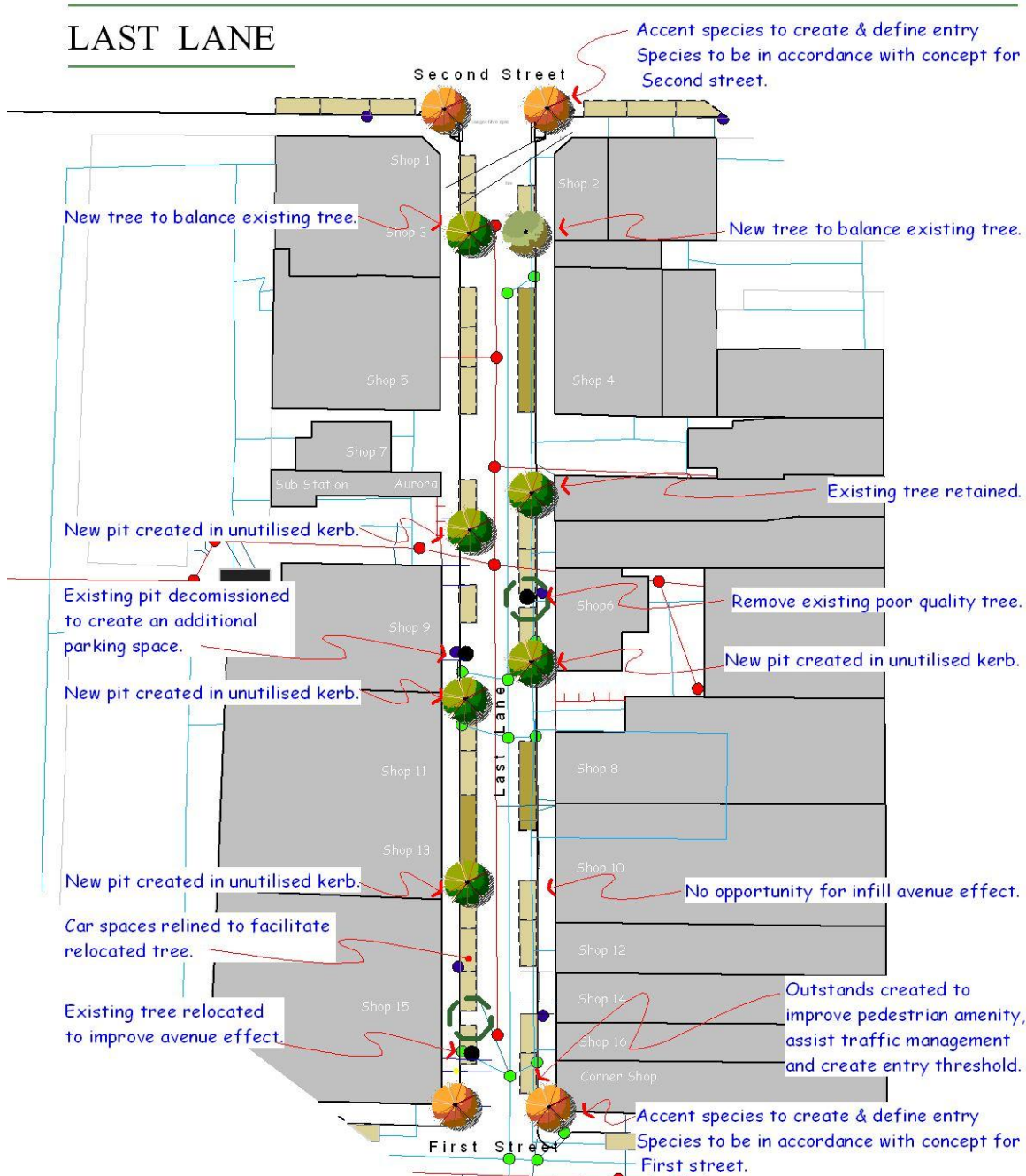
Botanical Name	Common Name	Current Location in Launceston (if applicable)	Mature Height in Urban Environment	Form	Feature	Evergreen or Deciduous
Cercis canadensis	Redbud	Similar to Cercis siliquastrum	6 metres	spreading	Pink flowers	Deciduous
Cercis siliquastrum	Judas Tree	Carnarvon Street East Launceston	6 metres	spreading	Purple-pink flowers	Deciduous
Cornus capitata	Evergreen Dogwood	Warragul Street Norwood	8 metres	spreading	White flowers	evergreen
Fagus sylvatica	European Beech	Pinkard Street Kings Meadows	15 metres	pyramidal	Bronze autumn foliage	Deciduous
Fagus sylvatica 'Purpurea'	Copper Beech	City Park Tamar Street entrance	13 metres	pyramidal	Purple foliage	Deciduous
Fraxinus excelsior 'Aurea'	Golden Ash	Galvin Street South Launceston (species)	7 metres	round	Golden foliage	Deciduous
Fraxinus oxycarpa 'Raywoodi'	Claret Ash	Forster Street Invermay (outside Invermay Park)	12 metres	oval	Claret autumn foliage	Deciduous
Ginkgo biloba	Maidenhair Tree	Quadrant Mall	9 metres	pyramidal	Yellow autumn foliage	deciduous
Kolreuteria paniculata	Golden Rain Tree	Vermeer Avenue Reserve centre of reserve - grown as a park tree	7 metres	rounded	Yellow flowers	deciduous
Liriodendron tulipifera	Tulip Tree	George Street Launceston southern end	13 metres	conical	Yellow autumn foliage, flowers	Deciduous
Liriodendron tulipifera 'Aureomarginatum'	Variiegated Tulip Tree	Similar to Liriodendron tulipifera	12 metres	pyramidal	Variiegated foliage, flowers	Deciduous
Liriodendron tulipifera 'Fastigiatum'	Upright Tulip Tree	Similar to Liriodendron tulipifera	13 metres	columnar	Golden autumn foliage	Deciduous
Lophostemon confertus	Brush Box	Balfour Street Launceston	8 metres	round	Glossy green foliage	evergreen

Botanical Name	Common Name	Current Location in Launceston (if applicable)	Mature Height in Urban Environment	Form	Feature	Evergreen or Deciduous
Magnolia 'Little Gem'	Magnolia Little Gem	Smaller growing cultivar of the Evergreen Magnolia	5 metres	round	Large white flowers	Evergreen
Malus ioensis plena	Bechtel Crab Apple	Elphin Road East Launceston	6 metres	round	Double pink flowers	Deciduous
Malus tschonoskii	Pillar Apple	Similar to other taller Crab Apples	7 metres	pyramidal	Purplish orange autumn foliage	Deciduous
Michelia doltsopa	Sweet Michelia	Similar to upright Magnolias although evergreen	10 metres	conical	Fragrant white flowers	Evergreen
Nyssa sylvatica	Tupelo	No mature specimens available	11 metres	conical	Brilliant orange to red autumn foliage	Deciduous
Phoenix canariensis	Canary Island Date Palm	High Street East Launceston	10 metres	round	Large palm	evergreen
Pistacia chinensis	Chinese Pistachio	24 Bald Hill Rd Trevallyn (Link Street side)	8 metres	round	Orange autumn foliage	Deciduous
Platanus orientalis 'Digitata'	Oriental Plane	Similar to Platanus x acerifolia	12 metres	pyramidal	Dissected foliage	Deciduous
Platanus x acerifolia 'Bloodgood'	London Plane	Similar to Platanus x acerifolia	14 metres	pyramidal	Golden autumn foliage	Deciduous
Platanus x acerifolia 'Liberty'	London Plane	Invermay Road Invermay (species)	14 metres	pyramidal	Yellowish brown autumn foliage	Deciduous
Pyrus calleryana 'Capital'	Callery Pear	Civic Square back of Japanese Garden (species)	11 metres	columnar	White flowers	Deciduous
Pyrus calleryana 'Chanticleer'	Callery Pear	Civic Square back of Japanese Garden (species)	11 metres	Narrow conical	Mixed autumn foliage	Deciduous

Botanical Name	Common Name	Current Location in Launceston (if applicable)	Mature Height in Urban Environment	Form	Feature	Evergreen or Deciduous
Pyrus 'Edgewood'	Callery Pear	Similar to Pyrus calleryana	8 metres	round	Mixed autumn foliage	Deciduous
Pyrus ussuriensis	Ussurian Pear	Similar to Pyrus calleryana	9 metres	pyramidal	Mixed autumn foliage	deciduous
Quercus acutissima	Sawtooth Oak	Similar to other Quercus	10 metres	pyramidal	Golden autumn foliage	Deciduous
Quercus castaneifolia	Chestnut-leaved Oak	Similar to other Quercus	12 metres	pyramidal	Serrated foliage	Deciduous
Quercus coccinea	Scarlet Oak	Similar to Quercus palustris	12 metres	round	Scarlet autumn foliage	Deciduous
Quercus palustris	Pin Oak	David Street Newstead	15 metres	conical	Bronze autumn foliage	Deciduous
Quercus palustris 'Green Pillar'	Pin Oak	Similar to but narrower than Quercus palustris	14 metres	columnar	Scarlet autumn foliage	Deciduous
Quercus robur	English Oak	Howick Street South Launceston	11 metres	round	Yellowish autumn foliage	Deciduous
Quercus robur 'Fastigiata'	English Oak	Tamar Street opposite Albert Hall	13 metres	Conical to columnar	Yellowish autumn foliage	Deciduous
Quercus rubra	Red Oak	Similar to Quercus palustris	10 metres	Round	Red autumn foliage	Deciduous
Sorbus aucuparia	Rowan	Mulgrave Street South Launceston	7 metres	Oval	Orange autumn foliage	Deciduous
Tilia 'Greenspire'	Lime	59 Mayne Street Invermay (species)	9 metres	Pyramidal	Yellow autumn foliage	Deciduous
Trachycarpus fortunei	Windmill Palm	Wellington Street Glen Dhu	10 metres	round	Medium palm	Evergreen
Tristaniopsis laurina	Water Gum	Abbott Street East Launceston	6 metres	Round	Yellow flowers	evergreen
Ulmus parvifolia	Chinese Elm	Canning Street Launceston	10 metres	Round	Serrated foliage	Semi-deciduous

Botanical Name	Common Name	Current Location in Launceston (if applicable)	Mature Height in Urban Environment	Form	Feature	Evergreen or Deciduous
Ulmus parvifolia 'Todd'	Chinese Elm	Similar to Ulmus parvifolia	10 metres	Round	Serrated foliage	Semi-Deciduous
Ulmus procera	Golden Elm	Canning Street Launceston	14 metres	Round	Yellow autumn foliage	Deciduous
Zelkovia serrata 'Green Vase'	Zelkova	Similar to a small leaved Elm	14 metres	Round	Serrated foliage	Deciduous
Zelkova serrata 'Musashino'	Zelkova	Similar to a small leaved Elm	14 metres	columnar	Serrated foliage	deciduous

Appendix 3 Sample Concept Plan

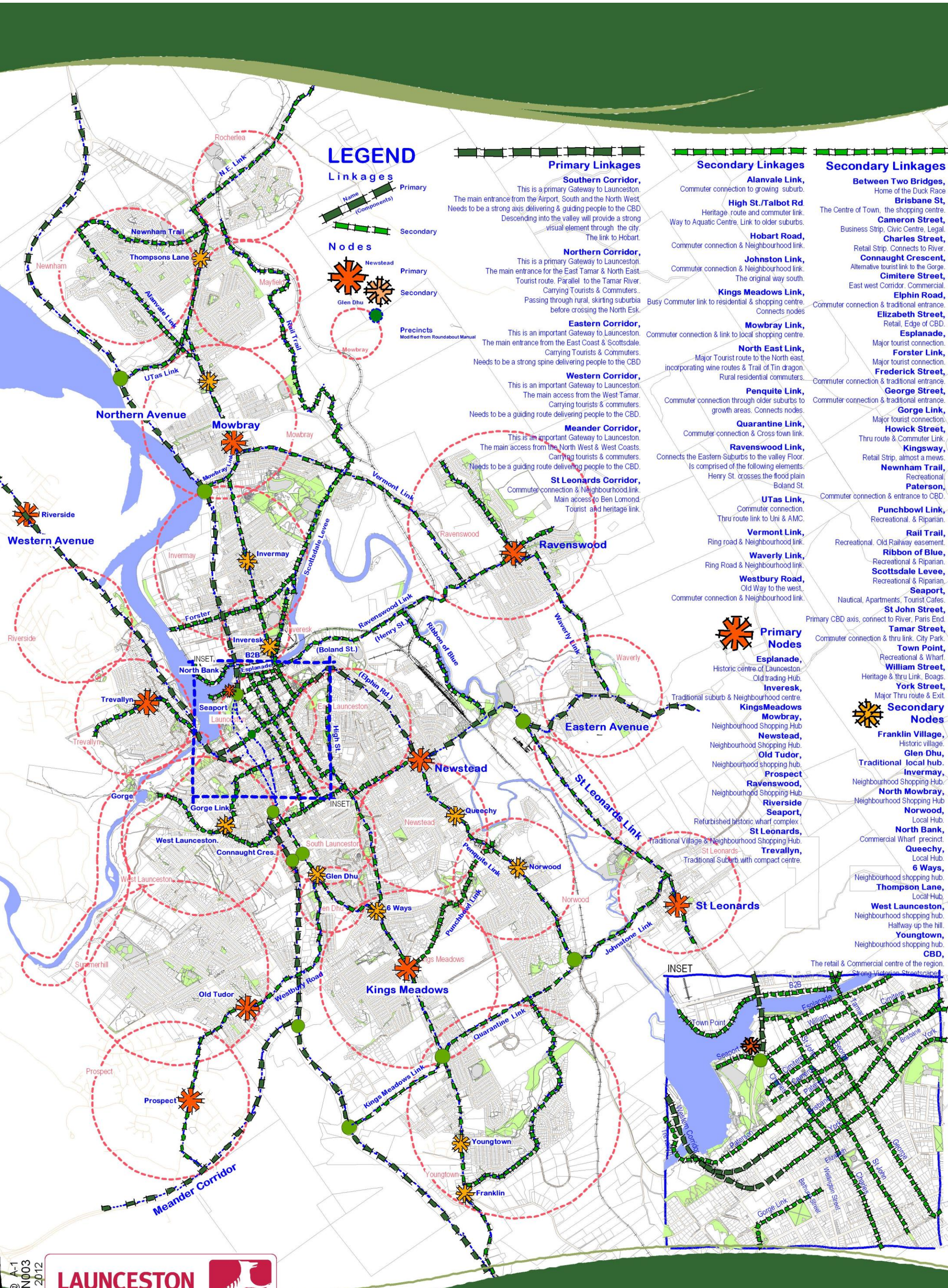


LEGEND

-  Car space
-  Loading Bay
-  Existing Tree
-  New Trees

CONCEPT STATEMENT
 This is a short interconnecting street predominantly high turnover retail with moderate pedestrian. Both street elevations are of a consistent 2 storey facade. The facades vary in age from Victorian to early contemporary. Existing tree planting is sporadic, with no theme or contribution to the streetscape

Species will be; *Acer biglandii* "Moorii" to compliment architecture, *Waterhousianana nicolas* "Gordonesque" to improve pedestrian amenity.



LEGEND

Linkages

- Primary** (Thick green dashed line)
- Secondary** (Thin green dashed line)

Nodes

- Primary** (Large orange starburst)
- Secondary** (Small orange starburst)
- Precincts** (Red dashed circle)

Primary Linkages

- Southern Corridor,** This is a primary Gateway to Launceston. The main entrance from the Airport, South and the North West. Needs to be a strong axis delivering & guiding people to the CBD. Descending into the valley will provide a strong visual element through the city. The link to Hobart.
- Northern Corridor,** This is a primary Gateway to Launceston. The main entrance for the East Tamar & North East. Tourist route. Parallel to the Tamar River. Carrying Tourists & Commuters. Passing through rural, skirting suburbia before crossing the North Esk.
- Eastern Corridor,** This is an important Gateway to Launceston. The main entrance from the East Coast & Scottsdale. Carrying Tourists & Commuters. Needs to be a strong spine delivering people to the CBD.
- Western Corridor,** This is an important Gateway to Launceston. The main access from the West Tamar. Carrying tourists & commuters. Needs to be a guiding route delivering people to the CBD.

Secondary Linkages

- Alanvale Link,** Commuter connection to growing suburb.
- High St./Talbot Rd** Heritage route and commuter link. Way to Aquatic Centre. Link to older suburbs.
- Hobart Road,** Commuter connection & Neighbourhood link.
- Johnston Link,** Commuter connection & Neighbourhood link. The original way south.
- Kings Meadows Link,** Busy Commuter link to residential & shopping centre. Connects nodes.
- Mowbray Link,** Commuter connection & link to local shopping centre.
- North East Link,** Major Tourist route to the North east, incorporating wine routes & Trail of Tin dragon. Rural residential commuters.
- Penquite Link,** Commuter connection through older suburbs to growth areas. Connects nodes.
- Quarantine Link,** Commuter connection & Cross town link.
- Ravenswood Link,** Connects the Eastern Suburbs to the valley Floor. Is comprised of the following elements. Henry St. crosses the flood plain Boland St.
- UTas Link,** Commuter connection. Thru route link to Uni & AMC.
- Vermont Link,** Ring road & Neighbourhood link.
- Waverly Link,** Ring Road & Neighbourhood link.
- Westbury Road,** Old Way to the west. Commuter connection & Neighbourhood link.

Secondary Linkages

- Between Two Bridges,** Home of the Duck Race
- Brisbane St,** The Centre of Town, the shopping centre.
- Cameron Street,** Business Strip, Civic Centre, Legal.
- Charles Street,** Retail Strip. Connects to River.
- Connaught Crescent,** Alternative tourist link to the Gorge.
- Cimiere Street,** East west Corridor. Commercial.
- Elphin Road,** Commuter connection & traditional entrance.
- Elizabeth Street,** Retail, Edge of CBD.
- Esplanade,** Major tourist connection.
- Forster Link,** Major tourist connection.
- Frederick Street,** Commuter connection & traditional entrance.
- George Street,** Commuter connection & traditional entrance.
- Gorge Link,** Major tourist connection.
- Howick Street,** Thru route & Commuter Link.
- Kingsway,** Retail Strip, almost a mews.
- Newnham Trail,** Recreational.
- Paterson,** Commuter connection & entrance to CBD.
- Punchbowl Link,** Recreational. & Riparian.
- Rail Trail,** Recreational. Old Railway easement.
- Ribbon of Blue,** Recreational & Riparian.
- Scottsdale Levee,** Recreational & Riparian.
- Seaport,** Nautical, Apartments, Tourist Cafes.
- St John Street,** Primary CBD axis, connect to River, Paris End.
- Tamar Street,** Commuter connection & thru link. City Park.
- Town Point,** Recreational & Wharf.
- William Street,** Heritage & thru Link. Boags.
- York Street,** Major Thru route & Exit.

Primary Nodes

- Esplanade,** Historic centre of Launceston. Old trading Hub.
- Inveresk,** Traditional suburb & Neighbourhood centre.
- Kings Meadows** Neighbourhood Shopping Hub
- Mowbray,** Neighbourhood Shopping Hub
- Newstead,** Neighbourhood Shopping Hub.
- Old Tudor,** Neighbourhood shopping hub.
- Prospect** Neighbourhood Shopping Hub
- Ravenswood,** Neighbourhood Shopping Hub
- Riverside** Neighbourhood Shopping Hub
- Seaport,** Refurbished historic wharf complex.
- St Leonards,** Traditional Village & Neighbourhood Shopping Hub.
- Trevallyn,** Traditional Suburb with compact centre.

Secondary Nodes

- Franklin Village,** Historic village.
- Glen Dhu,** Traditional local hub.
- Invermay,** Neighbourhood Shopping Hub.
- North Mowbray,** Neighbourhood Shopping Hub
- Norwood,** Local Hub.
- North Bank,** Commercial Wharf precinct.
- Queechy,** Local Hub
- 6 Ways,** Neighbourhood shopping hub.
- Thompson Lane,** Local Hub.
- West Launceston,** Neighbourhood shopping hub. Halfway up the hill.
- Youngtown,** Neighbourhood shopping hub.
- CBD,** The retail & Commercial centre of the region. Strong Victorian Streetscape.