

5.0

DETAILED ELEMENTS

One of the aims of the UDLS is to establish a standard palette of Urban Elements and materials. These are intended as a guide to inform the intended quality and character.

The materials for the public realm of the Stirling City Centre have been considered in a holistic manner in order to achieve a cohesive and consistent public realm.

Materials and finishes have been chosen to reflect and support the broad identity of a city, while strengthening the individual identity of each Character Precinct. They assist in providing clear, simple, legible streets and safe, robust, high quality and unique public spaces.

While the general arrangement of each street and open space typology varies, they typically have similar components.

This section of the UDLS is to be used as a reference when designing Urban Elements of the Stirling City Centre. It provides a rationale and design intent to support the material selection.

This section includes guidance on the following Urban Elements:

- Street trees;
- Park trees;
- Vegetation;
- Surface treatments;
- Street furniture;
- Footpath alfresco areas;
- Public art; and
- Features - playgrounds and water features.

Indicative Structure Street Tree Species List

| Locally Native | Native | Deciduous |
|---------------------------------|--|--|
| <i>Eucalyptus gomphocephala</i> | <i>Agonis flexuosa</i> <i>Angophora costata</i> <i>Brachychiton populneus</i> <i>Casuarina obesa</i> <i>Corymbia citriodora</i> <i>Corymbia maculata</i> <i>Eucalyptus kondininensis</i> <i>Eucalyptus patens</i> <i>Eucalyptus spathulata</i> <i>Melaleuca quinquenervia</i> | <i>Celtis australis</i> <i>Fraxinus excelsior</i> <i>Fraxinus raywoodii</i> <i>Gleditsia tricanthos</i> (Shademaster) <i>Jacaranda mimosifolia</i> <i>Liquidambar formosana</i> <i>Liquidambar styraciflua</i> <i>Platanus orientalis</i> var <i>insularis</i> <i>Ulmus parvifolia</i> |

Indicative Accent Trees and Group Planting Species List

| Locally Native | Native | Deciduous |
|---|---|---|
| <i>Allocasuarina fraseriana</i> <i>Banksia attenuata</i> <i>Banksia grandis</i> <i>Banksia littoralis</i> <i>Corymbia calophylla</i> <i>Eucalyptus marginata</i> <i>Eucalyptus tottiana</i> <i>Melaleuca preissiana</i> <i>Melaleuca raphiophylla</i> | <i>Agonis flexuosa</i> (Burgundy) <i>Melaleuca styphelioides</i> <i>Corymbia ficifolia</i> <i>Hakea laurina</i> <i>Banksia prionotes</i> <i>Eucalyptus cornuta</i> | <i>Lagerstroemia indica</i> <i>Pyrus calleryana</i> cultivars <i>Sapium sebiferum</i> <i>Robinia pseudoacacia</i> (Frisia) |

Indicative Gateway Trees Species List

| Locally Native | Native |
|---------------------------------|--|
| <i>Eucalyptus gomphocephala</i> | <i>Ficus hillii</i> <i>Ficus rubiginosa</i> |

Indicative Urban Place Street Trees Species List

| Structure Tree |
|---------------------------|
| <i>Platanus acerfolia</i> |

Note: All trees within Biophilic Precinct to be locally native or native evergreen. Exotic species should be used sparingly. Careful consideration should be given to certain species within an urban environment. Refer to section *Considerations for Tree/Vegetation Selection* for further details.

5.1 VEGETATION

STREET TREES

Aims

- Achieve 100% shade cover on footpaths - species and spacing;
- Ensure reliability and suitability for urban environments;
- Increase level of natural biodiversity;
- Reinforce the identity and story line of Stirling;
- Respond to function requirements - passive solar, biophilic, water; and
- Reduce impact of the built form.

Street Tree Types

- Structure Trees - Dominant tree in the street planted uniformly along the streets entire length;
- Accent and Group Trees - Secondary tree planting which is used to reinforce special street characteristics, functions or identity; and
- Gateway Trees - Large focal point trees planted at the key entries into the City Centre.



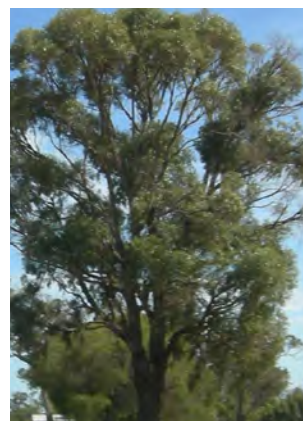
Angophora costata



Agonis flexuosa



Eucalyptus spathulata



Eucalyptus gomphocephala



Platanus acerifolia



Ulmus parvifolia



Liquidambar styraciflua



Jacaranda mimosifolia

Indicative Park Trees Species List

| Locally Native | Native | Exotic |
|---|---------------------------------|--------------------------------|
| <i>Allocasuarina fraseriana</i> | <i>Agonis flexuosa</i> | <i>Fraxinus excelsior</i> |
| <i>Banksia attenuata</i> | <i>Angophora costata</i> | <i>Fraxinus raywoodii</i> |
| <i>Banksia grandis</i> | <i>Brachychiton populneus</i> | <i>Gleditsia tricanthos</i> |
| <i>Banksia littoralis</i> | <i>Casuarina obesa</i> | <i>Jacaranda mimosifolia</i> |
| <i>Corymbia calophylla</i> | <i>Corymbia citriodora</i> | <i>Liquidambar formosana</i> |
| <i>Eucalyptus marginata</i> | <i>Corymbia maculata</i> | <i>Liquidambar styraciflua</i> |
| <i>Eucalyptus gomphocephala</i> | <i>Eucalyptus kondininensis</i> | <i>Ulmus parvifolia</i> |
| <i>Eucalyptus rudis</i> subsp. <i>rudis</i> | <i>Eucalyptus patens</i> | |
| <i>Eucalyptus tottiana</i> | <i>Eucalyptus spathulata</i> | |
| <i>Melaleuca preissiana</i> | <i>Melaleuca quinquenervia</i> | |
| <i>Melaleuca raphiophylla</i> | | |

Note: All trees and planting within Biophilic Precinct to be locally native or native evergreen, with the exception of community and footpath gardens. Exotic species should be used sparingly. Careful consideration should be given to certain species within an urban environment. Refer to section *Considerations for Tree/Vegetation Selection* for further details.



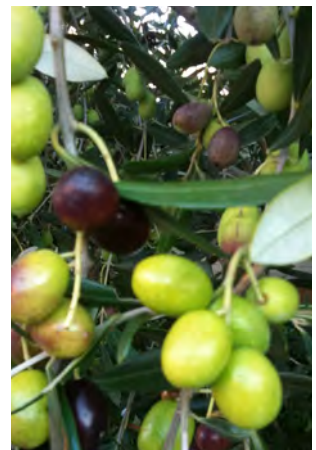
Ficus carica



Morus sp.
Mulberry



Persea americana



Olea europea

PARK TREES

Aims

- Achieve good shade cover - species and spacing;
- Ensure reliability and suitability for urban environments;
- Enhance biodiversity and prioritise use of locally native species;
- Encourage food production;
- Reinforce the identity and storyline of the Precincts;
- Create community landmarks;
- Respond to function requirements - passive solar, biophilic, water;
- Improve local micro climate;
- Grow large canopy trees; and
- Enhance the beauty of the area.



Trees in the Parks act as landmarks, enhance biodiversity and provide shade.

WSUD Bioretention Swales

| Shrubs | Herbs | Rushes and sedges |
|----------------------------------|--------------------------------|-------------------------------|
| <i>Eutaxia virgata</i> | <i>Dampiera linearis</i> | <i>Baumea juncea</i> |
| <i>Eremaea pauciflora</i> | <i>Dianella revoluta</i> | <i>Meeboldina roycei</i> |
| <i>Euchilopsis linearis</i> | <i>Patersonia occidentalis</i> | <i>Meeboldina cana</i> |
| <i>Eutaxia virgata</i> | | <i>Meeboldina coangustata</i> |
| <i>Gastrolobium celsianum</i> | | <i>Meeboldina diffusus</i> |
| <i>Hakea varia</i> | | <i>Chaetanthus aristatus</i> |
| <i>Hypocalymma angustifolium</i> | | <i>Hypolaena exsulca</i> |
| <i>Hypocalymma robustum</i> | | <i>Schoenoplectus validus</i> |
| <i>Melaleuca lateritia</i> | | |
| <i>Melaleuca teretifolia</i> | | |
| <i>Melaleuca viminea</i> | | |
| <i>Pericalymma ellipticum</i> | | |
| <i>Regelia ciliata</i> | | |
| <i>Regelia inops</i> | | |
| <i>Scholtzia involucrata</i> | | |
| <i>Taxandria linearifolia</i> | | |

Community and Footpath Gardens

| Trees | Herbs | Vegetables |
|---|-------------------------|--|
| <i>Citrus</i> sp. (Lime, orange, lemon, mandarin) | <i>Thymus vulgaris</i> | Salad plants |
| <i>Ficus carica</i> | <i>Origanum vulgare</i> | <i>Brassica</i> sp. (Tuscan Cabbage, Kale) |
| <i>Morus</i> sp. (Mulberry) | <i>Ocimum basilicum</i> | <i>Allium Sativum</i> |
| <i>Persea americana</i> | | <i>Spinacia oleracea</i> |
| <i>Olea europea</i> | | |
| <i>Carica papaya</i> | | |

Urban Planting

| Shrubs | Strappy Plants | Groundcovers |
|---------------------------------------|--|------------------------------------|
| <i>Adenanthos cuneatus</i> | <i>Anigozanthos flavidus</i> (hybrids) | <i>Grevillea obtusifolia</i> |
| <i>Scaevola</i> sp. | <i>Dianella revoluta</i> | <i>Eremophila glabra</i> |
| <i>Grevillea preissii</i> (varieties) | <i>Dianella caerulea</i> | <i>Kennedia prostrata</i> |
| | <i>Lomandra longifolia</i> | <i>Trachelospermum jasminoides</i> |
| | <i>Juncus kraussii</i> | |

Note: All trees and planting within Biophilic Precinct to be locally native or native evergreen, with the exception of community and footpath gardens. Exotic species should be used sparingly. Careful consideration should be given to certain species within an urban environment. Refer to section *Considerations for Tree/Vegetation Selection* for further details.

ADDITIONAL VEGETATION

Aims

- Low water use
- Easy maintenance;
- Ensure reliability and suitability for urban environments;
- Increase natural biodiversity;
- Encourage food production;
- Reinforce the identity and storyline of the Precincts;
- Respond to function requirements - passive solar, biophilic, water; and
- Respond to CPTED principles.

Vegetation Types

- Bioretention / Bioinfiltration Swales - Vegetated swales that provide efficient treatment of stormwater. They are designed to convey stormwater and provide water quality improvement prior to entering the Urban Stream.
- Community and Footpath Gardens - Verges or nature strips can be used for food production and communal gardening. Footpath gardens are managed by individuals or the local community.
- Urban Planting - Low maintenance and low water use garden beds with high level of uniformity.
- Native Seasonal Planting - Locally native seasonal planting should be considered as part of the place activation of the Urban Place Streets, Destinations and Gateways. It includes temporary installations of flowering plants in planters and road medians to brighten the city scape.



Seasonal planting to activate the streets



Biofiltration swale in the streetscape



Community Verge Garden

CONSIDERATIONS FOR TREE/ VEGETATION SELECTION

A primary aim for the Stirling City Centre is to enhance biodiversity and create ecological corridors. Whilst a mix of native and exotic plants are nominated within the strategy, exotic species should be used sparingly with locally endemic and native species given priority. General considerations in selection include:

- Character precinct contribution;
- Biodiversity contribution;
- Irrigation needs;
- Soil preparation;
- Spatial restrictions (above and below ground);
- Requirements for maintaining tree health; and
- Contribution to minimising maintenance.

Consideration should be given to the use of certain species which have known impacts that can be detrimental within an urban environment (i.e. damage to paving, infrastructure, dropping of limbs, slip hazards, allergies) if not correctly installed, maintained or managed.

Species of note are as follows:

Street Trees

- *Eucalyptus* and *Corymbia* species require regular tree health checks as some species are prone to shed limbs, hence are a potential risk to public and infrastructure if not maintained well;
- *Jacaranda mimosifolia*, once mature produce large amount of flowers, which when falling can cause slip hazards, regular cleaning of walkways are required in late October to November;
- *Platanus acerfolia*, keep number of trees low as pollen can cause both physical and allergic reactions; and
- *Agonis flexuosa* is very slow growing and advanced trees need to be selected for planting for impact.

Accent Trees

- *Banksias*, establishment can be difficult, plant specific soil types must be provided to promote plant establishment and growth. *Banksias* often fall over after two years if soils conditions are not suitable. Plant banksias in clumps of 3 to 5m apart and selecting feature trees after 2 to 3 years; and
- *Robinia pseudoacacia*, these trees form runners, root barriers are imperative if selected.

Gateway Trees

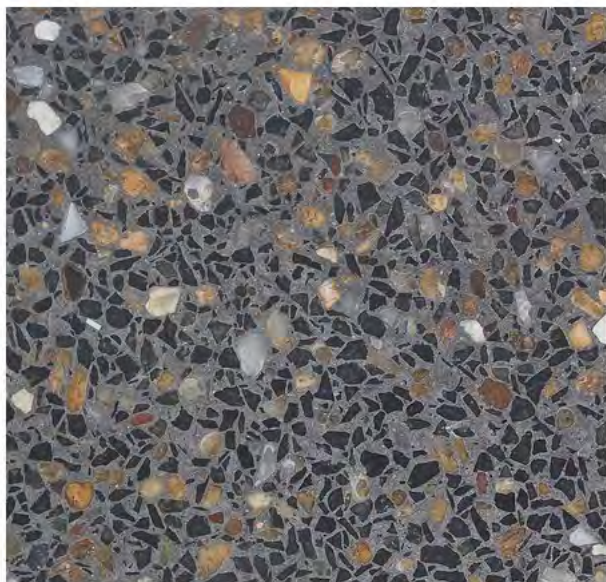
- *Ficus* species have invasive root structures (which can lift concrete and potentially damage pipework etc.), root barriers should be considered to protect infrastructure; and
- Ongoing checks for tree health and to prune out dead wood will be required.

Fruiting Trees

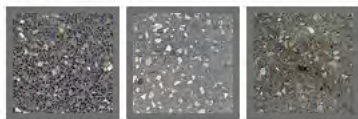
- Consider fruiting trees and their impact (e.g. fruits staining footpaths, larger fruit may cause a trip hazard, fallen fruit may attract vermin) therefore planting in wide garden beds and in areas where management responsibilities are sustainable is recommended;
- *Olea europea* will seed into adjacent garden areas and handweeding or spot spraying is required once plants start to produce fruit; and
- Consider planting sterile fruit trees.

Urban and seasonal plantings

- Height restrictions (must not exceed 500mm)



Finish



Honed

Milled

Shortblast

Urbanstone Golden Gunmetal Precast Concrete Unit Paver



Urbanstone Golden Gunmetal Precast Concrete Unit Paver used in a streetscape



Example of Kerb Type 1 and Flush kerb

Main Pavement Type 1
Rectangular format (600x300)
exposed aggregate concrete unit
paver with shot blast finish

Kerb Type 1
In situ concrete charcoal colour
kerb with 300 wide x 150 deep
profile (to match granite kerb)

Rectangular format (200x300)
exposed aggregate concrete unit
paver with shot blast finish

Flush Kerb

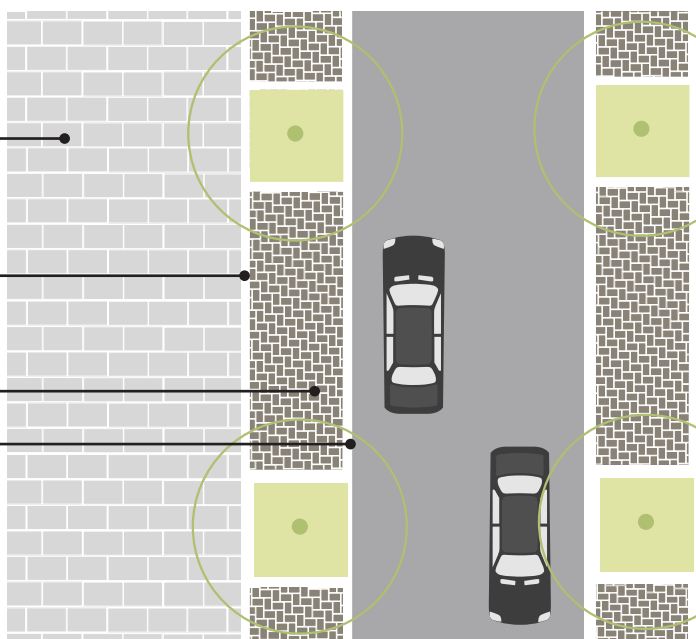


Figure 47: Indicative arrangement of materials

5.2 SURFACE TREATMENTS

Aims

- Reinforce the identity and story line of the Precincts;
- Easy to maintain and install;
- Readily available - preferably locally manufactured;
- Represents value for money;
- High quality;
- Meets Australian Standards (slip resistance);
- Consistency across the City Centre;
- Assist with sustainability - reduce urban heat - light coloured, permeability; and
- Recycled component.

Management requirements

- Safety requirements (slip rating);
- Commercial grade;
- Ground preparation (trafficable); and
- Not permitting non-standard footpath surfacing and furniture outcomes on the public footway, such as the continuation of materials used on the adjacent private property.

Grates and covers

In the City Precinct service access covers should be located beneath the paving material and marked by an appropriate logo set into the paving

Pavements

Main Pavement Type 1

Location: All streets except Urban Place Streets and Destinations
Rectangular format (600x300) exposed aggregate concrete unit paver with shot blast finish. Charcoal colour with 5mm diameter bluestone and rainbow quartz aggregate mix.
Suggested Product: Urbanstone 'Golden Gunmetal'

Main Pavement Type 2

Location: Urban Place Streets and Destinations
Rectangular (600x300) format exposed aggregate concrete unit paver with milled finish. Charcoal colour with 5mm diameter bluestone and rainbow quartz aggregate mix.
Suggested Product: Urbanstone 'Golden Gunmetal'

Main Pavement Type 3

Location: Community Streets
In situ natural concrete with broom finish

Note: For trafficable areas around destinations, insitu concrete surfacing to match paving should be considered.

Accent Paving

Location: Urban Place Streets and Destinations
Unit pavers reflective the street type and precinct. Suitable materials include:

- Granite Cobbles;
- Solid Bricks; and
- In situ coloured concrete patterned and milled finish.

Tactile Indicators

Provide tactile ground surface indicators (TGSIs) in accordance with Australian Standards (refer AS/NZS 1428.4:2002).

Preference is for tactile indicators to be laid in modular units.

Permeable Pavements

Provide in accordance with water management plan requirements. Materials should be reflective of the street type and precinct.

Kerbs

Kerb Type 1

Location: Urban Place Streets
In situ concrete charcoal colour kerb with 300 wide x 150 deep profile (to match granite kerb)

Kerb Type 2

In situ natural grey concrete with semi mountable profile

Flush kerb

In situ concrete 300mm wide, colour to match other kerbs.

Car Bays

Car bay Pavement Type 1

Location: Urban Place Streets and City Precinct
Rectangular format (300x200) exposed aggregate concrete unit paver with shot blast finish. Charcoal colour with 5mm diameter bluestone and rainbow quartz aggregate mix.

Car bay Pavement Type 2

Location: All streets except Urban Place Streets
Lateritic red asphalt



Urban Edge Batten Seat URB: SAT B332



Urban Edge Batten Seat URB: SAT B300W



Custom Tree grate with integrated WSUD By Heine Jones



Cora Stainless Steel Bike Rail



Street Furniture Australia Arqua Drinking Station

5.3 STREET FURNITURE RANGE

A uniform suite of street furniture is recommended for the Stirling City Centre. Elements include: Seating, rubbish bin enclosure, tree grate, drinking fountain, bicycle rack, and pole lighting.

Aims

- Well designed, robust and functional;
- Adds to the City's identity;
- Contemporary design;
- Provides improved public amenity and comfort;
- Located to eliminate clutter and not encroach into pedestrian paths of travel
- Allows for universal access;
- Responds to different demographics (children and elderly);
- Constructed from durable materials and has longevity;
- Easy to maintain, clean, repair or replace; and
- Locally manufactured; and
- Cost effective and value for money.

Seating

There are 3 suitable seat types:

- Seat with arms and back;
- Seat with back; and
- Bench (no arms or back).

The seat should:

- Be robust, comfortable and have a generous length;
- Have a contoured timber surface
- Be sub surface fixing with allowance to cater for uneven surfaces;
- Have a powder coated cast aluminium frame or stainless steel frame; and
- Have hardwood timber slats (sourced from plantation or sustainably harvested) or recycled HDPE plastic slats.

Suggested Product: Cox Urban Furniture, Urban Edge Range, 3 person Batten Seat.

Rubbish Bin Enclosure

The design of the rubbish bin enclosure should:

- Be simple and discreet;
- Have dual bins for general waste and recycle waste;
- Be located at regular intervals along main pedestrian routes and at major hubs (parks and square);
- Have a top to restrict access by birds; and
- Fit 120L sulo bin.

Suggested Product: Cox Urban Furniture, Urban Edge Range, Enclosure EWL 121.

Rubbish bins should be emptied on a regular basis to maintain a well cared for public realm.

Bike Racks

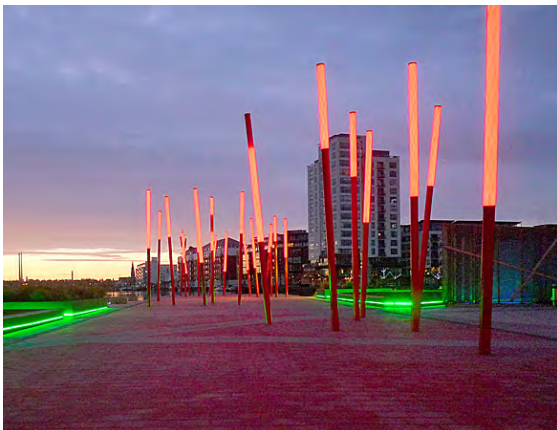
Bike racks should be located throughout the public realm in accordance with Australian Standard AS 2890.3 – 1993. The design should:

- Constructed of 316 grade stainless steel; and
- Be sub surface mounted.

Suggested Product: Cora Bike Parking Rail CBR2 or Urban Furniture, Urban Edge Range, BCR 201.



Catenary lights as public art



Lighting as public art



Catenary lights



Catenary lights in Urban Place Streets



Smart Pole with banners and lighting

Tree Grate

Tree grates will be integrated with WSUD rain garden.

Location: Urban Place Streets and Squares

The design of the tree grate should:

- Be designed to allow the penetration of air and water to the soil;
- Minimise trip and slip hazards and rubbish trapping properties;
- Be constructed from stainless steel or aluminium; and
- Incorporate public art and interpretation (eg. Maribyrnong City Council, Leeds Street, Footscray by Heine Jones).

Drink Water Fountains

Drink fountains and water filling poles should:

- Be located along main pedestrian routes and at major hubs; and
- Be accessible for people in wheelchairs.

Suggested Product: Street Furniture Australia Aqua fountain DF4 and pole DF 7.

Lighting

LED options should be included.

Products should be investigated as new technologies/products become available.

Decorative Street Lighting

Location: Urban Place Streets
Multifunction pole that combines multiple street pole functions onto one designed structural urban element.

Accessories include:

- Banners;
- CCTV;
- Street signs;
- Traffic lights; and
- Catenary lights.

Suggested Product: Hub multifunction smart pole. Aluminium finish.

Pedestrian Lighting

Pedestrian scale pole (4 - 6m) with reflector shade top which directs light downwards and prevents light from being emitted upwards and hidden light source.



5.4 PUBLIC ART

A public art programme should be aligned with the development of the Stirling City Centre public realm to contribute to creating a vibrant and creative city.

Aims

- Embed public art into the fabric of the city including the public realm and architecture;
- Use public art to reflect Stirling's history, diverse communities, environment, creativity and innovation particularly towards creating a biophilic city;
- Recognise and celebrate aboriginal stories and heritage in public spaces,
- Provide opportunities for all people to participate;
- Create unique experiences that are universally accessible to all people;
- Use public art to inspire creativity, make places vibrant and the pedestrian experience more enjoyable;
- Support the local art culture by commissioning local artists and community art projects
- Activate public spaces with temporary art;
- Promote high quality public art in major new developments; and
- Explore different forms of art including pavement design in squares and plazas, lighting canopies, interactive water features, temporary art as well as more traditional forms such as sculpture and murals.

This strategy should be read in conjunction with the *City of Stirling Public Art Strategy*.

5.5 PLAYGROUNDS AND YOUTH ACTIVITY AREAS

Playgrounds and Youth Areas are highly valued facilities that are accessible to the whole community. A range of recreational facilities including skate parks, playgrounds, and hard courts will be provided within the open space throughout Stirling City Centre relative to the typologies described in Section 4.

Aims

- Provide local residents and visitors with safe, age appropriate recreational space that meet the relevant Australian Standards;
- Ensure local neighbourhoods have access to playground and fitness equipment within easy walking distance to their home;
- Design playgrounds that meet future needs of the community; and
- Provide recreational facilities that will improve physical fitness of children and youth.

A detailed *City of Stirling Skate and BMX Facility Strategy* (Convic 2013) has recently been completed and should be read in conjunction with the UDLS.

5.6 WATER FEATURES

Water is a central theme of the Stirling City Centre identity, with the Urban Stream forming a main focus. Opportunities should be explored to express and interpret water throughout the public realm, in particular within the Biophilic Precinct.

Aims

- Locate water features in key destinations in the City Centre;
- Use harvested rainwater and stormwater for water features;
- Ensure water is treated to appropriate Department of health standards dependent on the nature of the water feature and the level of human contact;
- Provide a variety of water features including interactive water, ephemeral water and reflective ponds designed to relate to the function of the destinations and its precinct; and
- Use water features to ameliorate the microclimate.

5.7 INTERPRETATION

Interpretive signage should be used to communicate significant cultural and environmental stories of Stirling City Centre. Interpretation should be focused along the Urban Stream corridor and extend into the Biophilic streets.

Aims

- Interpretation should be integrated sensitively into the public realm and can include signage, pavement design and sculptural elements.



Playgrounds should be safe, age appropriate and support the needs of the whole family.



Interpretation of the Urban Stream and the Biophilic Precinct should be integrated into children's play experience to make learning fun



Water Feature can use rain water harvested from adjoining buildings. Rouse Hill Town Centre

6.0

IMPLEMENTATION

High levels of amenity, accessibility and activation are critical to ensuring the Stirling City Centre becomes a highly desirable location for residents, businesses and their employees. A key contribution to achieving this will be provided by the public realm

The UDLS describes a range of principles and strategies to achieve these outcomes and ensures public open space provision:

- Offers quality experiences, is visually appealing, is accessible, provides diversity of choice, is functional and appropriately located, has an appropriate amenity level; and
- Is sufficient to meet the end user demands and expectations relating to quality of POS and provision of various sporting, recreational and leisure amenities.

This section discusses the role of the UDLS in future planning processes, and key issues to be addressed to enable the principles and strategies to be achieved.

Potential short term implementation options are also included to ensure that project momentum and community confidence is built and maintained whilst the City Centre develops over the anticipated 40 to 60 year time frame.

6.1 ROLE OF THE UDLS WITHIN FUTURE PLANNING PROCESSES

Provisions for making of an Improvement Scheme are provided for in the amendment to Improvement Plan 36 which applies to the Stirling City Centre. The purpose of the Improvement Scheme as outlined in the *Planning Integration Workshop 1 Agenda* (Stirling Alliance 2013) is to “...enable urban renewal by applying various planning principles that, amongst other things, guide future land use development, funding arrangements and infrastructure provision in an orderly manner.”

The intention of the Stirling Alliance is to revise the current *Draft Structure Plan* (Stirling Alliance 2011) to reflect the proposed changes to key structural elements that have arisen since its advertising in 2011.

The UDLS will be a key report referenced in the revised document and will inform both the development of the Improvement Scheme and Local Development Plans (LDP's) prepared for individual precincts. The relationship between documents is as follows:

- The Structure Plan will provide guidance on provisions pertaining to road reserves and Public Open Space (POS). The respective LDP's prepared for the precincts will provide a much greater level of detail. In each case, these provisions will be guided by the UDLS;
- The LDP's will be closely informed by the UDLS in respect to provisions applying to road reserve (including paving, road and footpath widths, street trees, furniture, etc) and POS (including use of parks and selection of species).;
- The UDLS will be a reference document in the Improvement Scheme;
- The Improvement Scheme will pursue developer contributions and the details will be determined in the LDPs. The UDLS will help inform this process; and
- The Improvement Scheme Map is expected to reflect the proposed allocation of parks and urban spaces proposed by the UDLS.

6.2 GOVERNANCE AND THE IMPLEMENTATION OF THE UDLS

The Stirling Alliance has been charged with planning the development of the Stirling City Centre as a 'Strategic Metropolitan Centre' however the State Government (nominally the WAPC at present) will take a lead role in implementation together with the City of Stirling (as the ultimate custodian of the City Centre), relevant state agencies, utility providers and developers.

Strategies within the UDLS rely on the re-purposing of land and the co-ordination and co-operation of these groups to capitalise on the "win-win" opportunities that the UDLS presents.

Key issues to overcome include:

LAND ASSEMBLY

- Conversion of government land to public open space reserves (Linear Park, Celebration Place, Station North District Park);
- Acquisition of private land for public open space (Northern & Osborne Precincts) and Public Access Ways (Station, Southern Woodlands Precinct); and
- Consolidation of existing under-utilised parks will require existing reserves to be re-purposed (i.e. Odin, Croxton, Laga, Elton, Bajada Reserve).

ASSET AND PLACE MANAGEMENT

- The provision and management of public and communal spaces by private sector (Town Square, Market Forecourt, Transit Square);
- Co-location of community facilities within private developments with ownership to be within GFA (i.e. Library/ community centre co-located with Town Square within Westfield);
- Co-sharing of public open space between the City of Stirling and other government departments (i.e. sporting ovals, carparking and courts);
- Co-sharing of resources between private and public properties (i.e. rainwater harvesting from private buildings supplying POS water features and water play);
- Integration of recreational and leisure activities within the urban stream floodplain and within road reserves (Linear Park);
- Non-standard surface treatments (i.e. LRT reserve);
- Augmentation of existing streetscapes within established neighbourhoods (All Precincts); and
- Ongoing coordination of place activation strategies & programs.

Given the above issues, further studies will be required to progress individual opportunities within the UDLS as they have been formulated on the basis of varying degrees of

available information, technical resolution and stakeholder input.

The scope of these studies (inc. asset/risk management & delivery) can be developed following further input from the stakeholder groups and clarification as to which opportunities are likely to be supported.

Central to the success of the UDLS is the ongoing synergies/communication between the City of Stirling, stakeholders, and the lead delivery agency to ensure future plans, programs and policies developed are responsive to and supportive of the UDLS as the project evolves.

FUNDING

Funding for the capital works (including land acquisition and seeding capital) required to implement the strategies identified will be sourced from a combination of:

- Council revenue.
- External funding and grants from other State and Federal Government agencies.
- Developer contributions pursued within the Stirling City Centre Improvement Scheme.
- Public/Private funding partnerships .

Obligations of each party will be determined within future detailed implementation planning.



Figure 48: Station Precinct South

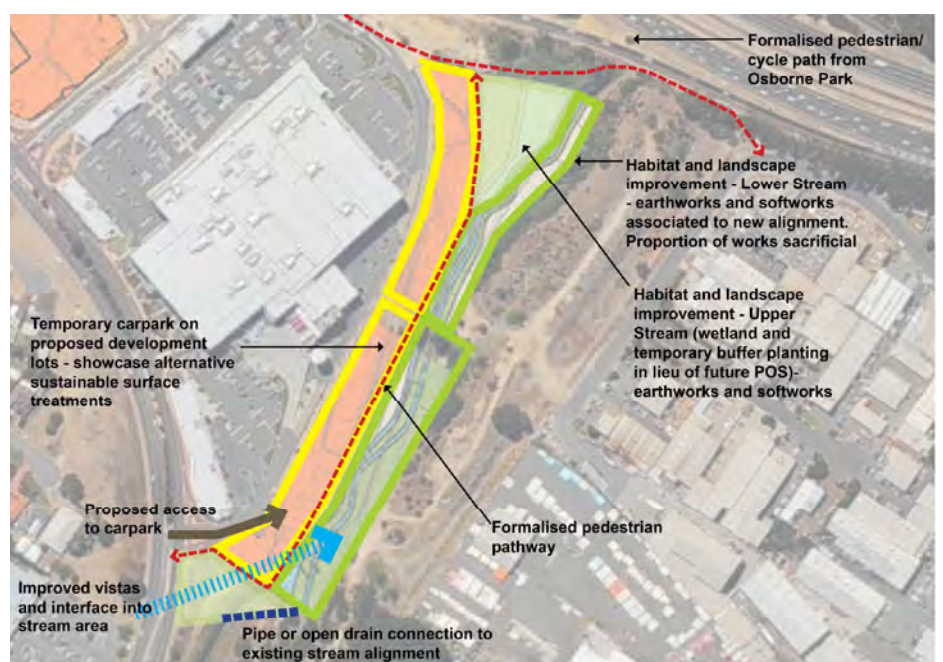


Figure 49: Stream Park North

6.3 STAGING

The realisation of the Stirling City Centre is anticipated to occur over a 40-60 year time frame. The key catalysts for the ultimate build-out of the City Centre are driven by the provision of new access roads and the remediation of the former Hertha tip site. These are currently medium and long term propositions respectively.

Stage 1 of the project will include a development of current vacant government land. Initial conceptual planning of the public realm within stage 1 has been completed and incorporates the principles and strategies outlined within this document. These conceptual plans were tabled at the Master Strategy Workshop. These plans and associated outputs from the Workshop are provided in Appendices 5, 6 and 7.

CATALYST PROJECTS

Short term catalyst projects which achieve short-term “wins” are important to building and maintaining community and stakeholder confidence and project momentum. These short term wins should be reflective of the project vision and where possible be used to implement some of the proposed public realm experiences, test concepts and to progress the building of the future community and forecasting future change.

The Master Strategy Workshop provided initial direction on what catalyst projects could be implemented in the short term (0-5 years), these included the following (Refer Figures 48 and 49) :

- Station Precinct South
- Stream Park-North (Sarich Court to Howe Street)
- Herdsman-Stirling Bike Link

Further detail of these projects can be found within Appendix 7.

Additional potential short term projects are provided on the following page.

6.4 TEMPORARY USES ON VACANT LAND

Create a series of changing events or community facilities on vacant government owned land.



COMMUNITY FACILITIES

These could include playgrounds, BMX park, or pop-up sea container city (e.g. Christchurch, NZ). Activation projects of this type (such as “No Vacancy” in New York) have been successfully implemented (novacancyproject.wordpress.com).



URBAN FARM

Establish short term community garden on government land. Design the community garden to be mobile so it can be moved to another location in the future.



TEMPORARY NURSERY

This nursery could be used to propagate locally endemic plant and tree species identified in the UDLS for use within the Biophilic precinct (biophilic streets, urban stream, green bridges etc). This could potentially be a community managed operation.

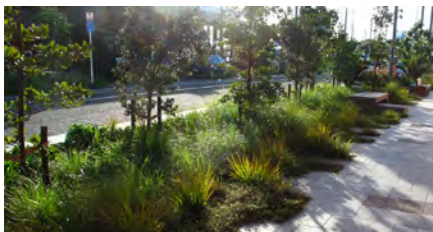


COMMUNITY INFORMATION CENTRE

Establish a mobile Stirling City Centre redevelopment project office in a high profile location within the city heart which can act as both a sales office, as well as providing community information on the project and as a hub for community events.

6.5 INCREMENTAL IMPLEMENTATION OF THE UDLS

Demonstration projects and catalyst schemes which support the vision and enable testing ground for approaches and partnerships



DEMONSTRATION BIOPHILIC STREETS

Upgrade select streets to reflect the biophilic street concept and implement monitoring programme to test the street typology's success in improving micro-climate and ecological outcomes. Possible locations include Sarich Crt and Twyford Place.



ESTABLISHING ELLEN STIRLING BOULEVARD AS AN URBAN PLACE STREET

Plant Ellen Stirling Boulevard with colourful annuals, shade trees and edible plants to make it a special street that people would like to walk along. Banners and flags, catenary lighting to bring a human scale to the streets.



ESTABLISH A BIKE SHARE SYSTEM

Bike hubs, easy bike share and complete a fully connected temp cycle path network through the Stirling City Centre.



PARTNER WITH IKEA / WESTFIELD

Establish a courtesy bus from Westfield to Ikea and the train station. Free home delivery of medium and large goods if you catch the train to Ikea / Westfield

Ikea partnership with Department of Housing, government and private developers to make gains in affordability of apartments.



6.6 RECOMMENDED NEXT STEPS

- Liaison with stakeholders to generate interest, provide any clarification and agree on “win-win” outcomes with respect to individual and group initiatives;
- Selection of the lead delivery agency and formation of a steering committee and agreement on who will champion the overall strategy and individual initiatives or groups of initiatives;
- Scope the required studies to enable the implementation of a meaningful short term catalyst project within the next 5 years;
- Scope future studies and investigations required to progress the feasibility of medium and long term initiatives and develop a program of projects; and
- Develop appropriate asset management models, risk management models and delivery

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Page 132 Bottom: 'Ikea bus' [photograph], in *Ikea Online*, retrieved 20 September 2013, <http://www.ikea.com/ms/en_AU/about_ikea/>.

Page 133: Bio Steps, Spain. Source unknown.

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APPENDICES

APPENDIX 1

EXISTING AND PROPOSED PUBLIC OPEN SPACE SCHEDULES

Table 1 - Existing Public Open Space within the Stirling City Centre

| Existing POS Classification And Distribution | Size: Area m2 | Facilities/Amenities |
|---|----------------|--|
| <u>Special Purpose</u> City of Stirling Definition: <i>Unique or single purpose spaces that are provided in addition to the local, community, district and regional POS hierarchy.</i> City of Stirling future needs / recommendations: <i>Consider designing plazas and communal areas to integrate opportunities for recreation, leisure and social development.</i> | | |
| Existing Allocation : Hertha North Reserve | 142,532 | Classified Sportsground. No formal facilities exist. |
| <u>Natural Conservation</u> City of Stirling Definition: <i>The primary purpose of these areas is to support intact or rehabilitated examples of the local natural environment such as bushland, wetlands and coastal habitats.</i> City of Stirling future needs/recommendations: <i>Opportunities for natural landscape should be creatively incorporated into the design.</i> | | |
| Herdsman Lake | | Major Playground |
| <u>Regional</u> City of Stirling Definition: <i>Large signature reserve that are high recreational (formal and informal sport) leisure, social, environmental and tourism value.</i> City of Stirling future needs/recommendations: <i>Strategy should reference the closest regional reserve.</i> | | |
| <u>District</u> City of Stirling Definition: <i>Large Reserves that provide for concurrent organised, formal sporting and recreation (passive leisure, and informal active) uses for the surrounding suburbs</i> Size: 5 – 20 ha Catchment: 2km catchment City of Stirling future needs/recommendations: <i>Recommend one district reserve with adequate dimension to allow at least one full size senior porting oval (185m x 155m oval)</i> <i>Co- location recommended</i> <i>City already at capacity</i> | | |
| Lake Gwelup | | Sportsgrounds/Major Playground |
| Robinson reserve | | Sportsgrounds |
| Richard Guelfi | | Sportsgrounds |
| <u>Community</u> City of Stirling Definition: <i>Parks that service recreational and social hub of a community</i> Size: 0.5 – 5 ha Catchment: 800m walkable catchment City of Stirling future needs/recommendations: <i>La Grange Dongara – increase its functionality, profile and visual amenity, local accessibility and amenity to enable it to assist in serving as one of the recreational and social focuses.</i> <i>Stirling Civic Garden – Improve reserves profile and functionality</i> | | |
| Stirling Civic Gardens | 105,985 | Regional Playground/Picnic/BBQ |
| La Grange Dongara | 27,700 | Major Playground |
| <u>Local</u> City of Stirling Definition: <i>Small parkland that services the regular low key recreation needs of the community</i> Size: 0.2 – 2 hectare Catchment: 400m walkable catchment City of Stirling future needs/recommendations: <i>Min of 3 quality areas of local POS</i> <i>Parks must have no drainage function, be accessible all year round, have a flat area for relaxation and kicking a football</i> | | |
| Osborne Reserve | 5,385 | Small playground/shade |
| Croxton Reserve | 1,555 | |
| Laga Reserve | 713 | |
| Elton Reserve | 718 | |
| Bajada Reserve | 1,456 | |
| Odin Reserve | 827 | |
| Hertha Place Reserve | 3,648 | Small playground/shade |
| Hertha Geneff Reserve | 3,157 | |
| Hertha Geneff Luba Reserve | 4,026 | |
| Talia Reserve | 16,233 | Wetland |
| Talbot Way Reserve | 5,552 | |
| Total | 318,031 | |