06

PRECINCT ACTION PLAN & IMPLEMENTATION PRIORITISATION

06.1

ACTION PLAN & IMPLEMENTATION PRIORITISATION

This chapter of the UFPP provides guidance on implementation. It sets out the key actions and specific neighbourhood opportunities that are fundable and deliverable over the next 10 years. This chapter also sets out the deliverability assessment process for other projects with secondary priority and future consideration status.

WHAT IS THE ACTION PLAN?

The Action Plan - contained on the following page - has been prepared for the Albert Park & Middle Park neighbourhood to guide investment in the urban forest.

The Action Plan is categorised into the seven Key Actions identified at the start of this document. These key actions are:

1	Designing new streets for greening and shade
2	Enhancing and maintaining existing streetscapes
3	Increasing canopy and biodiversity in parks and open space
4	Greening beyond council land through partnerships and advocacy
5	Proposed canopy trees, including replacement species and staged transformations to address issues of disease and site specific challenges
6	New canopy planting to address significant heritage conditions
7	Canopy that can withstand foreshore conditions

For each of the seven key Actions, specific neighbourhood opportunities have been identified and mapped to demonstrate the ways in which the Key Actions can be achieved in Albert Park & Middle Park, shown on the following pages.

HOW HAVE THE NEIGHBOURHOOD OPPORTUNITIES BEEN CHOSEN?

Some neighbourhood opportunities identified are location-specific - for example, streets selected for redesigns adapted from the Design Toolkit (Appendix B), those suited to tree species transition programs, or streets where infill planting should be prioritised. There are also several targeted open space opportunities across the neighbourhood aligned with the Green Parks Program, Small Parks Program, Public Space Upgrade Projects, and Community Gardening Support.

Precinct-wide neighbourhood opportunities have also been identified, highlighting the potential for uplift through business-as-usual operations and ongoing capital programs - for instance, the development of raingardens through WSUD initiatives.

The full table of street assessment attributes, including suggested urban forest interventions, is provided in Appendix A. For higher-cost streetscape design projects, streets have been categorised as either a primary focus, secondary focus, or for future consideration. Streets identified as a primary focus will be incorporated into the capital works programme for delivery over the next 10 years. Projects deemed a secondary focus or for future consideration will be assessed according to the capacity for future delivery. Prioritisation includes the consideration of recently completed projects in specific streets and open space areas. Project delivery will be balanced according to need to ensure projects address equity where required across the nine neighbourhoods in Port Phillip.

FUNDING

The Albert Park and Middle Park Urban Forest Precinct Plan has an implementation budget of $885,000 over 10 years, with further funding allocated from various other projects and budget streams.

This is one of nine Urban Forest Precinct Plans, each of which outlines clear neighbourhood actions to improve tree canopy and biodiversity, and set the direction for future greening initiatives.

To ensure fair delivery across all nine precincts, each precinct will initially focus on primary streets with the highest need and potential impact.

Once all nine precinct plans are complete, a municipality-wide approach will be applied to identify opportunities for secondary streetscape improvements, subject to available funding. This approach has been adopted to ensure all plans are deliverable within current resources and funding envelopes, with all projects focusing on meeting the goals of the Urban Forest Strategy: enhancing canopy cover, biodiversity and urban cooling.

Available funding sources will be assessed annually, and options for alternative funding from State and Federal Governments will be actively sought, along with ways to improve planting practices for greater impact and value. The strategic alignment, funding and deliverability assessment process is illustrated in the adjacent diagram.

IMPLEMENTATION

The neighbourhood opportunities - identified in the Action Plan on the following page - have been developed to be both fundable and deliverable within available resources over the next ten (10) years, subject to Council planning and budgeting. The Action Plan outlines the opportunities and proposed time-frames for implementation. The targets of 30% canopy cover for streets and a minimum of 40% for open spaces have been incorporated into the assessment and costing process.

Delivery of the neighbourhood opportunities will be led by teams across Council, aiming to maximise co-benefits by aligning urban greening with transport safety, water sensitive urban design, and civic amenity programmes. These efforts will complement dedicated initiatives focused on enhancing tree canopy and increasing biodiversity through strategic planting.

STRATEGIC ALIGNMENT, FUNDING AND DELIVERABILITY ASSESSMENT PROCESS

1 Strategic alignment assessment

- Equity – adding canopy cover where we need it most.
- Achieving one or more objectives identified in the Urban Forest Strategy.
- Multiple uses or benefits.

2 Funding assessment

- Partnership opportunities.
- Council budget position.
- Cost/cost benefit analysis of projects.
- Equity across neighbourhoods.

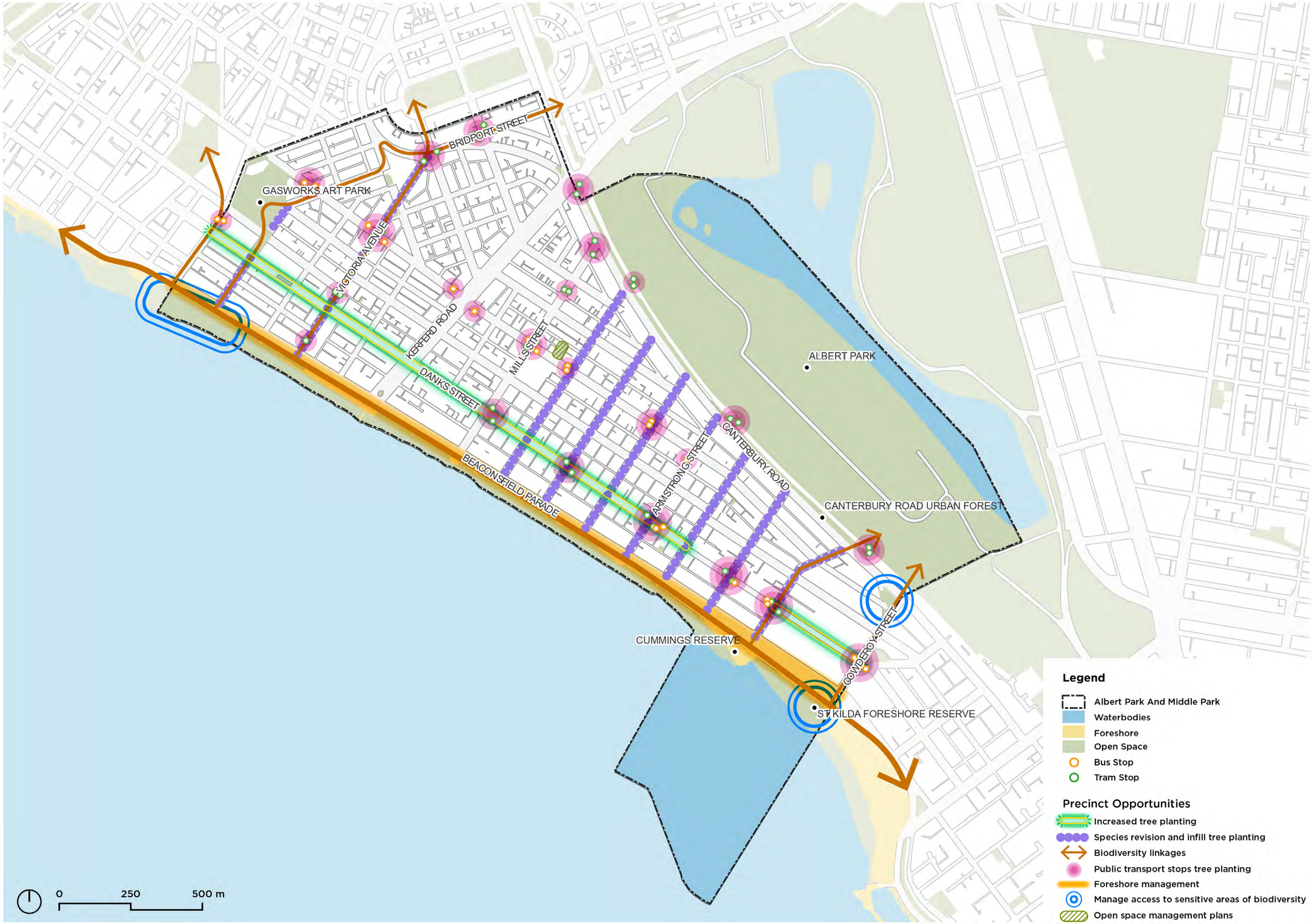
3 Deliverability assessment

- Portfolio capacity and capability.

06.2

ACTION PLAN

Key Actions (refer Pages 6 & 7)		Precinct Opportunities	Map ID
1	Designing New Streets for Greening and Shade	1 Increase street tree planting along Danks and Park Streets to improve canopy cover (species review, planting opportunities near public transport stops, infill planting and succession planting).	
		2 Link with the Road Renewal Program; Laneway Renewal Program and the Footpath Renewal and Upgrade Program to increase opportunties for planting in streets.	Precinct-Wide
2	Enhancing and Maintaining Existing Streetscapes	3 Plant trees in the vacant spaces (tree plots) where there are gaps in street tree provision.	Precinct-Wide
		4 Species revision, infill tree planting and identify poor performing trees along Fraser St, Langridge St, Armstrong St, Pickles St, Harold St, Mills St, Nimmo St, Wright St, Foote St, Mcgregor St, Victoria Ave.	
		5 Tree removal and replacement program, replacing trees when tree removals occur. Identify poor performing trees and develop replacement program.	Precinct-Wide
		6 Link up areas of biodiversity from the foreshore to siginificant open spaces including Canterbury Rd Urban Forest, Danks Street BioLink, Gasworks, Lagoon and St Vincent's Street and Gardens (along Fraser St, Cowderoy St, Foote St, Pickles St, Esplanade and through public spaces.) Improve existing biodiversity corridors along Bridport Street and Cardigan Place.	
		7 Where identified, gradually transition to new street tree species to improve canopy cover as well as biodiversity.	Precinct-Wide
		8 Identify WSUD opportunities, including uplift of current WSUD garden beds; identification of new sites; and delivery of annual capital program.	Precinct-Wide
		9 Planting uplift of garden beds in public open space and Council managed streetscapes.	Precinct-Wide
3	Increasing Canopy and Biodiversity in Parks and Open Space	10 Identify areas/trees for succession planting.	Precinct-Wide
		11 Deliver tree planting to support a new playground at Frank and Mary Crean Reserve.	
		12 Species identification for eucalypts to inform succession planting and potential seed collection and biodiversity improvements in understorey.	Precinct-Wide
4	Greening Beyond Council Land through Partnerships and Advocacy	13 Increase tree planting and other greening solutions at public transport stops. Engage with public transport companies, Yarra Trams and Department of Transport and Planning to initiate alternative vegetated shade opportunities and possible biodiversity outcomes.	
		14 Continue to advocate for, and seek partnerships with other land holders to improve greening and biodiversity outcomes, including Albert Park.	Precinct-Wide
5	Proposed canopy trees, including replacement species and staged transformations to address issues of disease and site specific challenges	15 Develop a partnership with State Government to upgrade the median strip and foreshore nature strip along Beach Road, Beaconsfield Parade, Jacka Boulevard and Marine Parade and Ormond Esplanade, through design development, new vegetation, weed mangement and biodiverstity improvements.	
		16 Initiate banksia rehabilitation along foreshore according to best tree management, biodiversity and climate ready practices to address poor health, growth and loss of trees.	
6	New Canopy Planting to Address Significant Heritage Conditions	17 Increase shade and canopy cover along the foreshore by prioritising plantings in high-use areas such as footpaths, playgrounds, BBQ zones, seating, and picnic spaces. Ensure all plantings complement local masterplans and urban design frameworks and are consistent with the Urban Forest Strategy and the Foreshore and Hinterland Vegetation Management Plan.	
		18 Preserve and enhance native dune vegetation and biodiversity along the foreshore. Manage access to sensitive dune systems and migratory shorebird feeding and roosting sites around Cowderoy Street outlet, through landscaping and educational signage.	
7	Canopy That Can Withstand Foreshore Conditions	19 Continue tree species trial to deliver species that thrive in foreshore conditions along residential side of Beaconsfield Rd and Beach Rd. Develop a cohesive and biodiverse landscape, utilising the tree trial program results. Project to include feasibility, design and delivery of de-paving, nature strip creation, biodiverse planting and canopy trees.	
		20 Align future tree planting with broader coastal adaptation initiatives to stabilise sandy soils, strengthen habitat continuity, and improve microclimate resilience in exposed coastal environments.	Precinct-Wide


BRIDPORT STREET
GASWORKS ART PARK
VICTORIA AVENUE
KERFERD ROAD
MILLS STREET
DANKS STREET
BEACONSFIELD PARADE
ARMSTRONG STREET
CANTERBURY ROAD
ALBERT PARK
CANTERBURY ROAD URBAN FOREST
GOWDEROY STREET
CUMMINGS RESERVE
ST KILDA FORESHORE RESERVE
0
250
500 m
Legend
Albert Park And Middle Park
Waterbodies
Foreshore
Open Space
Bus Stop
Tram Stop
Precinct Opportunities
Increased tree planting
Species revision and infill tree planting
Biodiversity linkages
Public transport stops tree planting
Foreshore management
Manage access to sensitive areas of biodiversity
Open space management plans

06.3

IMPLEMENTATION

Project Location	Category	Project Name	Description of Key Move (Scope)	Implementation Phase		
				1-2 Years	3-5 Years	6-10 Years
1 DESIGNING NEW STREETS FOR GREENING AND SHADE						
Location Based	Street Trees	Street Tree Program	Increase street tree planting along Danks and Park Streets to improve canopy cover. Project to include species review, identifying planting opportunities near public transport stops, infill planting and succession planting to improve canopy and tree quality.			
Precinct Wide	Street Trees	Roads, Laneways and Footpath Renewals	Link with the Road Renewal Program; Laneway Renewal Program and the Footpath Renewal and Upgrade Program to increase opportunities for planting in streets.			
2 ENHANCING AND MAINTAINING EXISTING STREETSCAPES						
Precinct Wide	Street Trees	Infill Tree Planting - Streets	Plant trees in the vacant spaces (tree plots) where there are gaps in street tree provision.			
Location Based	Street Trees	Infill Tree Planting - Streets	Prioritise species revision, infill tree planting and identifying poor performing trees in coastal to hinterland streets including Fraser St, Langridge St, Armstrong St, Pickles St, Harold St, Mills St, Nimmo St, Wright St, Foote St, Mcgregor St, Victoria Ave.			
Precinct Wide	Street Trees	Infill Tree Planting - Streets	Identify poor performing trees and develop replacement program.			
Precinct Wide	Street Trees	Infill Tree Planting - Streets	Continue tree removal and replacement program, replacing trees when tree removals occur.			
Precinct Wide	Street Trees	Tree replacement program	Develop tree replacement programs where trees are failing to thrive to improve canopy cover.			
Location Based	Open Space/ Street Trees	Biodiversity corridor linking	Link up areas of biodiversity from the foreshore through to Canterbury Rd Urban Forest along Fraser St and Cowderoy St utilising streets and public spaces			
Location Based	Open Space/ Street Trees	Biodiversity corridor linking	Link up areas of biodiversity from the foreshore through to Gasworks, Lagoon through to St Vincent's street and gardens - along the connector streets of Foote St, Pickles St, Esplanade East and Esplanade West to Danks St utilising streets and public spaces			
Location Based	Open Space/ Street Trees	Biodiversity corridor linking	Investigate opportunities to improve biodiversity corridors along Bridport St and Cardigan Pl			
Precinct Wide	Street Trees	Species transition program	Where identified, gradually transition to new street tree species to improve canopy cover as well as biodiversity.			
3 INCREASING CANOPY AND BIODIVERSITY IN PARKS AND OPEN SPACE						
Precinct Wide	Open Space	Planting Uplift Program - Parks	Planting uplift of garden beds in public open space.			
Precinct Wide	Open Space	Planting Uplift Program - Streetscapes	Planting uplift of garden beds in Council managed streetscapes.			
Precinct Wide	Blue	Water Sensitive Urban Design and Renewal Program	Identify WSUD opportunities, including uplift of current WSUD garden beds; identification of new sites; and delivery of annual capital program.			
Precinct Wide	General	Nature Strips and Community Gardening				
Precinct Wide	Trees	Succession planting	Identify areas/trees for succession planting			

Project Location	Category	Project Name	Description of Key Move (Scope)	Implementation Phase		
				1-2 Years	3-5 Years	6-10 Years
4 GREENING BEYOND COUNCIL LAND THROUGH PARTNERSHIPS AND ADVOCACY						
Location Based	Street Trees	Street Tree Program - Canterbury Rd Urban Forest	Species identification for eucalypts to inform succession planting and potential seed collection and biodiversity improvements in understorey			
Location Based	Open Space	Light rail corridor	Work with Yarra Trams for biodiversity outcomes			
Location Based	Advocacy	Albert Park canopy - Parks Victoria	Advocate for improved greening and biodiversity outcomes			
Precinct Wide	Street Trees	Greener Public Transport Stops	Increase tree planting and other greening solutions at public transport stops where summer shade provision is low, partnering with other agencies. Plant trees adjacent to public transport stops where possible. Engage with public transport companies and Department of Transport and Planning to initiate alternative vegetated shade opportunities where tree planting is not feasible.			
Precinct Wide	Advocacy	Advocacy with other land holders	Continue to advocate for, and seek partnerships with other land holders to improve greening and biodiversity outcomes, including Albert Park.			
5 + 6 PROPOSED CANOPY TREES, INCLUDING REPLACEMENT SPECIES AND STAGED TRANSFORMATIONS TO ADDRESS ISSUES OF DISEASE AND SITE SPECIFIC CHALLENGES NEW CANOPY PLANTING TO ADDRESS SIGNIFICANT HERITAGE CONDITIONS						
Location Based, multi-precinct corridor	Foreshore		Develop a partnership with State Government to upgrade the median strip and foreshore nature strip along Beach Street and Beaconsfield Parade, through new vegetation, weed management and biodiversity improvements.			
Location Based, multi-precinct corridor	Foreshore	Planting Uplift Program - Parks	Increase shade and canopy cover along the foreshore by prioritising plantings in high-use areas such as footpaths, playgrounds, BBQ zones, seating, and picnic spaces. Ensure all plantings complement local masterplans and urban design frameworks and are consistent with the Urban Forest Strategy and the Foreshore and Hinterland Vegetation Management Plan.			
Location Based, multi-precinct corridor	Foreshore	Biodiversity	Manage access to sensitive coastal and marine habitats, such as dune systems, through landscaping, weed and invasive species management, improved pedestrian access, educational signage and protective fencing.			
Location Based	Foreshore	Biodiversity	Manage access to sensitive dune systems and migratory shorebird feeding and roosting sites around Cowderoy Street outlet, through landscaping and educational signage.			
Location Based	Foreshore	Biodiversity, Street trees	Develop a cohesive, biodiverse landscape along the residential side of Beaconsfield Rd and Beach Rd, utilising the tree trial program results. Project to include feasibility, design and delivery of de-paving, nature strip creation, biodiverse planting and canopy trees.			
Location Based	Foreshore	Species transition program	Refine and implement Council's Palm Tree Management Plan to respond to the presence and spread of disease focusing first on key boulevards and foreshore reserves, inline with the Urban Forest Strategy.			
Location Based, multi-precinct corridor	Foreshore	Green Parks Program	Initiate banksia rehabilitation along foreshore according to best tree management, biodiversity and climate ready practices to address poor health, growth and loss of trees.			
7 CANOPY THAT CAN WITHSTAND FORESHORE CONDITIONS						
Location Based	Street Trees	Species transition program	Continue tree species trial to work out species that thrive in the conditions along the residential side of Beaconsfield Rd and Beach Rd.			
Precinct Wide	Foreshore		Align future tree planting with broader coastal adaptation initiatives to stabilise sandy soils, strengthen habitat continuity, and improve microclimate resilience in exposed coastal environments.			

06.4

TRACKING OUR PROGRESS

The 2024 Urban Forest Strategy includes baseline measures and targets to track progress. Some of these measures will be tracked at a neighbourhood scale. The table below lists these measures and includes the current baseline for Albert Park and Middle Park and the municipal wide baseline.

Measure	Precinct Baseline	Municipality Baseline	Short term	Long term	1	2	3	4	5	6	7
Percentage canopy cover - overall	14%	17.17%	18%	-							
Percentage canopy cover - streets	26%	25.53%	26%	30%							
Percentage canopy cover - public space	10%	29.00%	30%	40% canopy cover, no net loss of canopy at any individual park or reserve							
Number of street tree plots that are vacant	36	Less than 5% vacancy	Decreased from baseline	Decreased from 2033							
Deliver permeable surfaces through Council's capital/ footpath program	-	Record meters squared for future target development	De-pave 19,000sqm of non-permeable surfaces	To be set in line with Act & Adapt Strategy							
Public tree species diversity rating	-	Good to Fair	Good to Fair	Good							
Percentage of Council trees assessed as healthy	-	To be established	Minimum 85%	90% healthy							
Percentage survival rate of new Council tree plantings at two years old	-	85%	Minimum 85% survival rate	90% survival rate							
Average number of plantings per annum that support biodiversity (annual)	8,000	32,000	50,000	-							

06.5

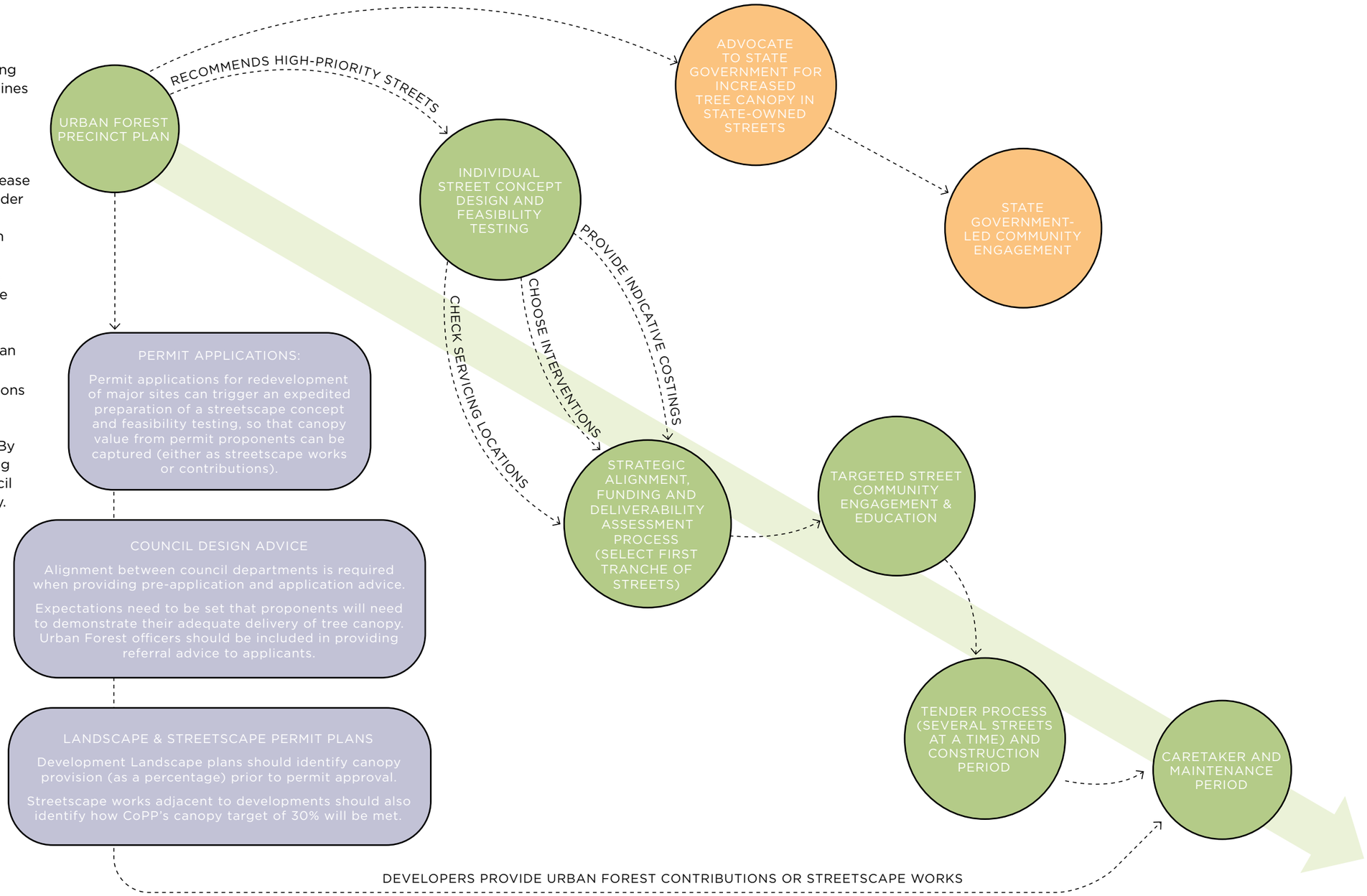
FUTURE IMPLEMENTATION PROCESS

The City of Port Phillip can enhance its urban forest through a coordinated approach across departments, ensuring alignment towards the shared goal of increasing tree canopy. The process map (shown to the right) outlines how CoPP can leverage internal synergies and external partnerships to achieve this objective.

There are three primary processes for implementation:

- Direct Action by CoPP – The council can actively increase tree canopy within streets, parks and open spaces under its jurisdiction. This may involve planting new trees, maintaining existing vegetation and integrating urban greening initiatives into infrastructure projects.
- Advocacy to the State Government – Many key roads and public spaces are owned or managed by the state government. CoPP can advocate for increased tree planting and improved greenery in these areas by collaborating with state agencies and influencing urban planning policies at a higher level.
- Advocacy and Enforcement through Permit Applications – CoPP can encourage and mandate tree planting in private developments and public realm projects through its planning and permit approval processes. By setting clear canopy targets, enforcing urban greening requirements and working with developers, the council can drive increased tree cover across the municipality.

This integrated approach will help CoPP create a more resilient, green, and sustainable urban environment, benefiting both residents and biodiversity.



06.6

FURTHER IMPLEMENTATION CONSIDERATIONS

SPECIES MIXES BEST-PRACTICE

Selecting an appropriate mix of tree species is essential to building a resilient urban forest that provides lasting canopy cover while adapting to climate change, pests, and diseases.

A commonly used guideline is the 10-20-30 rule (Santamour, 1990), which recommends that no more than 10% of trees belong to a single species, 20% to a single genus, and 30% to a single family. This aims to reduce vulnerability to threats such as Dutch Elm Disease and Myrtle Rust.

However, this rule is often criticised for oversimplifying urban forestry needs. It may not suit all climates, especially where fewer species can tolerate urban conditions. Emphasising diversity can limit the use of native species that support local biodiversity. Other challenges include nursery supply, increased maintenance complexity, and inconsistent streetscapes. Moreover, the rule lacks strong scientific evidence, and a more functional approach—selecting species based on resilience, ecological services, and site-specific factors—may offer better long-term outcomes.

Best practice guidance includes:

- Diversity Ratios & Climate Resilience: selecting species that tolerate increasing urban heat, drought, and extreme weather. This includes species from similar climate zones globally (e.g., Mediterranean and arid-climate trees) and native species adapted to local conditions.
- Site-Specific Selection: accounting for soil type, available root space, moisture levels, and potential conflicts with infrastructure. Use of structured soils, root barriers, and engineered planting pits ensures species thrive in urban settings.
- Ecological Functionality: selecting species that support biodiversity by providing habitat and food for birds, pollinators, and urban wildlife.
- Human Amenity and Cooling: prioritising broad-canopied trees that provide shade, reduce the urban heat island effect, and enhance public space usability. Fast-growing but structurally stable species are preferred for quicker benefits.

CONSTRAINED URBAN SPACES

Existing streetscapes are challenging to retrofit. Trees, nature strips, accessible footpaths, adequate road space, car parking and bike lanes cannot always be accommodated. Smart streetscape design and prioritisation will be required. Planting trees in streets presents a variety of challenges. Given the varied development patterns, a site-specific approach is needed to ensure successful planting. Specific infrastructure restrictions include:

- Powerlines and tram lines: More than half of Port Phillip's street trees are pruned around above-ground power and communication cables. Council must meet legislative clearance requirements for trees near powerlines, in accordance with the Electricity Safety (Electric Line Clearance) Regulations 2005 (Energy Safe Victoria). This requires regular clearance pruning to maintain the required distances.
- Underground utilities: Services located beneath roads, footpaths and parks include electricity, water and gas lines, communications cabling, drains, and electric vehicle charging stations. Trees can interfere with these services, and regulations require offset distances between new tree plantings and infrastructure such as lines and service pits.
- Council can continue to advocate for regulation and funding to support engineered solutions that improve safety while reducing negative impacts on canopy cover and planting areas.

GREENING LANEWAYS AND SMALL STREETS

The City of Port Phillip Places for People: Public Space Strategy 2022-32 includes an action to: Prepare guidelines to assist Council decision making on supporting the use of laneways for gardening by the community.

Based on learnings from the City of Melbourne's 'Green your Laneway Project Evaluation 2023 - Summary Report' projects to green laneways and small streets will need:

- A robust community engagement framework - finding champions in the community is important. In the City of Melbourne community participation is a key contributor to the success of greening projects in laneways and small streets.
- To prioritise community driven support for projects (in some cases, co-funding partnerships with businesses and building owners).
- To be incorporated into capital works projects (when delivered by the City of Port Phillip) and could be linked into larger (re)developments to contribute to the outcomes across the development/precinct.
- Projects that include greening a Laneways or Small Street could provide an opportunity for a trial program or pilot project which could be scaled up across the precinct. Greening components could include window planters, street trees, pot plants, large planters, artworks, façade greening, green living walls, green roofs, community gardens.

Figure 54: Guildford Lane (Source: City of Melbourne)

Figure 53: Coromandel Place (Source: City of Melbourne)

SAFETY AND ACCESS

- Car parking and narrow streets: In many urban streets, increasing planting opportunities is not possible without removing car parking. In some cases, on-road planting between parking bays is feasible by placing trees in no-standing zones or next to crossovers. Any planting must take into account road safety and the need to protect trees from vehicle damage.
- Accessible footpaths: Under the Disability Discrimination Act 1992, all public spaces must be accessible. Street trees can impact accessibility due to fruit drop, narrow footpaths, or invasive roots affecting path surfaces.
- Street safety: Street trees are managed to ensure safe movement for pedestrians, drivers and cyclists. Trees are pruned to preserve access and visibility. Under the Local Law, residents are responsible for ensuring vegetation on private property does not block footpath access or traffic sight lines.

TREATING ROOT ZONES LIKE A 'UTILITY'

Tree roots compete for space with underground utilities such as water pipes, stormwater drains, and electrical conduits. Best practice treats root zones as critical infrastructure, ensuring sufficient soil volume, aeration, and water availability through:

- Engineered Soil Systems: structural soils and soil cells (e.g., Silva Cells) allow tree roots to grow under pavements without damaging surfaces, supporting root expansion while maintaining infrastructure integrity.
- Shared Utility Corridors: designing streets to allocate protected space for tree roots alongside other utilities, reducing conflict and ensuring long-term growth.
- Compacted Zone Avoidance: implementing deep soil zones or tree trenches with uncompacted soil allows roots to establish more effectively.
- Root Management Techniques: use of root directors and barriers to prevent invasive root growth while maximising available soil for root development.

TREE PLANTING CONDITIONS

- Compacted, contaminated and poor soils: Urban soil conditions in Port Phillip are often compacted and of poor quality, largely due to historic use of imported fill. This severely restricts tree growth. A range of treatments can improve soil quality, manage contamination, and protect against future compaction.
- Treating root zones like a utility: Tree roots often conflict with underground services and building foundations in urban settings. A suite of strategies is needed—including appropriate species selection and site-specific assessment—to ensure adequate growing space and soil volume.

WATER SENSITIVE URBAN DESIGN

Integrating tree planting with Water Sensitive Urban Design (WSUD) improves tree health, reduces stormwater runoff, and enhances urban cooling. Best practice includes:

- Passive Irrigation: directing stormwater runoff into tree pits or bioretention areas increases soil moisture availability, reducing reliance on potable water.
- Permeable Pavements: allowing water infiltration into subsoil layers provides sustained moisture for tree roots while reducing urban flooding.
- Raingardens and Bioswales: integrating tree plantings with bioswales improves stormwater quality while supporting tree growth.
- Subsurface Irrigation: systems such as deep pipe irrigation ensure trees receive adequate water at root level, reducing evaporation losses.
- Combining these strategies ensures a resilient urban tree canopy that thrives despite urban constraints, maximising environmental, social, and economic benefits.

ALIGNING WITH PROGRAMS ACROSS COUNCIL

Council has 'business as usual' programs for road pavement and footpath asset renewal, traffic safety improvements, water sensitive urban design and parks improvements. Integration of urban greening initiatives with these works can result in multiple benefits and savings. In areas programmed for renewal greening initiatives may be scheduled to enable shared delivery of works.

SELECT DOCUMENT REFERENCES:

- City of Port Phillip Urban Forest Strategy 2024-2040 (https://www.portphillip.vic.gov.au/council-services/trees-parks-and-nature-strips/urban-forest-strategy-2024-to-2040/)
- City of Port Phillip Tree Ledger Report 2012-2022 (Player Piano Data Analytics 2023) (https://hdp-au-prod-app-pp-haveyoursay-files.s3.ap-southeast-2.amazonaws.com/3216/8889/7887/Tree_Ledger_Report_2012-2022.pdf)
- Port Phillip Housing Strategy 2024-2023 (https://haveyoursay.portphillip.vic.gov.au/draft-housing-strategy)
- Port Phillip Housing Market and Capacity Assessment (Urban Enterprise, 2024). (https://hdp-au-prod-app-pp-haveyoursay-files.s3.ap-southeast-2.amazonaws.com/9817/0917/7779/CoPP_Housing_Capacity_Report_November_2022.pdf)
- Green Your Laneway Project Evaluation 2023 - Summary Report (City of Melbourne, 2023). (https://participate.melbourne.vic.gov.au/greenlaneways)

Figure 56: Rain garden in Park Road, Middle Park (Source: City of Port Phillip)

Figure 55: Rain garden integrating trees, flowers and grasses
(Source: Department of Transport and Planning)

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APPENDIX A
STREETS & OPEN SPACE ATTRIBUTES

STREET ATTRIBUTES: OPPORTUNITIES & CONSTRAINTS

Attribute	How might the attribute impact ability to deliver tree canopy?
Council owned road	Whether CoPP can take a responsibility role or play an advocacy role in delivery.
Whether there is an existing process underway to masterplan street	Whether the UFPP defers to a separate planning or implementation process to deliver canopy.
Street proximity to an activity centre	People are more likely to choose walking in these streets, therefore it is more important to ensure a comfortable pedestrian environment with ample shading.
Whether street is designated cycling route	People are more likely to cycle in these streets due to the improve cycle amenity, therefore it is more important to ensure a comfortable cycling environment with ample shading.
Street has public transport stops (tram or bus)	Waiting areas and transport shelters located along the kerbside reduces space for planting trees.
Walk Quality Scores	The Walk Quality analysis by Swinburne University ties into the movement network by illustrating where there are gaps in the provision of shade for walking catchments from key activity nodes, thus identifying the priority streets for shade improvements. These priority Walk Quality streets were identified as: Alma Rd, Nelson St, Camden St, Glen Eira Ave, Oak Grove, William St, Inkerman St and Carlisle St as a high priority, with Landsdowne Rd, Westbury St, Marlborough St, Rosamond St and Nightingale St as medium priority streets to improve walkability.
Heat vulnerability	The heat vulnerability assessment is to identify areas where we might expect high vulnerability to heat waves. The map shows areas with higher UHI relative to baseline; in combination with selected land cover attributes and demographic characteristics.

STREET ATTRIBUTES TABLE

The following street attributes have been gathered for the streets of St Kilda and St Kilda West. This information does not contribute to priority scoring:

1. **Road name**

2. **Street type**
   As identified in Chapter 4.

3. **Implementation focus**
   Whether Council deems the street a primary focus, secondary focus, operational focus of for future consideration.

4. **Walk Quality Priority**
   As determined by the Swinburne Walk Quality assessment.

5. **Canopy cover (%)**
   Percent of canopy cover of streets as determined in GIS.

6. **Existing canopy cover**
   0-15% is considered LOW, 15-30% is considered MEDIUM and over 30% is considered HIGH.

7. **Powerlines**
   Are there powerlines present? Yes (Y) or No (N).

8. **Number of traffic lanes**
   How many traffic lanes are there?

9. **Road width**
   Property boundary to property boundary, including footpaths

10. **Road area**
    Road are within neighbourhood m^2

11. **Footpath area**
    Footpath area within road easement m^2

12. **Percentage of road as footpath**

13. **Percentage of road <u>not</u> footpath**

14. **Carriageway width**
    % of road not footpath multiplied by road width

15. **Carriageway width by traffic lane**
    Number of traffic lanes multiplied by 3.3m

16. **Potential for intervention**
    Potential that there is surplus width in the road for interventions based off number of traffic lanes and street carriageway width.

17. **Vehicle crossovers**
    Are there regular vehicle driveways or crossovers? Yes (Y) or No (N)

18. **Parking 1**
    Unrestricted parking

19. **Parking 2**
    4 hour, 2.5 hour, 2 hour

20. **Parking 3**
    15min, 5min, 1hr, 10min, 30min

21. **Parking 4**
    Permit zone

22. **Parking 5**
    No parking, clearway, bus zone, loading zone, mail zone, taxi zone

The following street attributes contribute to the priority scoring (low, medium and high) and are scored accordingly:

23. **Street proximity to activity centres**
    Street is in 2 activity centres: 3 points
    Street is in 1 activity centre: 2 points
    Street is <400m distance from activity centre: 1 point
    Street is >400m distance from activity centre: 0 points

24. **Cycling infrastructure**
    Street is along Strategic Cycling Corridor (SCC): 3 points
    Street is along Principal Bike Network (PBN): 2 points
    Street is a bike corridor in CoPP's Integrated Transport Strategy: 1 point

25. **Road ownership**
    Street is a council owned road: 2 points
    Street is not a council owned road: 0 points

26. **Public transport**
    Street has a tram and bus stop: 3 points
    Street has a tram or bus stop: 2 points
    Street has neither tram nor bus stop: 0 points

27. **Heat vulnerability**
    Lowest heat vulnerability (0-1): 0 points
    Low heat vulnerability (2): 1 point
    Medium heat vulnerability (3): 2 points
    High heat vulnerability (4): 3 points

28. **Urban Heat Island (UHI)**
    Low UHI (0-5): 0 points
    Medium UHI (5-7.5): 2 points
    High UHI (7.5-10): 3 points

29. **Council Strategy**
    Street referenced in Council Strategy/Master Plan: 2 points
    Street not referenced in Council Strategy/Master Plan: 0 points

30. **Street biodiversity connections**
    Connects to foreshore dune areas: 5 points
    <100m from the foreshore: 3 points
    Abuts two or more open spaces: 2 points
    Abuts an open space: 1 point
    Does not abut an open space: 0 points

Numbers correspond to their description on the previous page. The following abridged table is an example of how the information has been presented in this chapter.

Streets marked with an asterisk are streets that had insufficient data to calculate attributes and are therefore blank in those columns. This is often due to a street being informal (e.g. a trail), streets with no road casement or pathways (e.g. laneways) or larger roads where only a small portion of the full length of road sits within the precinct boundary.

Note: NDA - No Data Available

1 Road Name	2 Street Type	3 Implementation Focus	4 Walk Quality Street Priority	5 Canopy Cover (%)	6 Canopy Cover Level	7 Powerlines	8 Number of Traffic Lanes	9 Road Width	10 Road Area (m^2)	11 Footpath Area (m^2)	12 % of road as footpath	13 % of road not footpath	14 Carriageway width	15 Carriageway with by lanes	16 Potential for intervention	17 Vehicle crossovers	18 Parking 1	19 Parking 2	20 Parking 3	21 Parking 4	22 Parking 5	23 Activity Centres	24 Cycling	25 Council Road	26 Public Transport	27 Heat Vulnerability	28 Urban Heat Island	29 Strategic support	30 Biodiversity connections	Total score
ARMSTRONG ST	Green Street	*Primary focus*	High	47.69	HIGH	Y	2	30.19	12698	3550.91	27.96	72.03	21.74	15.14	Y	N	1.46	0.00	94.96	0.54	3.04	1	2	2	3	1	2	2	3	16
BEACONSFIELD PDE	Foreshore Boulevard	*Future focus*	High	13.26	LOW	N	5	32.6	130955	31801.65	24.28	75.71	24.68	8.18	Y	N	55.90	25.45	4.71	7.04	6.90	2	2	0	0	2	2	0	3	11
SEISMAN PL*	Access Laneway	*Operational*	-																			1	0	0	0	1	2	0	0	4

STREET INFORMATION

Street information columns do not contribute to total score

PRIORITY SCORING

Priority scoring columns contribute to total score

High Priority	12-16
Medium Priority	8-12
Low Priority	0-8

Road Name	Street Type	Implementation Focus	Walk Quality Street Priority	Canopy Cover (%)	Canopy Cover Level	Powerlines	Number of Traffic Lanes	Road Width	Road Area (m^2)	Footpath Area (m^2)	% of road as footpath	% of road not footpath	Carriageway width	Carriageway with by lanes	Potential for intervention	Vehicle crossovers	Parking 1	Parking 2	Parking 3	Parking 4	Parking 5	Activity Centres	Cycling	Council Road	Public Transport	Heat Vulnerability	Urban Heat Island	Strategic support	Biodiversity connections	Total score
ARMSTRONG ST	Green Street	*Primary focus*	High	47.69	HIGH	Y	2	30.19	12698	3550.91	27.96	72.03	21.74	15.14	Y	N	1.46	0.00	94.96	0.54	3.04	1	2	2	3	1	2	2	3	16
ASHWORTH ST	Access Laneway	*Secondary focus*	-	8.42	LOW	Y	1	9.6	12506	1811.52	14.48	85.51	8.20	4.90	N	Y	0.00	0.00	90.73	9.27	0.00	2	0	2	0	2	3	0	3	12
AUGHTIE DR*	Unique Street	*Operational*	-																			2	3	2	0	1	3	0	0	11
BARRETT LN	Access Laneway	*Operational*	-	0	LOW	N	1	3.96	742	NA	NA	NA	NA	NA	NA	N	2.82	33.79	63.39	0.00	0.00	2	0	2	0	2	2	0	0	8
BARRETT ST	Green Street	*Operational*	-	78.25	HIGH	Y	2	30.16	7804	885.71	11.34	88.65	26.73	20.13	Y	N						1	0	2	0	2	2	0	1	8
BEACONSFIELD LN	Access Laneway	*Operational*	-	0	LOW	Y	1	4.26	1168	NA	NA	NA	NA	NA	NA	Y						1	0	2	0	1	3	0	3	10
BEACONSFIELD PDE	Foreshore Boulevard	*Future focus*	High	13.26	LOW	N	5	32.6	130955	31801.65	24.28	75.71	24.68	8.18	Y	N	55.90	25.45	4.71	7.04	6.90	2	2	0	0	2	2	0	3	11
BEVAN ST	Narrow Street	*Operational*	-	31.69	HIGH	Y	1	30.2	3250	1135.24	34.93	65.06	19.65	16.35	Y	Y	3.91	3.63	92.46	0.00	0.00	2	0	2	0	1	3	0	0	8
BLEAKHOUSE LN	Access Laneway	*Operational*	-	0	LOW	Y	1	6.01	915	377.32	41.23	58.76	3.53	0.23	N	Y	0.00	0.00	0.00	0.00	100.00	2	0	2	0	1	2	0	3	10
BOYD ST	Typical Street	*Operational*	High	44.13	HIGH	Y	2	20.68	7524	1346.95	17.90	82.09	16.97	10.37	Y	Y	37.10	0.00	62.90	0.00	0.00	0	0	2	0	1	2	0	0	5
BRIDPORT ST	High Street	*Future focus*	-	20.8	MEDIUM	Y	2	29.89	13261	4919.32	37.09	62.90	18.80	12.20	Y	N	3.33	6.86	85.45	0.00	4.37	2	0	2	2	1	3	2	0	12
BRIDPORT ST WEST	Green Street	*Operational*	-	43.5	HIGH	Y	2	29.91	14113	1997.13	14.15	85.84	25.67	19.07	Y	N	22.25	76.61	0.00	0.00	1.15	2	0	2	0	1	3	2	1	11
BROOKE ST	Narrow Street	*Operational*	-	18.88	MEDIUM	Y	1	11.3	1049	282.41	26.92	73.07	8.25	4.95	N	N	0.00	0.00	100.00	0.00	0.00	2	0	2	0	1	2	0	0	7
CAMERON PL	Access Laneway	*Operational*	-	0	LOW	Y	1	3.85	536	NA	NA	NA	NA	NA	NA	Y						2	0	2	0	1	2	0	3	10
CANTERBURY RD	Moderate Movement Corridor	*Secondary focus*	High	37.11	HIGH	Y	4	29.51	56294	6858.3	12.18	87.81	25.91	12.71	Y	N	14.51	75.04	9.47	0.00	0.97	2	2	0	3	1	2	0	2	12
CANTERBURY PL	Micro Street	*Operational*	-	9.78	LOW	Y	1	10.3	9124	1819.26	19.93	80.06	8.24	4.94	N	Y	37.24	0.00	0.00	62.76	0.00	0	0	2	0	1	2	0	0	5
CARDIGAN PL	Green Street	*Future focus*	-	46.34	HIGH	Y	2	30.5	7932	1060.33	13.36	86.63	26.42	19.82	Y	N	33.61	52.10	13.11	1.18	0.00	2	0	2	0	1	3	2	2	12
CARTER ST	Narrow Street	*Operational*	-	34.99	HIGH	Y	1	9.92	7071	1603.65	22.67	77.32	7.67	4.37	N	Y	88.78	0.00	11.22	0.00	0.00	2	0	2	0	1	3	0	2	10
COLLEGE PL	Micro Street	*Operational*	-	0	LOW	N	1	6.13	717	224.94	31.37	68.62	4.20	0.90	N	Y						2	0	2	0	1	2	0	0	7
COWDEROY PL	Typical Street	*Operational*	-	NDA	NDA	N	2	3.6	NDA	NDA	NDA	NDA	NDA	NDA	NA	Y	0.00	100.00	0.00	0.00	0.00	0	0	2	0	1	2	0	0	5
COWDEROY ST	Movement Street	*Future focus*	-	38.79	HIGH	Y	2	30	10888	921.21	8.46	91.53	27.46	20.86	Y	Y	67.60	11.33	0.00	21.07	0.00	0	0	2	0	0	2	2	5	11
COWIE LN	Micro Street	*Operational*	-	0	LOW	Y	1	6.11	460	230.5	50.10	49.89	3.048	-0.25	N	Y						2	0	2	0	2	2	0	0	8
DANKS ST	Movement Street	*Primary focus*	High	45.73	HIGH	Y	2	40.56	61788	6847.51	11.08	88.91	36.06	29.46	Y	N	9.63	0.14	70.21	17.74	2.28	2	0	2	3	2	3	0	2	14
DANKS ST WEST*	Movement Street	*Operational*	-																			1	0	2	0	2	2	0	0	7
DINSDALE ST	Micro Street	*Operational*	-	35.25	HIGH	Y	2	20.29	5588	649.19	11.61	88.38	17.9	11.33	Y	N	0.00	43.40	50.79	4.54	1.27	2	0	2	0	1	3	0	0	8
DUNDAS LANE	Access Laneway	*Operational*	-	0	LOW	N	1	6	1428	233.33	16.33	83.66	5.019	1.71	N	Y	0.00	0.00	0.00	0.00	100.00	2	0	2	0	1	3	0	0	8
DUNDAS PL	Green Street	*Operational*	-	40.46	HIGH	Y	2	29.94	10174	2045.57	20.10	79.89	23.92	17.32	Y	N	1.46	21.94	59.40	17.20	0.00	2	0	2	0	1	2	0	2	9
DURHAM ST	Typical Street	*Operational*	-	47.28	HIGH	Y	2	19.95	3016	429.65	14.24	85.75	17.10	10.50	Y	N	100.00	0.00	0.00	0.00	0.00	2	0	2	0	1	2	0	0	7
ERSKINE ST	Narrow Street	*Operational*	-	15.53	MEDIUM	Y	1	10.27	9545	2090.64	21.90	78.09	8.02	4.72	N	N	74.38	20.77	4.05	0.00	0.79	2	0	2	0	1	2	0	0	7
FAUSSETT LN	Access Laneway	*Operational*	-	6.47	LOW	Y	1	6	881	284.46	32.28	67.71	4.06	0.76	N	Y						1	0	2	0	1	2	0	0	6
FAUSSETT ST	Green Street	*Operational*	-	34.23	HIGH	Y	2	20.02	2626	606.35	23.09	76.90	15.39	8.79	Y	N	2.19	0.00	97.81	0.00	0.00	2	0	2	0	1	3	0	0	8
FINLAY ST	Typical Street	*Operational*	-	49.72	HIGH	Y	2	20.13	6163	1024.88	16.62	83.37	16.78	10.18	Y	N	1.21	44.27	54.53	0.00	0.00	2	0	2	0	1	2	0	0	7
FOOTE LANE	Access Laneway	*Operational*	-	0	LOW	N	1	6.06	480	NA	NA	NA	NA	NA	NA	Y						1	0	2	0	1	2	0	0	6
FOOTE ST	Typical Street	*Operational*	-	21.22	MEDIUM	Y	2	29.5	4336	1038.37	23.94	76.05	22.43	15.83	Y	N	25.13	9.25	65.62	0.00	0.00	2	1	2	0	1	2	2	3	13
FRASER ST	Green Street	*Future focus*	Moderate	34.08	HIGH	Y	2	29.91	10887	1636.5	15.03	84.96	25.41	18.81	Y	Y	10.00	21.41	68.59	0.00	0.00	0	0	2	3	1	3	0	3	12
GATEHOUSE LN	Micro Street	*Operational*	-	9.57	LOW	N	1	10.5	1704	618.07	36.27	63.72	6.69	3.39	N	Y	5.95	0.00	94.05	0.00	0.00	2	0	2	0	1	2	0	0	7
GRAHAM ST	Green Street	*Secondary focus*	-	57.17	HIGH	Y	5	29.8	12191	2022.82	16.59	83.40	24.85	8.35	Y	Y	41.02	0.00	57.38	0.00	1.60	3	0	2	2	2	2	0	2	13
GRAY LANE	Access Laneway	*Operational*	-	4.37	LOW	Y	1	6.12	1396	409.47	29.33	70.66	4.32	1.02	N	Y	9.02	0.00	0.00	90.98	0.00	2	0	2	0	1	2	0	0	7
GREIG ST	Typical Street	*Operational*	-	59.69	HIGH	Y	2	20.35	4932	649.15	13.16	86.83	17.67	11.07	Y	N	94.49	0.00	5.51	0.00	0.00	2	0	2	0	1	2	0	0	7
HAMBLETON ST	Green Street	*Operational*	-	63.3	HIGH	Y	2	30.24	19906	2091.99	10.50	89.49	27.06	20.46	Y	N	100.00	0.00	0.00	0.00	0.00	2	0	2	0	1	3	0	2	10
HAROLD ST	Green Street	*Primary focus*	-	49.69	HIGH	Y	2	30.37	16757	2784.16	16.61	83.38	25.32	18.72	Y	N	74.52	0.00	25.48	0.00	0.00	2	0	2	2	1	2	0	3	12
HERBERT PL	Micro Street	*Operational*	-	10.86	LOW	Y	2	10.3	1335	495.18	37.09	62.90	6.47	-0.12	N	Y	3.08	96.92	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6
HERBERT ST	Green Street	*Operational*	-	46.85	HIGH	Y	2	30.02	10968	1456.56	13.28	86.71	26.03	19.43	Y	N	0.64	99.36	0.00	0.00	0.00	2	0	2	0	1	2	0	0	7
JOHNSON LN	Access Laneway	*Operational*	-	0	LOW	N	1	3.09	383	NA	NA	NA	NA	NA	NA	N						2	0	2	0	1	2	0	0	7
KERFERD LN	Access Laneway	*Operational*	-	0	LOW	N	1	5.97	668	243.24	36.413	63.58	3.79	0.49	N	Y						1	0	2	0	1	2	0	0	6
KERFERD RD	Unique Street	*Primary focus*	High	30.9	HIGH	Y	4	60.3	60004	6980.86	11.63	88.36	53.28	40.08	Y	N	6.37	22.45	69.12	0.51	1.55	2	1	2	0	1	2	2	3	13
KERFERD PL	Typical Street	*Operational*	-	30.86	HIGH	Y	2	20.02	3380	512	15.14	84.85	16.98	10.38	Y	Y	2.60	0.00	97.40	0.00	0.00	1	0	2	0	1	2	0	1	7

Road Name	Street Type	Implementation Focus	Walk Quality Street Priority	Canopy Cover (%)	Canopy Cover Level	Powerlines	Number of Traffic Lanes	Road Width	Road Area (m^2)	Footpath Area (m^2)	% of road as footpath	% of road not footpath	Carriageway width	Carriageway with by lanes	Potential for intervention	Vehicle crossovers	Parking 1	Parking 2	Parking 3	Parking 4	Parking 5	Activity Centres	Cycling	Council Road	Public Transport	Heat Vulnerability	Urban Heat Island	Strategic support	Biodiversity connections	Total score
LANGRIDGE ST	Typical Street	*Primary focus*	Moderate	32.39	HIGH	Y	2	30.37	11269	1612.25	14.30	85.69	26.02	19.42	Y	N	51.90	35.68	12.42	0.00	0.00	2	0	2	2	1	2	0	3	12
LAUREATE LN*	Access Laneway	*Operational*	-																			2	0	2	0	1	2	0	1	8
LITTLE FINLAY ST	Access Laneway	*Operational*	-	9.98	LOW	Y	1	6.1	852	320.08	37.56	62.43	3.80	0.50	N	Y	100.00	0.00	0.00	0.00	0.00	2	0	2	0	1	2	0	0	7
LITTLE GRAHAM ST	Micro Street	*Operational*	-	23.55	MEDIUM	N	2	10.32	2930	852.59	29.09	70.90	7.31	0.71	N	Y	79.34	0.00	20.66	0.00	0.00	2	0	2	0	2	2	0	0	8
LITTLE GREIG ST	Access Laneway	*Operational*	-	0	LOW	N	1	6.03	1204	365.08	30.32	69.67	4.20	0.90	N	Y	0.00	0.00	0.00	0.00	0.00	2	0	2	0	1	2	0	0	7
LITTLE MERTON ST	Access Laneway	*Operational*	-	0	LOW	N	1	5.95	2016	614.83	30.49	69.50	4.13	0.83	N	Y	100.00	0.00	0.00	0.00	0.00	2	0	2	0	1	2	0	0	7
LITTLE OGRADY ST	Access Laneway	*Operational*	-	3.9	LOW	N	1	6.38	1923	570.06	29.64	70.35	4.48	1.18	N	Y	0.00	100.00	0.00	0.00	0.00	2	0	2	0	1	2	0	0	7
LITTLE PAGE ST	Access Laneway	*Secondary focus*	High	1.91	LOW	N	2	6.55	8685	190.84	2.19	97.80	6.40	-0.19	N	Y	33.95	0.00	50.04	16.02	0.00	2	0	2	0	1	3	0	2	10
LITTLE VINCENT ST	Access Laneway	*Operational*	-	0	LOW	N	1	5.9	1557	540.31	34.70	65.29	3.85	0.55	N	Y						1	0	2	0	1	2	0	0	6
LITTLE WITHERS ST	Micro Street	*Operational*	-	0	LOW	N	2	6.26	272	53.32	19.60	80.39	5.03	-1.56	N	1						1	0	2	0	1	2	0	0	6
LONGMORE ST	Green Street	*Operational*	-	51.5	HIGH	Y	2	20.07	5241	1004.28	19.16	80.83	16.22	9.62	Y	Y	100.00	0.00	0.00	0.00	0.00	0	0	2	0	1	2	0	1	6
MADDEN ST	Typical Street	*Operational*	-	34.91	HIGH	Y	2	19.97	6176	1348.32	21.83	78.16	15.61	9.01	Y	Y	0.00	30.66	0.00	69.34	0.00	1	0	2	0	1	2	0	0	6
MCFARLANE LN	Access Laneway	*Operational*	-	0	LOW	N	1	6.05	684	295.47	43.19	56.80	3.43	0.13	N	Y	0.00	0.00	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6
MCGREGOR ST	Typical Street	*Primary focus*	High	40.71	HIGH	Y	2	30.29	13712	2028.79	14.79	85.20	25.80	19.20	Y	Y	0.00	51.47	48.53	0.00	0.00	1	0	2	0	1	2	0	3	9
MERTON ST	Green Street	*Operational*	-	35.45	HIGH	Y	2	30.12	15197	3027.66	19.92	80.07	24.11	17.51	Y	N	0.00	0.00	100.00	0.00	0.00	2	0	2	0	1	3	0	0	8
MERTON PL	Narrow Street	*Operational*	-	50.38	HIGH	Y	1	9.96	1066	421.9	39.57	60.42	6.01	2.71	N	N	100.00	0.00	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6
MILLS ST	High Street	*Primary focus*	High	34.32	HIGH	Y	4	30.23	20076	4220.4	21.02	78.97	23.87	10.67	Y	Y	45.19	6.04	38.50	3.74	6.52	0	0	2	3	2	2	2	3	14
MONTAGUE LN	Access Laneway	*Operational*	-	4.88	LOW	N	1	6.34	164	NA	NA	NA	NA	NA	NA	Y						2	0	2	0	1	2	0	0	7
MONTAGUE ST	Green Street	*Operational*	-	32.38	HIGH	Y	2	29.89	10145	2730.53	26.91	73.08	21.84	15.24	Y	N	3.30	0.00	87.61	6.99	2.10	2	0	2	0	1	2	2	0	9
MOUBRAY LN	Access Laneway	*Operational*	-	1.16	LOW	N	1	6.14	1032	290.13	28.11	71.88	4.41	1.11	N	Y	0.00	0.00	0.00	0.00	100.00	1	0	2	0	1	2	0	0	6
MOUBRAY ST	Green Street	*Operational*	-	42.95	HIGH	Y	2	30.95	11950	2254.59	18.86	81.13	25.11	18.51	Y	Y	19.21	14.05	65.77	0.00	0.98	1	0	2	0	1	3	2	2	11
NELSON RD*	Green Street	*Operational*	-																			1	0	2	0	1	2	0	0	6
NEVILLE ST	Narrow Street	*Operational*	-	23.1	MEDIUM	Y	2	10	15375	3287.44	21.38	78.61	7.86	1.26	N	N	96.25	0.00	0.00	3.75	0.00	1	0	2	0	1	2	0	1	7
NIMMO ST	Typical Street	*Primary focus*	Moderate	44.64	HIGH	Y	2	30.27	17285	2761.24	15.97	84.02	25.43	18.83	Y	N	49.81	26.42	23.07	0.00	0.71	1	0	2	2	1	3	0	3	12
O'GRADY ST	Typical Street	*Operational*	-	43.89	HIGH	Y	2	19.99	6532	1297.27	19.86	80.13	16.01	9.41	Y	Y	2.41	16.63	80.96	0.00	0.00	1	0	2	0	1	2	0	0	6
OLD AUGHTIE DR*	Unique Street	*Operational*	Moderate																			1	0	2	0	1	2	0	0	6
PAGE ST	Connector Boulevard	*Operational*	-	60.12	HIGH	Y	2	30.31	42253	4633.52	10.96	89.03	26.98	20.38	Y	Y	57.21	2.98	38.76	0.00	1.06	2	0	2	0	1	3	0	2	10
PARK LN*	Narrow Street	*Operational*	-																			1	0	2	2	1	0	0	3	9
PARK ST	Movement Street	*Primary focus*	-	51.23	HIGH	Y	4	20.41	6812	1064.41	15.62	84.37	17.22	4.02	N	N	74.79	0.00	19.95	0.00	5.26	1	0	2	3	1	2	0	0	9
PARK RD	Connector Boulevard	*Operational*	-	50.16	HIGH	Y	2	30.39	10964	1259.1	11.483	88.51	26.90	20.3	Y	N	100.00	0.00	0.00	0.00	0.00	0	0	2	3	1	2	0	3	11
PATTERSON ST	Movement Street	*Operational*	-	30.96	HIGH	Y	4	19.99	7273	1148.36	15.78	84.21	16.83	3.63	N	Y	1.66	0.00	92.27	0.00	6.07	0	0	2	2	1	2	0	0	7
PHILIPSON ST	Typical Street	*Secondary focus*	Moderate	24.87	MEDIUM	Y	4	20.31	8739	1471.45	16.83	83.16	16.89	3.69	N	N	15.63	20.73	63.65	0.00	0.00	1	0	2	0	1	2	0	3	9
PICKLES ST	Moderate Movement Corridor	*Primary focus*	-	28.18	MEDIUM	Y	4	29.55	6280	1192.33	18.98	81.01	23.93	10.73	Y	N	60.97	0.00	31.60	0.00	7.43	1	0	2	2	1	2	0	5	13
REED LN	Access Laneway	*Operational*	-	0	LOW	Y	1	3.92	1963	NA	NA	NA	NA	NA	NA	Y						1	0	2	0	2	2	0	0	7
REED ST	Typical Street	*Operational*	-	42.67	HIGH	Y	2	20.95	9431	1122.6	11.90	88.09	18.45	11.85	Y	N	2.50	0.00	82.53	14.97	0.00	1	0	2	0	1	2	0	3	9
RICHARDSON ST	Green Street	*Secondary focus*	-	58.16	HIGH	Y	2	30.13	64983	11458.26	17.63	82.36	24.81	18.21	Y	N	54.26	19.18	23.07	0.00	3.49	3	1	2	3	2	2	0	2	15
ROUSE ST*	Green Street	*Operational*	-																			1	0	2	0	1	2	0	0	6
SEISMAN PL*	Access Laneway	*Operational*	-																			1	0	0	0	1	2	0	0	4
SMITH ST	Narrow Street	*Operational*	-	32.82	HIGH	Y	2	12.19	2227	702.2	31.53	68.46	8.34	1.74	N	Y	100.00	0.00	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6
ST VINCENT ST	Green Street	*Future focus*	-	37.44	HIGH	Y	4	39.7	8056	975.64	12.11	87.88	34.89	21.69	Y	N	93.15	6.85	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6
VICTORIA LN	Access Laneway	*Operational*	-	0	LOW	N	1	5.98	1137	417.1	36.68	63.31	3.786	0.48	N	Y	0.00	0.00	0.00	0.00	100.00	2	0	2	0	1	2	0	0	7
VICTORIA AVE	Movement Street	*Primary focus*	-	33.4	HIGH	Y	4	30.04	22051	6893.93	31.26	68.73	20.64	7.44	Y	N	11.14	23.75	59.80	2.37	2.94	3	0	2	0	1	3	0	3	12
WESTERN BIKE PATH*	Access Laneway	*Operational*	Moderate																			1	2	2	2	1	3	0	2	13
WITHERS ST	Typical Street	*Operational*	-	26.24	MEDIUM	Y	2	20.02	13192	2558.36	19.39	80.60	16.13	9.53	Y	N	16.23	6.23	70.84	2.13	4.57	1	0	2	0	2	2	0	3	10
WRIGHT ST	Typical Street	*Primary focus*	High	35.92	HIGH	Y	2	30.24	19621	3548.34	18.08	81.91	24.77	18.17	Y	N	65.38	0.00	32.73	1.90	0.00	0	0	2	3	1	3	0	3	12
YORK ST	Connector Boulevard	*Operational*	-	43.94	HIGH	Y	2	30.29	9744	1054.3	10.81	89.18	27.01	20.41	Y	Y	100.00	0.00	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6
YOUNG ST	Typical Street	*Operational*	-	41.17	HIGH	Y	2	20.2	4870	907.04	18.62	81.37	16.43	9.83	Y	Y	0.00	100.00	0.00	0.00	0.00	1	0	2	0	1	2	0	0	6

APPENDIX B
DESIGN TOOLKIT

TOOLKIT OVERVIEW

WHY CHOOSE A TOOLKIT APPROACH?

A toolkit of planting opportunities can be applied in various ways across the neighbourhood. The toolkit forms the base for further detailed design for each case dealing with site-specific conditions.

The toolkit provides:

- Streamlined approach for detailed design.
- Pre-approved approaches which have already undergone internal feedback and refinement.
- Standardised engineering specification drawings can be subsequently prepared.
- Flexibility to check multiple intervention options for feasibility.
- Ability for CoPP to expand the Toolkit with extra interventions as UFPPs are prepared for other neighbourhoods.
- A design framework so that any canopy opportunities from redevelopment of major sites can easily be identified by CoPP and capitalised upon by expediting the abutting streetscape detailed designs.

WHAT IS CONTAINED IN THIS TOOLKIT?

A table listing the different street types within the Albert Park & Middle Park Neighbourhood cross referenced with which Toolkit interventions may be considered based on typical existing conditions.

An explanation of the 8 Toolkit options including:

- A general overview of the intervention.
- Concept diagrams to help communicate the design intent.
- Consideration of the key concerns and advantages for each approach.
- General guidance of how tree form and sizing may be adjusted for each relevant street type.
- Supporting imagery where relevant.

Note: The UFPP outlines high level planting approaches. Each project will require detailed design to ensure site specific conditions are addressed.

Some streets will be specifically targeted for design interventions taken from this Toolkit, while others may be considered as part of other Council programs, such as water sensitive urban design, traffic safety initiatives, or when the arborist team decides upon a species change that might enable larger tree planting areas.

Figure 57: Example Toolkit intervention layout

DESIGN TOOLKIT

A Toolkit of planting opportunities can be applied in various ways across the neighbourhood, the table below outlines which street typologies these design interventions may be suitable for. The following pages provide more detail on each specific intervention.

CHOOSING A SUITABLE INTERVENTION BASED ON STREET TYPOLOGY

	1 Localised Lane Narrowing	2 Corner Build-outs	3 Tree Containers & Temporary Greening	4 Protected Pedestrian Crossings	5 Kerb Outstands (within road)	6 Footpath Widening	7 Tree Cut Outs (within footpath)	8 Central Medians
Access Laneways	⊘	⊘	☑	⊘	⊘	⊘	⊘	⊘
Micro Street	☑	☑	☑	⊘	☑	⊘	⊘	⊘
Narrow Street	☑	☑	☑	⊘	☑	☑	☑	⊘
Typical Street	☑	☑	☑	☑	☑	☑	☑	⊘
Green Street	☑	☑	⊘	⊘	⊘	⊘	⊘	⊘
Connector Boulevard	⊘	☑	⊘	☑	☑	⊘	⊘	☑
High Street	⊘	☑	☑	⊘	☑	⊘	⊘	⊘
Movement Corridors	Interventions for Movement Corridors will require advocacy with the Department of Transport and Planning.							
Unique Streets	Refer to implementation in Chapter 06 for guidance on these streets where relevant.							
Movement Street	⊘	☑	☑	⊘	☑	⊘	⊘	⊘
Foreshore Boulevard	⊘	☑	☑	⊘	☑	⊘	☑	☑

* Temporary Greening recommended only for Access Laneways

1 LOCALISED LANE NARROWING

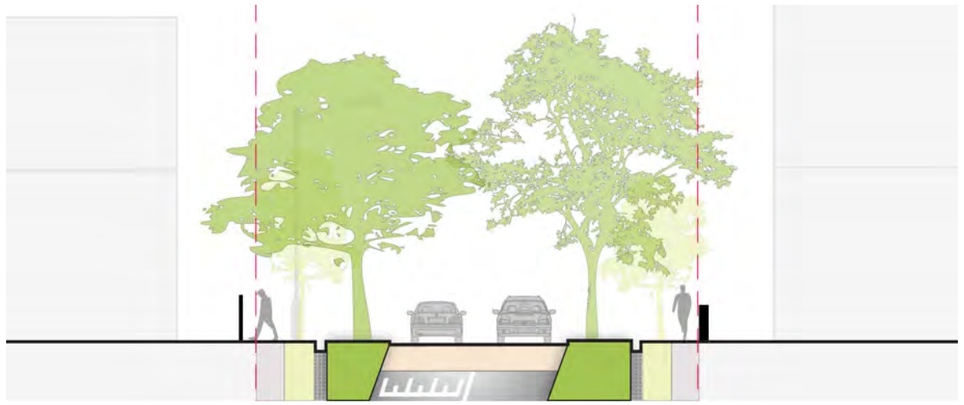
A street intervention with a chicane or isolated lane narrowing involves strategically placed curb extensions or shifted travel lanes to slow vehicle speeds and improve safety. These measures have the added benefit of allowing additional space for tree planting within the road carriageway.

KEY BENEFITS

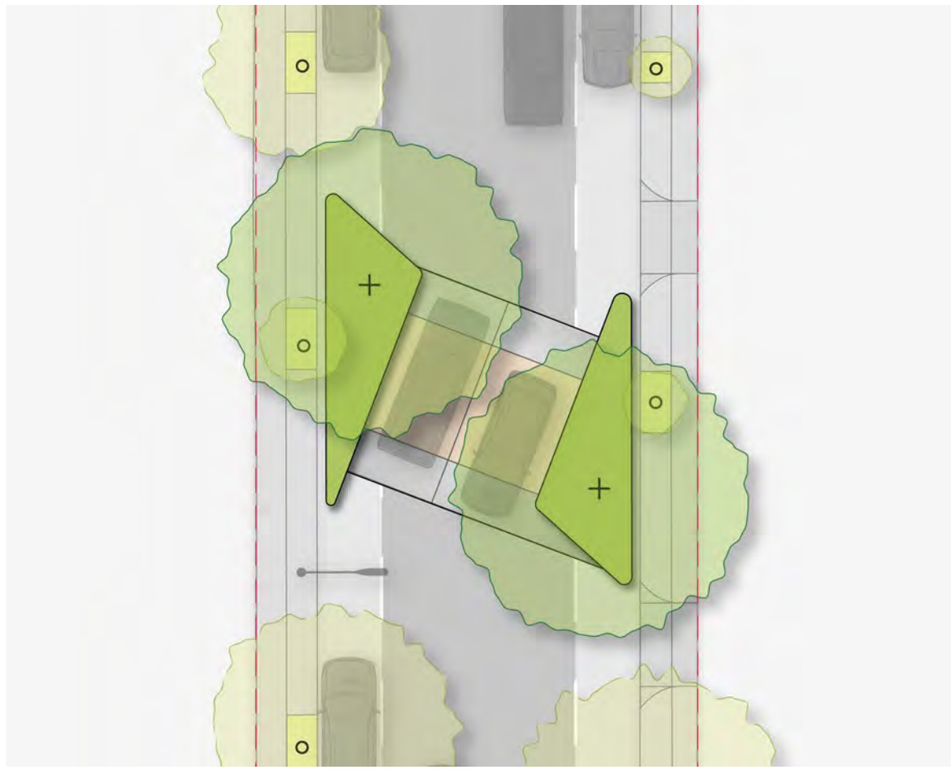
- Has a traffic calming effect.
- Provides generous space for tree soil volume.
- Typically, will include opportunities for understorey planting.
- Typically, will not impact footpaths, kerbs and existing service infrastructure.
- Trees are inset to roadway meaning they are less likely to be encumbered by overhead services.

Figure 58: Highlighting all of the streets that are suitable for localised lane narrowing.

FUNCTIONAL LAYOUT



STREET SECTION



STREET PLAN SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Formative pruning required to establish clear sight lines.
- Suggest low litter-producing species as the trees will directly overhang the road.
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Understorey planting should be a secondary consideration to tree selection and increasing canopy.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Large canopy/legacy tree species should be installed where space permits on Green Streets.
- Structural soil should be considered to increase soil volumes and connect soils below pavement.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- Integrated water management (IWM) interventions such as passive irrigation, soaker pits and rain gardens.
- Traffic calming measures such as pedestrian priority crossings and shared streets.
- Understorey planting that increases and supports site biodiversity.

INDICATIVE IMPLEMENTATION COST

$	$$	$$$	$$$$	$$$$$
< $50k	$50 - $250k	$250k - $600k	$600k - $1m	> $1m

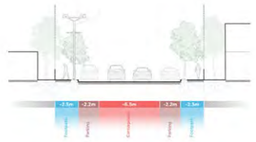
EXEMPLAR IMAGERY

An example of a chicane in Richmond on a typical width street (approximately 15m) that creates space for two trees, understorey planting, and the continuation of two directions of vehicle traffic (Image Credit Google Street View).

An example of lane narrowing in the City of Darebin (Image Credit City of Darebin).

Grosvenor Street demonstrates another option for configuration of chicanes that requires vehicles to slow and let oncoming traffic pass (Image Credit Google Street View).

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Micro Street		Small	Clear trunked, narrow canopy spread
Narrow Street		Small to Medium	Clear trunked, narrow canopy spread
Typical Street		Medium	Clear trunked, medium canopy spread
Green Street		Medium to Large	Clear trunked, wide crown

2 CORNER BUILD-OUTS

Corner build-outs effectively repurpose unused space at intersections where parking is not permitted—typically 10 metres in each direction from a corner—into planting areas. Whilst it is important to maintain clear sightlines for turning vehicles, these build-outs typically allow space to plant medium or large trees on most street types, with the added benefit of understorey planting.

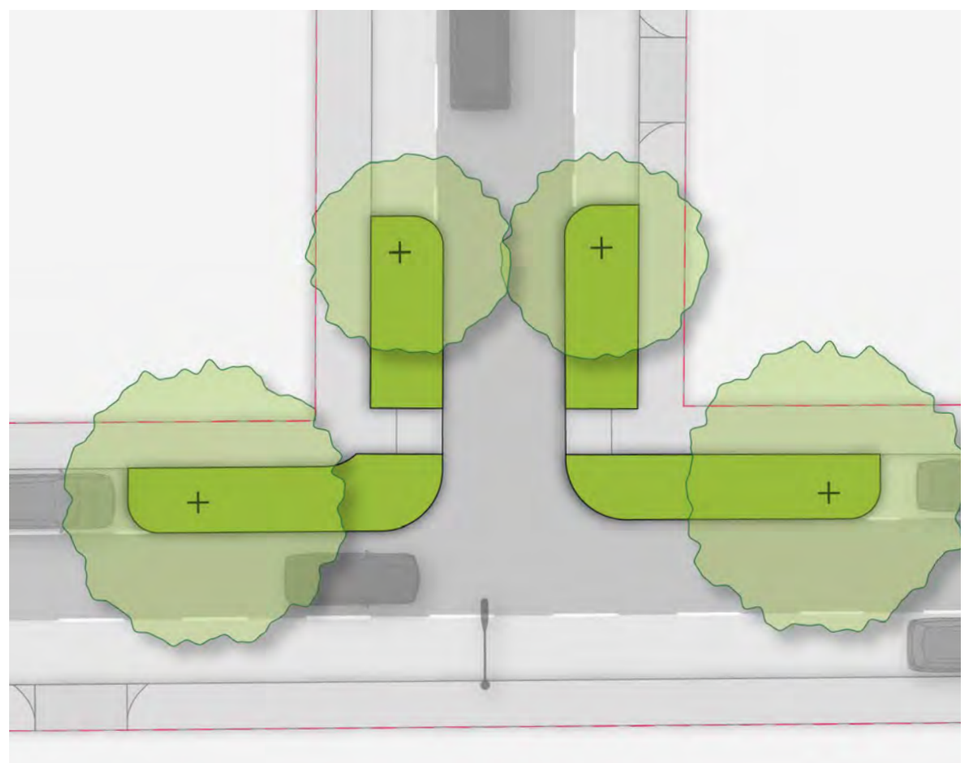
KEY BENEFITS

- Has a traffic calming effect.
- Provides generous space for tree soil volume.
- Typically, will include opportunities for understorey planting.
- Typically, will not impact footpaths, kerbs and existing service infrastructure.
- Trees are inset to roadway meaning they are less likely to be encumbered by overhead services.
- Promotes safe, legible pedestrian connectivity.

Figure 59: Highlighting all of the streets that are suitable for corner build-outs.

FUNCTIONAL LAYOUT

STREET SECTION



STREET PLAN

SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Formative pruning required to establish clear sight lines.
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Understorey planting should be a secondary consideration to tree selection and increasing canopy.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Large canopy/legacy tree species should be installed where space permits on Green Streets.
- Best-suited to low speed roads where vehicle sightlines can be shorter, allowing more trees to be installed.
- Consideration of vehicle turning radius and road widths will need to be made to determine extent of build-outs.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- Integrated water management (IWM) interventions such as passive irrigation, soaker pits and rain gardens.
- Traffic calming measures such as pedestrian priority crossings and shared streets.
- Understorey planting that increases and supports site biodiversity.
- Place making initiatives such as outdoor dining and seating.

INDICATIVE IMPLEMENTATION COST

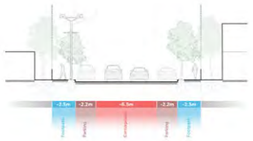
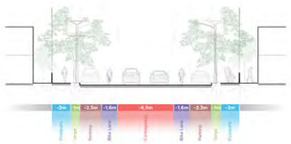
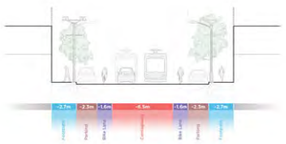
$	**$$**	**$$$**	$$$$	$$$$$
< $50k	**$50 - $250k**	**$250k - $600k**	$600k - $1m	> $1m

EXEMPLAR IMAGERY

Example of existing corner build-outs on Acland Street, St Kilda (Image Credit Google Street View).

Example of existing corner build-outs with passive irrigation in the City of Sydney (image credit City of Sydney)

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Micro Street		Small to Medium	Clear trunked, narrow canopy spread
Narrow Street		Small to Medium	Clear trunked, narrow or medium canopy spread
Typical Street		Medium	Clear trunked, medium canopy spread
Green Street		Medium to Large	Clear trunked, wide crown
Connector Boulevard		Large	Clear trunked, wide crown
High Street		Large (dependent on overhead services)	Clear trunked, wide crown
Foreshore Boulevard		Large (dependent on overhead services)	Clear trunked, wide crown

3 TREE CONTAINERS & TEMPORARY GREENING

While the installation of permanent in-ground trees is strongly preferred, there may be situations where tree containers are appropriate as a temporary initiative or as a more permanent solution when in-ground tree installation is not viable. Tree containers and parklets can also be a viable option as a temporary greening measure while more long-term streetscape re-design projects are being completed.

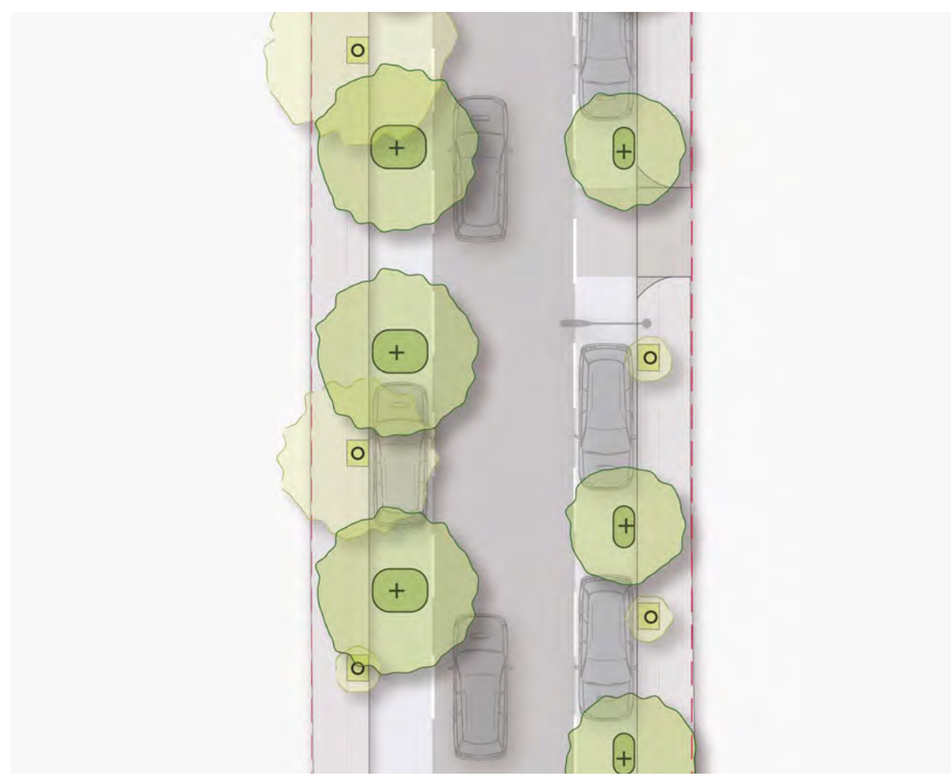
KEY BENEFITS

- Can be used by COPP to trial street tree canopy interventions.
- Can be used as a temporary intervention to boost canopy.
- Can be used to introduce canopy where service or cost constraints may be prohibitive to installing permanent tree installations.
- The selected container can contribute to place making and neighbourhood character identity.

Figure 60: Highlighting all of the streets that are suitable for tree containers and temporary greening.

FUNCTIONAL LAYOUT

STREET SECTION



STREET PLAN

SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Tree planters should be as large as practicable in order to increase soil volume, water retention and reduce heat vulnerability.
- Planters should be designed to be moveable via a forklift or similar.
- Irrigation or hand watering required year-round, particularly during hot dry periods.
- Suggest low litter-producing species as the trees will directly overhang the road.
- Where planters are to be permanent it is vital they provide the minimum rooting area for the size of the desired tree.
- A robust community engagement framework is imperative, finding community champions.
- Prioritising community driven support for the projects and in some cases, co-funding partnerships with businesses and building owners.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- May form part of a temporary pop-up park design.
- Consider planting food-producing species for additional community benefits.
- Container design can be commissioned to local artists.
- Laneway greening is an opportunity for trial programs or pilot projects which could be scaled up across the precinct.

INDICATIVE IMPLEMENTATION COST

$	$$	$$$	$$$$	$$$$$
< $50k	$50 - $250k	$250k - $600k	$600k - $1m	> $1m

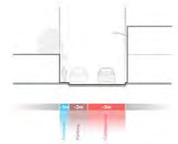
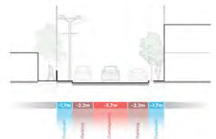
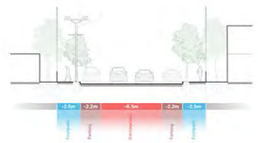
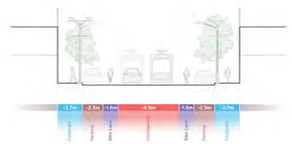
EXEMPLAR IMAGERY

An example of a planting container with sufficient soil volume for a tree by Street Furniture Australia (Image Credit Street Furniture Australia).

Planting containers on Olympic Boulevard, Richmond (Image Credit Google Street View).

Temporary tree container planters in the City of Melbourne (Image Credit City of Melbourne).

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Access Laneways			
Micro Street		Dependent on container size (likely Small to Medium)	Narrow canopy spread
Narrow Street		Dependent on container size (likely Small to Medium)	Narrow to medium canopy spread
Typical Street		Dependent on container size (likely Small to Medium)	Medium canopy spread
High Street		Dependent on container size (likely Small to Medium)	Medium to large canopy spread
Foreshore Boulevard		Dependent on container size (likely Small to Medium)	Medium to large canopy spread

4 PROTECTED PEDESTRIAN CROSSINGS

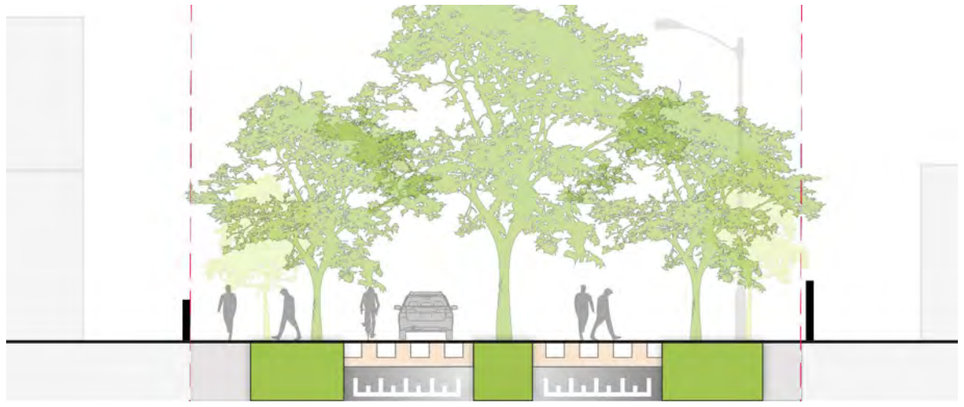
Pedestrian crossings not only enhance pedestrian connectivity by providing a safe, legible crossing point, but the build-outs on either side of the crossing also create planting spaces for trees and understorey vegetation. This allows trees to be planted away from the footpath constraints of powerlines and underground services, increasing shade over a larger portion of the road surface.

KEY BENEFITS

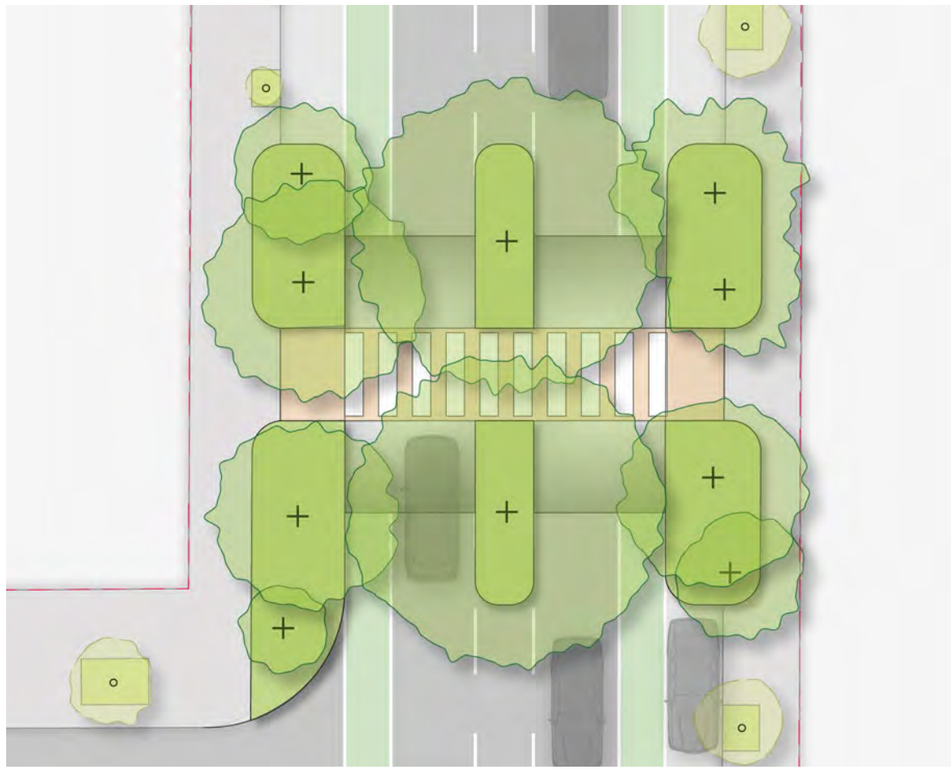
- Has a traffic calming effect.
- Promotes pedestrian connectivity.
- Provides generous space for tree soil volume.
- Typically, will include opportunities for understorey planting.
- Typically, will not impact footpaths, kerbs and existing service infrastructure.
- Trees are inset to roadway meaning they are less likely to be encumbered by overhead services.
- Promotes safe, legible pedestrian connectivity.

Figure 61: Highlighting all of the streets that are suitable for protected pedestrian crossings.

FUNCTIONAL LAYOUT



STREET SECTION



STREET PLAN

SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Crossings should be located on pedestrian desire routes, or spaced along emerging retail and activity areas.
- Formative pruning required to establish clear sight lines.
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Understorey planting should be a secondary consideration to tree selection and increasing canopy.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Consideration of vehicle turning radius and road widths will need to be made to determine extent of build-outs.
- Irrigation or hand watering required during hot dry periods.
- Suggest low litter-producing species as the trees will directly overhang the road and crossing.
- Large canopy/legacy tree species should be installed where space permits on Connector Boulevards.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- Integrated water management (IWM) interventions such as passive irrigation, soaker pits and rain gardens.
- Understorey planting that increases and supports site biodiversity.
- Place making initiatives such as outdoor dining and seating.

INDICATIVE IMPLEMENTATION COST

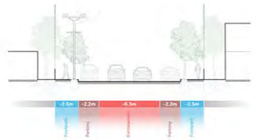
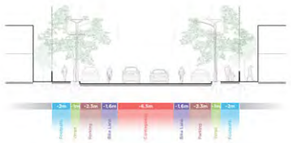
$	$$	**$$$**	$$$$	$$$$$
< $50k	$50 - $250k	**$250k - $600k**	$600k - $1m	> $1m

EXEMPLAR IMAGERY

Beenleigh Town Square by LatStudios incorporates pedestrian crossings that produce high-quality landscaping outcomes with place making benefits (Image Credit LatStudios).

A raised crossing with planting areas created in the adjacent build-outs in Sydney (Image Credit NSW Government)

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Typical Street		Medium to Large	Clear trunked, medium canopy spread
Connector Boulevard		Large	Clear trunked, medium to large canopy spread

5 KERB OUTSTANDS (WITHIN ROAD)

This intervention involves an audit of parking areas to identify surplus space for tree planting in additional outstands in-between driveway crossovers. This is a low-cost intervention that does not reduce car park numbers. Depending on budget, re-paving car parks with permeable material can allow for connected soil between tree outstands and for better-integrated stormwater management.

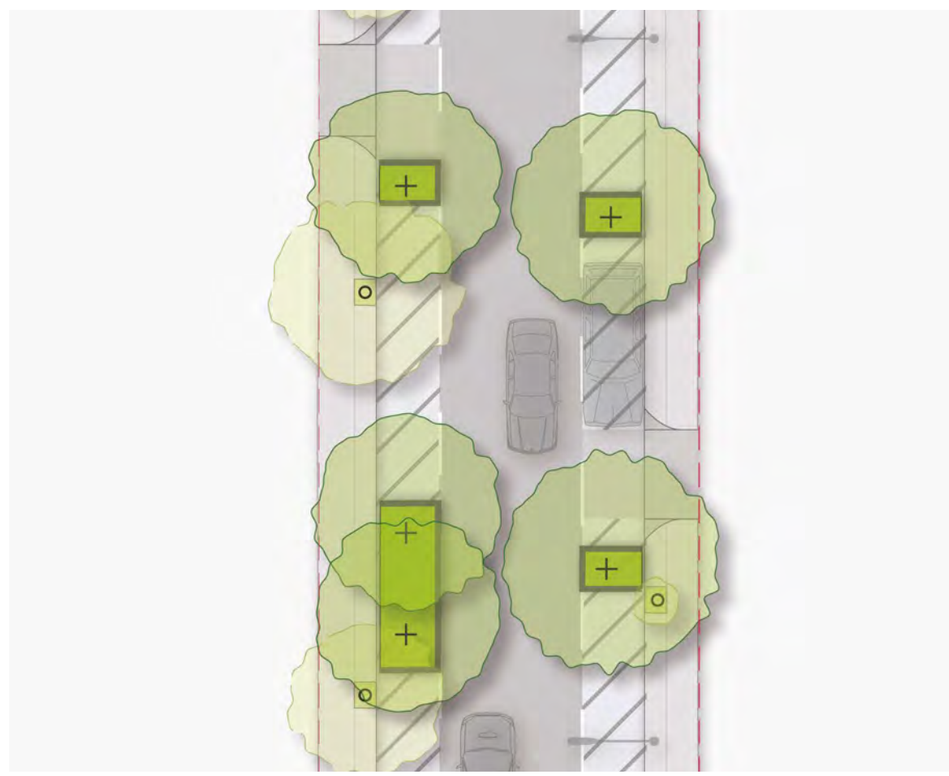
KEY BENEFITS

- Can provide generous space for tree soil volume.
- Typically, will not impact footpaths, kerbs and existing service infrastructure.
- Trees are inset to roadway meaning they are less likely to be encumbered by overhead services.
- The increased permeable surface area can aid stormwater runoff management.

Figure 62: Highlighting all of the streets that are suitable for kerb outstands.

FUNCTIONAL LAYOUT

STREET SECTION



STREET PLAN

SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Formative pruning required to establish clear sight lines.
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Understorey planting should be a secondary consideration to tree selection and increasing canopy.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Structural soil should be considered to increase soil volumes and connect soils below pavement.
- Irrigation or hand watering required during hot dry periods.
- Suggest low litter-producing species as the trees will directly overhang the road.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- More frequent and larger outstands are possible if car parking numbers can be reduced.
- Repaving parking spaces with permeable paving will further increase stormwater directed to tree root zones.
- Integrated water management (IWM) interventions such as passive irrigation, soaker pits and rain gardens.
- Understorey planting that increases and supports site biodiversity.

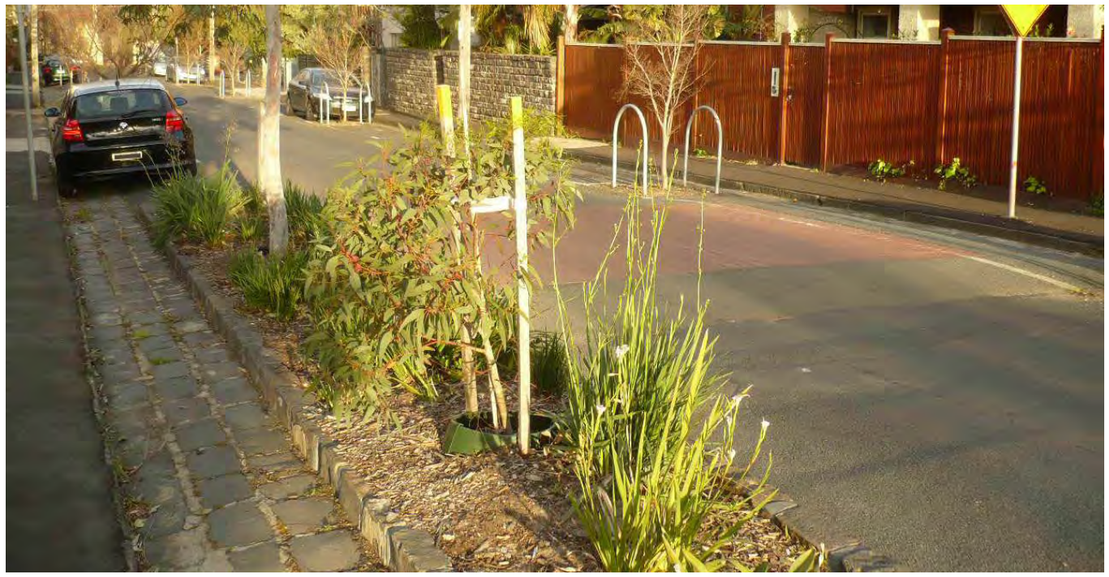
INDICATIVE IMPLEMENTATION COST

$	$$	**$$$**	$$$$	$$$$$
< $50k	$50 - $250k	**$250k - $600k**	$600k - $1m	> $1m
Per cut-out		For a whole street		

EXEMPLAR IMAGERY

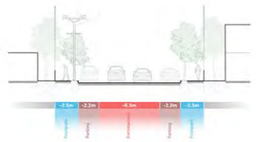
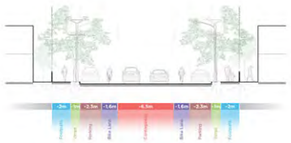
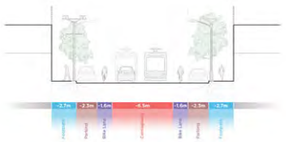
This example shows how a spoon drain between driving lanes and parking bays can direct stormwater to the outstand (Image Credit City of Melbourne)

An example of a tree outstand with a flush bluestone kerb, rather than a raised kerb.



An example of a tree outstand in Octavia Street, St Kilda that is wide enough to plant two trees, providing benefits of connected soil and canopy (Image Credit Jaag St Kilda)

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Micro Street		Small	Clear trunked, narrow canopy spread
Narrow Street		Small to Medium	Clear trunked, narrow to medium canopy spread
Typical Street		Medium	Clear trunked, medium canopy spread
Connector Boulevard		Medium to Large	Clear trunked, large canopy spread
High Street		Medium to Large	Clear trunked, large canopy spread
Foreshore Boulevard		Medium to Large	Clear trunked, large canopy spread

6 FOOTPATH WIDENING

In this intervention the central trafficable lane is reduced to a minimum width, with the surplus space being attributed to one side of the street for a larger verge zone to be planted with trees and understorey vegetation.

The removal of impermeable surfaces between the trees will allow for connected soil volumes. This concept can also apply to streets identified for conversion to one-way.

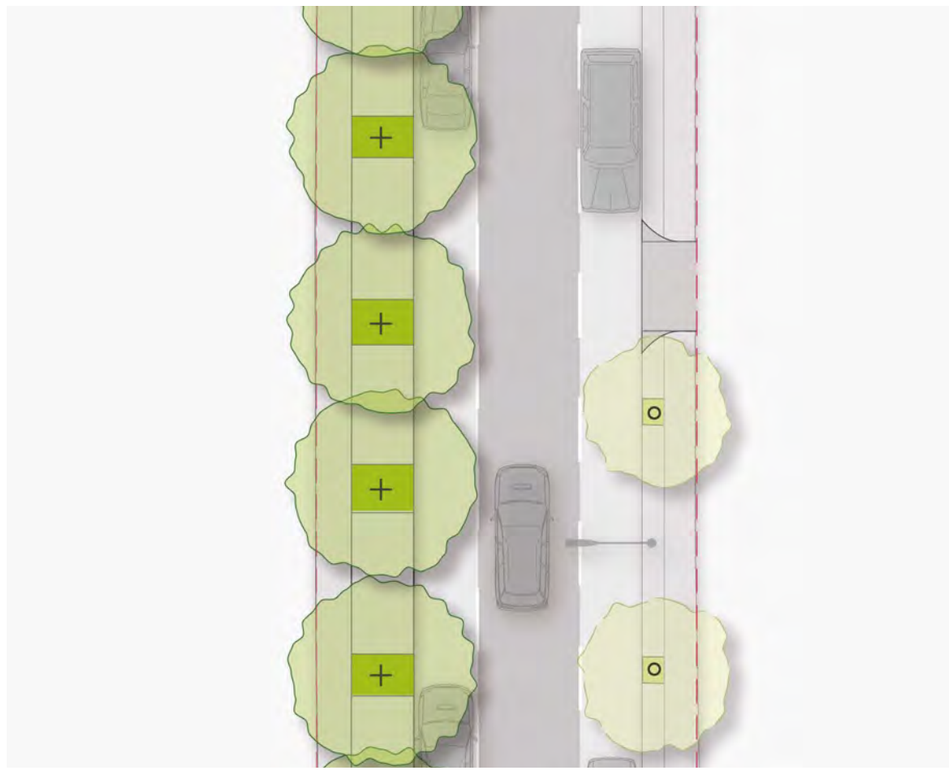
KEY BENEFITS

- Lower speed limits (30km/hr) and traffic calming can be implemented for the reduced lane width.
- Provides generous space for tree soil volume.
- Typically, will include opportunities for understorey planting.
- Provides a wider footpath and more comfortable pedestrian environment.

Figure 63: Highlighting all of the streets that are suitable for footpath widening.

FUNCTIONAL LAYOUT

STREET SECTION



STREET PLAN

SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- It is reccommended that the surplus width be added to the western or northern kerb (depending on street orientation).
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Understorey planting should be a secondary consideration to tree selection and increasing canopy.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Structural soil should be considered to increase soil volumes and connect soils below pavement.
- Irrigation or hand watering required during hot dry periods.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- IWM interventions such as passive irrigation, soaker pits and rain gardens.
- Traffic calming measures such as pedestrian priority crossings and shared streets.
- Understorey planting that increases and supports site biodiversity.
- Place making initiatives such as outdoor dining and seating.

INDICATIVE IMPLEMENTATION COST

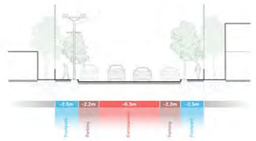
$	$$	$$$	$$$$	**$$$$$**
< $50k	$50 - $250k	$250k - $600k	$600k - $1m	**> $1m**

EXEMPLAR IMAGERY

A widened footpath in Clowes Street, Melbourne, has generated a new strip of biodiverse planting along the building boundary (Image Credit University of Melbourne).

An example of a street that was narrowed, with the additional space being used to widen the footpath and create space for planting in Geelong (Image Credit Revitalising Central Geelong).

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Narrow Street		Small to Medium	Clear trunked, narrow to medium canopy spread
Typical Street		Medium to Large	Clear trunked, medium to large canopy spread

7 TREE CUT OUTS (WITHIN FOOTPATH)

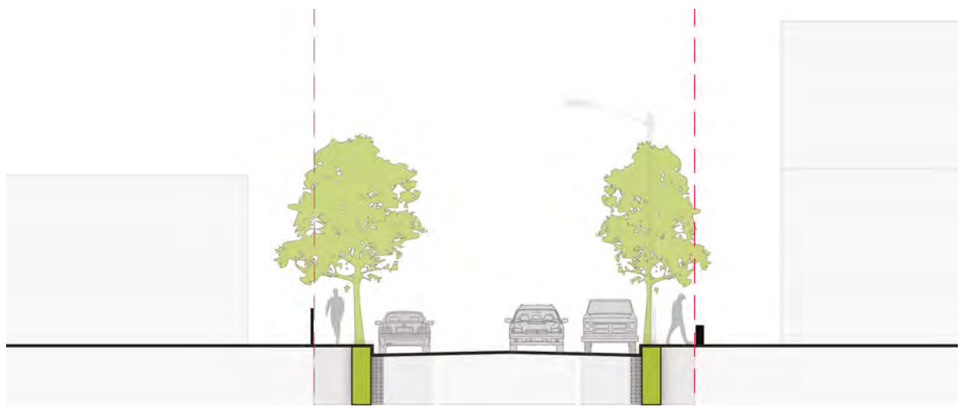
In this intervention designated planting spaces for street trees are created by cut outs in the footpath, in locations where underground and overhead services are not constraints, and footpath widths can be maintained. These cut outs are the lowest-cost initiative and do not require net loss of car parks. On busy streets, tree guards should be incorporated into the cut out to protect the tree.

KEY BENEFITS

- No net loss of car parking.
- Low-cost and adaptable initiative.

Figure 64: Highlighting all of the streets that are suitable for tree cut outs.

FUNCTIONAL LAYOUT



STREET SECTION

STREET PLAN SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Formative pruning required to establish clear sight lines.
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Structural soil should be considered to increase soil volumes and connect soils below pavement.
- Irrigation or hand watering required during hot dry periods.
- Suggest low litter-producing species as the trees will directly overhang the road and footpath.

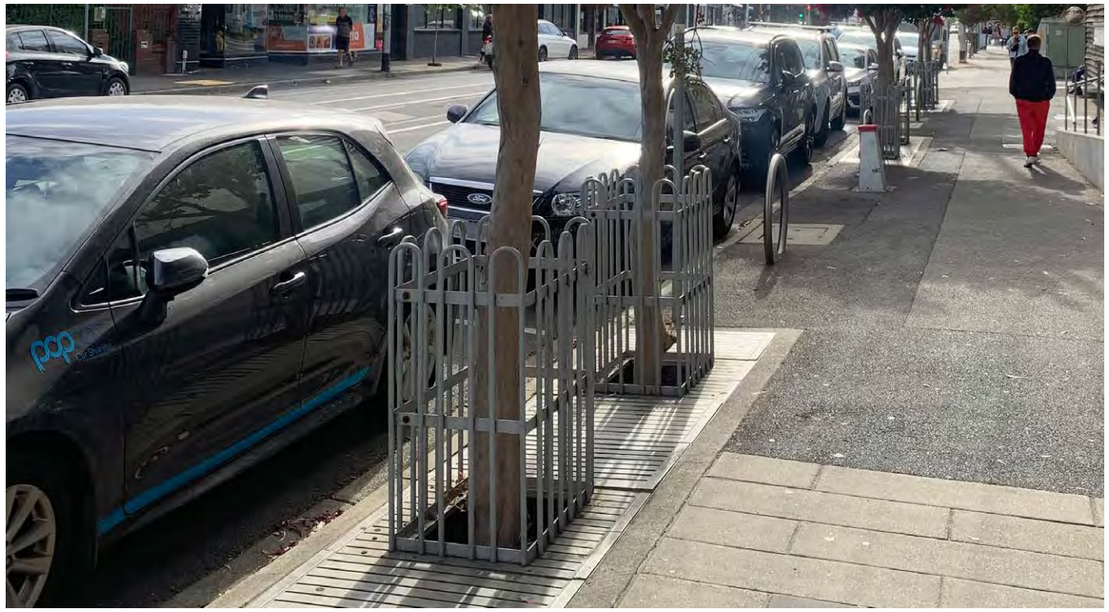
ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- IWM interventions such as passive irrigation, soaker pits and rain gardens.
- Understorey planting that increases and supports site biodiversity.

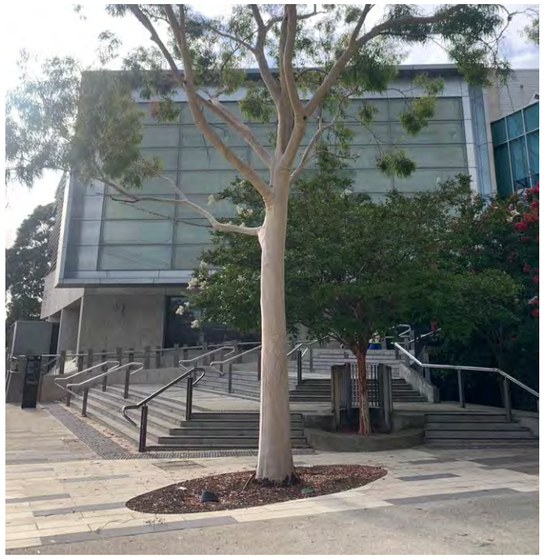
INDICATIVE IMPLEMENTATION COST

$	$$	$$$	$$$$	$$$$$
< $50k	$50 - $250k	$250k - $600k	$600k - $1m	> $1m

EXEMPLAR IMAGERY

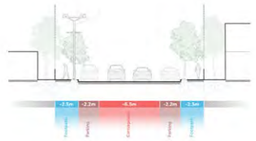
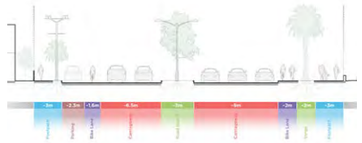


An example of tree cut outs with trees planted into pits large enough for connected soil between pairings.



Further examples of trees planted into cut outs within the footpath in the City of Port Phillip.

SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Narrow Street		Small to Medium	Clear trunked, narrow canopy spread
Typical Street		Medium to Large	Clear trunked, medium canopy spread
Foreshore Boulevard		Medium to Large	Clear trunked, medium canopy spread

8 CENTRAL MEDIAN

This intervention involves using the excess width of a street to create a central median strip for tree planting. Centrally planted street trees are generally unencumbered by underground and overhead service constraints, allowing for the largest, widest-spreading tree species. The central median enables extended strips of connected soil and canopy, and can be used to capture road runoff.

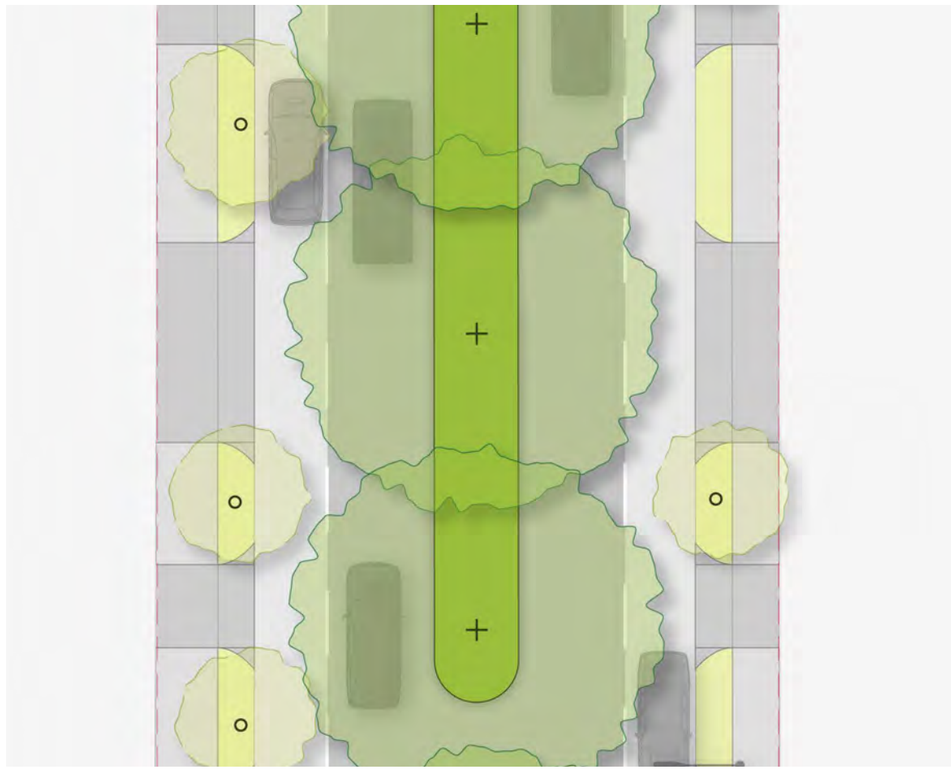
KEY BENEFITS

- Has a traffic calming effect.
- Provides generous space for tree soil volume and connected soil.
- Typically, will include opportunities for understorey planting.
- Typically, will not impact footpaths, kerbs and existing service infrastructure.
- Trees are inset to roadway meaning they are less likely to be encumbered by overhead services.

Figure 65: Highlighting all of the streets that are suitable for a central median.

FUNCTIONAL LAYOUT

STREET SECTION



STREET PLAN

SCALE 1:200 0 5 10m

TECHNICAL AND MAINTENANCE CONSIDERATIONS

- Formative pruning required to establish clear sight lines.
- Prioritise tree species that maintain consistent natural form and lend well to formative pruning, in particular those in close proximity to overhead services.
- Understorey planting should be a secondary consideration to tree selection and increasing canopy.
- Sightlines will need to be considered as part of tree placement and may impact the number of trees that can be installed.
- Large canopy/legacy tree species should be installed where space permits on Connector Boulevards.
- Structural soil should be considered to increase soil volumes and connect soils below pavement.
- Irrigation or hand watering required during hot dry periods.

ADDITIONAL OPPORTUNITIES TO BE CONSIDERED AS PART OF INTERVENTION

- Integrated water management (IWM) interventions such as passive irrigation, soaker pits and rain gardens.
- Traffic calming measures such as pedestrian priority crossings and shared streets.
- Understorey planting that increases and supports site biodiversity. Particularly wide medians can become bio-links.
- Place making initiatives such as outdoor dining and seating.

INDICATIVE IMPLEMENTATION COST

$	$$	$$$	$$$$	**$$$$$**
< $50k	$50 - $250k	$250k - $600k	$600k - $1m	**> $1m**

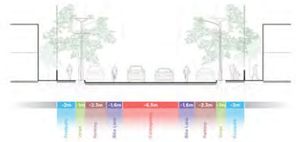
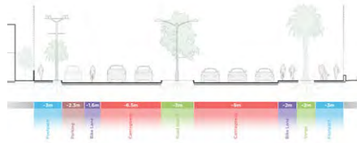
EXEMPLAR IMAGERY

A particularly wide central median strip that is currently being converted into a walking trail and 'bio-link' on Bothwell Street, Balaclava

A central median strip on Bridge Road, Port Melbourne (Image Credit Google Street View)

A vegetated swale in a central median strip in Bungarribee, including breaks in the kerb for passive irrigation (Image Credit Blacktown City Council)

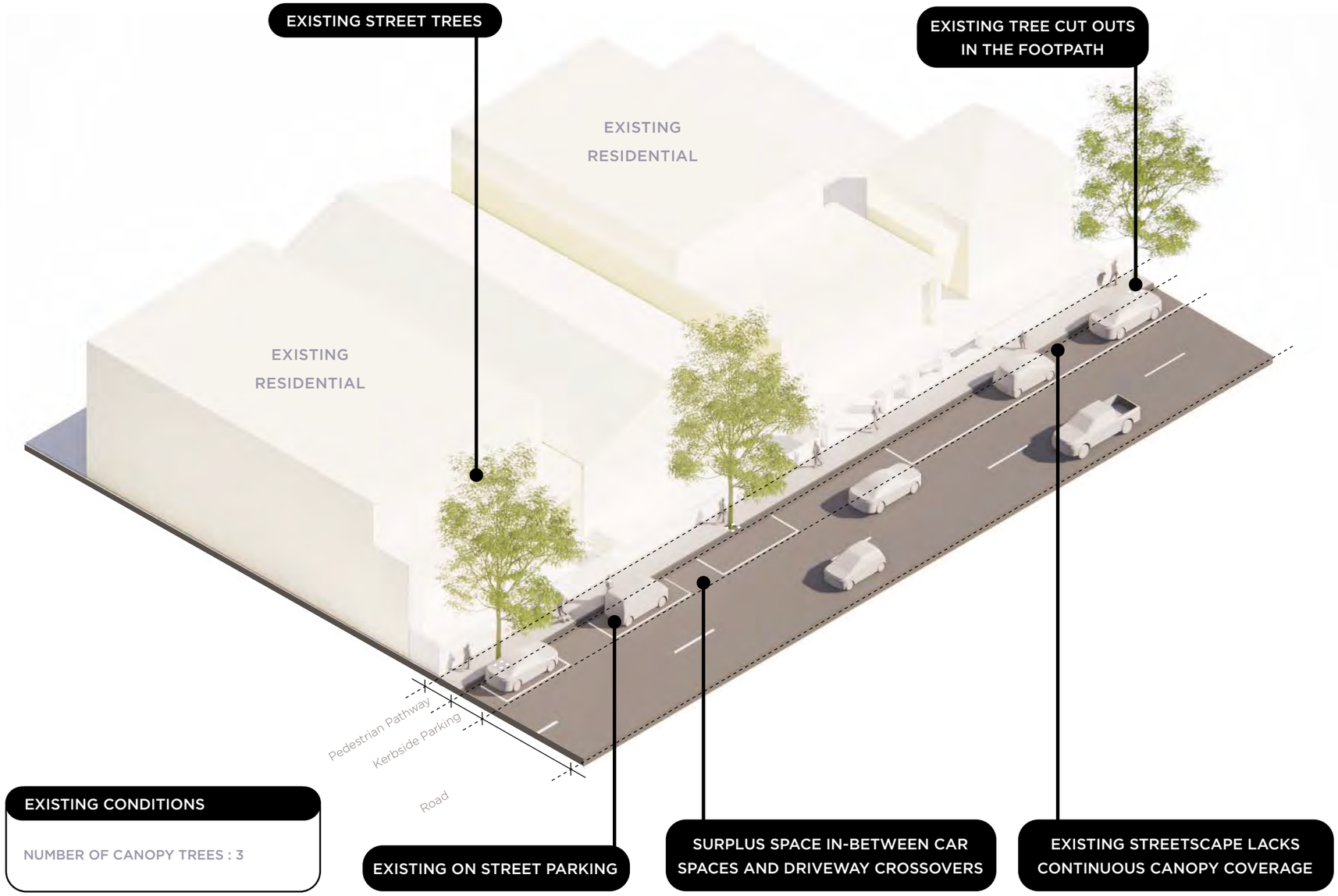
SUITABLE STREET TYPES, TREE SIZE AND FORM GUIDANCE

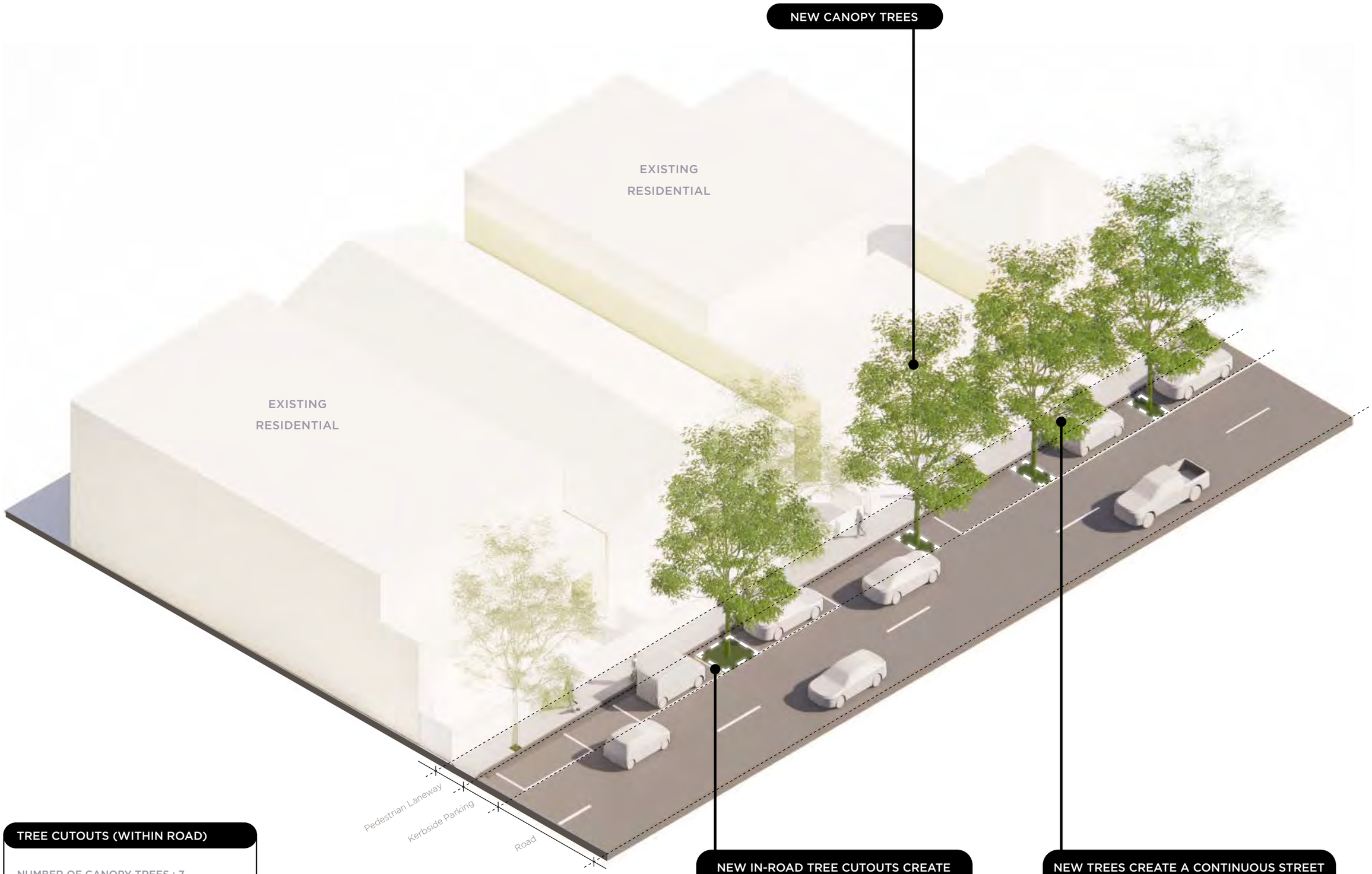
STREET TYPE	CONFIGURATION	TREE SIZE	TREE FORM
Connector Boulevard		Large (the largest species is considered)	Clear trunked, largest canopy spread
Foreshore Boulevard		Large (the largest species is considered)	Clear trunked, largest canopy spread

URBAN FOREST DESIGN TOOLKIT - CASE STUDIES

CASE STUDY 1: USING IN-ROAD TREE CUTOUTS TO PROVIDE INCREASED CANOPY

In-road tree cut-outs allow for canopy planting within existing carriageways, making use of otherwise hard surfaced areas. By introducing trees closer to the centreline, this intervention supports urban cooling, improves habitat connectivity, and adds visual interest. The adjacent diagrams demonstrate how the Design Toolkit can guide cut-out placement and design.





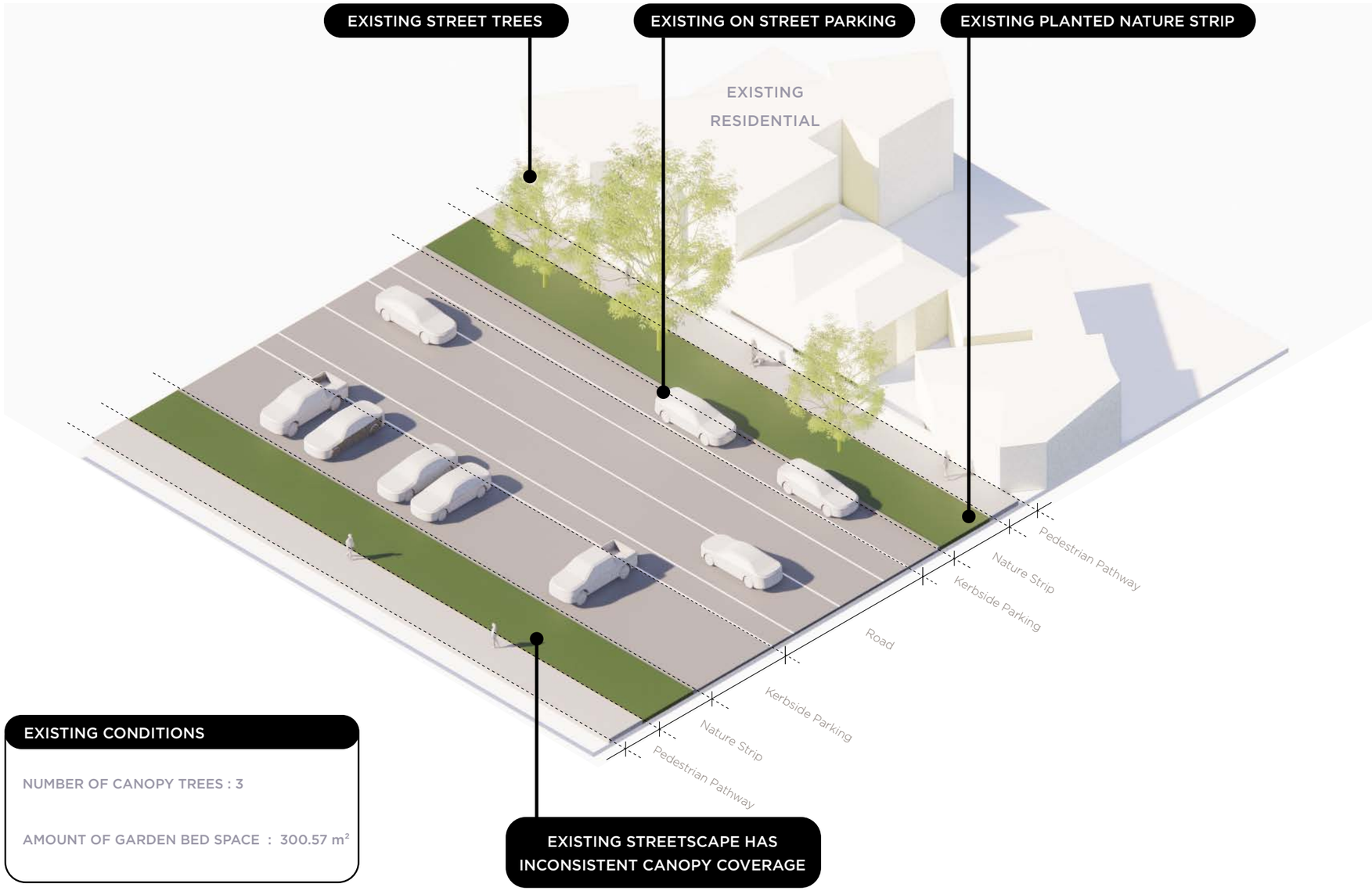
TREE CUTOUTS (WITHIN ROAD)

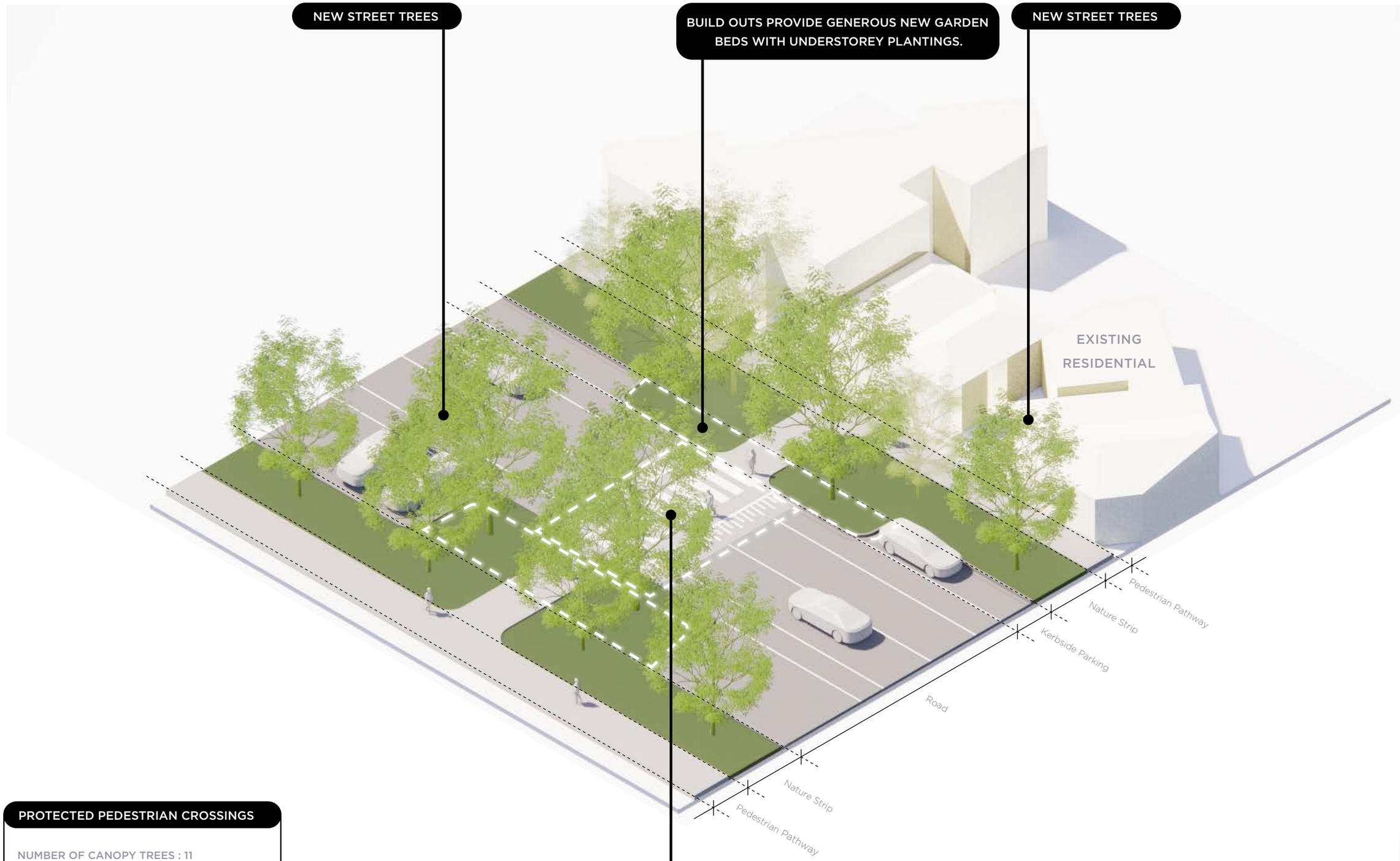
NUMBER OF CANOPY TREES : 7

URBAN FOREST DESIGN TOOLKIT - CASE STUDIES

CASE STUDY 2: PROTECTED PEDESTRIAN CROSSINGS FOR INCREASED CANOPY AND GREENING

Protected pedestrian crossings present opportunities to integrate canopy trees and planting zones within crossing islands and approach treatments. These enhancements improve pedestrian safety, increase shade, and contribute to broader greening networks. The adjacent diagrams illustrate how the Design Toolkit informs planting and design outcomes at crossing points.





PROTECTED PEDESTRIAN CROSSINGS

NUMBER OF CANOPY TREES : 11

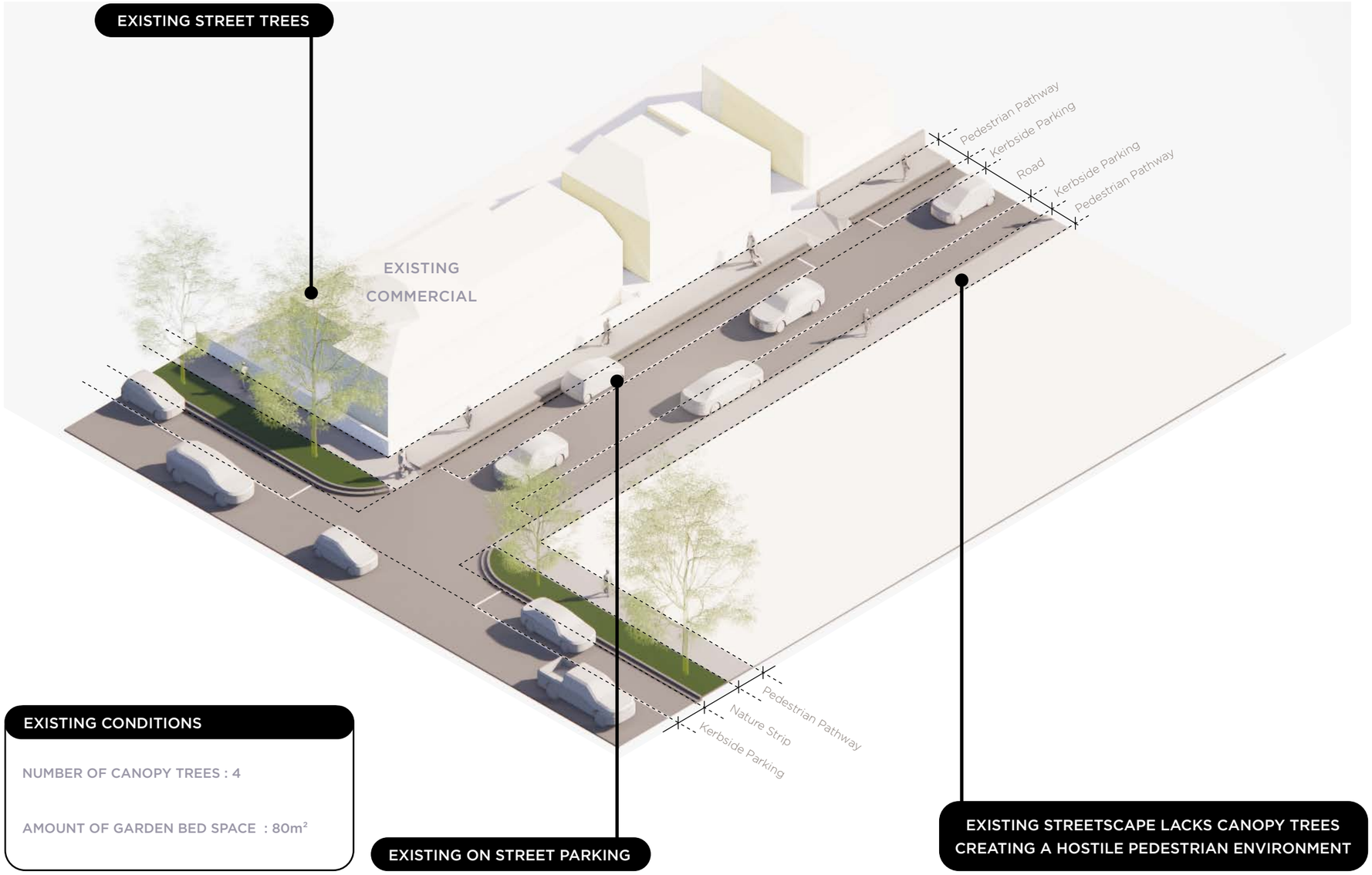
AMOUNT OF GARDEN BED SPACE : 395 m²

RAISED PEDESTRIAN CROSSING LOWERS TRAFFIC SPEED PROVING SAFE CROSSING FOR PEDESTRIANS

URBAN FOREST DESIGN TOOLKIT - CASE STUDIES

CASE STUDY 3: USING FOOTPATH WIDENING TO PROVIDE ADDITIONAL CANOPY AND URBAN GREENING

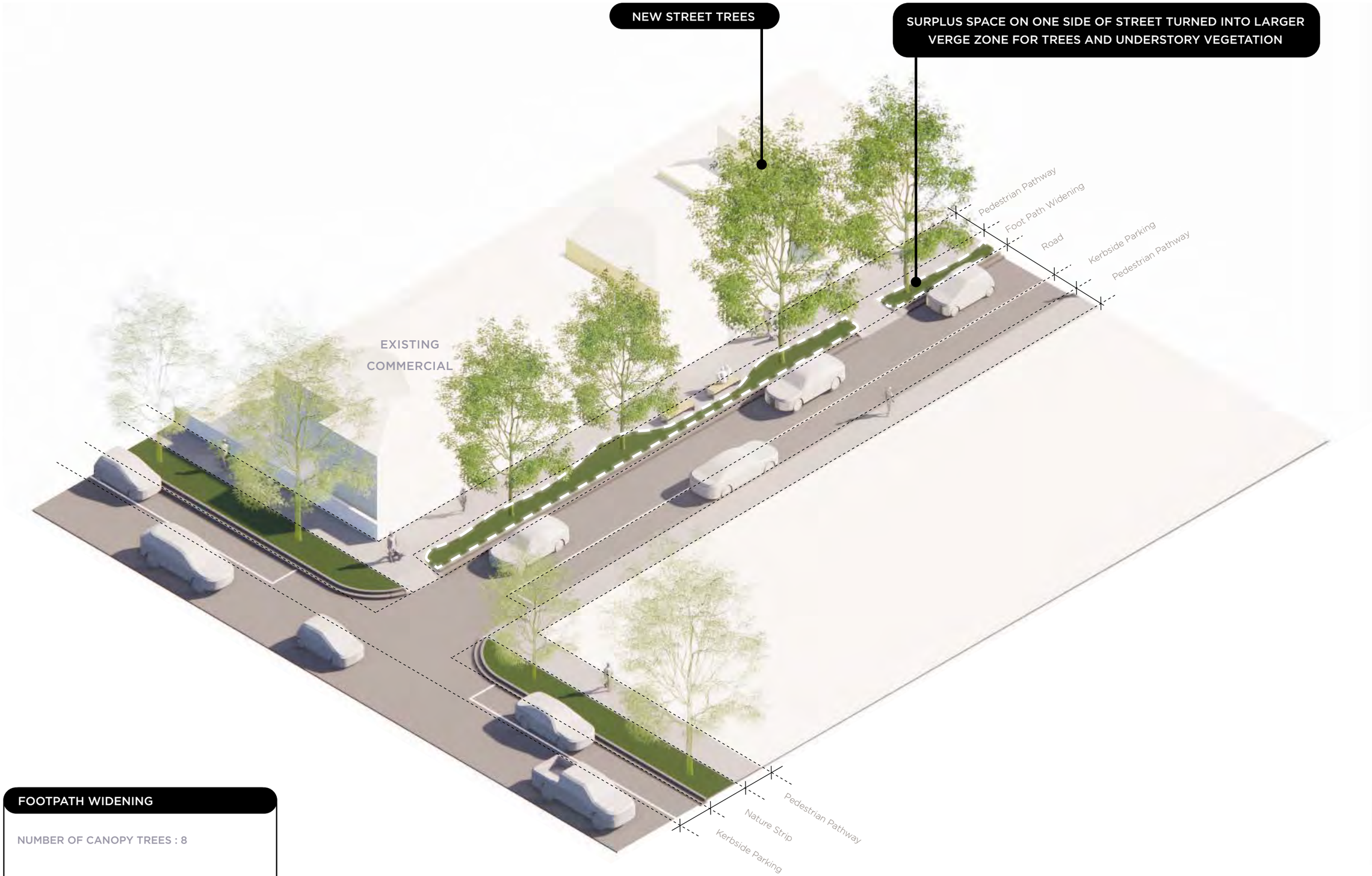
Footpath widening creates space for canopy trees, understory planting, and water-sensitive urban design elements. These upgrades not only improve pedestrian comfort and accessibility but also deliver meaningful increases in shade, biodiversity, and stormwater management capacity. The adjacent diagrams show how the Design Toolkit can guide greening within widened footpaths.



EXISTING CONDITIONS

NUMBER OF CANOPY TREES : 4

AMOUNT OF GARDEN BED SPACE : 80m²



FOOTPATH WIDENING

NUMBER OF CANOPY TREES : 8

AMOUNT OF GARDEN BED SPACE : 135 m^2

APPENDIX C

BACKGROUND DOCUMENT SUMMARIES, CASE STUDIES & BEST PRACTICE

BACKGROUND DOCUMENT REVIEW

DOCUMENT REVIEW

A review of existing Council strategies and reports and similar projects was undertaken to inform the UFPPs. These documents identify Council's aspirations for streets and open spaces. Key implications for the UFPP's have been summarised over the following pages.Key documents that were reviewed in detail:

- Urban Forest Strategy, 2024 - 2040
- City of Port Phillip Housing Strategy, 2024 - 2039
- Move, Connect, Live: Integrated Transport Strategy 2018-2028
- Places for People: Public Space Strategy, 2022 – 2032
- Public Space Strategy: Technical Report
- Greening Port Phillip Street Tree Planting Program, 2017-2022
- Albert Park Master Plan, 2019
- Yani Barripbarripuyt (formerly Shrine to Sea) Master Plan, 2024
- Council Plan & Budget, 2021 – 2031
- Parking Management Policy, 2020
- Nature Strip and Street Gardening Guidelines, 2022
- Urban Forest Strategy Background and Benchmarking Report

The following supporting documents were also considered:

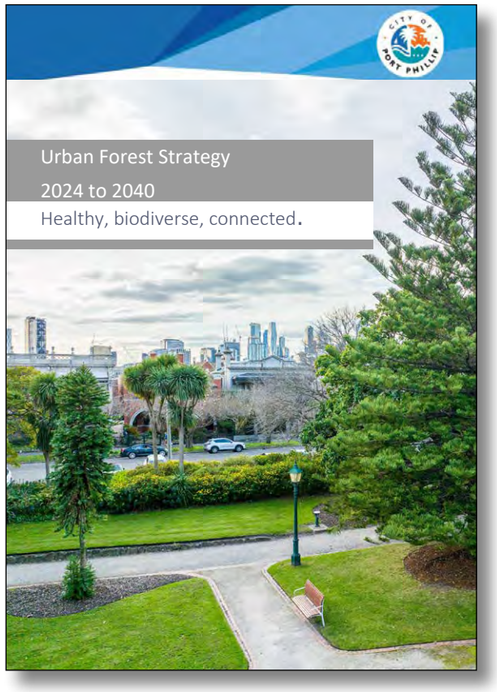
- Greening Port Phillip - Various Documents
  - › An Urban Forest Approach, 2010
  - › Developing our new Urban Forest Strategy Testing the Draft Vision and Principles - Summary of Stage 1B Engagement (Draft 1, 26 September)
  - › Urban Forest Strategy Developing Evidence Based Targets. Information from Community Workshops
  - › Urban Forest Mid-Term Review and Report
  - › Urban Forest Strategy Stages 1, 1B, 2, & 2A Engagement Findings Report
  - › Urban Forest Strategy Strategic Directions: Inclusion of Community engagement feedback on the Vision and Principles
- Nature Strip Guidelines, 2022. Analysis of phase one community engagement results
- Draft Public Space Strategy - Summary Engagement Report, 2020
- City of Port Phillip Housing Strategy Phase 3 - Feedback on the Draft Strategy Engagement Report
- Street Tree Planting Program, 2017-2022
- Permeability Baseline Assessment and Tool Development
- Permeability in the Private Realm
- Draft Public Space Strategy Summary Engagement Report
- South Melbourne Street Tree Planting
- City of Port Phillip Tree Ledger
- Protecting Vegetation in the Private Realm- Discussion Paper
- Cooling South Melbourne.
- Green Line Proposal (Green Line Alliance), 2022
- Biodiversity Study and Action Plan - Background Research Discussion Paper, 2020
- Biodiversity Study and Action Plan - Implementation Plan, 2020
- Dank St Biolink Engagement Summary Report
- Tree Maintenance on Canterbury Road and Ferrars Street, 2024
- Palm Tree Removal (Fusarium Wilt)
- Land Acquisitions for New Open Space
- Port Phillip Planning Scheme

STRATEGIC CONTEXT MAPS

The strategic and policy aspirations for the study area have been summarised under three themes:

- Placemaking, land use and development
- Movement networks
- Green and blue functions.

The UFPP examines how each category contributes to the broader goals of the project, considering factors such as density, sustainable transport, public realm activation, and the integration of green spaces. Through this integrated approach, the design solutions within the UFPP will be contextually appropriate and achievable.



URBAN FOREST STRATEGY, 2024-2040

The City of Port Phillip's Urban Forest Strategy (2024 to 2040) provides a comprehensive framework for the development and management of Port Phillip's urban forest. The urban forest encompasses all trees, shrubs, and groundcovers on both public and private land, including gardens, parks, green roofs, and industrial areas. The Urban Forest Strategy highlights the importance of greenery in enhancing quality of life, boosting biodiversity and habitat, reducing air pollution, mitigating heat and flood risks, reducing stormwater costs, and increasing property values. Urban vegetation also creates employment opportunities and can be an important way of reflecting the indigenous landscape of the place.

Developed with community input, the Urban Forest Strategy outlines a vision where vegetation and green spaces are healthy and abundant, biodiversity is valued and supported, and nature connects people.

The Strategy is structured around five guiding principles:

1. Prioritising tree retention and introducing resilient plant species to address climate vulnerabilities.
2. Fostering collaboration among Council, community, and industry partners to care for urban greenery.
3. Emphasising biodiversity and habitat creation.
4. Investing in integrated urban greening across various landscape types.
5. Valuing the urban forest as a long-term asset critical to community well-being and neighbourhood character.

The Strategy also identifies key challenges to a healthy urban forest, such as climate change, urban heat, invasive weeds and plant diseases, human population growth pressures, spatial constraints, and biodiversity loss.

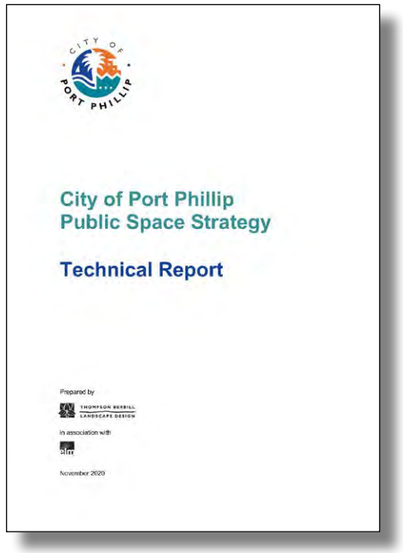
The Strategy offers a comprehensive body of research that supports canopy targets, and details approaches to vegetation diversity, water management and sustainable use of maintenance resources.

This provides the framework within which the Urban Forest Precinct Plans will operate, by honing in to a more detailed proposal for improving the urban forest.

The core objectives of the Urban Forest Strategy are:

- Increased canopy cover on public and private land for a liveable, sustainable, equitable and vibrant city.
- A cooler and greener city, which is resilient to more severe weather and changes in rainfall.
- Our community is engaged, trees and plants are valued, and we build partnerships to green our urban environment across all land types.
- A well-managed forest, including healthy trees and tree quality, pest and disease management and succession planning for iconic species and locations.
- A biodiverse urban forest with diverse species, healthy ecosystems, and habitat.

The UFPP supports these objectives by providing details on how to implement increased trees and biodiversity outcomes.



CITY OF PORT PHILLIP HOUSING STRATEGY (2024-2039)

The City of Port Phillip Housing Strategy sets out a 15-year plan to guide housing growth while strengthening resilience, quality of life, and community diversity. It designates areas for substantial, moderate, incremental, and minimal change, aligning with broader Council strategies on transport, economic growth, and sustainability.

UFPP Considerations:

- Areas marked for substantial change, such as the Carlisle Street Major Activity Centre (MAC), present opportunities to integrate street tree planting and urban greening as part of the gradual changes.
- Property consolidation in areas of growth may allow for increased canopy cover through coordinated landscaping and open space initiatives.
- Streets experiencing minimal change provide stability for long-term tree planting and maintenance strategies.

INTEGRATED TRANSPORT STRATEGY (2018-2028)

The Integrated Transport Strategy outlines a 10-year plan to improve transport connections within the City of Port Phillip. It prioritises sustainable and active transport, improves public transport access, and optimises infrastructure to accommodate population growth while preserving quality of life.

UFPP Considerations:

- Streets must balance canopy expansion with maintaining space for trams, buses, active transport and private vehicles.
- Opportunities exist to explore increased tree planting along transport routes identified in the Strategy to encourage cycling, walking and public transport usage across CoPP.
- Where land is not managed by Council such as state roads and rail, the UFPP will identify advocacy opportunities.
- The UFPP informs integrated transport planning by identifying streetscape interventions that enhance safety, shade, cooling, and overall user experience.

PLACES FOR PEOPLE - PUBLIC SPACE STRATEGY (2022–2032)

The Places for People – Public Space Strategy provides a vision for enhancing public spaces in Port Phillip. It establishes principles ensuring public spaces are equitable, abundant, versatile, and innovative.

UFPP Considerations:

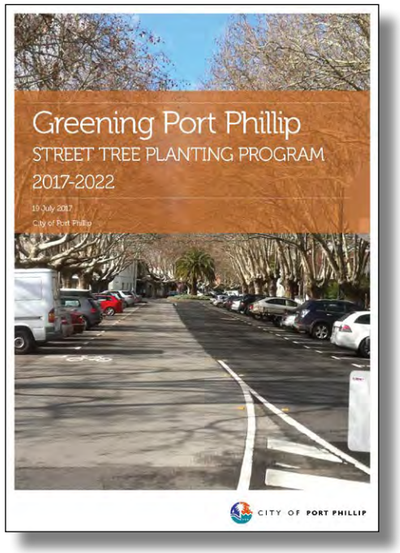
- Several streets, including Armstrong Street, Mills Street, Montague Street, Bridport Street, Moubray Street, Acland Street, and Eildon Road are identified for additional street trees to improve canopy cover and pedestrian experience.
- The strategy supports the integration of more tree planting within new public spaces, such as those being acquired by CoPP (e.g., 43, 49, 49A, and 51 Pakington Street, and 15 Marriott Street).
- Opportunities exist to advocate to Parks Victoria for better neighbourhood open space east of Lakeside Drive to support recreation and social connection, and upgrade paths west while retaining mature trees and natural character.
- Initiatives such as temporary street closures (e.g. Blessington Street between Peanut Farm and Renfrey Gardens) can create opportunities to enhance tree canopy, increase urban greening, and better link public spaces.

PUBLIC SPACE STRATEGY - TECHNICAL REPORT (2020)

The Technical Report informed the Public Space Strategy. It assessed current public space provision, identified future needs, and outlined guidelines for the equitable and strategic management of open spaces.

UFPP Considerations:

- The Technical Report helps to understand the broader network of open spaces and how people use and move between them. Key considerations include:
  - Beaconsfield Parade and Canterbury Road act as barriers to safe and easy access to open space, such as Albert Park Reserve and the foreshore.
  - Opportunities exist to enhance canopy cover in existing open spaces, as identified in the report, through targeted tree planting and design interventions.
  - There is an opportunity to continue strengthening and protecting Indigenous vegetation within and along the Canterbury Road Urban Forest.
  - Improve consistent avenue-style street tree planting in some streets to strengthen greening and connections between key public open spaces e.g. Armstrong Street – linking the foreshore, Armstrong Street shops, and Albert Park Reserve



GREENING PORT PHILLIP STREET TREE PLANTING PROGRAM (2017-2022)

The Greening Port Phillip Street Tree Planting Programme outlined a five-year plan to improve the City's urban forest through strategic tree planting. It supports the broader Greening Port Phillip vision by increasing canopy cover, reducing the Urban Heat Island effect, improving biodiversity, and enhancing public amenity.

UFPP Considerations:

- The UFPP can support the Programme's goal of increasing canopy cover by integrating tree planting and green infrastructure into developments.
- This strategy provided a detailed tree species list which was used as the starting point for the UFPP species lists.

ALBERT PARK MASTER PLAN (2019)

The Master Plan provides a flexible framework to guide the park's evolution under three key themes and five future directions. It focuses on adapting and activating the park to meet the changing needs of Melbourne's growing population. The three key themes are:

- Theme one: Nature and environment
- Theme two: Community connections
- Theme three: Healthy and active

UFPP Considerations:

- Note that Albert Park is managed by Parks Victoria, not Council; however, there are opportunities to collaborate with and advocate to Parks Victoria to improve canopy cover, shade provision, and climate resilience outcomes.
- Support the Albert Park Planting Strategy through increased tree planting to enhance shade, amenity, and environmental performance.
- Improve access and legibility by better defining park entrances and strengthening tree-lined avenues leading to the lake.
- Protect and celebrate the Ngargee (Corroboree) Tree as a culturally significant element of the landscape.
- Create a treed community space adjoining Fitzroy Street.

YANI BARRIPBARRIPUYT (FORMERLY SHRINE TO SEA) MASTER PLAN (2024)

Yani Barripbarripuyt will establish a new green boulevard linking Domain Gardens to Port Phillip Bay along Albert and Kerferd Roads. The project will create more usable open space, strengthen the boulevard's landscape character, and provide safer, clearer connections for walking and cycling, while celebrating local stories and history. The plan also promotes diverse, layered habitats for local fauna and enhances climate resilience through urban cooling and improved stormwater management.

UFPP Considerations:

- The Master Plan identifies eight 'Zones'. Of these, Zones 4 (Canterbury Road/Ferrars Street), 5 (Canterbury Road/Ferrars Street & Montague Street), 6 (Richardson Street), 7 (Danks Street & Beaconsfield Parade), and 8 (Kerferd Road Pier Forecourt) fall within the Albert Park suburb and should be considered in the preparation of precinct plans.

OTHER RESOURCES

CASE STUDIES

- City of Melbourne & The University of Melbourne. (2020) 'Streetscape biodiversity case study'. Available at: https://cpb-ap-se2.wpmucdn.com/blogs.unimelb.edu.au/dist/c/359/files/2020/06/Streetscape-Biodiversity-Case-Study.pdf (Accessed: 12 February 2025)

FURTHER READING

- City of Port Phillip & LatStudios. (2025). 'Greening Balaclava & St Kilda East: Urban Forest Precinct Plan'. Available at: https://www.portphillip.vic.gov.au/media/fzxpsp3m/sections-1-to-4-copp_urban-forest-precinct-plan-d-_lowres.pdf (Accessed: 14 October 2025).
- Konijnendijk, C.C. (2022) 'Evidence-based guidelines for Greener, healthier, more resilient neighbourhoods: Introducing the 3–30–300 rule', Journal of Forestry Research, 34(3), pp. 821–830. doi:10.1007/s11676-022-01523-z.
- Austroads (2021) Guide to road design part 3: Geometric design, Austroads: Road Design. Available at: https://austroads.gov.au/publications/road-design/agrd03 (Accessed: 13 February 2025).
- Im, J. (2019) 'Green streets to serve urban sustainability: Benefits and typology', Sustainability, 11(22), p. 6483. doi:10.3390/su11226483.
- Sanusi, R. et al. (2016) 'Street orientation and side of the street greatly influence the microclimatic benefits street trees can provide in summer', Journal of Environmental Quality, 45(1), pp. 167–174. doi:10.2134/jeq2015.01.0039.
- NSW Government. (2021) 'Street Tree Planting Design Manual'. Available at: https://www.planning.nsw.gov.au/sites/default/files/2023-10/street-tree-design-manual.pdf (Accessed: 12 February 2025).
- City of Hobart. (2023) 'Central Hobart Precinct Plan Urban Forest Planning'. Available online (Accessed: 12 February 2025)
- Coutts & Tapper. (2017) 'Trees for a Cool City: Guidelines for optimised tree placement', Melbourne Australia: Cooperative Research Centre for Water Sensitive Cities
- ASPECT Studios & Tree Logic. (2011) 'Urban Forest Diversity Guidelines: Tree species selection strategy for the City of Melbourne'. Available at: https://mvga-prod-files.s3.ap-southeast-4.amazonaws.com/public/2024-07/urban-forest-diversity-guidelines.pdf (Accessed: 12 February 2025)
- City of Melbourne & DELWP. (date unknown) 'How to Grow an Urban Forest: A ten-step guide to help councils save money, time and share practical knowledge'. Available at: https://www.clearwatervic.com.au/user-data/resource-files/2015_06_urban-forest-strategy-workbook.pdf (Accessed: 12 February 2025)
- City of Monash. (2018) 'Monash Urban Landscape Character and Canopy Vegetation Strategy'. Available at: https://www.monash.vic.gov.au/files/assets/public/v/1/planning-development/documents/mulcvs-final-full-low-res.pdf (Accessed: 12 February 2025)
- Moreland City Council. (date unknown) 'Passively Irrigated Street Trees Best Practice Guidelines/Tech Notes'. Available at: https://www.merri-bek.vic.gov.au/globalassets/website-merri-bek/areas/living-merri-bek/environment/water/esd---wsud---street-tree-passive-irrigation-best-practice-guidelines-tech-notes-for-web.pdf (Accessed: 12 February 2025)
- Hip V. Hype. (2021) 'Precinct Structure Planning Guidelines – Barriers and Solutions for Increased Tree Canopy in Victoria's New Communities'. Available at https://vpa-web.s3.amazonaws.com/wp-content/uploads/2022/03/Precinct-Structure-Planning-Guidelines-Barriers-and-Solutions-for-Increased-Tree-Canopy-in-Victorias-New-Communities-HIP-V.-HYPE-November-2021.pdf (Accessed: 12 February 2025)
- Landcom. (2006) 'Street tree design guidelines'. Available at: https://www.landcom.com.au/assets/Landcom-design-guidelines-and-fact-sheets-2008-2011/street-tree-design-guidelines2.pdf (Accessed: 12 February 2025)
- City of Whittlesea. (2019) 'Greening our Streets: Street Tree Management Plan 2019-2029'. Available at: https://www.whittlesea.vic.gov.au/files/assets/public/v/1/documents/environment/trees-and-plants/whittlesea-stmp-july-2019-final.pdf (Accessed: 12 February 2025)
- City of Melbourne. (date unknown) 'Urban Forest Strategy: Making a Great City Greener 2012-2032'. Available at: https://mvga-prod-files.s3.ap-southeast-4.amazonaws.com/public/2024-07/urban-forest-strategy.pdf (Accessed 12 February 2025)
- City of Melbourne. (date unknown) 'Miles and Dodds Street Reserve Expansion - Southbank: Draft for Community Consultation'. Available at: https://mvga-prod-files.s3.ap-southeast-4.amazonaws.com/public/2024-07/urban-forest-strategy.pdf (Accessed 12 February 2025)
- JMD Design. (2008) 'Street Tree Design Guidelines'. Available at: https://www.landcom.com.au/assets/Landcom-design-guidelines-and-fact-sheets-2008-2011/street-tree-design-guidelines2.pdf (Accessed 12 February 2025)
- Victoria State Government. (2019) 'Trees for Cooler and Greener Streetscapes: Guidelines for Streetscape Planning and Design'. Available at: https://www.planning.vic.gov.au/__data/assets/pdf_file/0031/656257/trees-for-cooler-and-greener-streetscapes.pdf (Accessed: 12 February 2025)
- McPherson, E. G., van Doorn, N., & de Goede, J. (2018). Structure, function, and value of street trees in California, USA. Urban Forestry & Urban Greening, 17, 104-115.
- Santamour, F. S. (1990). Trees for urban planting: Diversity, uniformity, and common sense. USDA Forest Service.

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