Future Morwell. Future Latrobe Valley.

MORWELL CIRCUIT

Urban Connectivity + Activation Strategy
Shared Pathway Network
Stage 01

06.09.2016

Future Morwell. Future Latrobe Valley.

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We would like to acknowledge the Gunaikurnai people of the Braiakaulung Nation as the traditional Owners of the land on which Future Morwell works within. We respectfully recognise elders past, present and future.

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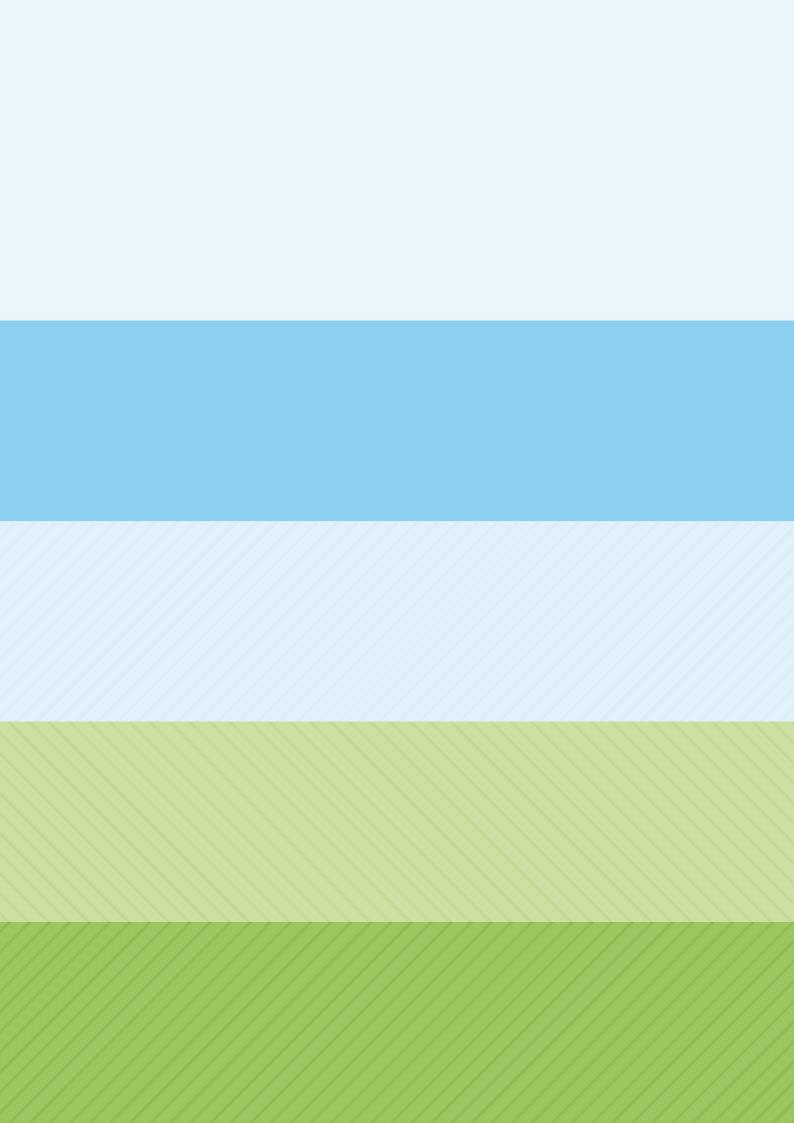
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MORWELL CIRCUIT

Vision

01.01 Description

01.02 Streets for People

01.03 Green Streets

01.04 Street Amenity

01.05 Garden Town

'Future Morwell' is about taking steps to create a brighter future for our town and our region. This State Government funded project is being led by Latrobe City Council, RMIT University and community members. It aspires to deliver a series of targeted initiatives to reshape Morwell in the short, medium and long term, with the aim to build a healthy, liveable and resilient town in the future. Future Morwell is about imagining together, talking together, working together and moving forward together.

Morwell should be a village atmosphere.*

More trees along Commercial Road to make Morwell into a beautiful village and fix up bridge.*

Give residents something to feel proud of.*

Build identity through continuity in Commercial Road streetscape and shop fronts.*

^{*} Refer to Summary of Community Consultation

Vision

Description

The Morwell Circuit aspires to create a positive change in the physical spaces of the town's centre in order to shift its identity, inspire diverse ways in which people might actively occupy and use these spaces, and contribute to the development of a sense of a stable and healthy community.

The circuit intends to renew and connect existing infrastructure and assets in the town's built environment and contribute to its development as Morwell's Village Hub. The first portion of the Circuit to be constructed is Stage 01 located along Commercial Road that links to a shared pathway network.

Streetscapes help define a community's activities, appearance, identity and transport conditions. Improved streetscapes offer a range of benefits including potential economic growth, increased habitat within the urban core, spaces for passive and active recreation, places for residents to interact with neighbours and increased civic pride.

Morwell's Village Hub is a commercial activity centre devoted to trade in the form of cafés, restaurants, boutiques, offices, and shops, as well as servicebased businesses such as real estate agencies, banks, health services, legal services, and personal services. The design of the Morwell Circuit aspires to support commerce and business development through improvements to cycling infrastructure, walkability and connections to public transport through provision for pedestrian comfort and inclusion. In so doing the Village Hub also becomes more connected to its surrounding neighbourhoods. These improvements have been demonstrated to increase visitation and the economic benefit to activity centres in many cases. Street tree planting will work with, and encourage opportunities for walking, cycling and other modes of transport.

In this manner the proposal strives to create a safe and sustainable streetscape that increases accessibility and walkability, supported by a healthy urban tree population that enhances the community's daily experience while ensuring environmental, economic and social sustainability into the future. Leading ecologists suggest that the greening of cities is not only good for our health, but will also cut public costs and spur economic growth.

This proposal focuses its attention on Stage 01 of a larger identified Morwell Circuit network. In doing so it strives to define and develop the 'heart' of Morwell as a Village Hub.

The proposed design has been developed through a steering committee comprised of a diverse range of local members in collaboration with the Latrobe City Council in response to community feedback, an analysis of the town, and a consideration of existing documented proposed projects by private industry, and both Local and State Government agencies.



Much of a streetscape is composed of functional civil infrastructure such as curbs, road surfaces, footpaths and drainage crossings. Civil infrastructure should be consistent, durable and maintained to a high standard to allow for a long, safe and usable life span. A good streetscape design incorporates environmental sustainability, social sustainability, neighbourhood character, positive aesthetics, habitat creation, increased usability, and safety.

Streetscapes create the look and feel of the municipality and offer many benefits to the urban environment through trees and vegetation including:

- calming traffic
- improving air quality
- improving physical health and mental well-being
- increasing walkability of streets by providing shelter and shade
- increasing a positive aesthetic
- increasing feeling of safety
- increasing imaginative play in children
- increasing opportunities for social and economic benefits
- potential increase of property values
- increasing tourism and business opportunities
- lowering stress and anxiety
- managing and absorbing storm-water flow
- contribute to protection from extreme weather events
- providing habitat for native flora and fauna
- providing summer cooling lowering energy needs
- reducing anti-social behaviours including vandalism and graffiti
- reducing heat-related health issues
- reducing urban heat island effect

- reducing UV exposure
- sequestering carbon dioxide
- shaping neighbourhood character
- connecting people

The Heart Foundation supports the planning and development of urban environments that enable people to make healthy lifestyle choices and incorporate incidental physical activity into their daily routine.

Over the latter half of the 20th century the design and management of the street has increasingly been dominated by the needs and demands of motorised transport. The street has been subject to uncoordinated change by a wide range of bodies: it is not treated as a whole, but as a set of unrelated components. Yet what the public require are attractive, functional streets: they require a connected whole and not just the parts.

Tell the Morwell story, past present and future.*

8

Characteristics

The public realm fulfils a range of community needs these include social and economic activities and human interaction, areas of peacefulness and tranquillity, liveliness and energy, and links between communities and businesses. It is an important feature of the public realm and is a quality attraction in its own right. It contributes to the people's quality of life – whether they are residents or visitors just passing through.

The idea that 'a city's greatest attraction is people' is a notion purported by Jan Gehl in his book Cities for People. The following are a selection of important characteristics that are useful to understanding and implementing the proposed Morwell Circuit:

Lively City

The potential for a lively city is strengthened when more people are invited to walk, bike and stay in city space. The importance of life in public space, particularly the social and cultural opportunities as well as the attractions associated with a lively city.

Safe City

The potential for a safe city is strengthened generally when more people move about and stay in city space. A city that invites people to walk.

Healthy City

The desire for a healthy city is strengthened dramatically if walking or biking can be a natural part of the pattern of daily activities.

Sustainable City

The sustainable city is strengthened generally if a large part of the transport system can take place as 'green mobility', that is travel by foot, bike, or public transport.

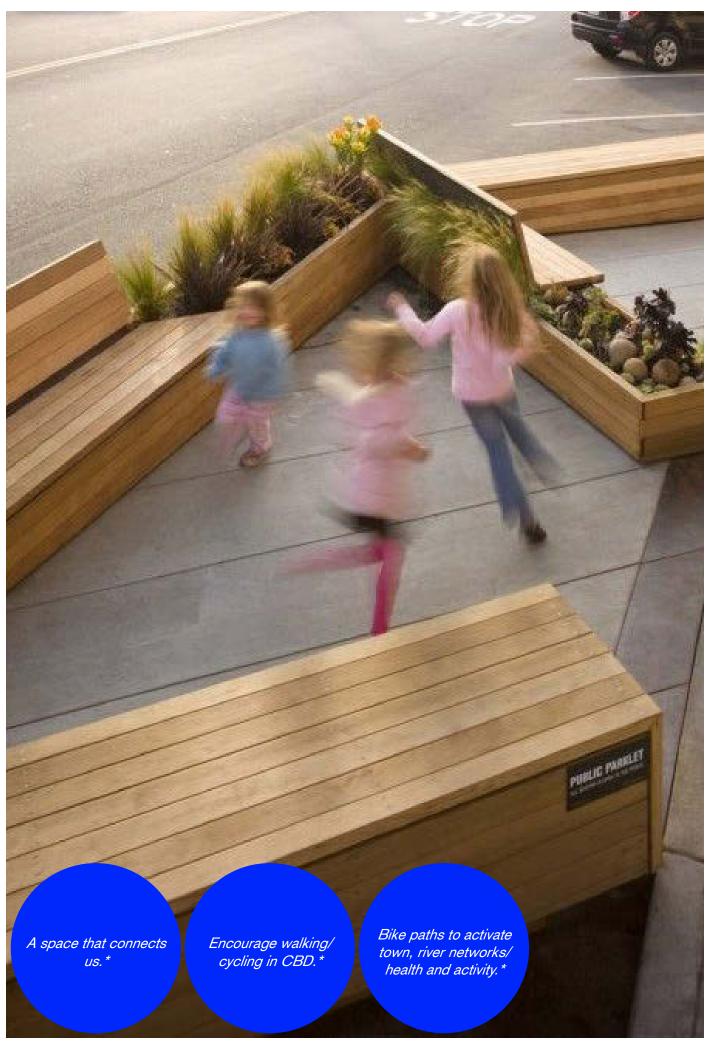
Human Dimension

To reinforce pedestrianisation as an integrated city policy to develop lively, safe, sustainable and healthy cities. It is equally urgent to strengthen the social function of city space as a meeting place that contributes toward the aims of social sustainability and an open and democratic society. The potential to improve conditions for pedestrian traffic and city life lead specifically to new patterns of use and more life in city space.

City as Meeting Place

Different activities people engage in when they use common space: purposeful walks from place to place, promenades and meetings, exercise, dancing, recreation, street trade, children's play, and street entertainment.





Streets for People

Description

The idea of 'Streets for People' recognises the significance of active streetscapes for the community to encourage a healthy, connected, and engaged society.

Accessibility and walkability are key functions of the streetscape and ensure that wherever possible streets, parks and other public land is accessible to all. Where possible this means that people of all abilities can move freely without having to use a specially designed or distinct access point or entrance. This is not possible in all situations but is a design principle this project aspires towards.

Walkability refers to the level of comfort and ease that pedestrians experience as they move through a space or street. High levels of walkability mean that pedestrians feel safe and comfortable in a space which in turn encourages use of the streetscape for enjoyment through walking, shopping, cycling, gathering, dining and public transport.

The walkable quality of the street environment is fundamental to the appeal of a neighbourhood. 'Creating attractive spaces, dramatically increases the time people spend in the street, whether strolling, window shopping, having conversations, stopping, playing, sitting or just watching the world go by, not so much travelling, but 'sojourning'.'

Gehl J. Cities for people. Washington: Island Press; 2010

Street design has long been focussed around motorised transportation. We want to reclaim streets as not solely the domain of cars but also of pedestrians and cyclists, and as public spaces for social and commercial interaction.

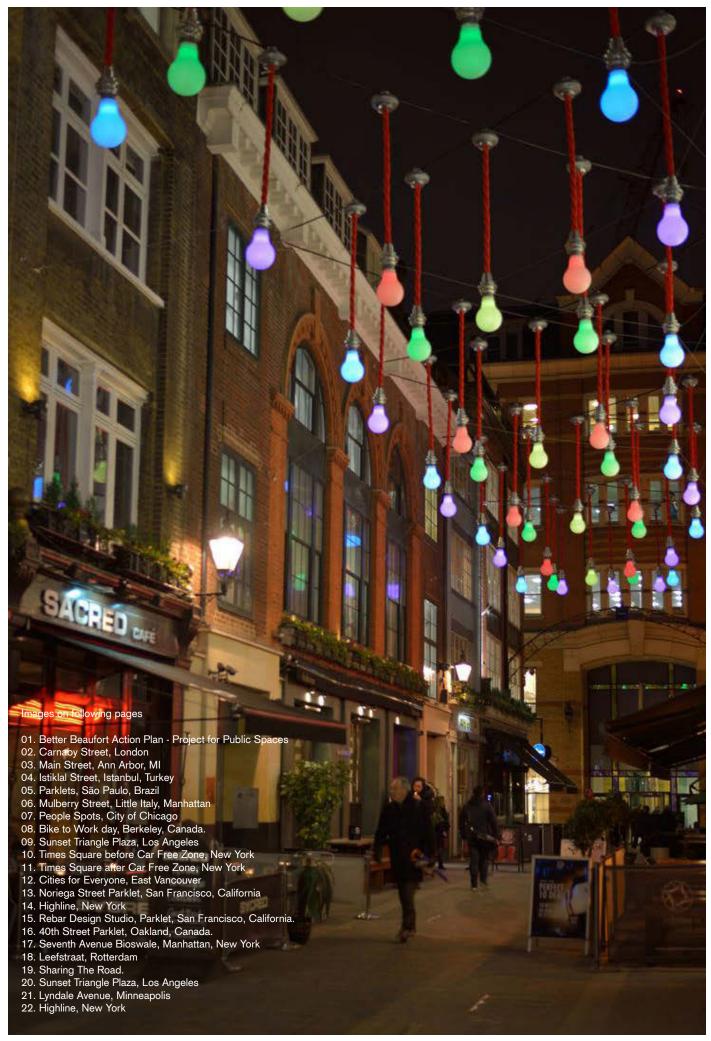
'Every road tells a story. It's just that so many of our roads tell the story poorly, or tell the wrong story.'

Hans Monderman.

Pedestrians should be prioritised in most street environments, by providing a high quality walking and activity experience:

- good quality pedestrian surfaces
- continuity of materials across pedestrian walking paths, and across crossovers and ingress/egress points
- providing pedestrian amenity e.g. shading and greenery
- installing spaces for place-related activities
- articulation with physical detail
- high levels of personalisation and individuality
- compositions of rhythm, character and coherence

Too many cars in Commercial Road, need to increase pedestrian access.*



The significant economic benefits of making streetscapes more pedestrian and cycling friendly are becoming increasingly recognised. In 2011, the Heart Foundation commissioned a discussion paper to bring together the evidence on the financial benefits to retailers and residents in making commercial streets more pedestrian and cycling friendly.

The benefits of active streets for people are:

- to help residents make more active transport choices and walk more
- significantly increase pedestrian activity
- support safety, leading to fewer road injuries to pedestrians and traffic collisions
- reduce vehicle speeds
- increase opportunities for social interaction, which can facilitate the development of social capital, and lead to more people taking part in outdoor activities
- support the delivery of economic value in the potential increase of sale prices of nearby homes and potential increase of retail rents
- encourage more physical activity, particularly in more children walking to school
- reduce noise levels
- reduce the number and distance of car trips, implying a modal shift away from the car to walking.

Give residents something to feel proud of.*

> Encourage walking/ cycling in CBD.*

More trees along Commercial road to make Morwell into a beautiful village and fix up bridge.*

Build identity through continuity in Commercial Road streetscape and shop fronts.*



































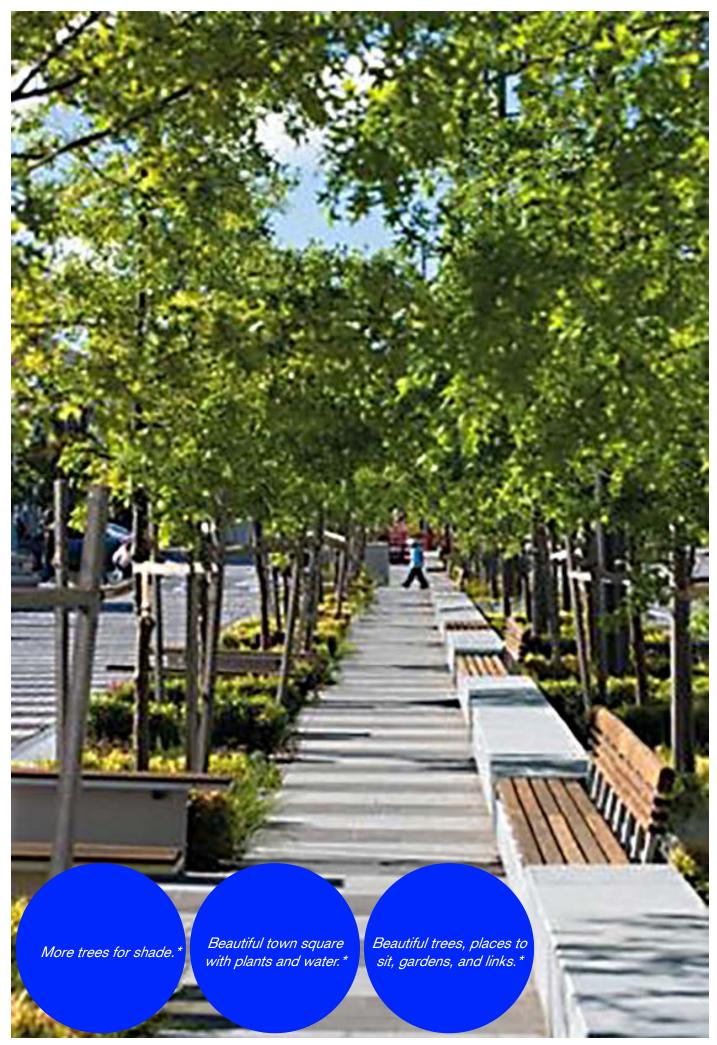












Green Streets

Description

The streetscape is an important component of the town's open space network and can have a significant impact on how people experience, perceive and interact with their surroundings and neighbourhood.

Streetscapes are the "parks" that residents visit every day as they move in and out of their homes, to and from work, engage in active and passive recreation, and are destinations unto themselves.

Green streets are important parts of the town's green infrastructure; they increase urban green space, improve air quality, replenish groundwater, and reduce air temperature. Trees and flowers provide sense of seasonal change that enhances the visual interest of the city scene and vibrancy of the city life, and offer visual and psychological comfort and relief, which are vital to the health and well-being of people

Establishment of urban greening through rich and colourful trees, shrubs, flowers together with a series of greenery which are rationally distributed and sophisticatedly displayed, can create a fresh, beautiful, comfortable and elegant environment to improve the urban living conditions and enhance the quality of our lives.

As design elements, trees and garden beds can be used to calm traffic, direct pedestrian and vehicle movement, limit access, signal directional movement, add colour and diversity, deter rubbish dumping, and signal a change in street use or function. They are also a way for the local community to participate in their streetscape through helping with planting, maintenance and upkeep.

Street Tree Selection

Street trees will be selected based on suitability to the site, biological tolerances, predicted climate change

conditions and potential to contribute to the landscape without onerous management implications.

There is no such thing as a maintenance-free tree. All trees will drop leaves, flowers, and fruit. The trees that are loved by some for their canopy cover, flower display or the shade they provide can cause distress for others as leaves and detritus are shed on footpaths and in private gardens. Considered tree selection and maintenance over the life-cycle of the tree will help to mitigate any potential negative impacts of urban trees.

Some factors that will be considered when selecting a tree are:

- available sunlight
- ability of Council to manage and maintain trees
- biological tolerances
- drainage and other below-ground infrastructure
- habitat value
- longevity and life cycle of tree
- mature height and spread of canopy
- neighbourhood character
- potential for allergen production
- potential for leaf litter, allergen and nut/seed production
- proximity to power lines and other overhead infrastructure
- quality and availability of stock
- root growth and habit
- shape, form, colour, habit and growth rate
- soil conditions
- structural integrity of tree
- suitability for current and predicted climate conditions
- unique attributes (autumn colour, bark colour, fruiting & flowering time etcetera).

In some streetscapes garden beds will be used as a tool to increase the impact, functionality, circulation pattern, habitat value or aesthetics of an area.



The benefits of 'Green Streets' may include:

- Green streets increase urban green space, improve air quality, replenish groundwater, and reduce air temperature.
- Green streets are important parts of the city's green infrastructure.
- Green street planters have the capacity to collect and filter storm-water runoff from streets before they enter our waterways.
- The city is responsible for maintaining green street infrastructure however we also welcome volunteer Green Street Steward partnerships.
- Consideration of contemporary issues such as climate change, urban habitat creation, urban food production, varied species selection, and water security.
- Street tree planting and creative, sustainable streetscape designs are key methods to costeffectively and aesthetically ready the public realm for the future.
- Trees are the most accessible and cost-effective means of combating climate change, mitigating the Urban Heat Island effect, and increasing air quality.
- Trees and flowers provide sense of seasonal change that enhances the visual interest of the city scene and vibrancy of the city life.
- Greening functions as urban lung to offer visual and psychological comfort and relief, which are vital to the health and well-being of people.
- Vegetation improves microclimate by, for instance, providing sun shades and windbreaks, absorbing heat and reducing the temperature of hard surface, and enhancing the humidity.

- Vegetation helps contain flying dust and counters the effects of environmental pollutants. It consumes carbon dioxide emissions and enhances the supply of oxygen, and hence helps break down noxious gas emitted from vehicles or industrial activities.
- Suitable trees and plants of indigenous species will provide food and shelter for wildlife (e.g. insects and birds) and hence maintain the ecology of the area and conserve wildlife.

Plant more trees/shrubs in Commercial Road.*

More garden, more shaded gardens!.*

Need more garden to breakdown concrete.*













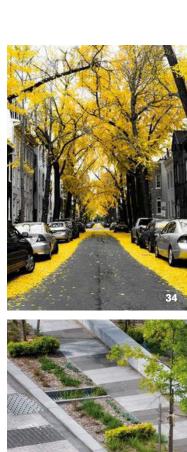






































Street Amenity

Description

Memorable sidewalks and streets that are orientated toward the pedestrian experience characterise excellence in streetscape design. Each part of the space is important to its success; these may include gathering spaces, public art, street furniture, landscape planting, lighting, benches, tables, chairs, bins, bicycle racks, drinking fountains, and other amenities.

Great streets are destinations in their own right. Especially in higher density areas and neighbourhoods, streets become increasingly important as public spaces for social and commercial activity and are a crucial component in supporting walking. The quality of our streets affects the way people feel about a place. To optimise walking, streets also need to be places for people to gather and linger.

The quality of amenities present for both practical and recreational purposes, such as public transport, shops, services, sufficient public open space, and recreational opportunities

Amenity

Successful streets provide amenities to support a variety of activities. These include waste receptacles to maintain cleanliness, street lighting to enhance safety, bicycle racks, and both private and public seating options as the importance of giving people the choice to sit where they want is generally underestimated.

Management

An active entity that manages the space is central to a street's success. This requires not only keeping the space clean and safe, but also managing tenants and programming the space to generate daily activity. Events can run the gamut from small street performances to sidewalk sales to cultural, civic or seasonal celebrations. Durability and ease of maintenance are important factors.

Diverse User Groups

It is essential to provide activities for different groups. Mixing people of different race, gender, age, and income level ensures that no one group dominates the space and makes others feel unwelcome and out of place.

Traffic, Transit & the Pedestrian

A successful street is one that is easy to get to and get through; it is visible both from a distance and up close. Accessible spaces have high parking turnover and, ideally, are convenient to public transit and support walking and biking. Car traffic cannot dominate the space and preclude the comfort of other modes. This is generally accomplished by slowing speeds and sharing street space with a range of transportation options.

Blending of Uses and Modes

Ground floor uses and retail activities should spill out into the sidewalks and streets to blur the distinction between public and private space.













































































Garden Town

Description

Garden Town

The concept of 'Morwell the Town of Gardens' aspires to shift the town's identity by building on the positive qualities and characteristics of its industrial heritage, and connecting and re-purposing existing open spaces and assets within the town to build a new relevant perception and identity of Morwell.

It defines a network of green spaces interwoven throughout the town to provide an important means to change the urban environment of the town. This green network will contribute to the purification of air, adjust the climate of a space, improve soil quality and ecology as well as enhance the visual environment. It aspires to change how people experience, perceive and interact with their surroundings and neighbourhood through a range of active, passive, productive and connecting spaces.

Green, healthy cities attract investment for innovation and can act as hubs for creativity and wealth creation.

Increasing urban green space improves air quality, replenishes groundwater, and reduces air temperature. Trees and flowers provide sense of seasonal change that enhances the visual interest of the city scene and vibrancy of the city life, and offer visual and psychological comfort and relief, which are vital to the health and well-being of people.

This network will bring with it various benefits. It can be a tourist attraction, an economic stimulus that brings investment into the region, and a re-definition of the town's identity.

For Morwell residents this network of green spaces would mean a significant increase in usable public space within the town. This network will establish Morwell as the town of gardens and allow residents to utilise and enjoy outdoor spaces in a variety of forms and uses.

Garden Festival

The Morwell Garden festival aspires to generate Morwell as a premier garden destination and be a catalyst for beautification, education, tourism, promotion, community-building, healthy living, sustainability, and civic pride.

The artistic and tourism event also gives visitors a chance to discover inspiring spaces bringing together the visual arts, design, landscape and the environment within the specific context of Morwell.

The Festival is an attraction for visitors, while also a significant factor associated with enterprise, the generation of wealth and socio-economic development. It wants to contribute to long-term sustainable profiling and image strengthening.

"Green George Hargreaves that suggests infrastructure provides the foundation that underpins the function, health, wealth and identity of our communities. It provides a network of open spaces and natural assets that include trees, parks, gardens, allotments, cemeteries, woodlands, green corridors, rivers and waterways. And it can reduce carbon, generate renewable energy, raise air quality, enhance biodiversity, improve water management, increase local food production, and promote healthy communities to provide lasting economic, social, cultural and environmental returns."

Cities, he says, are learning that the environment is something not to be sidelined. 'We have repositioned the idea of open space from something that is 'nice' to something that is fundamental to the way we prosper and develop.'

http://www.theguardian.com/environment/2009/mar/25/green-infrastructure



In places without a strong management presence or variety of activities, it is often difficult to attract people year-round. It is therefore essential to utilise seasonal strategies, like holiday markets, parades and recreational activities to activate the street during all times of the year. If a street offers a unique and attractive experience, weather is often less of a factor than people initially assume.

To put 'life' back into our streets

Streets are so much more than just getting from point A to point B. Parklets are a new way to create places with meaning and beauty, and create healthy, dynamic public spaces that are very important to the production of healthy cities.

Attractions & Destinations

Having something to do gives people a reason to come to a place—and to return again and again. When there is nothing to do, a space will remain empty, which can lead to other problems. In planning attractions and destinations, it is important to consider a wide range of activities for: men and women; people of different ages; different times of day, week and year; and for people alone and in groups. Create an enticing path by linking together this variety of experiences.

Identity & Image

Whether a space has a good image and identity is key to its success. Creating a positive image requires keeping a place clean and well-maintained, as well as fostering a sense of identity. This identity can originate in showcasing local assets. Businesses, pedestrians, and drivers will then elevate their behaviour to this vision and sense of place.

Rose garden is good, can we think about other 'Green.*

Flowers on Commercial Road.*

Sunflower project! Greatest thing that ever happened.*

A street that houses a cultural program of events and activities.*

A Healthy Town





Festival



A Sustainable Town





Community Led



A Tourist Town





Community Led



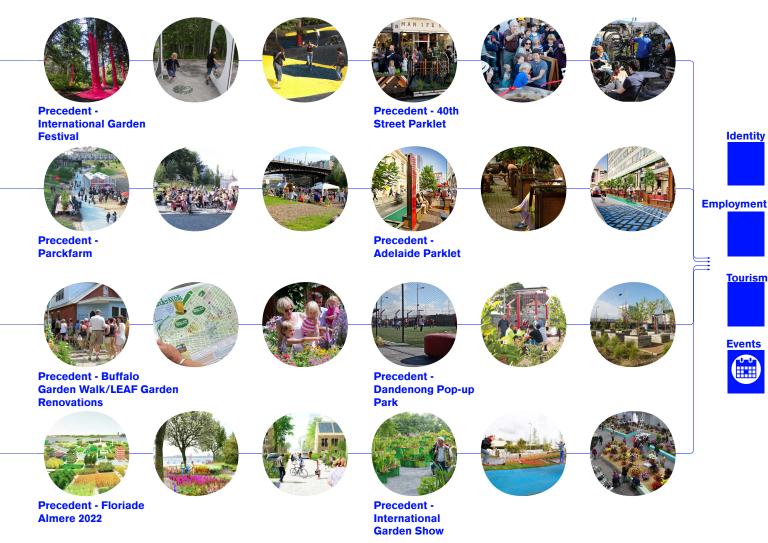
A Beautiful Town





Garden Town





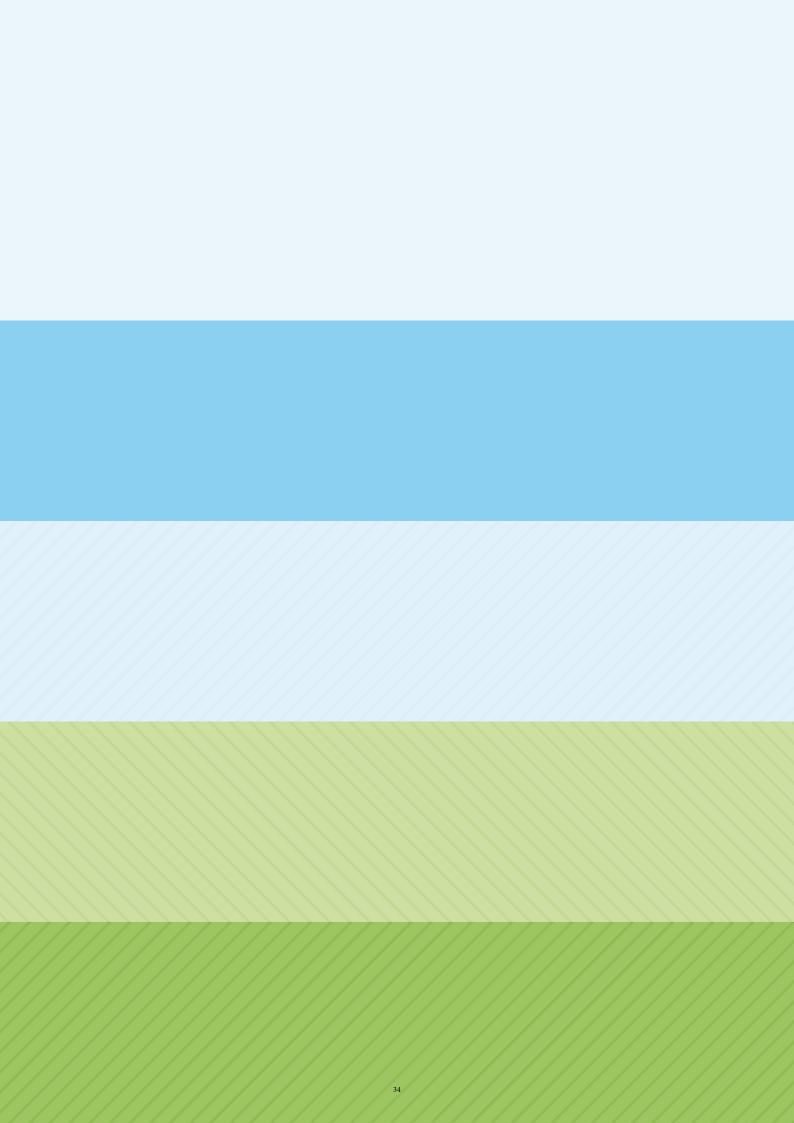
Tourism

Identity



Garden Town

The concept of 'Morwell the Town of Gardens' focuses on the shift of the town's identity, through the establishment of a healthy town, a sustainable town, a tourist town, and a beautiful town.



MORWELL CIRCUIT

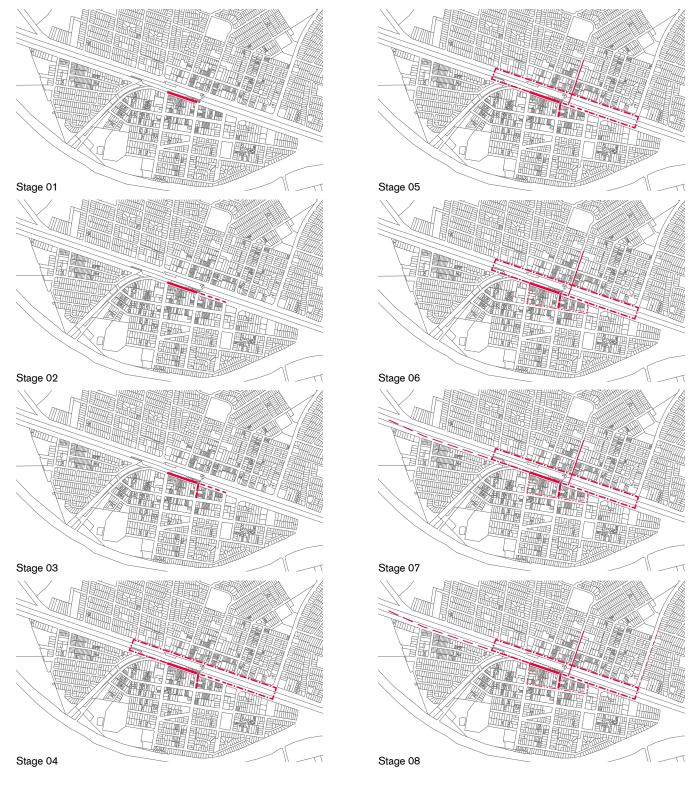
02.01

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Stage 01
Stage 01 _Circuit Loop Parklet Modules + Costing Street Intersection Studies

Circuit Components



Circuit Plan



Proposed Event Circuit for Morwell Garden Town

Morwell Circuit

The extended Morwell Circuit defining the Village Hub consists of 6 staged components. The focus of this document is the delivery of Stage 01 in Commercial Road between Hazelwood Road and Tarwin Street, of Circuit Loop 01.

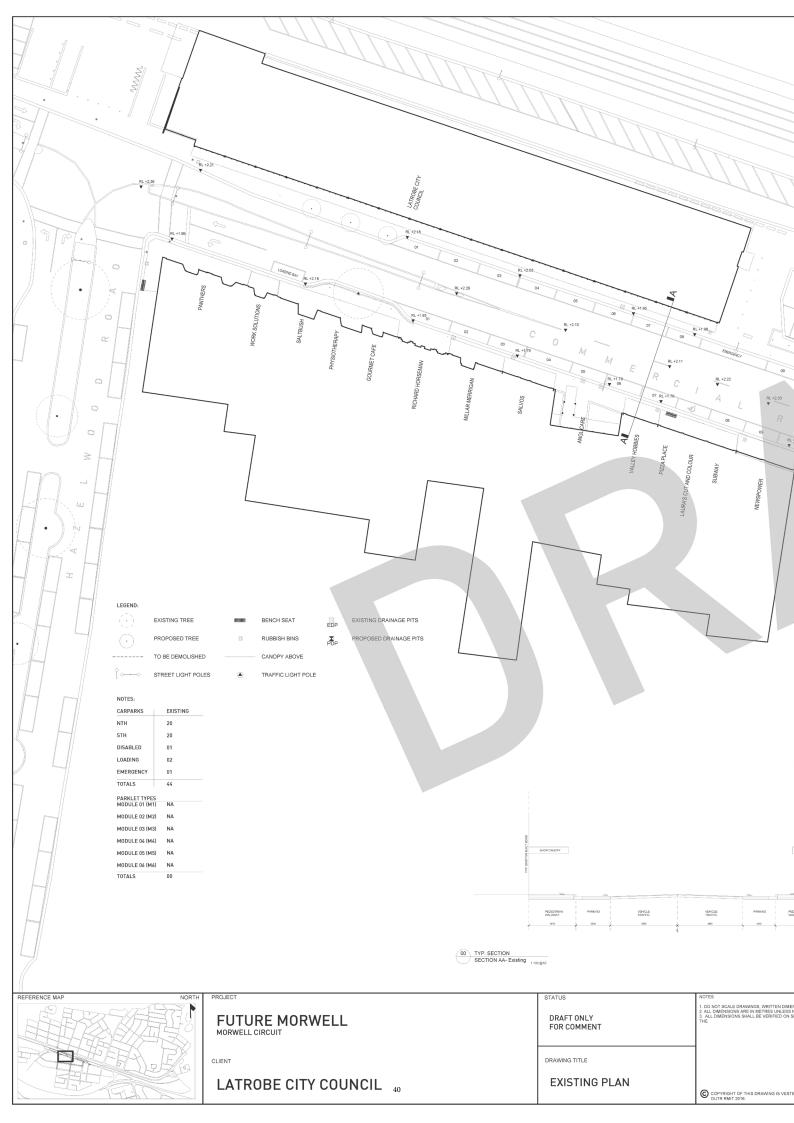


Circuit Loop 01

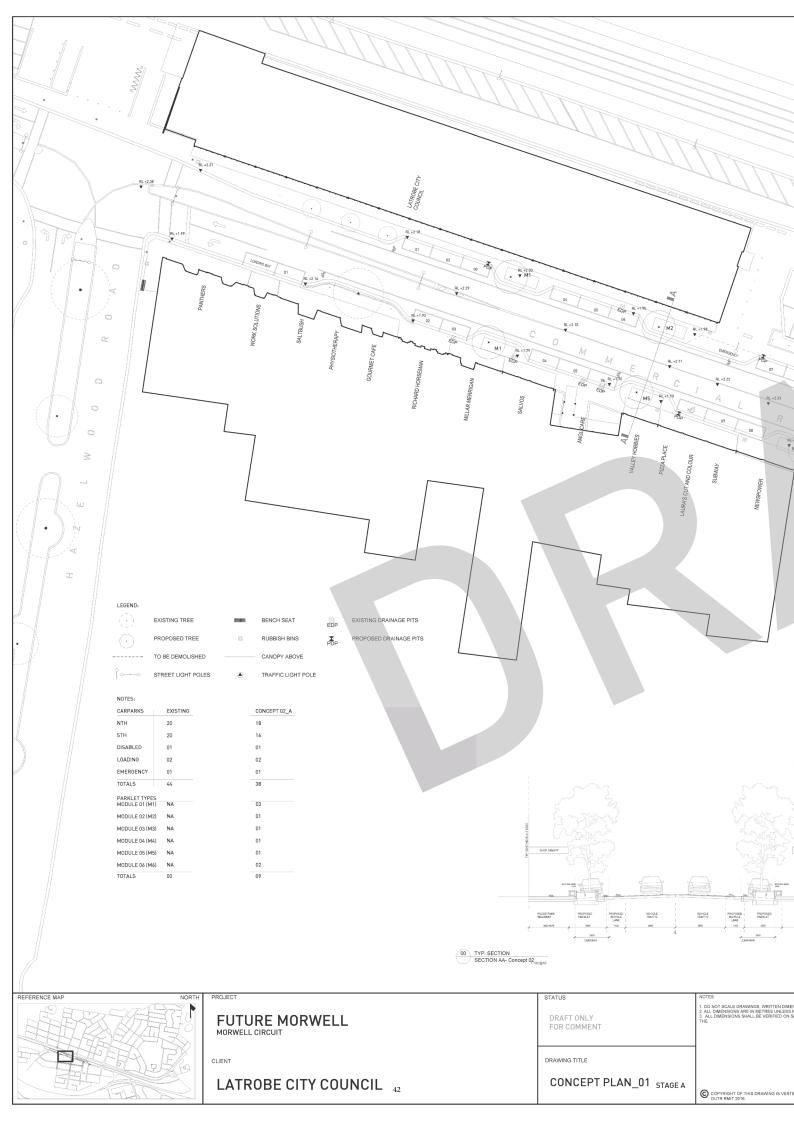


Morwell Circuit

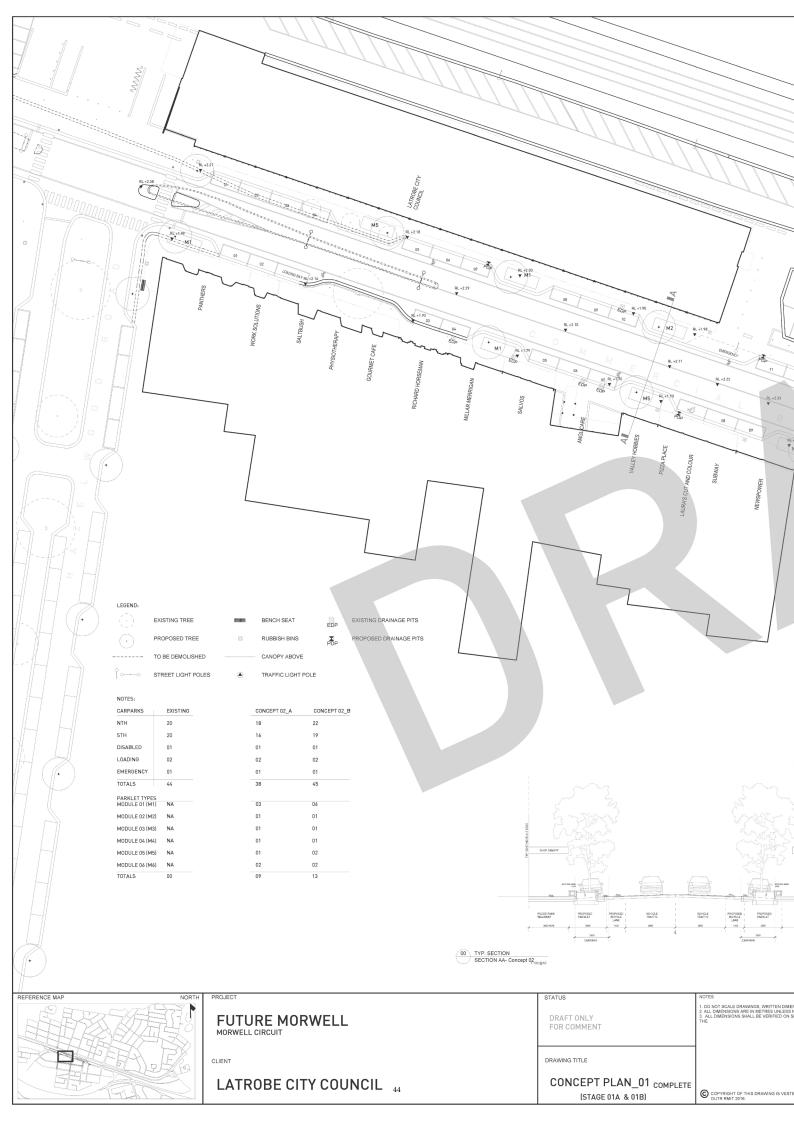
This plan drawing describes a portion of the extended Morwell Circuit within the context of Morwell's Village Hub.



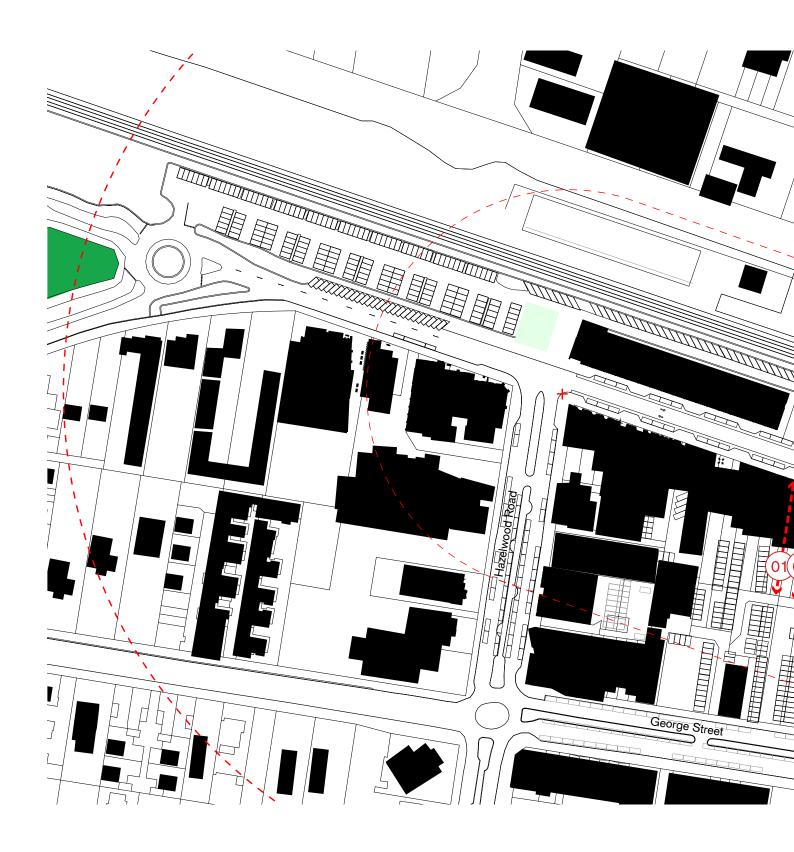








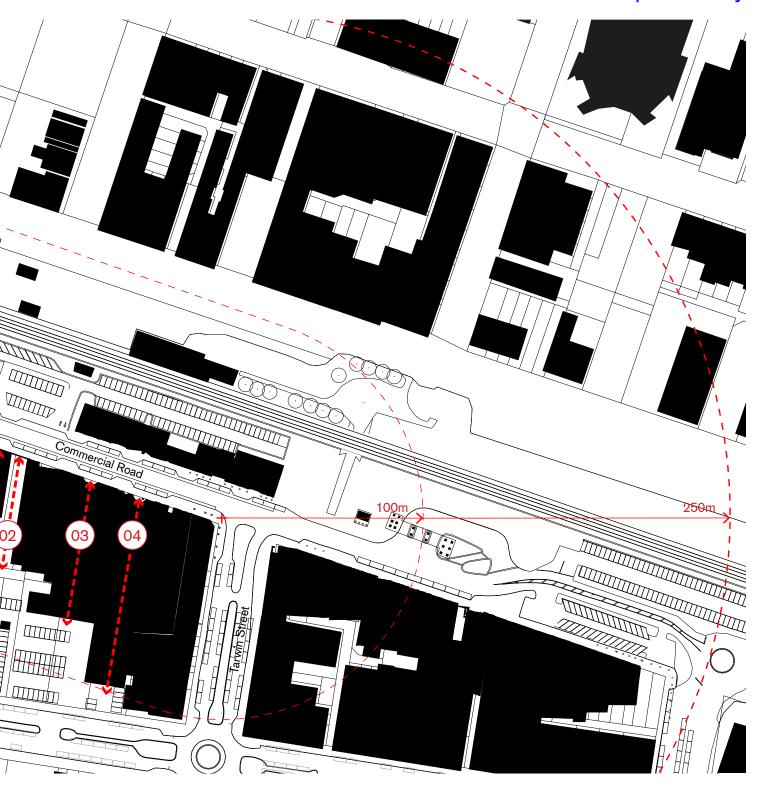




Key

- ← → Pedestrian Thoroughfare
- 01 Morwell Newsagency
- (02) Vacant Block
- (03) Manny's Market
- 04 Old Spotlight Store

Business District Carpark Study

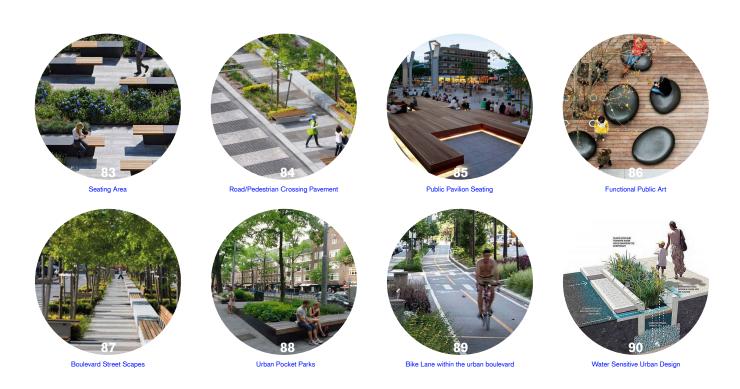


Total Carparks (walking distance to CBD)

	100m radius	250m radius
existing =	408	688
proposed = (stage A)	402	682
proposed = (stage B)	409	689



Existing Condition_Commercial Road



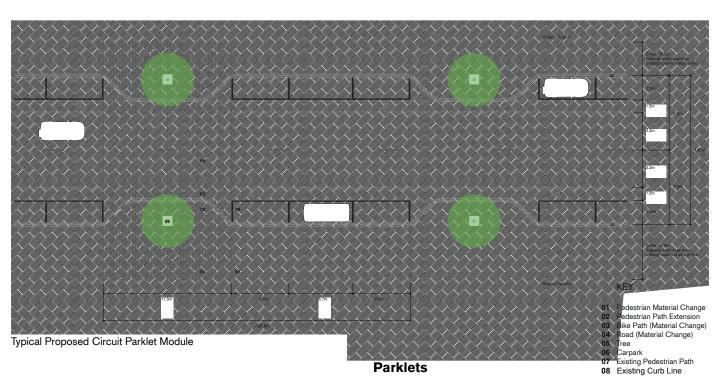
Images

- 83. West End Longfellow, Boston, Massachusetts, USA
- 84. Lonsdale Street, Dandenong, Victoria, Australia
- 85. Piazza Mazzini, Jesolo, Italy
- 86. Functional Street Art

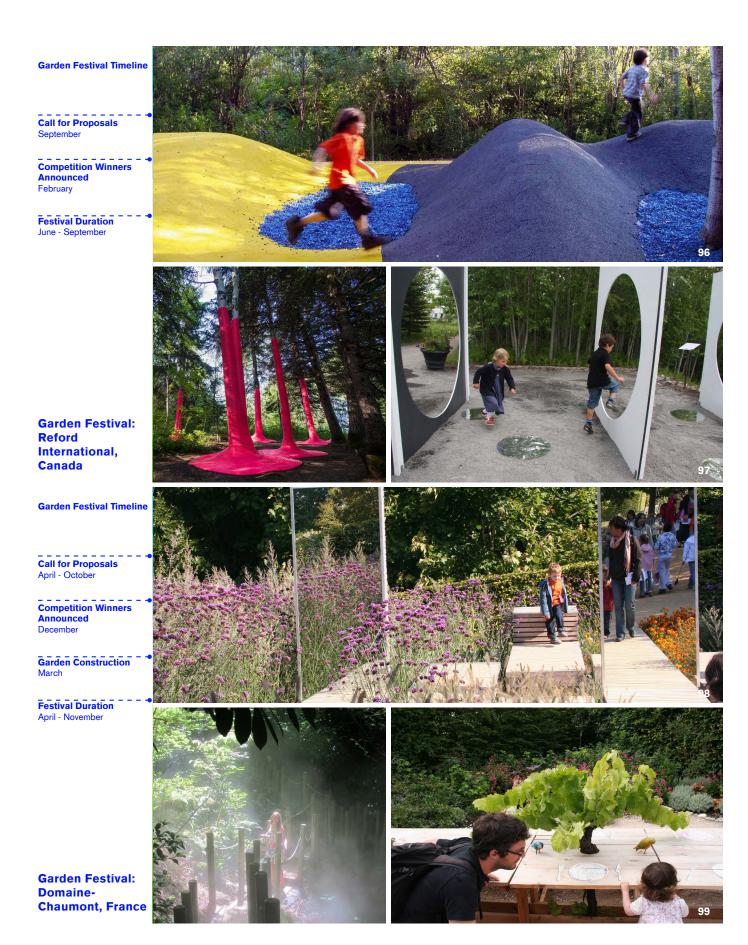
- 87. Lonsdale Street, Dandenong, Victoria, Australia
- 88. Podium isles, Beethovenstraat, Amsterdam
- 89. Bikeways, Portland, Oregon
- 90. Water Sensitive Urban Design



Proposed Design_Commercial Road



The design proposes an extension of the footpath into the street in a series of equally spaced locations along its length called 'Parklets'. The Parklets provide the space for street trees, garden beds, furniture and other amenities in order to completely change the identity of the street away from its current harsh car dominated reality to a lush space with areas to congregate. It also acts to calm traffic, and provides a bike lane to promote cycling.

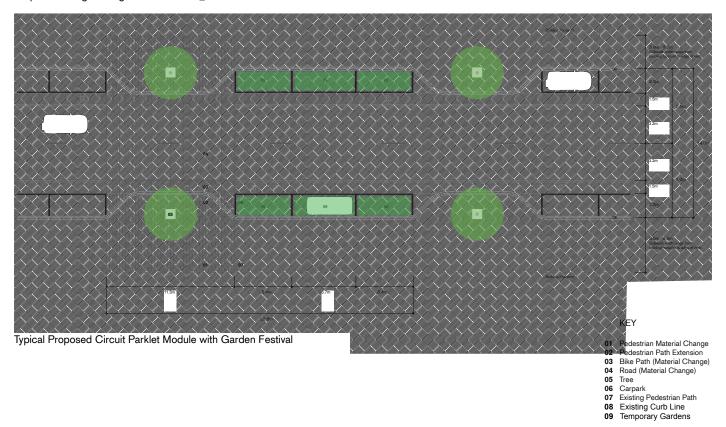


Images

- 96. Safe Zone, Quebec, Canada
- 97. Making Circles in the Water, Reford Gardens, Canada
- 98. Réflexions colorées, Reford Gardens, Canada
- 99. The Dining Room, Chaumont International Garden Festival 2011

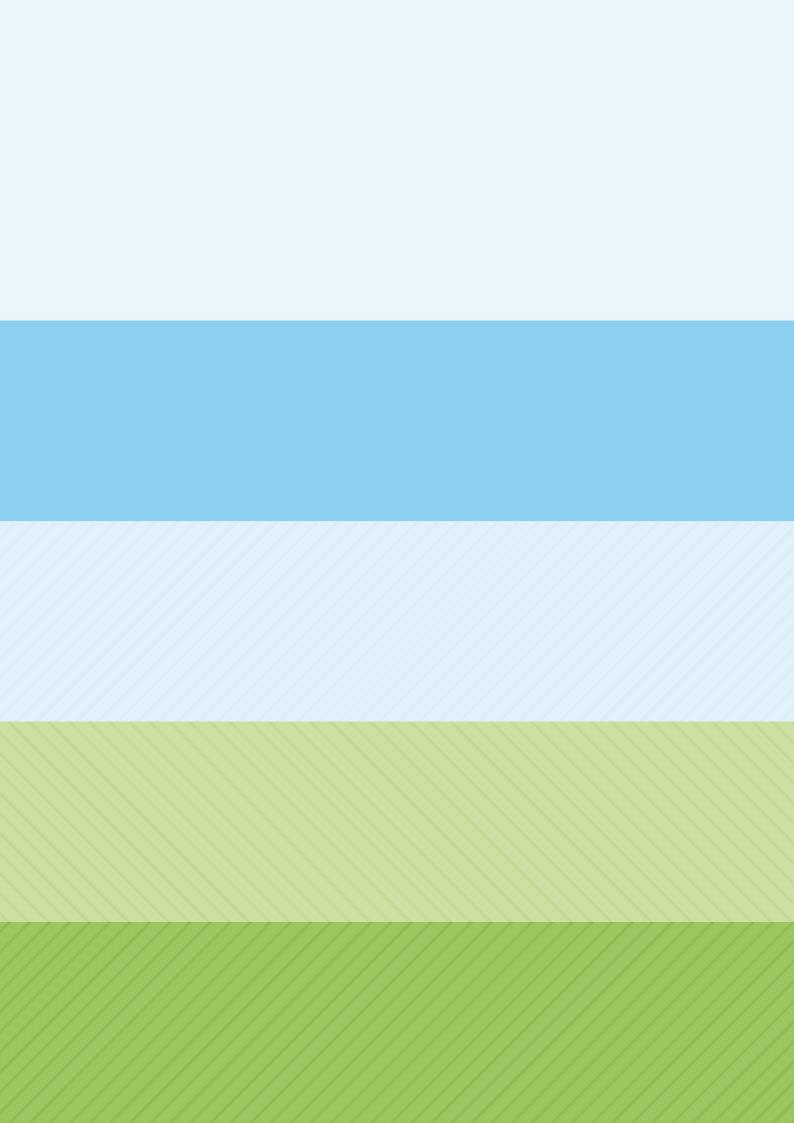


Proposed Design during Garden Festival_Commercial Road



Garden Festival

During the proposed Garden Festival event, a number of car parking spaces might be occupied by a range of temporary designed gardens that completely transform the town for the duration of the event. This event is intended to contribute to the shift in the town's identity to that of a 'Town of Gardens', generate joy in the community, and act as a tourist attraction.

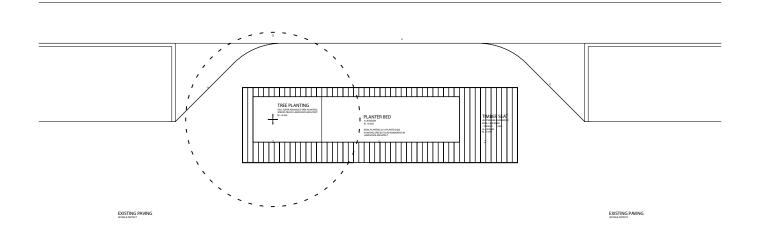


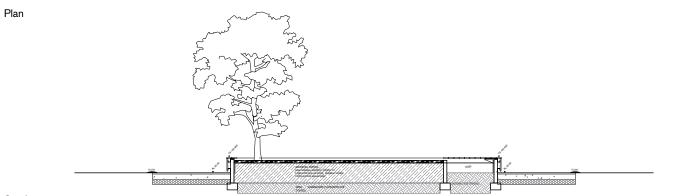
MORWELL CIRCUIT

Urban Connectivity + Activation Strategy

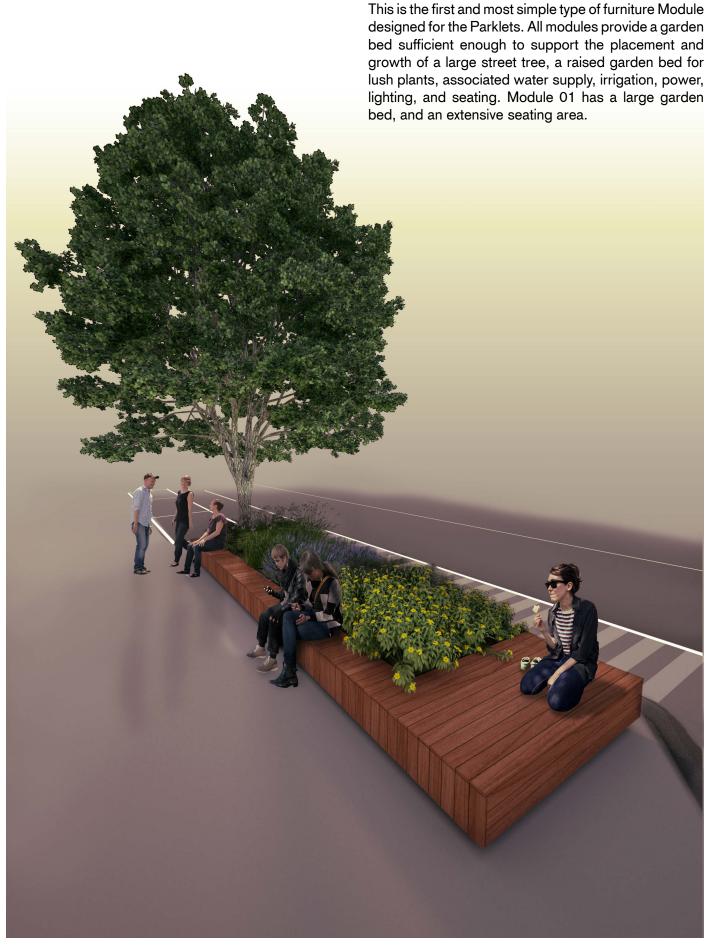


Elevation





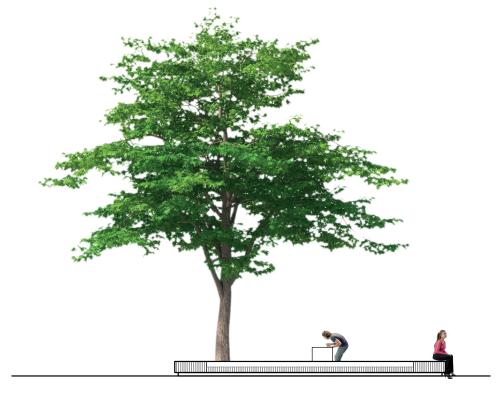
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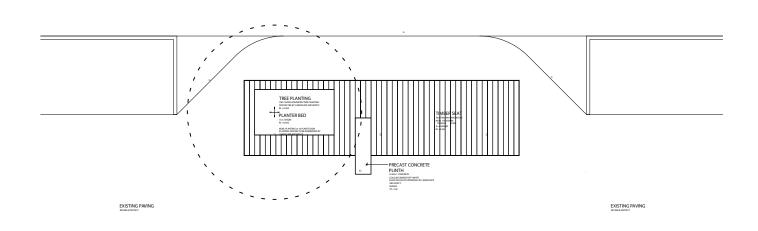
Module 01 Cost Estimates

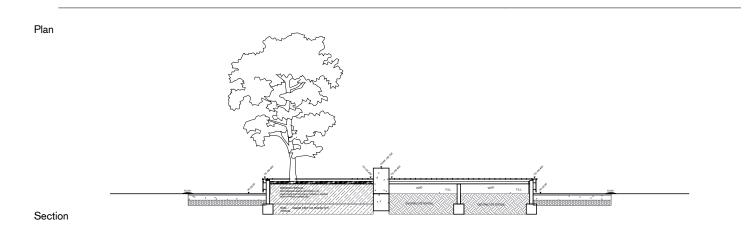
	Module 01					Cost Summary	\$26,291.83
						Total Area of works	29.016
	Description 1	Description 2	No.	lin.length	Width	Height	Area Footprint
0.0	Hardscape PB2	Pavement Extension - Base Slab		-	-	-	16.529
	Demolish	Existing		-	-	-	6.879
	Void						5.608
1.0	Hardscape 1	Pavement Extension		-	-	-	15.236
2.0	S tructure	Planter walls		16.239	0.1	-	1.6239
3.0	Softscape			-	-	-	10.863
4.0	Furniture 1A						6.858

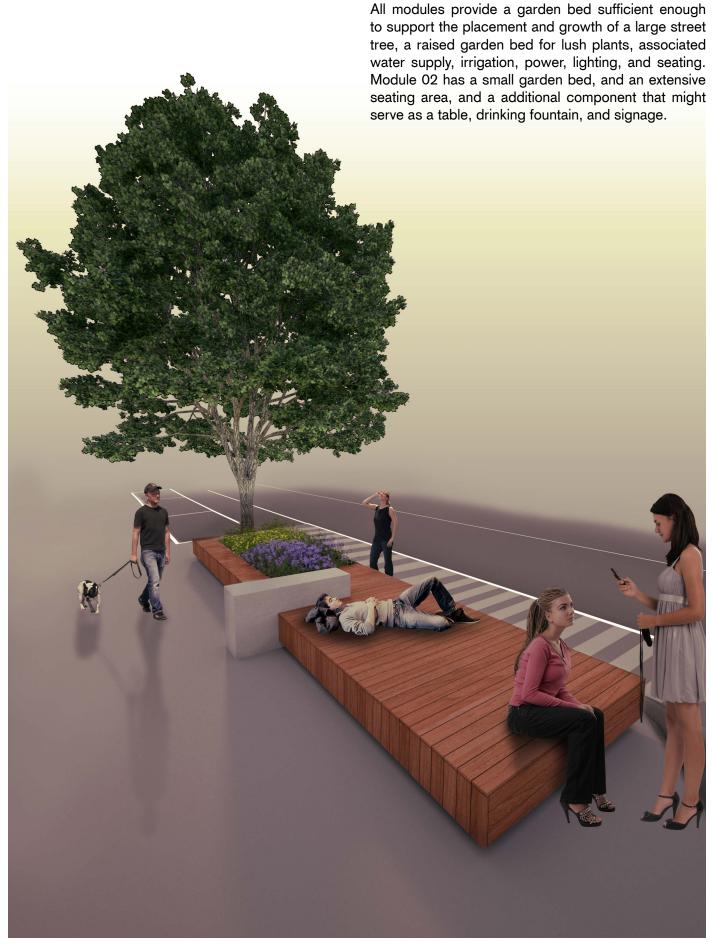
MODULE 01	Description Breakdown	Description 2	No.	lin.length	Width	Height	Area	Rate	Cost
3.1.1	Hardscape 1	Proposed insitu concrete base extension of pedestrian pavement to new extents as shown on plan. Assumes new vehicular grade concrete base slab to eng's requirements required falls.					16.529	\$110.00	\$1,818.19
3.1.2	Hardscape 1	proposed 40mm thick Concrete Pavers on 50mm cement mortar bed to extension of pedestrian pavement					15.236	\$110.00	\$1,675.96
3.2.1	Structure: Planter bed walls	Insitu concrete walls nom. 450mm high by 100mm thick on strip footing. Class 2 finish. Subject to Structural Eng's requirements and specs.		16.239				\$525.00	\$8,525.48
3.3.1	Softscape: Garden bed preparation	Propose free draining cultivated imported topsoil Nominal 600mm deep plus 200mm deep cultivated site topsoil below.					10.863	\$100.00	\$1,086.30
3.3.2	Softscape: finishing	Propose 75mm deep organic mulch				0.075	10.863	\$60.00	\$48.88
3.3.3	Softscape: Irrigation	Drip Irrigation lines to extent of garden beds @ 300mm line spacings					10.863	\$40.00	\$434.52
3.3.4	Sofstcape: Potted Planting.	Propose supply and install of potted plants. Nom. 140mm Pot Size Species TBA	100				10.863	\$10.50	\$1,050.00
3.3.5	Softscape: Tree Planting.	Supply and install 1No. Super advanced tree to location as shown. Nom. Minimum supplied tree stock height 3m tall.	1					\$2,000.00	\$2,000.00
4.4.1	Furniture 1A	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architec approval		20.51		0.45	6.858	\$600.00	\$9,652.50
								Subtotal	\$26,291.83



Elevation 8.00







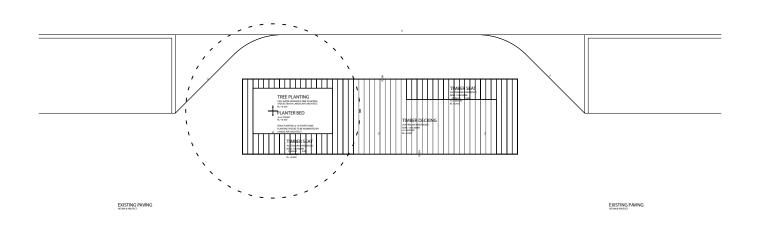
Module 02 Cost Estimates

	Module 02					Cost Summary	\$30,286.33
						Total Area of works	25.533
	Description 1	Description 2	No.	lin.length	Width	Height	Area Footprint
0.0	Hardscape PB2	Pavement Extension - Base Slab		-	-	-	19.369
	Demolish	Existing		-	-	-	3.396
	Void						2.768
1.0	Hardscape 1	Pavement Extension		-	-	-	15.236
2.0	Structure	Planter walls		9.805	0.1	-	0.9805
	Structure	Plinth	1	-	-	0.75	7.95
3.0	Softscape			-	-	-	5.184
4.0	Furniture 1A						17.212

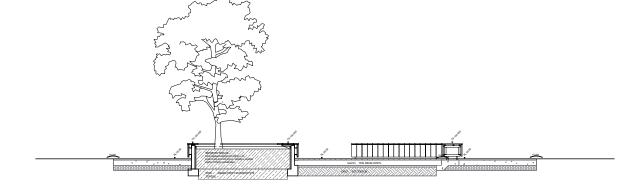
Module 02	Description Breakdown	Description 2	No.	lin.length	Width	Height	Area	Rate	Cost
2.1.1	Hardscape 1	Proposed insitu concrete base extension of pedestrian pavement to new extents as shown on plan. Assumes new vehicular grade concrete base slab to eng's requirements required falls.					19.369	\$110.00	\$2,130.59
2.1.2	Hardscape 1	proposed 40mm thick Concrete Pavers on 50mm cement mortar bed to extension of pedestrian pavement					15.236	\$110.00	\$1,675.96
2.2.1	Structure: Planter bed walls	Insitu concrete walls nom. 450mm high by 100mm thick on strip footing. Class 2 finish. Subject to Structural Eng's requirements and specs.		9.805				\$525.00	\$5,147.63
2.2.2	Structure: Plinth	Precast Concrete. PC sum applied	1					\$2,500.00	\$2,500.00
2.3.1	Softscape: Garden bed preparation	Propose free draining cultivated imported topsoil Nominal 600mm deep plus 200mm deep cultivated site topsoil below.	1				5.184	\$100.00	\$518.40
2.3.2	Softscape: finishing	Propose 75mm deep organic mulch				0.075	5.184	\$60.00	\$23.33
2.3.3	Softscape: Irrigation	Drip Irrigation lines to extent of garden beds @ 300mm line spacings					5.184	\$40.00	\$207.36
2.3.4	Sofstcape: Potted Planting.	Propose supply and install of potted plants. Nom. 140mm Pot Size Species TBA	100				5.184	\$10.50	\$1,050.00
2.3.5	Softscape: Tree Planting.	Supply and install 1 No. Super advanced tree to location as shown. Nom. Minimum supplied tree stock height 3m tall.	1					\$2,000.00	\$2,000.00
4.1	Furniture 1A	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architec approval		20.044		0.45	14.108	\$650.00	\$15,033.07
								Subtotal	\$30,286.33



Elevation







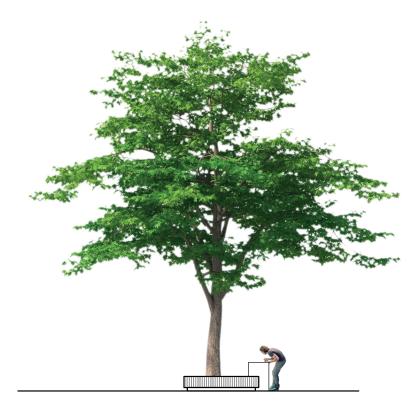
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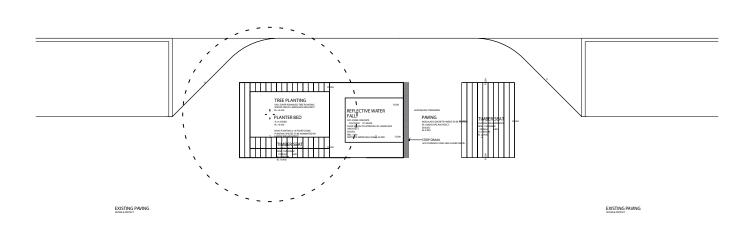
Module 03 Cost Estimates

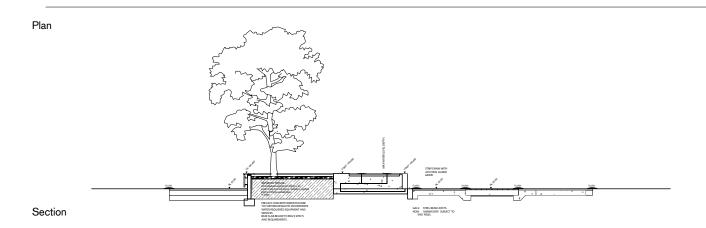
	Module 03					Cost Summary	\$27,233.64
						Total Area of works	30.19
	Description 1	Description 2	No.	lin.length	Width	Height	Area Footprint
0.0	Hardscape PB2	Pavement Extension - Base Slab		-	-	-	16.533
	Demolish	Existing		-	-	-	8.053
	Void						5.604
1.0	Hardscape 1	Pavement Extension		-		-	15.236
	Hardscape 3	Pavement treatment - Decking					7.637
2.0	S tructure	Planter walls		9.96	0.1	-	0.996
	-	-	-	-		-	-
3.0	Softscape			-	-	-	4.968
4.0	Furniture 1A						4.046
	Furniture 1B	-		-	-	-	2.934

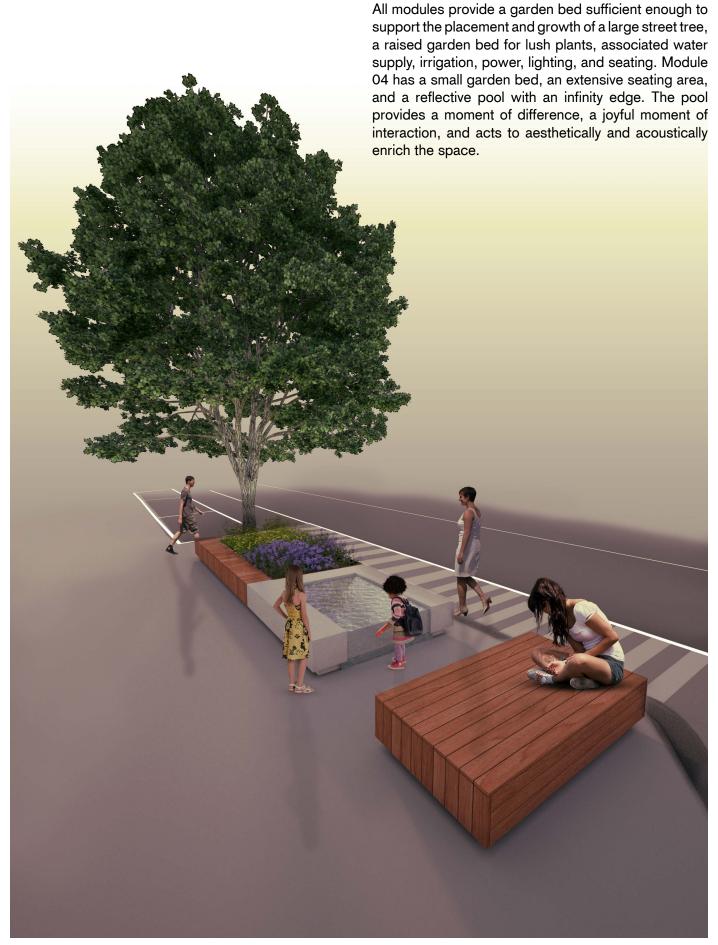
MODULE 03	Description Breakdown	Description 2	No.	lin.length	Width	Height	Area	Rate	Cos
4.1.1	Hardscape 1	Proposed insitu concrete base extension of pedestrian pavement to new extents as shown on plan. Assumes new vehicular grade concrete base slab to eng's requirements required falls.					16.533	\$110.00	\$1,818.63
4.1.2	Hardscape 1	proposed 40mm thick Concrete Pavers on 50mm cement mortar bed to extension of pedestrian pavement					15.236	\$110.00	\$1,675.96
4.1.4	Hardscape 3: Pavement Treatment.	Timber Decking. Australian Hardwood . with nom. 150mm(w)x30mm(d) Boards on steel subrafe frame to structural engineers specs. Species to be confirmed. Final finish to be Oiled and stained to landscape architect approval					7.637	\$850.00	\$6,491.45
4.2.1	Structure: Planter bed walls	Insitu concrete walls nom. 450mm high by 100mm thick on strip footing. Class 2 finish. Subject to Structural Eng's requirements and specs.		9.96				\$525.00	\$5,229.0
4.3.1	Softscape: Garden bed preparation	Propose free draining cultivated imported topsoil Nominal 600mm deep plus 200mm deep cultivated site topsoil below.					4.968	\$100.00	\$496.80
4.3.2	Softscape: finishing	Propose 75mm deep organic mulch				0.075	4.968	\$60.00	\$22.36
4.3.3	Softscape: Irrigation	Drip Irrigation lines to extent of garden beds @ 300mm line spacings					4.968	\$45.00	\$223.56
4.3.4	Sofstcape: Potted Planting.	Propose supply and install of potted plants. Nom. 140mm Pot Size Species TBA	100				4.968	\$13.50	\$1,350.0
4.3.5	Softscape: Tree Planting.	Supply and install 1No. Super advanced tree to location as shown. Nom. Minimum supplied tree stock height 3m tall.	1					\$2,000.00	\$2,000.00
4.4.1	Furniture 1A	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architecapproval		10.91		0.45	4.046	\$600.00	\$5,373.3
4.4.2	Furniture 1B	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architec approval	t	2.934		0.45	2.934	\$600.00	\$2,552.5
								Subtotal	\$27,233.64



Elevation









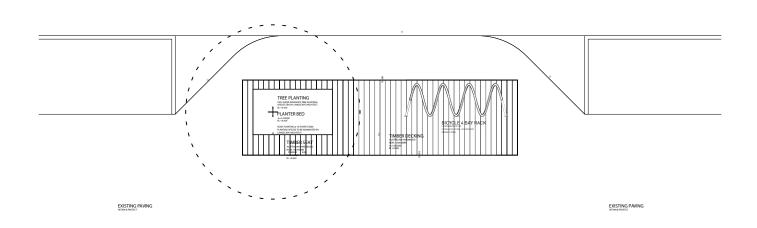
Module 04 Cost Estimates

	Module 04					Cost Summary	\$34,755.86
						Total Area of works	24.862
	Description 1	Description 2	No.	lin.length	Width	Height	Area Footprint
0.0	Hardscape PB2	Pavement Extension - Base Slab		-	-	-	19.916
	Demolish	Existing		-	-	-	2.725
	Void						2.221
1.0	Hardscape 1	Pavement Extension		-	-	-	16.206
2.0	S tructure	Planter walls		6.8	0.1	-	6.8
	Water Feature	-		-		-	4.763
3.0	Softscape			-	-	-	4.266
4.0	Furniture 1A						3.399
	Furniture 1B	-		-	-	-	2.692

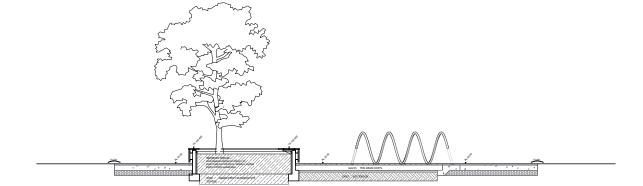
	Description Breakdown	Description 2	No.	lin.length	Width	Height	Area	Rate	Cost
1.1.1	Hardscape 1	Proposed insitu concrete base extension of pedestrian pavement to new extents as shown on plan. Assumes new vehicular grade concrete base slab to eng's requirements required falls.					19.916	\$110.00	\$2,190.76
1.1.2	Hardscape 1	proposed 40mm thick Concrete Pavers on 50mm cement mortar bed to extension of pedestrian pavement					16.206	\$110.00	\$1,782.66
1.2.1	Structure: Planter bed walls	Insitu concrete walls nom. 450mm high by 100mm thick on strip footing. Class 2 finish. Subject to Structural Eng's requirements and specs.		6.8				\$525.00	\$3,570.00
1.2.2	Structure: Water Feature	Precast Concrete. PC sum applied	1					\$10,000.00	\$10,000.00
1.2.3	Structure: Water Feature reticulation system	TBA. PC Sum Applied	1					\$4,000.00	\$4,000.00
1.3.1	Softscape: Garden bed preparation	Propose free draining cultivated imported topsoil Nominal 600mm deep plus 200mm deep cultivate site topsoil below.	Ė			0.8	4.266	\$100.00	\$426.60
1.3.2	Softscape: finishing	Propose 75mm deep organic mulch				0.075	4.266	\$60.00	\$19.20
1.3.3	Softscape: Irrigation	Drip Irrigation lines to extent of garden beds @ 300mm line spacings					4.266	\$40.00	\$170.64
1.3.4	Sofstcape: Potted Planting.	Propose supply and install of potted plants. Nom. 140mm Pot Size Species TBA	100				4.266	\$10.50	\$1,050.00
1.3.5	Softscape: Tree Planting.	Supply and install 1No. Super advanced tree to location as shown. Nom. Minimum supplied tree stock height 3m tall.	1					\$2,000.00	\$2,000.00
1.4.1	Furniture 1A	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architect approval		7.49		0.45	3.399	\$600.00	\$4,061.70
1.4.2	Furniture 1B	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architect approval		14.33		0.45	2.692	\$600.00	\$5,484.30
								Subtotal	\$34,755.86



Elevation



Plan



Section



Module 05 Cost Estimates

	Module 05					Cost Summary	\$25,906.06
						Total Area of works	30.19
	Description 1	Description 2	No.	lin.length	Width	Height	Area Footprint
0.0	Hardscape PB2	Pavement Extension - Base Slab		-	-	-	16.533
	Demolish	Existing		-	-	-	8.053
	Void						5.604
1.0	Hardscape 1	Pavement Extension		-	-	-	15.236
	Hardscape 3	Pavement treatment - Decking					7.637
2.0	Structure	Planter walls		9.96	0.1	-	0.996
	-	-	-	-	-	-	-
3.0	Softscape			-	-	-	4.968
4.0	Furniture 1A	_					4.046
	Furniture 1B	-		-	-	-	2.934

MODULE 03	Description Breakdown	Description 2	No.	lin.length	Width	Height	Area	Rate	Cost
4.1.1	Hardscape 1	Proposed insitu concrete base extension of pedestrian pavement to new extents as shown on plan. Assumes new vehicular grade concrete base slab to eng's requirements required falls.					16.533	\$110.00	\$1,818.63
4.1.2	Hardscape 1	proposed 40mm thick Concrete Pavers on 50mm cement mortar bed to extension of pedestrian pavement					15.236	\$110.00	\$1,675.96
4.1.4	Hardscape 3: Pavement Treatment.	Timber Decking. Australian Hardwood . with nom. 150mm(w)x30mm(d) Boards on steel subrafe frame to structural engineers specs. Species to be confirmed. Final finish to be Oiled and stained to landscape architect approval					7.637	\$850.00	\$6,491.45
4. <u>2</u> .1	Structure: Planter bed walls	Insitu concrete walls nom. 450mm high by 100mm thick on strip footing. Class 2 finish. Subject to Structural Eng's requirements and specs.		9.96				\$525.00	\$5,229.00
4.3.1	Softscape: Garden bed preparation	Propose free draining cultivated imported topsoil Nominal 600mm deep plus 200mm deep cultivated site topsoil below.					4.968	\$100.00	\$496.80
4.3.2	Softscape: finishing	Propose 75mm deep organic mulch				0.075	4.968	\$60.00	\$22.36
4.3.3	Softscape: Irrigation	Drip Irrigation lines to extent of garden beds @ 300mm line spacings					4.968	\$45.00	\$223.56
4.3.4	Sofstcape: Potted Planting.	Propose supply and install of potted plants. Nom. 140mm Pot Size Species TBA	100				4.968	\$13.50	\$1,350.00
4.3.5	Softscape: Tree Planting.	Supply and install 1 No. Super advanced tree to location as shown. Nom. Minimum supplied tree stock height 3m tall.	1					\$2,000.00	\$2,000.00
4.4.1	Furniture 1A	450mm High Seated platform. Australian Hardwood Class 1 Dressed Timbers. cladded on all faced sides with nom. 150mm(w)x30mm(d) Boards on steel frame. Species to be confirmed. Final finish to be Oiled and stained to landscape architec approval	t	10.91		0.45	4.046	\$600.00	\$5,373.30
4.4.2	Furniture 1B	Landmark KF402 4 Bay Spiral Bicycle Stand Stainless Steel with in ground mounting _2800mm(w) x 800mm(h)	1		2.8	0.8		\$1,225.00	\$1,225.00
								Subtotal	\$25,906.06

Module 06 Cost Estimates

Module 06 provides amenity for the installation of a large street, however it does not have a dedicated furniture item associated to it so that the extra paved space might be utilised and occupied by adjacent businesses for outdoor dining space. These modules are also positioned in locations for use by other services on the street, and where there is greater visibility for drivers required.

	Module 05					Cost Summary	\$9,141.39
						Total Area of works	30.19
	Description 1	Description 2	No.	lin.length	Width	Height	Area Footprint
0.0	Hardscape PB2	Pavement Extension - Base Slab		-	-	-	16.533
	Demolish	Existing		-	-	-	8.053
	Void						5.604
1.0	Hardscape 1	Pavement Extension		-	-	-	15.236
2.0	Structure	Planter walls		9.96	0.1	-	0.996
	-	-	-	-	-	-	-
3.0	Softscape			-	-	-	4.968

MODULE 05	Description Breakdown	Description 2	No.	lin.length	Width	Height	Area	Rate	Cost
4.1.1	Hardscape 1	Proposed insitu concrete base extension of pedestrian pavement to new extents as shown on plan. Assumes new vehicular grade concrete base slab to eng's requirements required falls.					16.533	\$110.00	\$1,818.63
4.1.2	Hardscape 1	proposed 40mm thick Concrete Pavers on 50mm cement mortar bed to extension of pedestrian pavement					15.236	\$110.00	\$1,675.96
4.2.1	Structure: Planter bed walls	Insitu concrete walls nom. 450mm high by 100mm thick on strip footing. Class 2 finish. Subject to Structural Eng's requirements and specs.		6				\$525.00	\$3,150.00
4.3.1	Softscape: Garden bed preperation	Propose free draining cultivated imported topsoil Nominal 600mm deep plus 200mm deep cultivated site topsoil below.					4.968	\$100.00	\$496.80
4.3.5	Softscape: Tree Planting.	Supply and install 1No. Super advanced tree to location as shown. Nom. Minimum supplied tree stock height 3m tall.	1					\$2,000.00	\$2,000.00
								Subtotal	\$9,141.39

Project Module Cost Estimates

Note: This is an indicative costing only, it may vary through the documentation and tender process. This is a cost estimate for the module construction only, please refer to Latrobe City Council's cost estimates that includes civil works.

Project Module Costing _Stage01 A

Module	Quantity	Unit Cost	Total
01	3	\$026,291	\$078,873
02	1	\$030,286	\$030,286
03	1	\$027,233	\$027,233
04	1	\$034,755	\$034,755
05	1	\$025,906	\$025,906
06	2	\$009,141	\$018,282
Total	09		\$215,335

Project Module Costing _Stage01 B

Module	Quantity	Unit Cost	Total
		1	
01	3	\$026,291	\$078,873
02	0	\$030,286	\$ 0
03	0	\$027,233	\$ 0
04	0	\$034,755	\$0
05	1	\$025,906	\$025,906
06	0	\$009,141	\$ 0
Total	04		\$104,779

Intersection upgrade (Hazelwood Rd + Commercial RD) \$150,000 - \$300,000*

Civil Works

Civil Works Items include:

- Detailed Design
- Traffic Management
- Project Management + Supervision
- Power
- Drainage
- Kerbs, Infill, Line Marking
- Contingency + Miscellaneous

Please refer to Latrobe City Council Cost estimates.

^{*}it has been indicated by Vic Roads that Stage 01B works will trigger an intersection upgrade.

Parklet

Profile

The cross-sectional profile of the Parklet that cuts across the street describes how the path extension is flush where it meets the street surface. This promotes accessibility for pedestrians, and disability assistance vehicles, as well as extends the feeling of the street to Better street lighting.* be pedestrian focused. Light up the footpaths.* Street Centre Line 01 01 02

Furniture

Key

Street

- 01 Timber Bench
- 02 Garden Bed
- 03 Tree
- 04 New Paving
- 05 Drainage



Footpath



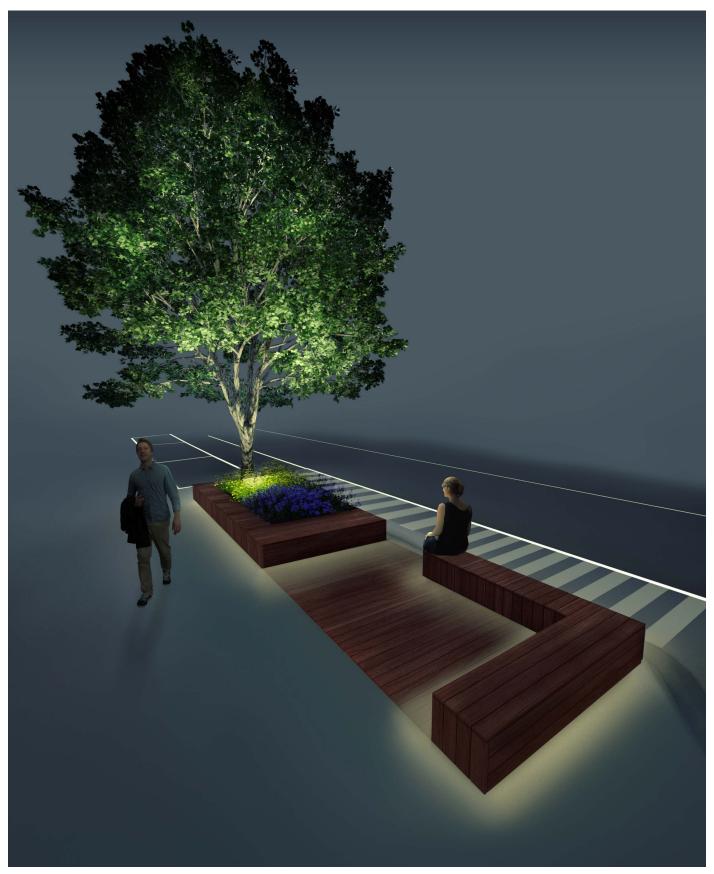
Footpath

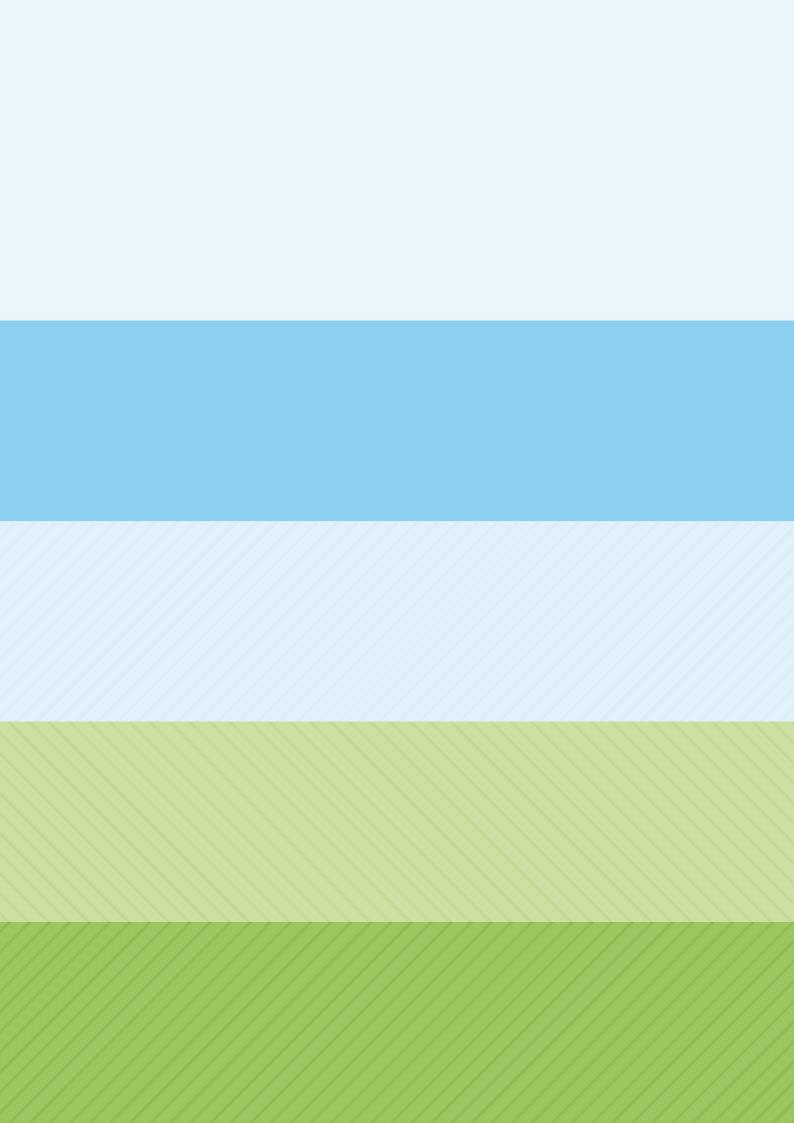
Bike Path



Parklet Lighting

Each Module provides 2 sources of lighting; the first is an up-light onto the canopy of the tree to completely transform the night time character of the street, and the second is a strip of light surrounding the base of the furniture. The lighting is design to accent the furniture, and contribute to a healthy and safe environment. The strip lighting can also be configured to change colour during events, memorial days, seasons, etc.



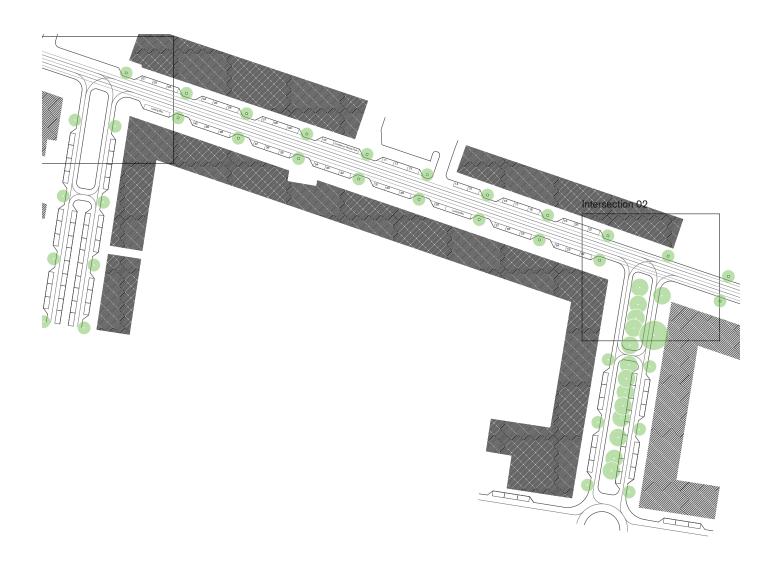


MORWELL CIRCUIT

Urban Connectivity + Activation Strategy

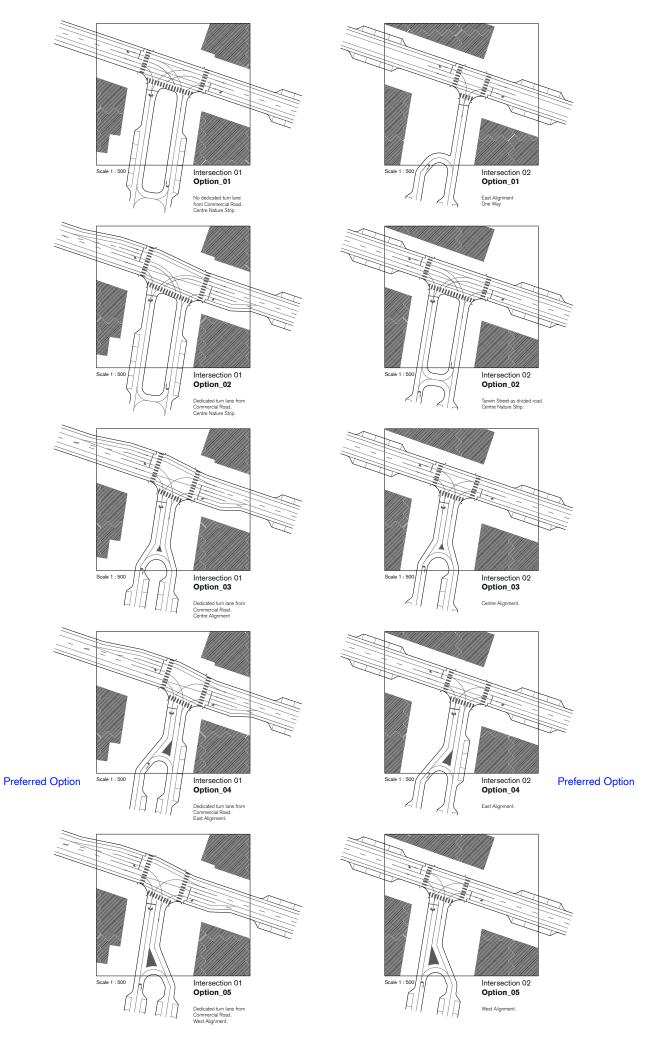
Street Intersection Studies

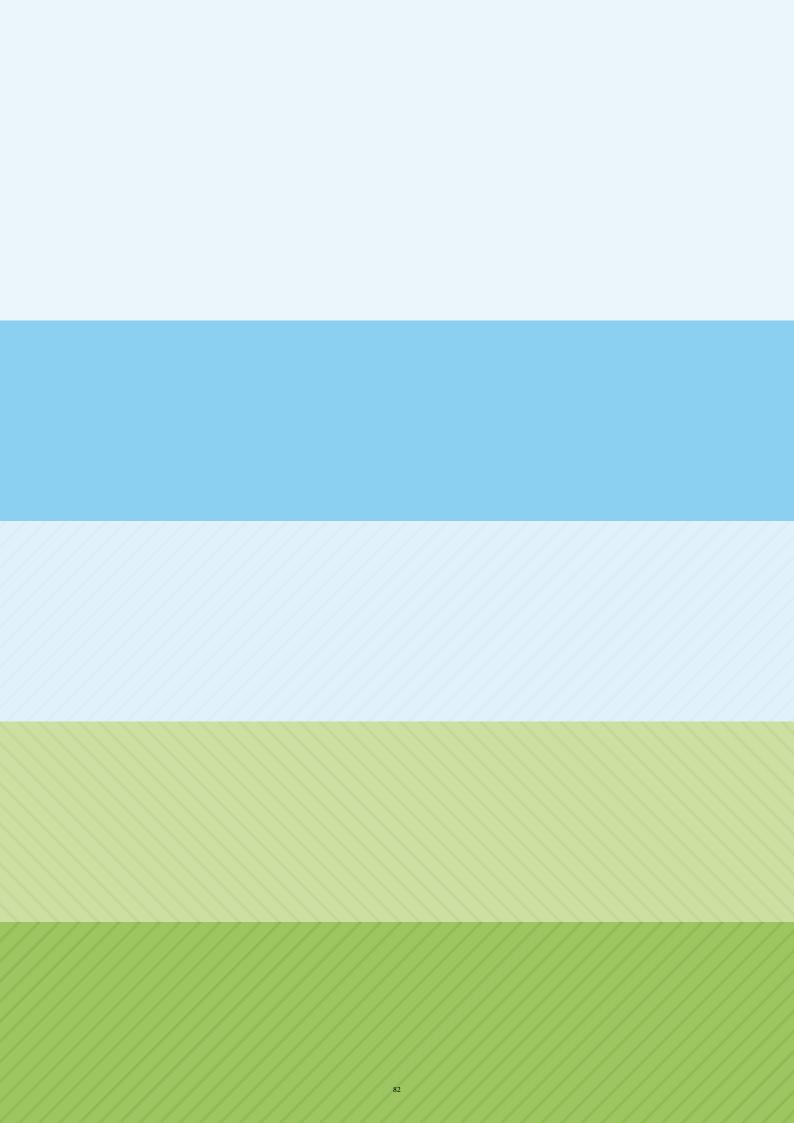
Intersection Studies



Intersection Studies

A range of studies have been made to investigate how Stage 01 of the Morwell Circuit might inform changes to traffic and pedestrian spaces into following stages of work that maintain and extend the aspirations of Stage 01. A number of these studies seek to provide larger areas of sidewalk that might act as terraces to support local businesses (cafés), and provide spaces for other events and activities within the town.

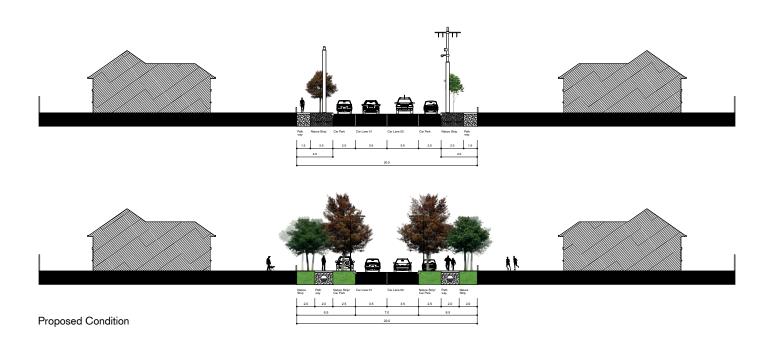




CONNECTION NETWORK STREET GUIDELINES

03.01 Example 01 : Church Street 03.02 Example 02 : McDonald Street 03.03 Example 03 : (west) Commercial Road

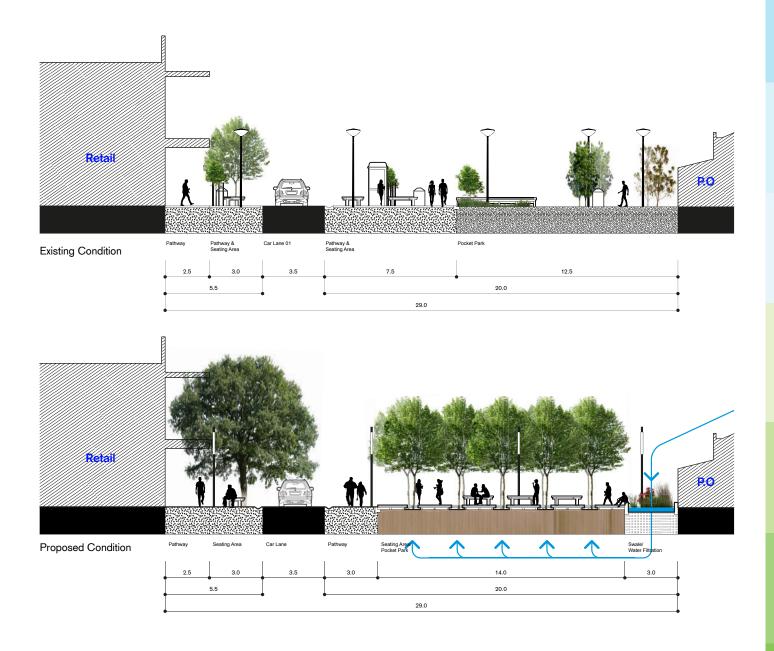
Example 01: Church Street



Connection Network Street Guidelines

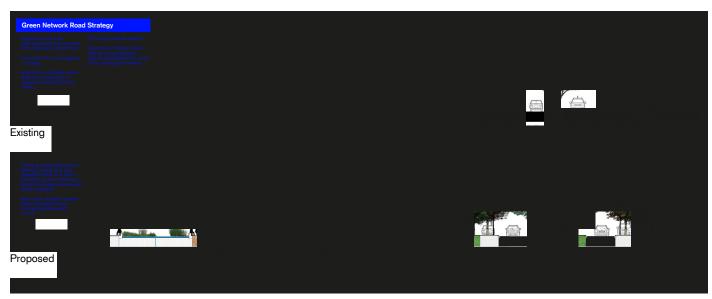
The following street profile studies are intended as guidelines as to how streets might be reconsidered within their regular maintenance and upgrading schedule. These studies recognise that a number of streets were originally designed and implemented to support a large scale utilitarian purpose that it may no longer be required to support, or can be more appropriately re-directed. As such greater opportunities can be made to 'green' the streets, and provide better pedestrian and cycling to re-define and re-connect the town.

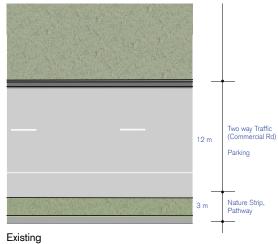
North Circuit Extension : Church Street



Example 01 : McDonald Street

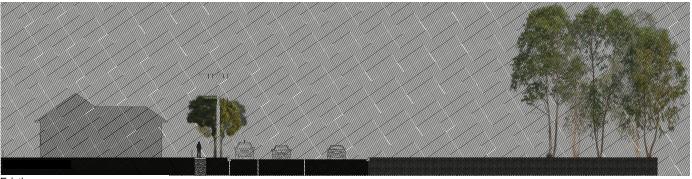








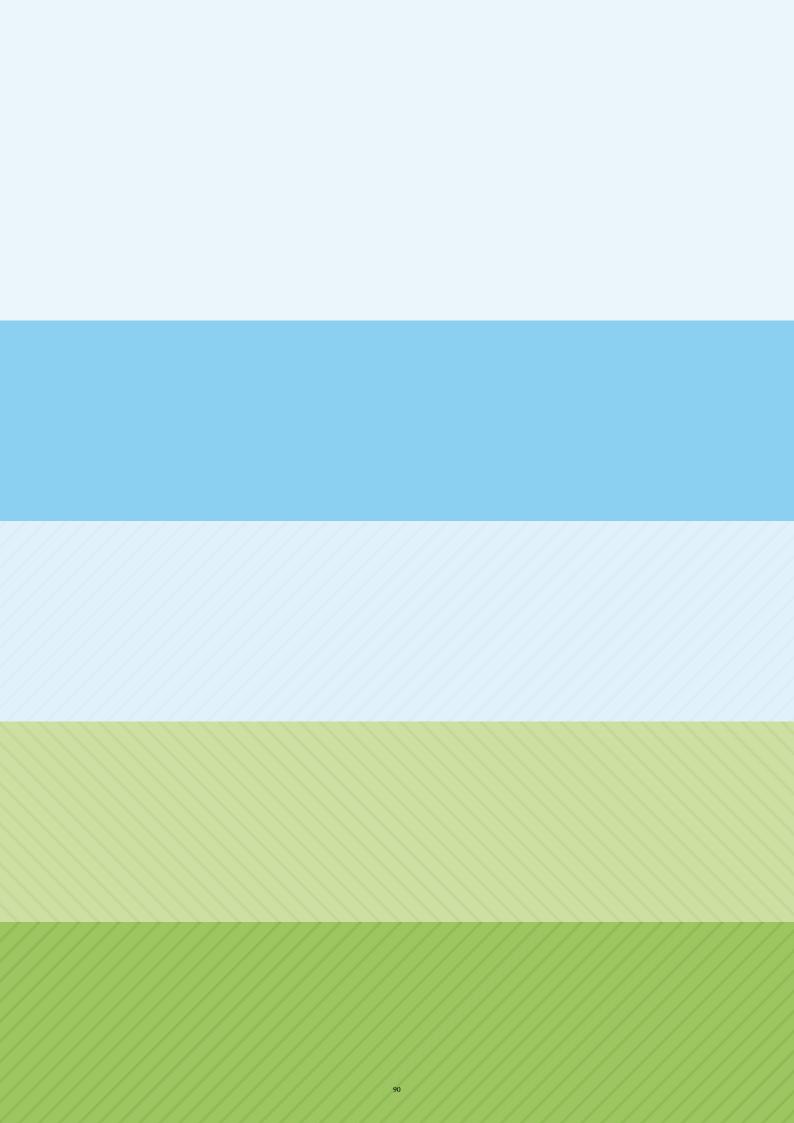
Example 01 : (West) Commercial Road



Existing



Proposed



Appendix 01

Community Feedback

DRIVERS	OPEN HOUSE THEMES
ECONOMIC 23% of comments	TOURISM
	RETAIL MIX & TRADING HOURS
	EMPLOYMENT
	TOWN CENTRE MANAGEMENT
	VACANT SHOPS & RENTAL AFFORDABILITY
	MARKET
	INDUSTRY DIVERSIFICATION

Community Feedback

Economic

PRIORITIES & KEY IDEAS OF COMMUNITY

reinstate/strengthen industrial tourism nature based tourism sport based tourism better sign-age & physical improvements better marketing RV friendly town

more shops to support "village" atmosphere niche shops (i.e. only ones in Latrobe City, local produce) extended trading hours/ weekends key use/tenancy for Spotlight site

greater access to training youth employment increase workforce participation (disability) meaningful work/ pride & wellbeing

more connected unified effort & decision making improved promotion of centre better communication & information sharing investment incentives (permits etc.)

reduced/ subsidised rents to attract new businesses Interest free loans for refitting short term/ pop ups/ window displays to take away empty feeling use of vacant lot(s) for markets

strong support for markets indoor market night market relocation of Sunday Market to centre

Transition & diversification plan in relation to Energy sector greater support for light industry home of aeronautics industry

ENABLING INFRASTRUCTURE & ASSETS

destinations/experience (industrial, natural, sports, town) signage/ wayfinding movement network (car, RV,bike, walk, train) marketing & promotion (digital, printed)

vacant shops (in key locations)
accessible centre (all modes, and parking)
successful existing businesses (e.g. Mannys)
range of potential small business/ traders (pop-up EOI)

under employed & willing population

new consolidated trader/community group shared strategic plan/ action plan supported by working group/ sub committee

potential "fast tracking"/streamlined planning process business incentives (TBD)

street network (public)
underutilised off-street carparks (private)
range of existing traders & demand demonstrated from initial
test markets
new business owner open to change

existing natural resources & technical skills existing light industrial precincts & logistics precinct.

DRIVERS	OPEN HOUSE THEMES
SOCIAL & CULTURAL 37% of comments	COMMUNITY FACILITIES & PLACES
	RECREATION
	COMMUNITY EVENTS & PROGRAMMES
	ART
	GOVERNANCE & LEADERSHIP
	COMMUNITY SPIRIT & IDENTITY
	CULTURAL DIVERSITY
	HISTORY & HERITAGE
	OTHER

Community Feedback

Social + Cultural

PRIORITIES & KEY IDEAS

(words of the community)

A space that connects us A street that is "home" to events and activities A more centrally located Neighbourhood House Indigenous, multi cultural space

Online & Physical information portal of what's on

Focus on youth/child friendly activity

better use/ maintenance of existing open-spaces (sports facilities)

more live music

Strong support for regular events show casing merchants, music, food)

Nature based events (strong support for sunflowers, rose

garden, more -well) music based events

church street festival

church yard events after church

after school programmes

improve existing facilities/assets (Regional Gallery/ Rose Garden)

Carden

Grow local arts & crafts base and make more visible

public art in streets

Youth art, Indigenous Art

Strong support for collaborative planning

Strong support for community initiated change

Strengthened community groups (better connected, recognised)

Law & Order (role of police vs. neighbourhood watch)

Morwell Identity distinct from other Latrobe Valley towns (Translgon)

Need a physical "heart" to town

Sports clubs as focus of community life

Role of publicity (good & bad) in shaping identity

multicultural events

cultural networking

demonstrate inclusiveness (indigenous, sudanese, asylum

seekers)

preservation/ celebration of heritage streetscapes

telling the morwell story (past present future)

better locating existing (john monash) and new statues

Revitalise Housing Stock & attract new residents (affordability & lifestyle)

Health (drugs, mental health, air pollution)

Urban Agriculture (in public spaces, and for markets)

ENABLING INFRASTRUCTURE & ASSETS

(words of the community)

Commercial Road, Tarwin Street, legacy place, Church

Street

New site for Neighbourhood House (TBD)

Municipal Offices & Library

community website, council website... other

Youth focussed facilities: new skate park, new headspace... potentially surplus school sites

public open spaces, temporary use of vacant spaces

licensed venues, public/free venues

Church Street

Church buildings & grounds

School buildings & grounds

Regional Gallery

new model of ongoing participatory planning (not project

based)

heritage buildings

historic society, artefacts,

personal histories/ place stories

DHS housing stock & asset management plans

Prominent Health Services sector, Funding for health

existing community gardens (More - well programme)

DRIVERS OPEN HOUSE THEMES NATURAL ENVIRONMENT(29) ENERGY/FORESTRY INDUSTRY 4% of comments **NATURAL ASSETS SUSTAINABILITY MOVEMENT NETWORK (69) WALKING & CYCLING** 10% of comments **PUBLIC TRANSPORT MOTOR VEHICLES BUILT ENVIRONMENT PUBLIC REALM GENERAL**(69) 10% of comments **BUILT FORM MAINTENANCE FOCUS AREAS (105) GATEWAY** 15% of comments

COMMERCIAL ROAD

Community Feedback

PRIORITIES & KEY IDEAS

(words of the community)

re-use of Hazelwood re-branding of Centre with use of solar power more/better managed plantations Waterhole Creek - clean up but generally beautification/

activation

Better use of Latrobe River

Link to cost-effectiveness at personal scale

improved visual & physical connections between Tarwin St & Church St

better connections between Tranalgon & Morwell & Midvalley/ Kernot Hall

better connections to external landscape assets (wetlands & parkland)

improved saftey within Centre (CCTV, slower traffic 40KM) use of track network for recreational cyclists (mountain bike club, tourists)

improved destination facilities for cyclists in centre improved disability access within centre (motor scooters, wheel chairs)

improved frequency & more connections (train & bus) utlise volunteer/community transport options to fill gaps improved visual impact of car parking areas RV friendly town

More Street Trees, and greenery/gardens Focus on Tarwin, Commercial & Church Streets Focus on seating & comfort (furniture, weather protection, lighting)

Renovation of façades (including more colour) Improvements to shopfronts

maintenance & cleaning of façades & shopfronts.

graffiti, public facilities, furniture, bins

facelift to commercial road bridge (retain)

native modern green

industrial heritage

traditional ANZAC avenue of honour

clean up neighbouring sites (substation, scrap metal shop)
Improvements to key buildings (Anglicare, Council, Regional

Gallery)

More Colour (coordinated)

More Trees/ greenery

More Lighting

More crossing points

More seating/ gathering spaces.

ENABLING INFRASTRUCTURE & ASSETS

(words of the community)

paradigm shift required street electrical infrastructure, strategic high profile sites

public realm, "friends of" networks of volunteers

existing programmes/ educational material

victrack land/ transport interchange

victroads Principal Pedestrian Network

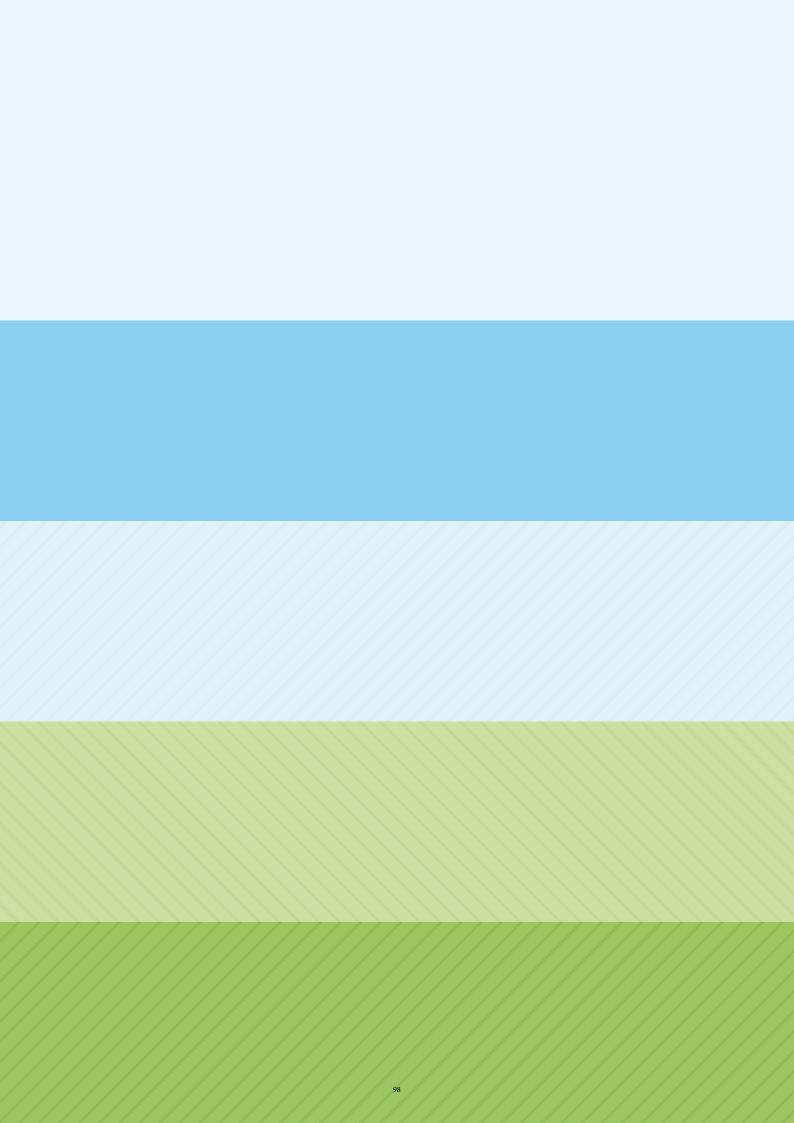
existing/ proposed cycle/path networks

existing/proposed track/trail network

existing facilities at train station

access to smaller community bus fleet access to under employed/ volunteer drivers

utilise existing rail bridge extend/compliment existing landscape elements public land assets (Vicroads, Council)



Appendix 02

Temporary Parklet Precedents

ADELAIDE PARKLETS CITY OF ADELAIDE

LOCATION

Adelaide, WA

ABOUT

Example Project:

The first parklet under the City of Adelaide's Pilot Parklet Program was installed in March 2013 in Gawler Place just off Rundle Mall in the city. Designed by Cary Duffield of Troppo Architects and fully funded and maintained by Gawler Place business Foods for Life, the new parklet offers pedestrians the opportunity to step off one of Adelaide's busiest links.



While it's mostly used for outdoor dining by customers, the parklet does not exclude other members of the public.

PARTNERS

Local Business, City of Adelaide, Designers, Department of Planning, Transport and Infrastructure (DPTI)















PAVEMENT TO PARKS CITY AND COUNTRY OF SAN FRANCISCO

LOCATION

San Francisco

ABOUT

Pavement to Parks project are intended to be a public laboratory for the City to work with local communities to temporarily test new ideas in the public realm. Materials and design interventions are meant to be temporary and easily reversible, should the trial run demonstrate the need for design changes.

After testing their performance, some spaces are reclaimed permanently as public open spaces. Seating, landscaping, and paving treatments are common features of all projects.

OBJECTIVES

Foster neighbourhood interaction, re-imagine the potential of city streets, enhance pedestrian safety and activity, support local business, encourage on-foot traffic

PARTNERS

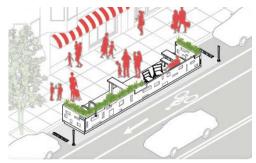
Pavement to Parks is a collaborative effort between the San Francisco Planning Department, the Department of Public Works, and the Municipal Transportation Agency.

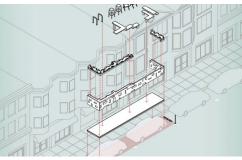
ORGANISATION

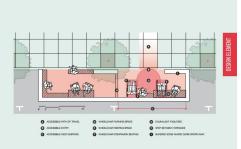
Proposals for parklets are applied for every year. Accepted proposals continue on to develop designs, acquire permits and install their proposals.

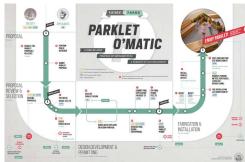
CONSTRUCTION

Construction and maintenance are the responsibility of parklet owners, which might be community groups, cafés and other businesses, etc.











MID APRIL -END MAY

Proposal submissions accepted

Design development & Permitting, Fabrication & Installation

JULY

Proposal selection announced

TIMELINE







PARKLETS & PROJECTS IN SAN FRANCISCO

40TH STREET PARKLET OAKLAND, CA, USA

LOCATION

40th Ave, Oakland, California, USA. 8 km from Downtown Oakland.

ABOUT

Launched in September 2011, the program will bring more open space to Oakland residents without burdening the City of Oakland's budget.

OBJECTIVES

Enhance our community by bringing native plants, seating and bike parking to an area where customers, employees, businesses, neighbours and passers-by alike will benefit.

PARTNERS

Subrose Coffee, Manifesto Bicycles, Oziio ideas + design, and Kickstarter Backers from the community.

ORGANISATION

Donated services of Oziio ideas+design, a team of landscape architects and city planners reached out to the local shop owners with the proposal for a parklet. The parklet came about through a Kickstarter Campaign that allowed community members to crowd-fund it's inception.

CONSTRUCTION

The Kickstarter Campaign raised \$10, 243 to be used to fund materials. Native plants, reclaimed wood benches, a driftwood log and a natural boulder and 8 sculptural steel bike racks.





MARCH 2012

Kickstarter Campaign Launched

APRIL 2012

Raised \$10,243

MAY 2012

Permit Submitted

SEPTEMBER 2012

Grand Opening







PARKLET @ REVEILLE COFFEE CITY OF SEATTLE

LOCATION

Seattle

ABOUT

Funded by the Reveille Coffee shop, and designed by Sagan Piechota Architecture, it was installed in 2014. It combines wood counters for leaning, steel-faced planter boxes, dark-stained decking, and two clever Z-shaped benches that function as seating on both sides at two different heights, conforming to the sloped site.

OBJECTIVES

To put 'life' back into our streets. Streets are so much more than just getting from point A to point B. Streets have been under utilized for years. Parklets are a new way to create places with meaning and beauty.

Healthy, dynamic public spaces are very important to healthy cities.

PARTNERS

Designed by Cameron Helland at Sagan Piechota Architecture. San Francisco Planning Department

CONSTRUCTION

The parklet was designed and built as part of new ownership to the coffee shop and consequent refurbishment of the shop inside and the building facade.

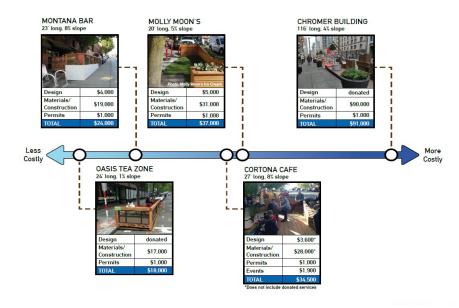
Solely funded by the cafe ownership it provides outdoor seating for cafe goers and extra seating for the cafe. It is considered more costly than most parklets due to the steep slope that needs to be incorporated in the design and drainage considerations.







PILOT PARKLET COST ESTIMATES



Design development & Permitting, Fabrication & Installation



Proposal submissions accepted

JULY

Proposal selection announced







754 POST STREET @ FARM:TABLE SAN FRANCISCO

LOCATION

754 Post Street, San Francisco

ABOUT

Replacing two parking spots, raised garden beds envelope two seating areas, creating immersive green clearings in the hard-edged Post Street canyon.

OBJECTIVES

It was designed to optimize four types of desirable, objectively definable slopes: slopes for sitting, perching, lounging, and planting. The organic forms offer a slice of 'nature' in contrast to the urban streetscape, while the sloping surfaces are open to interpretation with regard to use.

PARTNERS

Designed by Ogrydziak/Prillinger Architects.







Design development & Permitting, Fabrication & Installation

MID APRIL -END MAY

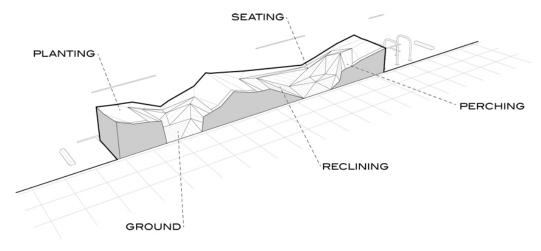
Proposal submissions accepted

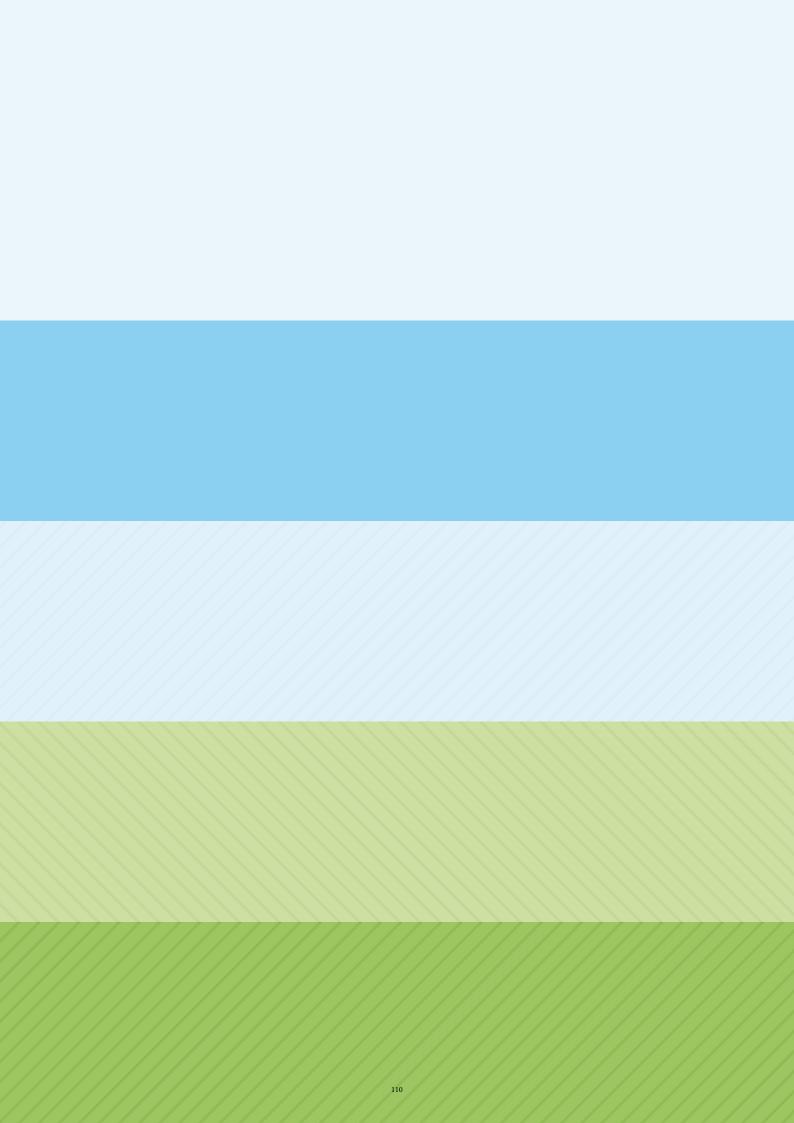
JULY

Proposal selection announced



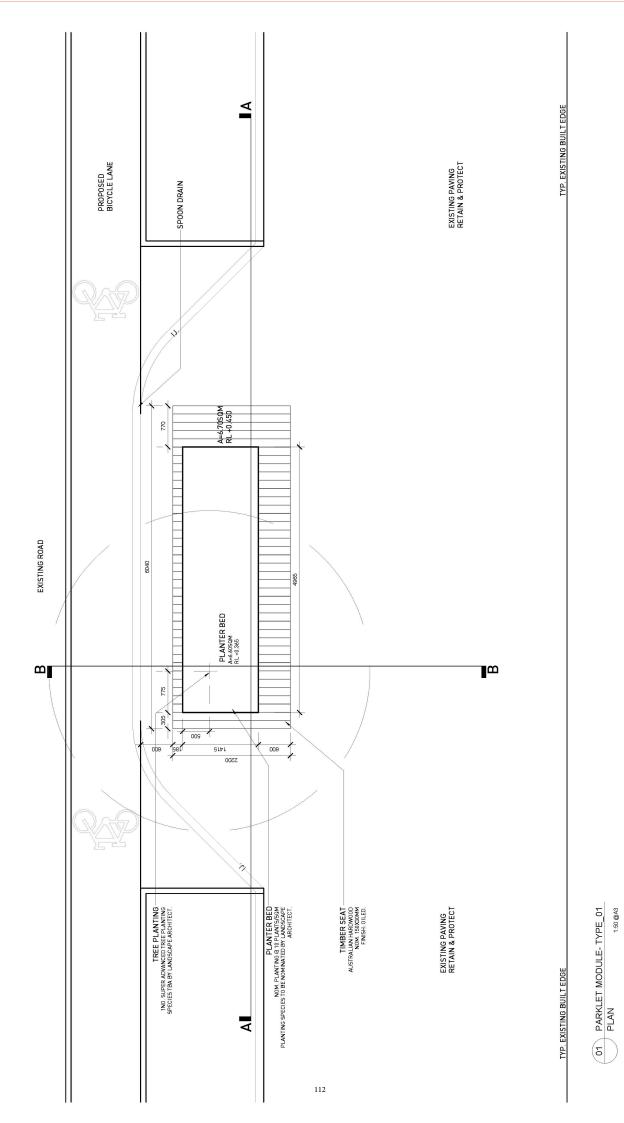






Appendix 03

Module Details



PARKLETS

FUTURE MORWELL

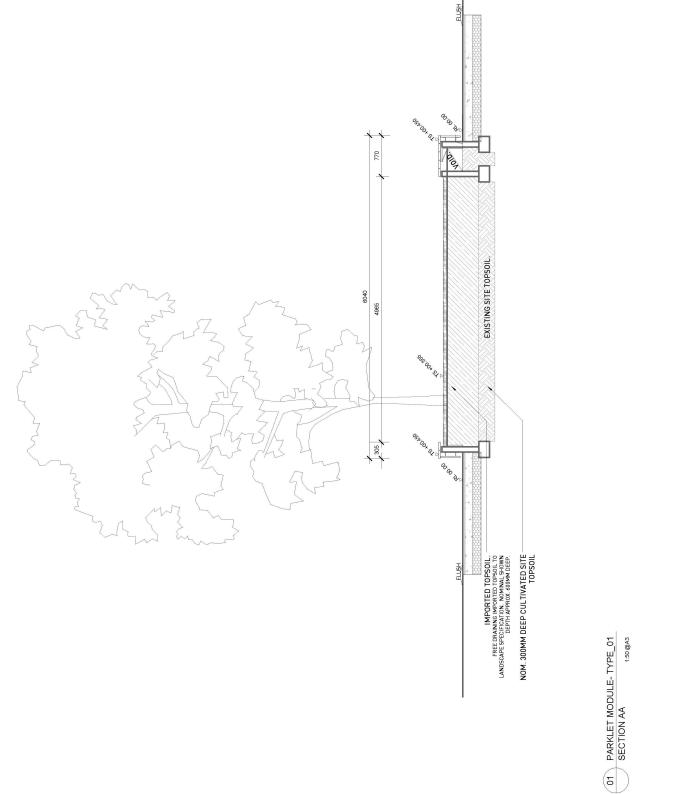
OFFICE OF
URBAN
TRANSFORMATIONS
RESEARCH

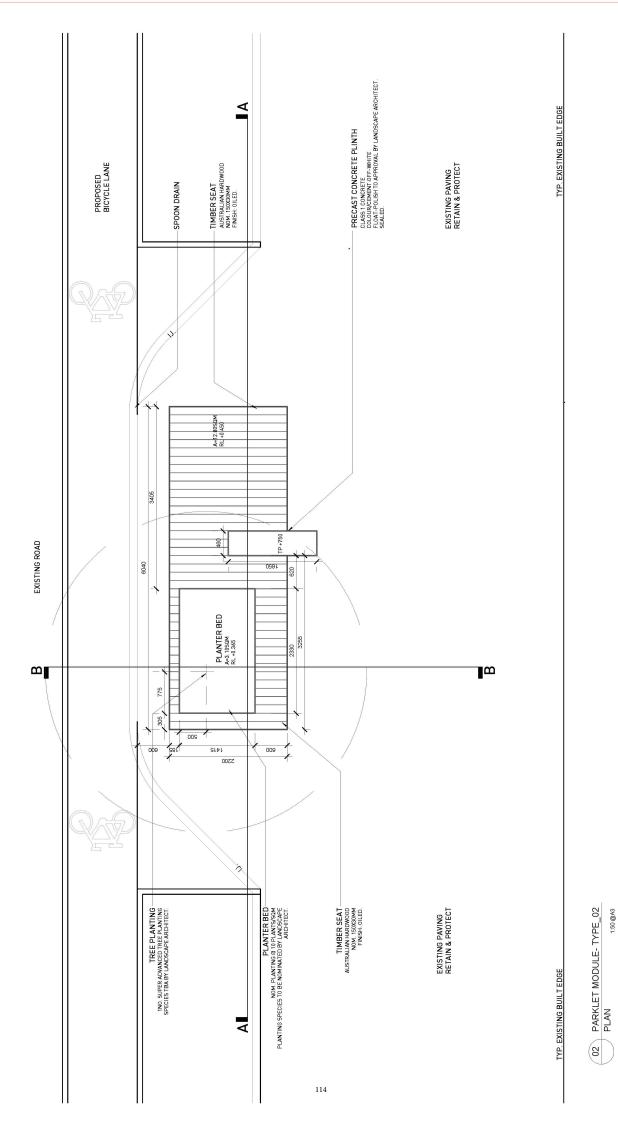




17.08.2016

SCALE: AS SHOWN





PARKLETS

The Hade

SCALE: AS SHOWN

17.08.2016

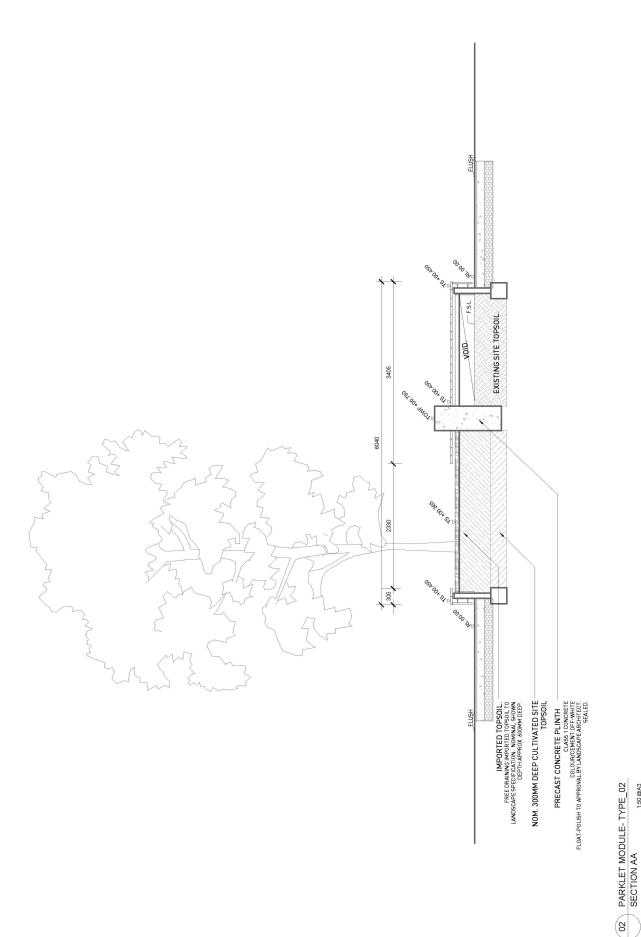
FUTURE MORWELL

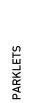
C) U OFFICE OF
URBAN
TRANSFORMATIONS
RESEARCH

1:50 @A3









FUTURE MORWELL

TRANSFORMATIONS RESEARCH

OFFICE OF URBAN

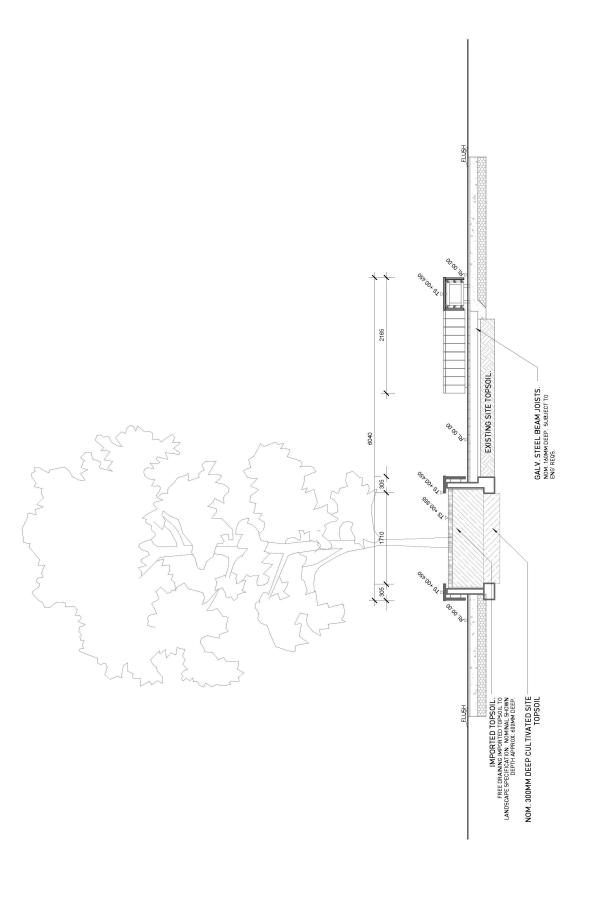
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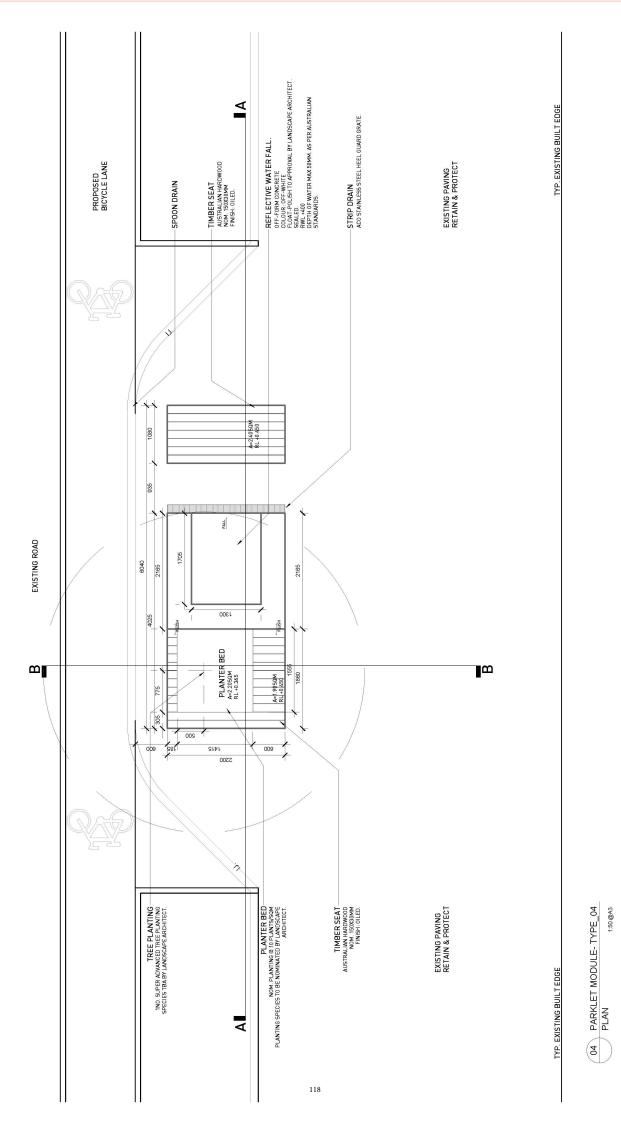


17.08.2016

COL OFFICE OF URBAN TRANSFORMATIONS RESEARCH

03 PARKLET MODULE- TYPE_03
SECTION AA 150 @A3







17.08.2016

FUTURE MORWELL

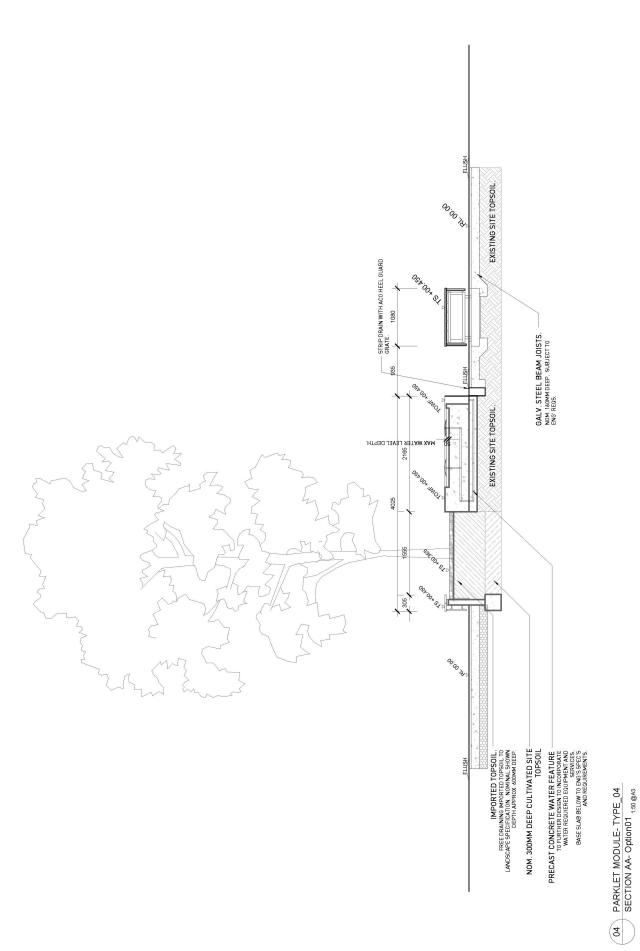
TRANSFORMATIONS

RESEARCH

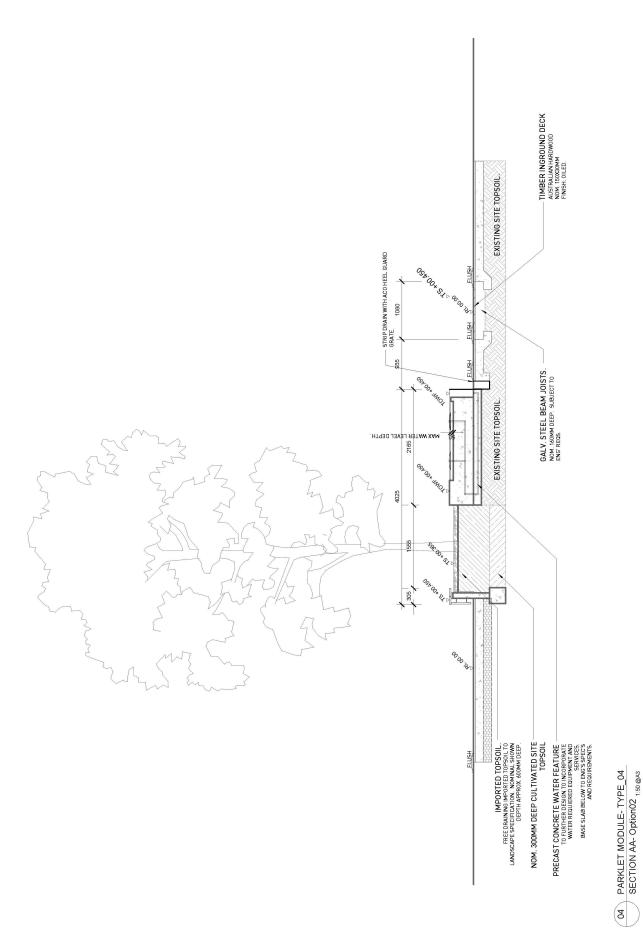
OFFICE OF URBAN

TRANSFORMATIONS RESEARCH

COLUMBAN URBAN







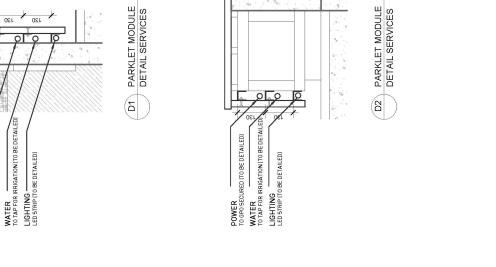
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1:50 @A3

00 PARKLET MODULE
TYP. SECTION BB



PROPOSED BICYCLE LANE

200

. (20)

1415

2200

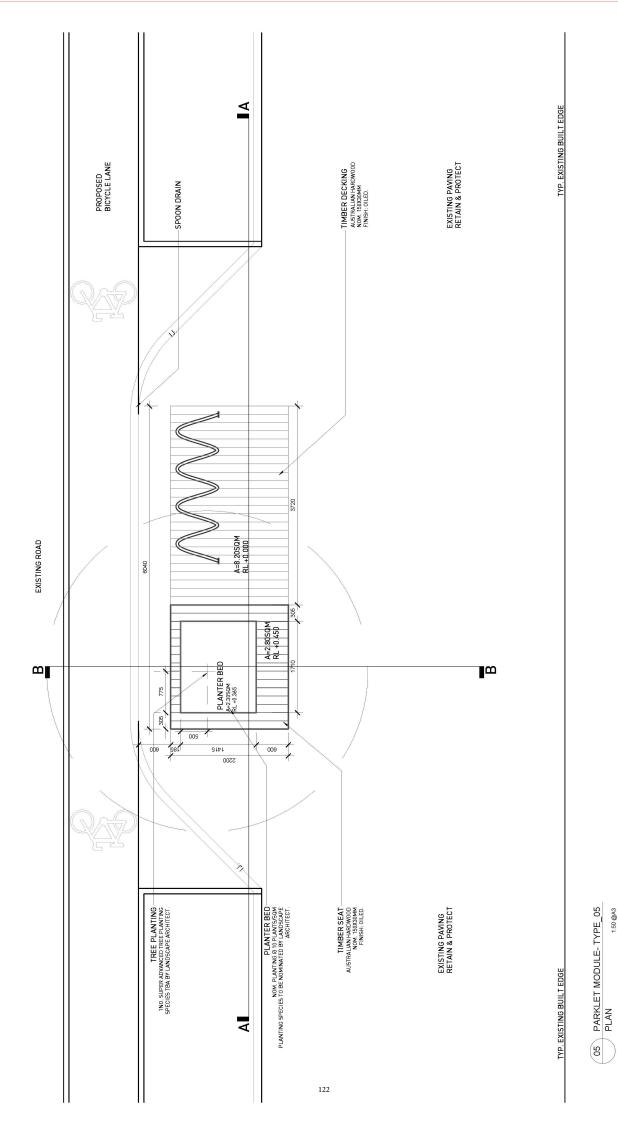
EXISTING ROAD

IMPORTED TOPSOIL.
FREE DRAINING IMPORTED TOPSOIL TO
LANDSCAPE SPECIFICATION. NOMINAL SHOWN
DEPTH APPROX. 600MM DEEP.

NOM. 300MM DEEP CULTIVATED SITE.
TOPSOIL
SPOON DRAIN

1:200 @A3

POWER TO GPO SECURED (TO BE DETAILED)



PARKLETS

FUTURE MORWELL

UPHOE OF URBAN
TRANSFORMATIONS
RESEARCH



SCALE: AS SHOWN

17.08.2016

THURSDO SOL

C)U OFFICE OF
URBAN
TRANSFORMATIONS
RESEARCH

GALV. STEEL BEAM JOISTS. NOM. 160MM DEEP. SUBJECT TO ENG'REOS.

NOM. 300MM DEEP CULTIVATED SITE-TOPSOIL

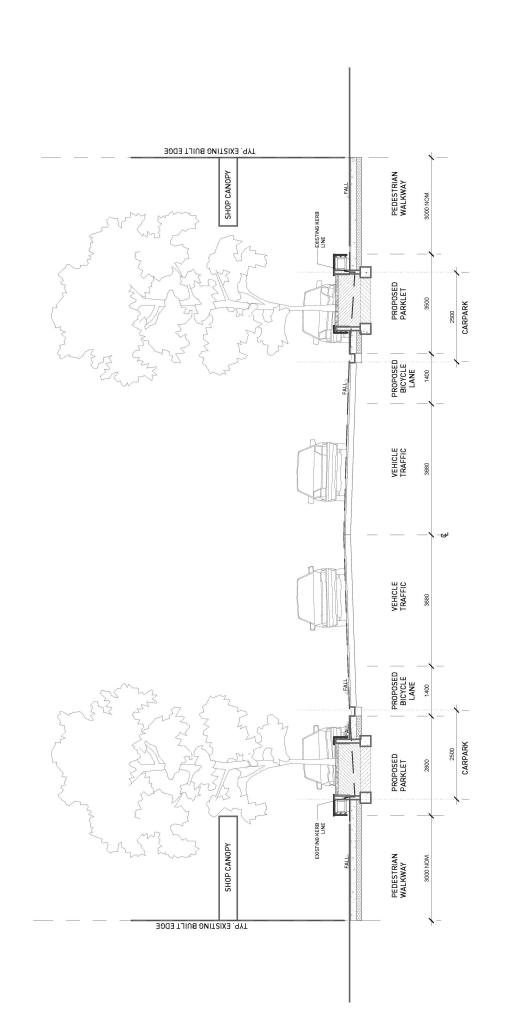
05 PARKLET MODULE- TYPE_05
SECTION AA 150 @A3

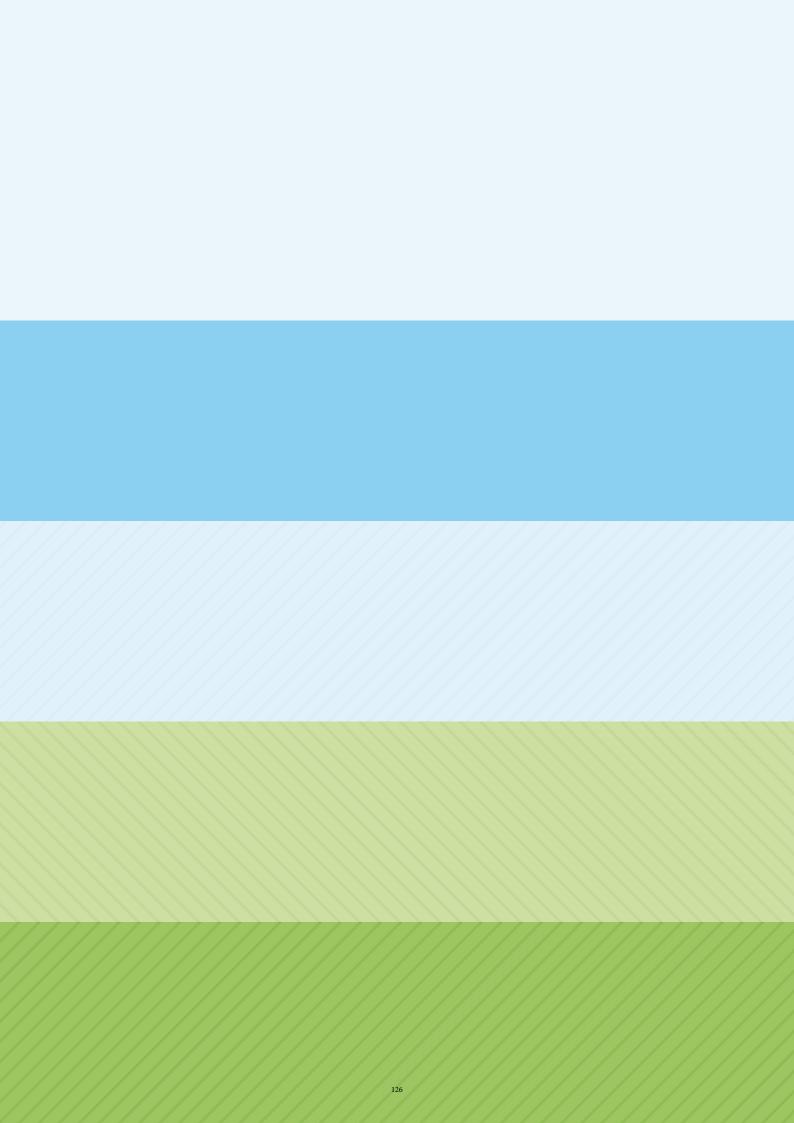
IMPORTED TOPSOIL.
FREE DRAINING IMPORTED TOPSOIL TO
LANDSCAPE SPECIFICATION. NOMINAL SHOWN
DEPTH APPROX. 600MM DEEP.

EXISTING SITE TOPSOIL.

6040

PROPOSED STREET
TYP. SECTION





Appendix 04

Parklets Planting Schedule

Future Morwell Parklet Planting Palette

Ground Covers

Chrysocephalum apiculatum YELLOW BUTTONS



Grevillea

This ground cover has glaucous foliage which provide a colour contrast among other ground covering plants. Yellow flowers appear in late spring to summer.

Sprawling shrub which drapes over the ground

plane, colouring it with its red flowers that are

Native, Perennial Maturity Dimensions

Height - 0.4m Width- 1m

Creeping Boobiallia



Native, dense low matting groundcover that makes a great weed suppressant. Prostrate shrub with glossy green leaves. A mass of white small flowers appear along the stems in Spring and throughout summer. These flowers are lightly honey scented and waxy. Fast growing and low maintenance, Myoporum is a great choice for bank stabilisation, is fire retardant and for coastal sites.

Indigenous, Perennial Maturity Dimensions

Height - Under 15cm Width- 1-2m Recommended Density: 2/m² Plant Ref: Cm

 $\label{eq:present_present} \textbf{Native, Perennial}$

Maturity Dimensions

Height - 0.3m Width- 4m Plant Ref: Gbr

Plant Ref: Cc

Convolvulus Sabatius

Convolvulus



A very dense and compact form of this universally popular ground cover. It's often utilised for low maintenance areas due to its tough characteristics. Masses of soft lavender blue flowers are freely produced from late spring through to autumn.

Evergreen Maturity Dimensions

Height - 0.1-1m Width- 2m Recommended Density: 6/m²

Plant Ref: Cm

Convulvus cneorum CONVULVUS

BRONZE RAMBLER



This useful ground cover, Convolvus cneorum thrives in dry and exposed sites with silver foliage an pretty white, pink-tinged flowers in summer.

Exotic, Perennial Maturity Dimensions

Height - 0.3m Width- 4m

MYOPORUM

Thymus sp. **COMMON THYME**



Best known for its aromatic foliage that comes in green, golden, silver and variegated colors. **(Exotic)**

Maturity Dimensions

Height - 0.3m Width- 0.4m

Plant Ref:Ty

Myoporum parvifolium



Fast-growing groundcover with green or purple leaf forms. Masses of white flowers throughout the year. Frost tolerant.

Indigenous, Perennial Maturity Dimensions

Height - 0.2m Width- 1-4m

Plant Ref:Mp

Brachyscome Multifida

CUT LEAF DAISY



Tall or large headed daisy, robust. Flowers come in lilac blue, mauve, pink and white. Leaves on low, hairy stem. Butterfly attracting, useful for soil bindings. Has a spreads of up to about 1.5m

Indigenous, Perennial Maturity Dimensions

Height - 0.25m Width- 0.4m

Plant Ref: Sb

Grasses

Festuca glauca

BLUE FESCUE



Stout evergreen grass with needle like blue / green foilage.

Exotic, Perennial **Maturity Dimensions**

Height - 0.25m Width- 0.25m

Plant Ref: FGbf

Poa labillardieri

COMMON TUSSOCK GRASS `Kingsdale'



Similar to 'Courtney' although has a much bluer leaf blade and works well in contrast. It is short in height than `Eskdale' as well.

Native, Perennial Maturity Dimensions

Height - 0.4m Width- 0.4m

Plant Ref: PLctgK

Carex Albula

CURLY SEDGE



Tufting, silvery-green narrow leaved grasslike perennial with a cascading and mounding habit. Great mass planted around ponds and water features as it tolerates boggy sites. Very versatile as this carex is also drought tolerant

Indigenous, Perennial **Maturity Dimensions**

Height - 0.3-0.6m Width- 0.6m

Recommended Density: 10/m²

Plant Ref: LLmr

Carex Testacea

Orange Sedge



Popular sedge from New Zealand with a weeping habit and distinctive orange and green coloured grass-like foliage. Summer flowers are brown and appear on spikes above the foliage. Grows approx 40cm x W 40cm and is drought and salt-spray tolerant. Widely used in domestic and commercial landscapes.

Indegenous, Perennial

Maturity Dimensions

Height - 0.3-0.6m Width- 0.3-0.6m

Recommended Density: 10/m² Plant Ref: Cm

Carex oshimensis

CAREX EVEREST



Carex Everest is an vigorous mound-forming evergreen ornamental grass that provides a groundcover solution for courtyard and patio areas. Its distinctive silvery-white and dark green striped foliage is a refreshing colour combination that is easy to mix with other plants. Flowers are not showy and appear late spring and summer and do not detract from the clean apperance of the plant.

Indigenous, Perennial **Maturity Dimensions** Height - 0.3-0.6m

Width- 0.3-0.6m

Recommended Density: 10/m² Plant Ref: Jf

Lomandra confertifolia



LOMANDRA

Extremely hardy to drought, this variety of lomandra are half the height of `longifolia' with more concealed flowers also.

Native, Perennial **Maturity Dimensions**

Height - 0.5m Width- 0.7m

Plant Ref: LCl

Themeda triandra

KANGAROO GRASS



Kangaroo grass is best known for its seed heads that remain after flowering has finished. For this reason has become widely recognised in the Australian Landscape.

Native, Perennial **Maturity Dimensions**

Height - 1m Width- 0.5m

MONDO GRASS

Plant Ref: TTkg

Ophiopogon japonicus



Fine dark green glossy foilage, and chosen for this reason rather than flowers, as they are hidden to the naked eye.

Exotic, Perennial **Maturity Dimensions**

Height - 0.2m Width- 0.15m

Plant Ref: 0Jmg

Dianella Longifolia



SMOOTH FLAX LILLY

Grows in most soil conditions in full sun or part shade. Fast growing, hardy and drought tolerant. Flowers spring to autumn.

Indigenous, Perennial **Maturity Dimensions**

Recommended Density: 5/m² Height - 0.5-1m Plant Ref: Cm Width- 1m

Poa Poiformis



COASTAL TUSSOCK GRASS

Dense, tufting native perennial with blue-grey foliage. Green-purple clustered spikelets of inflorescences appear in Spring and throughout Summer.

Indigenous, Perennial **Maturity Dimensions** Height - 1m

Width-1m

Recommended Density: 10/m² Plant Ref: Jf

Trees

Lagerstromia Cultivars



A very popular and easy to grow shrub/small tree with an open, rounded habit. Depending on your needs, Lagerstroemias can be pruned as either a single trunked tree or a bushy multi-stemmed shrub. Widely used in cooler climates, year round interest includes an attractive truck, autumnal colour change and beautiful summer blooms.

Indigenous, Deciduous **Maturity Dimensions**

Height - 4-10m Width- 2-4m

Plant Ref: Cm

Tristaniopsis Laurina



Water Gum

A small to medium Australian native tree that can be used for screening or hedging. Frequently used as a street tree and planted under power lines because it is easy to prune to contain size. A mass of yellow fragrant flowers in summer with a smooth pale bark that sheds in strips add to the appeal. A great choice for coastal plantings.

Indigenous, Perennial **Maturity Dimensions**

Height - 0.5-1m Width-1m

Plant Ref: Cm

Arbutus unedo

IRISH STRAWBERRY



Evergreen, tall shrub to small tree. Flowers resemble Lillies of the Valley in autumn, followed by strawberry like fruit which ripens from green/yellow and red giving a multicoloured effect. (Exotic)

Maturity Dimensions

Height - 6m Width- 2.5m

Plant Ref: Au

Ulmus Parvifolia



Chinese Elm

A popular and versatile deciduous tree with smooth bark and a vigorous upright habit that weeps with age. Growing to approx 10m tall x 4m wide, foliage is dark green with small leaves changing to golden in Autumn. Great for windbreaks, coastal conditions and hedaina.

Exotic, Semi-Deciduous **Maturity Dimensions**

Height - 4-10m Width- 4-10m

Plant Ref: Cm

Elaeocarpus Reticulatus



Blueberry Ash

A popular medium evergreen Australian native tree commonly known as the Blueberry Ash. A versatile tree which can be used from small gardens through to streetscapes and is great for hedging or screening, producing clusters of pale pink flowers in spring through to early summer and growing up to 7-9m high.

Indigenous, Evergreen **Maturity Dimensions**

Height - 4-10m Width- 2-4m

Plant Ref: Cm

Shrubs

Carpobrotus Modestus



Dianella Revoluta



Dodonea Viscosa



Goodenia Ovata



Anigozanthos





A taller variety of kangaroo paw with rusty yellow flowers on branching red stems up to

Indigenous, Perennial **Maturity Dimensions**

PIG FACE

Grows in a range of conditions and soil types, in full sun to part-shade. Fast growing, flowers in spring and summer.

Indigenous, Perennial **Maturity Dimensions**

Height - 0.2m Width-1m

Recommended Density: 6/m² Plant Ref: Cm

Recommended

Density: 8/m²

Plant Ref: Cm

Recommended

Density: 1/m²

BLUE FLAX LILLY

This is a native Flax Lily with compact blue foliage. This makes a great, low growing garden border or mass planting choice. It is complemented with masses of pretty blue/ yellow flowers from September to November.

Indigenous, Perennial **Maturity Dimensions**

Height - 0.6m Width- 0.5m

STICKY HOP BUSH

Drought tolerant indigenous shrub. Requires annual clipping to maintain density and size. Can grow in semishade.

Indigenous, Perennial Maturity Dimensions

HOP GOODENIA

Height - 1-3m Width- 1-3m

Plant Ref: Cm

Glossy, green leaved open shrub with yellow flowers in Spring. Fast growing, responds well to hard pruning.

Indigenous, Perennial **Maturity Dimensions**

Height - 1m Width- 1.5m

Recommended Density: 8-10/m² Plant Ref: Go

KANGAROO PAW `Bush

Height - 1m Width- 0.5m Recommended Density: 4-6/m² Plant Ref: AkpBH

Trees

Lagerstroemia indica



CREPE MYRTLE

Most if not all Lagerstroemias are grown for the beautiful crepe myrtle flowers that come in a range of flower colours.

Exotic, Deciduous **Maturity Dimensions**

Height - 2-4m Width- 2-4m

Plant Ref: Li

Hardenbergia Violacea

NATIVE SARSPARILLA

With blue grey foliage and violet purple peashaped flowers that occur from late winter to early spring.

Indigenous, Perennial Maturity Dimensions Height - 0.5m

Width- 0.5m

Recommended Density: 4-6/m² Plant Ref: Cm

Veronica Perfolita



DIGGERS SPEEDWELL

Moderately drought and waterlogging tolerant. Flowers in spring. Low maintenance, Indigenous.

Indigenous, Perennial Maturity Dimensions

Height - 0.8m Width- 1m Recommended Density: 8-10/m² Plant Ref: Cm

Limonium Perezii



PERENNIAL STATICE

Glossy green leaved perennial which tolerates direct salt spray and harsh conditions. Mass plant to make the most of the little white flowers with bright purpley-blue calyces. Statice flowers over a long period and is very low maintenance.

Exotic, Perennial Maturity Dimensions

Height - 0.3-0.6m Width- 0.3-0.6m Recommended Density: 8-10/m² Plant Ref: Cm

Tulbaghia Violacea



SOCIETY GARLIC

This very hardy, clumping Tulbaghia has fine blue-grey grass-like foliage striped with cream down its entire length. The effect is a silvery mound which rises to about 30cm in height. Silver Lace is long flowering - from spring all the way through to late autumn (and into winter in warmer zones). Has a strong garlic odour if foliage is bruised.

Exotic, Perennial Maturity Dimensions

Height - 0.3m Width- 0.6m Recommended Density: 8-10/m² Plant Ref: Cm

Kleinia Mandraliscae



BLEU CHALKSTICKS

Very drought tolerant. Best in full sun but can tolerate some shade. This plant is grown for its attactive leaves rather than the flowers.

Exotic, Perennial Maturity Dimensions

Height - 0.4m Width- 0.75m **Recommended Density:** 8-10/m²

Plant Ref: Cm

Correa

Dusky Bells



Native prostrate ground cover with dusky pink, fuchsia shaped tubular flowers from Autumn to Spring. Deep green leaves when crushed have a citrus scent.

Indigenous, Perennial Maturity Dimensions Height - 0.45m

Height - 0.45 Width- 2m **Recommended Density:** 2-3/m²

Plant Ref: Ja

Sedum 'Autumn Joy'



Ice Plant

Clump forming herbaceous perennial. Great Sedum for cooler climates. Dark green clump of fleshy leaves which produce clusters of pink flowers reminiscent of broccoli flowers in Autumn. Unusual flower that changes colour as the season progresses. Wonderful low water usage choice for borders, rockeries and containers

Indigenous, Perennial Maturity Dimensions

Height - 0.3-0.6m Width- 0.3-0.6m Recommended Density: 6-8/m²

Plant Ref: Cm

Correa Alba



Costal Correa

Dense, grey foliaged native shrub with a rounded habit. White, star-shaped flowers appear in late winter and spring. Grows to approximately 2m in height. Used widely coastal gardens - tolerates salt spray and for hedging.

Indigenous, Perennial Maturity Dimensions

Height - 1.5m Width- 1.5m Recommended Density: 1/m²

1.5m Plant Ref: Cm 5m

Kniphofia



Red Hot Pokers

Does best in moist soils in full sun but will tolerate some drought and shade. Flowers in winter

Indigenous, Perennial Maturity Dimensions

Height - 1m Width- 0.6m Recommended Density: 6-8/m² Plant Ref: Cm

Shrubs

YELLOW FLAG IRIS Patersonia umbrosa var xanthina



The only yellow Patersonia. Forms yellow flowers in summer months above ribbon foliage.

Indigenous, Perennial **Maturity Dimensions** Height - 0.6m

Width- 0.4m

Recommended Density: 6-8/m² Plant Ref: PUvXyfi

Orthrosanthus laxus

MORNING IRIS `Dwarf'



Plant forming neat tufts to around 20cm high. From mid spring through summer, flower spikes appear just above foliage and open to reveal lovely sky blue flowers.

Indigenous, Perennial **Maturity Dimensions** Height - 0.2m

Recommended Density: 6-8/m² Plant Ref: OLmi

Patersonia occidentalis

NATIVE IRIS

Width- 0.2m



A true native Iris, is well know to the temperate climate of Australia. Forms purple flowers in summer months above ribbon foliage.

Indigenous, Perennial **Maturity Dimensions** Height - 0.6m

Width- 0.4m

Density: 6-8/m² Plant Ref: POni

Recommended

Melaleuca Thymifolia

Thyme-Leaf Honey-Myrtle



Grows best with regular moisture. Regular pruning will maintain density. Flowers late winter to early summer.

Indigenous, Perennial Maturity Dimensions Height - 1m

Width- 0.5m

Recommended Density: 2/m² Plant Ref: Jf

Chrysocephalum Semipapposum

Clustered Everlasting



A dense perennial herb with grey narrow foliage and small yellow flower clusters on erect stems, occurring from October to May. A tight clumping tussock that will tolerate dry to moist situations.

Indigenous, Perennial **Maturity Dimensions**

Height - 0.5m Width- 0.3m

Recommended Density: 6-8/m² Plant Ref: Go

Melaluca Incana Grey Honey-Myrtle



Tolerates saline soils. Needs annual pruning to rejuvinate. Very drought and waterlogging tolerant. Flowers spring and early summer. Should only be planted where there is sufficient space.

Indigenous, Perennial **Maturity Dimensions**

Height - 2m Width- 2m

Recommended Density: 1/m² Plant Ref: Jf

Seasonal Flowers

Calendula officinalis

COMMON MARIGOLD



Calendula officinalis is a short-lived aromatic herbaceous perennial, growing to 80 cm (31 in) tall, with sparsely branched lax or erect stems.

Exotic, Annual **Maturity Dimensions**

Height - 0.8m Width- 0.6m

Plant Ref: CoCm

Swainsona formosa

STURT'S DESERT PEA



Sturt's Desert Pea, is an Australian plant in the genus Swainsona, named after English botanist Isaac Swainson, famous for its distinctive blood-red leaf-like flowers, each with a bulbous black centre, or "boss". It is one of Australia's best known wildflowers.

Native, Annual **Maturity Dimensions**

Height - 0.15m Width- 2m

Plant Ref: CoCm

Delphinium cardinale



DELPHINIUM

The quintessential cottage garden annual that is still much adored by gardeners today. Dark and light blue, and white.

Exotic, Annual **Maturity Dimensions**

Height - 0.7m Width- 0.4m

Plant Ref: CoCm

Salvia viridis

SALVIA BLUE MONDAY



Combining perfectly with taller annuals such as sweetpeas and foxgloves,. Growing to 30cm high, the blue bracts stand proud and put on a spectacular display in spring. Also make an ideal cut flower.

Exotic. Annual **Maturity Dimensions**

Height - 0.3m Width- 0.1m

Plant Ref: CoCm

Artemisia arborescens



WORMWOOD

A compact low mound as dense as mercury that provides the perfect foliage contrast to all cottage flowers. Tolerant of high winds and salt spray, Powis Castle makes an effective hedge: an annual hard prune during spring will keep it a compact cloud.

Exotic, Evergreen **Maturity Dimensions**

Height - 0.6m Width-1m

Plant Ref. CoCm

Meconopsis betonicifolia



BLUE HIMALAYAN POPPY

Planted en masse this legendary blue poppy is a breath-taking sight to behold. For cool cllimate gardens with moist soils and summers below 30 degrees.

Exotic, Annual **Maturity Dimensions**

Height - 0.2m Width- 0.1m

Plant Ref: CoCm

Eschscholzia californica



CALIFORNIAN POPPY

Delightful bicolour yellow and orange flowers are easy to grow and bring a splash of sunshine into the garden.

Exotic, Annual Maturity Dimensions

Height - 0.3m Width- 0.2m

Plant Ref: CoCm

Campanula medium



CANTERBURY BELLS BLUE

One of the prettiest blues for cut flowers, Cantebury Bells is an old- fashioned favorite of experienced gardeners because they flower through mid-summer and are spectacular in a mixed border.

Exotic, Annual Maturity Dimensions

Height - 0.7m Width- 0.4m

Plant Ref: CoCm

Plant Ref: CoCm

Nepeta x faassenii



CATMINT 'WALKER'S LOW'

The classic edging plant for the flower border, and at home beneath old roses. This long flowering, vigorous ground cover provides months of colour, and it's beautiful blue flowers attract beneficial insects to the garden. After the initial spring flowering fades, clip to the ground: the refreshed plants will repeat flower throughout summer and autumn. A long flowering, vigorous ground cover ideal for edging in sunny spots.

Exotic, Annual Maturity Dimensions

Height - 0.6m

Width- 0.6m

Cerinthe major



CERINTHE PURPLE

Pendulous purple-blue flowers that last for months. The foliage is also appealing, turning from grey to mauve.

Exotic, Annual Maturity Dimensions

Height - 0.7m Width- 0.6m

idth- 0.6m Plant Ref: CoCm

Heliotropium arborescens



CHERRY PIE PURPLE HEIRLOOM

A wonderful vanilla scented shrub flowering nearly all year round. Frost sensitive

Exotic, Evergreen
Maturity Dimensions

Height - 0.15m Width- 0.15m

Plant Ref: CoCm

Aquilegia flabellata

COLUMBINE CAMEO



Native to Japan, this charming columbine is one of the first to flower, over a compact mound of blue-green foliage. Flowers of a central white cup, backed by bright pink petals adorned with large recurved spurs.

Exotic, Perannual Maturity Dimensions

Height - 0.5m

Width- 0.4m Plant Ref: CoCm

Agrostemma githago

CORN COCKLE OCEAN PEARL



Pale silver flowers dance gracefully in the summer breeze. Combines beautifully with other cottage annuals such as cosmos and cornflowers and makes a stunning long lasting cut flower.

Exotic, Annual Maturity Dimensions

Height - 0.8m

Width- 0.4m

Rhodanthe chlorocephala

NATIVE EVERLASTING DAISY



Dappled shades of pink and white are so easy to raise. Naturalises and perfect for drying as ever-lasting flowers.

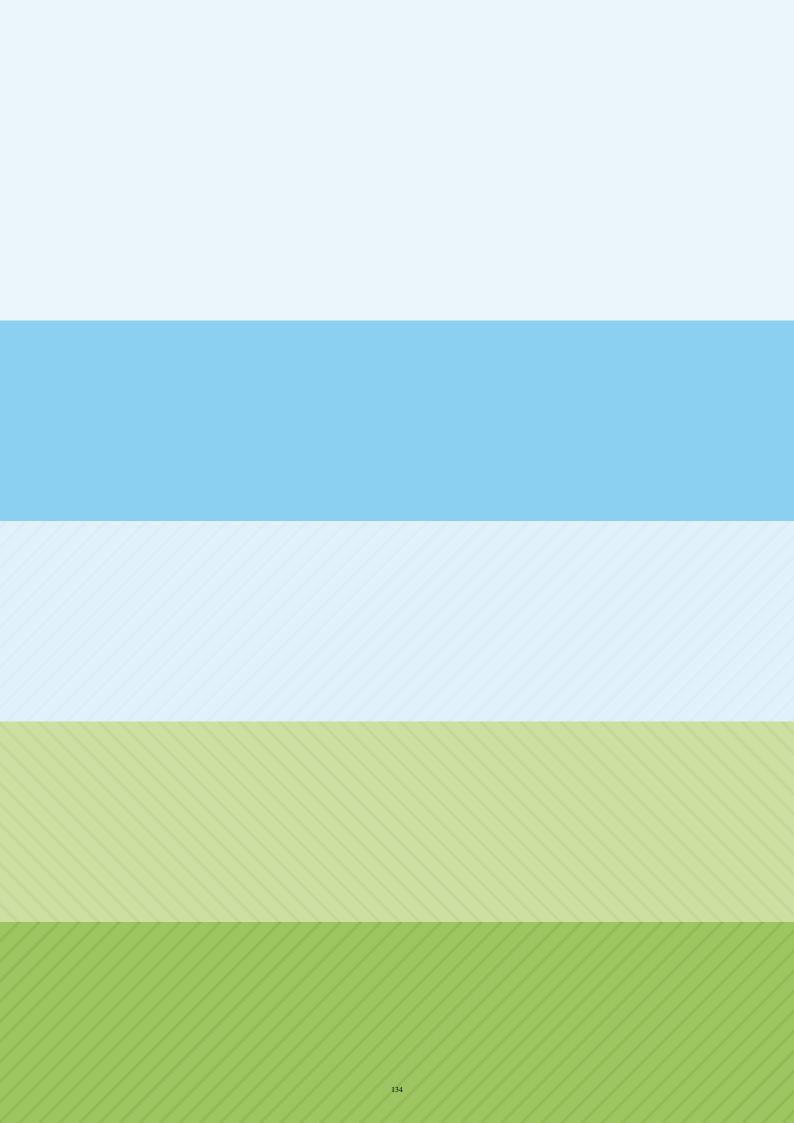
Native, Annual Maturity Dimensions

Height - 0.6m

Width- 0.4m

Plant Ref: CoCm

Plant Ref: CoCm



Glossary of Terms

Accessibility

The ease by which all users can approach, manoeuvre, reach, enter or use a space

Adopt A Tree

A formal or informal program where residents assist Council in caring for a street tree through advocacy and watering

Alternative Planting

Methods of planting that are non-traditional where a tree/plant is planted directly into soil

Albedo

The ratio of the light reflected by an object; often lighter coloured objects reflect greater amounts of light and heat

Amenity

Aesthetic or other characteristics of development or area that increase its desirability to a community.

Arborist

A specialist in the cultivation, management and care of trees.

Borrowed Landscape

Landscape that can be seen but not accessed; creates a frame or backdrop

Calming Traffic

Slowing down the flow of traffic

Compact development

A land use settlement pattern that features most or all of the following concentrations of population and/ or employment; medium to high densities appropriate to context; a mix of uses; interconnected streets; innovative and flexible approaches to parking; pedestrian-, bicycle-, and public transport -friendly design; and access to public transport.

Complete street

Streets designed and operated to enable safe, attractive and comfortable access for all users, regardless of transport mode.

Connectivity/permeability

The directness of links and the density of connections in a transport network. A highly permeable network has many short links, numerous intersections, and minimal dead-ends..

Designed Streetscape

A streetscape that has been designed to suit the use, needs and requirements of an area

Distance to public transport

Measured as an average of the shortest street routes from the residences or workplaces in an area to the nearest railway station or bus stop. Alternatively, it may be measured as public transport route density, distance between public transport stops, or the number of stations per unit area.

Dripline

The imaginary line drawn from the outer most leaf in the canopy of the tree down to the ground. This is the zone where most of the tree's root system is located

Environmental Sustainability

Practices that require little or no use of new, rare or non-renewable materials and preserve habitat or ecological systems

Evapotranspiration

The biological process by which plants give off water

Exotic Plant

Plant not native to an area

Gateways

Entry ways into a municipality; often large, well trafficked streets or ports

Green Surfaces

Planted surfaces

Green Walls

Vertical surfaces with plants growing on them; this includes climbing plants as well as vertical gardens or structures

Horticulturalist

A specialist in the field of cultivation, management and care of plants

Impermeable Surface

A surfaces that does not allow for the exchange of water, gases or nutrients

Indigenous Plant

A plant native to a specific area

Industrial Areas

Areas whose main function is industry, manufacturing or storage of goods

Infill Planting

Planting new trees of the existing street tree species in vacant spots

Land use mix

Diversity or variety of land uses (e.g. residential, commercial, industrial).

Mixed-use

Incorporation of residential and retail structures in the same geographic location.

Mixed density

Residential development that includes various housing types co-located, such as single dwellings and multiunits and development of varying size and height.

Native Plant

An Australian plant

Nature Strip

Area of Council land between the back of kerb and fence line of a public street. Also known as a verge

New Streetscape Planting

Planting of trees and garden beds in a street

Glossary of Terms

Passive Irrigation

Using available storm-water in channels, sheeting from footpaths and dripping from roofs to water vegetation

Pause Points

Areas in public streets where users can stop, rest and relax. These nodes are usually welcoming with shade and other amenities for human comfort

Percentage Canopy Cover

The amount of the ground that is shaded by the canopy of a tree

Permeable Surface

A surface allowing water, air and nutrients to flow in and out

Placemaking

The art and science of developing public spaces that attract people, build community and create local identity.

Private Realm

Privately owned land or property

Public Amenity

Elements or items in the public realm meant to provide comfort, convenience or pleasure. In this context bins, benches, water fountains, cycle hoops and recycling bins compose the most common forms of amenity

Public Realm

Public space inclusive of public streets, parks, amenities and vegetation

Replacement Planting

Replacing like for like in a plant or tree that has died or otherwise failed

Residential Areas

Areas where the most common land use is residential living

Retail Activity Centres

Streets or precincts where the most common activity is commerce

Right Tree In The Right Spot

Selecting trees for a street based on a host of factors including biological tolerances, site use and required street function.

Safe useful life expectancy

The span of time that a tree can be expected to have a biological contribution.

Sequestering Carbon

Storing or absorbing carbon as part of the natural process of growing

Shared space

An urban design and traffic engineering concept that integrates pedestrians, vehicles and other road users through the removal of traditional street elements such as signs, traffic lights, pedestrian barriers, road markings and kerbs.

Street Furniture

Public amenity inclusive of bins, benches, seats, cycle hoops and water fountains

Streetscape

The combination of all the man- made, natural and cultural elements present on a street

Successional Planting

Method of planting by which trees removed and replaced in a staggered pattern over time ensuring a more consistent look and feel

Transport Hubs

Nodes or areas dedicated to moving people from one place to another; includes public an private transport means

Tree Canopy Cover

The shadow cast by the leaves and branches of a tree **Urban Forest**

The sum total of all trees and associated vegetation growing within an urban area. The ecological grouping of vegetative and biological organisms within the urban context inclusive of private front and back gardens; balcony gardens; rooftop gardens; vines and creepers growing on walls, buildings or fences; street trees, natural bushland and conservation areas, shrubs and ground-covers in nature strips and roundabouts; trees and garden beds in public open spaces; trees and vegetation in the streetscape.

Urban Heat Island Effect

Phenomena by which hard surfaces in the urban context absorb and radiate the heat of the sun making urban areas 4-8 degrees warmer than their rural counterparts

Vertical Gardens

Gardens that are grown on climbing frames or in engineered boxes prepared for growing plants

Walkability

The level of comfort and ease that pedestrians experience as they move through a space or street. The extent to which a neighbourhood encourages and supports walking for transport and recreation.

Walkable community

A community where housing, workplaces, shopping areas, schools and recreation facilities are laid out in a manner that makes them relatively accessible by walking.

Water Sensitive Urban Design

Designed planting beds or tree pits (WSUD) that capture and filter or clean storm water runoff removing litter, pollutants and debris.

Wayfinding Signage

A suite of signage meant to help pedestrians and cyclists navigate the urban environment with references and services, activities and points of interest







