GLEN EIRA
CITY COUNCIL

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BENTLEIGH EAST
BRIGHTON EAST
CARNEGIE
CAULFIELD
ELSTERNWICK
GARDENVALE
GLEN HUNTLY
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MURRUMBEENA
ORMOND
ST KILDA EAST

DRAFT KOORNANG RD STREETSCAPE MASTERPLAN

May 2026



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LOOKING SOUTH TOWARDS NEERIM RD

FUTURE VISION: CANOPY TREES & PEDESTRIAN SIGNALS AT CROSSING

DOCUMENT DETAILS

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	Lighting audit - Ironbark Sustainability Pty Ltd
	Underground service mapping - Utility Mapping Pty Ltd
	Vehicle & pedestrian counts - Matrix Traffic & Transport Data Pty Ltd
	Flood modelling data - Melbourne Water
	Feature & levels survey - South Coast Surveyors Pty Ltd

CHAPTER 1
INTRODUCTION

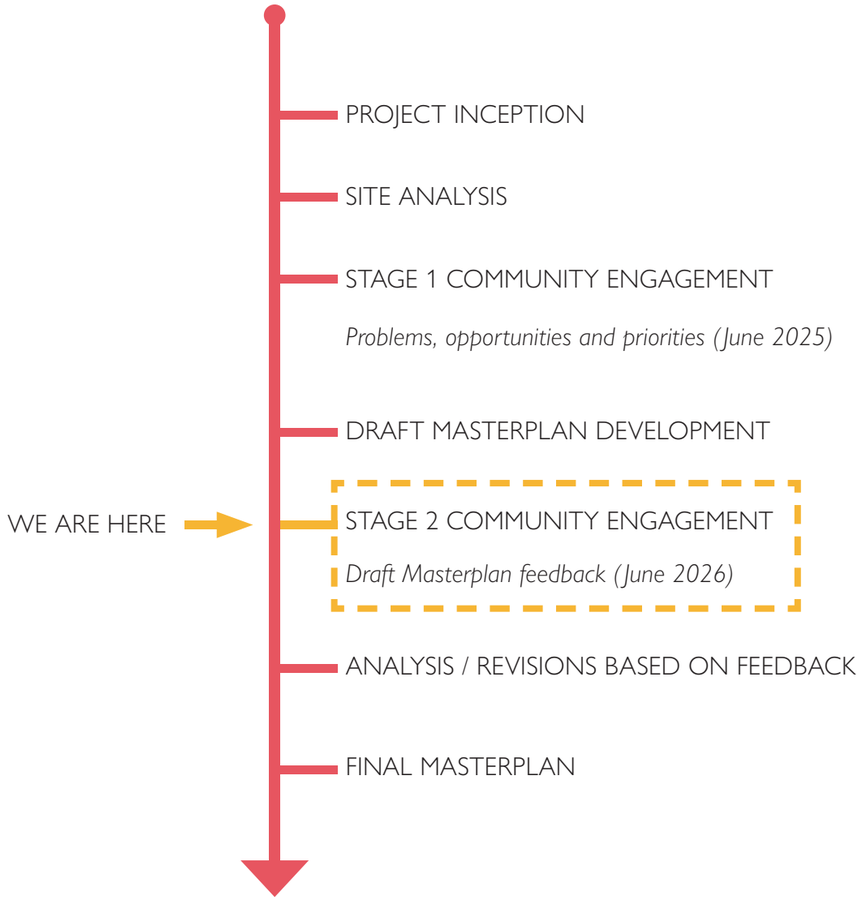
INTRODUCTION

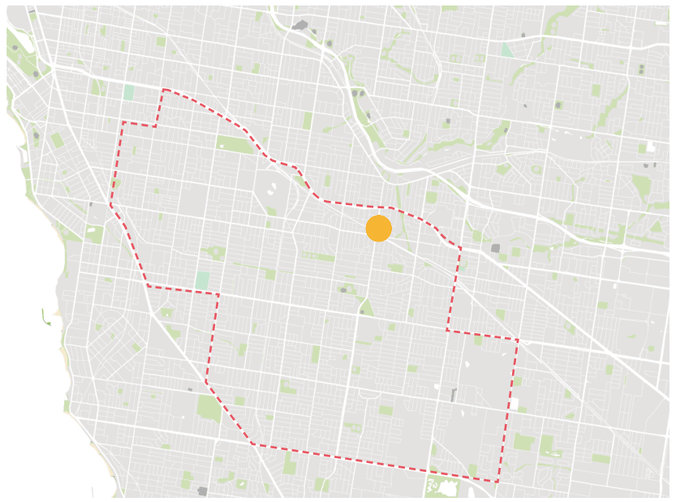
Koornang Road is one of the most successful commercial strips within the municipality of Glen Eira, with a 2% vacancy rate and a thriving night-time economy. However, whilst the commercial elements within the street are thriving – the public realm is tired and the landscaping along the street is in decline. There is a clear lack of 'identity' and cohesion with street furniture and paving across the length of the commercial streetscape. Council has also heard from the community regarding ongoing safety concerns for pedestrians, issues with traffic management and parking, as well as a lack of vegetation along the street.

Council's *Better Streets Better Places* strategy prioritises public realm upgrades across each activity centre within the municipality and identifies Koornang Rd as a 'high priority' centre for future upgrades. The Council Plan 2025-2029 also supports continued investment to maintain 'diverse, accessible and welcoming places' (Strategic Direction 2), which includes ensuring activity centres like Carnegie are safe, vibrant, well-connected and support a thriving local economy.

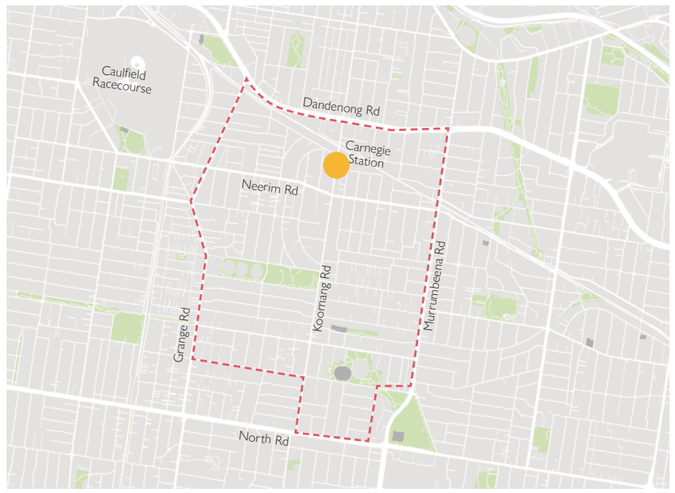
In response to the existing conditions along Koornang Rd and the strategic context set by Council, the Draft Koornang Rd Streetscape Masterplan:

- Builds upon the overarching strategic goals and demonstrates Council's commitment to supporting and enhancing Koornang Road as a thriving commercial centre into the future.
- Identifies opportunities that will retain the valued qualities of the street, whilst revitalising Koornang Road and maximising its potential, in-line with the feedback from the community,
- Sets the long-term vision and implementation strategy for the improvement of Koornang Road for the next 5-10 years, between Dandenong Rd to south of Neerim Rd.

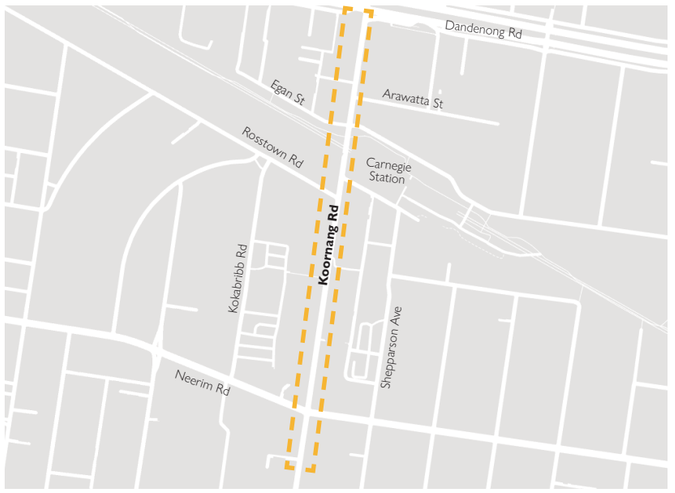




GLEN EIRA MUNICIPALITY



CARNEGIE



KOORNANG RD

SCOPE

WHAT WILL THIS MASTERPLAN ADDRESS?

The scope of the Masterplan will include all public realm areas between the building frontages and the street kerb on both sides of the street between Dandenong Road to just south of Neerim Road.

An example of the types of issues and assets to be reviewed as part of the Masterplan includes:



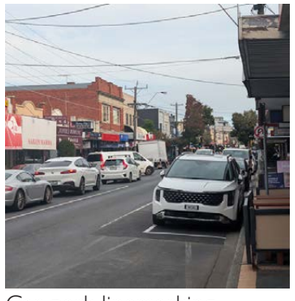
Footpaths along Koornang Rd

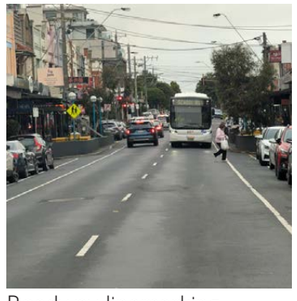

Trees and landscaping

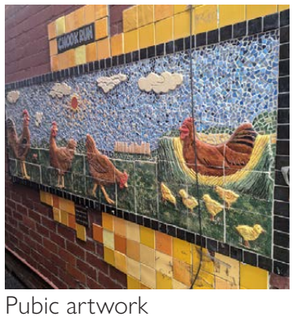

Street furnitures (seats, bins, bike hoops etc..)



Signage and wayfinding


Car park linemarking


Roadway linemarking


Pubic artwork


Side street crossing points



Crossing points over Koornang Rd

MASTERPLAN BOUNDARIES



WHAT IS OUTSIDE THE SCOPE?

The character and experience of Koornang Road extends well beyond the footpath areas, to include road spaces, transport routes, businesses and the intangible 'feel' of a place, amongst others. The Masterplan is focussed on a specific section of Koornang Road.

This is to ensure that the design is realistic, achievable and within a reasonable budget for Council to implement

The following areas and issues are outside of the scope for this Masterplan:

- Side streets that intersect onto Koornang Road (beyond the direct point of intersection)
- Laneways that connect onto Koornang Road
- Any works within the private realm (commercial, residential etc…)
- Any works associated with Carnegie Station
- Installation of new carparking areas (outside of re-linemarking existing bays along Koornang Rd)
- Removal of overhead powerlines
- Consideration of new planning controls to guide future development of buildings (these were considered as par of the Carnegie Structure Plan and will be further considered as part of the State Government Activity Centre Program)

All the proposed design strategies and projects within this Masterplan are high-level concepts. They will require further detailed investigations covering traffic, underground and overhead services, flooding and approvals during future design stages.

STRATEGIC CONTEXT

STRATEGIC CONTEXT & FRAMEWORK

This Masterplan is informed by Glen Eira Council's integrated framework of strategies and plans, which guide decision-making from strategic vision to on-ground delivery. The Council Plan provides the overarching direction, supported by higher-order strategies, while the Carnegie Structure Plan specifically identifies Koornang Road as a priority location for a dedicated Streetscape Masterplan, to support the activity centre's role and future growth.

This Masterplan translates strategies into a long-term vision for Koornang Road and will act as the primary reference for future capital works. Implementation will occur progressively, with streetscape upgrades delivered over time.

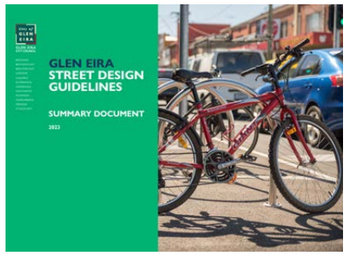
ACTIVITY CENTRE UPGRADE PRIORITY



- **BETTER STREETS, BETTER PLACES**

  Sets out the key priorities to be addressed in each centre and prioritises Koornang Rd in Carnegie as a 'high priority' for future upgrades.

ACTIVITY CENTRE DESIGN MANUAL

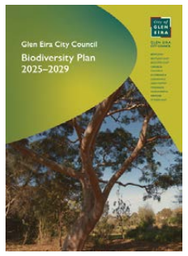


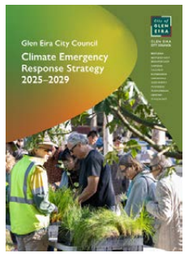
- **STREET DESIGN GUIDELINES**

  Sets the materials, furniture and design details to be used in future streetscape upgrades across Glen Eira.

SUPPORTING STRATEGIES









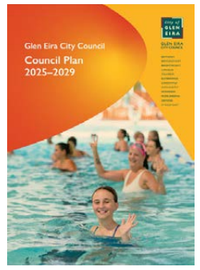


- **URBAN FOREST STRATEGY**
- **BIODIVERSITY PLAN 2025-2029**
- **CLIMATE EMERGENCY RESPONSE STRATEGY 2025-2029**
- **GLEN EIRA PLACEMAKING STRATEGY 2023-2027**
- **INTEGRATED TRANSPORT STRATEGY 2018-2031**

Whilst there are many Council strategies that influence the Koornang Rd Streetscape Masterplan, the strategies listed here directly shape the masterplan by prioritising increased tree canopy, biodiversity-sensitive design, climate resilience and high-quality public realm outcomes that support local identity and activity.

They also guide the street's function and layout by balancing sustainable transport, pedestrian comfort and placemaking to create a greener, safer and more vibrant activity centre main street.

OVERARCHING STRATEGIES:



- **COUNCIL PLAN 2025-2029**

  Identifies the priorities for Council over the next 4 year Council term. Includes a commitment to creating 'diverse, accessible and welcoming places' (Strategic Direction 2)

CARNEGIE SPECIFIC:



- **CARNEGIE STRUCTURE PLAN 2022**

  A 15 year strategy to manage the growth and improvement for Carnegie. Addresses population growth, development controls and infrastructure upgrades. Calls for the preparation of a streetscape masterplan for Koornang Rd to inform future works.

KOORNANG RD SPECIFIC:



- **KOORNANG RD STREETSCAPE MASTERPLAN (THIS DOCUMENT)**

  Proposes specific infrastructure upgrades to Koornang Rd.

  Future public realm projects along Koornang Rd will be informed by the concepts and actions in this Masterplan.



- **FUTURE PUBLIC REALM PROJECTS ON KOORNANG RD**

  Individual projects will be staged for delivery.



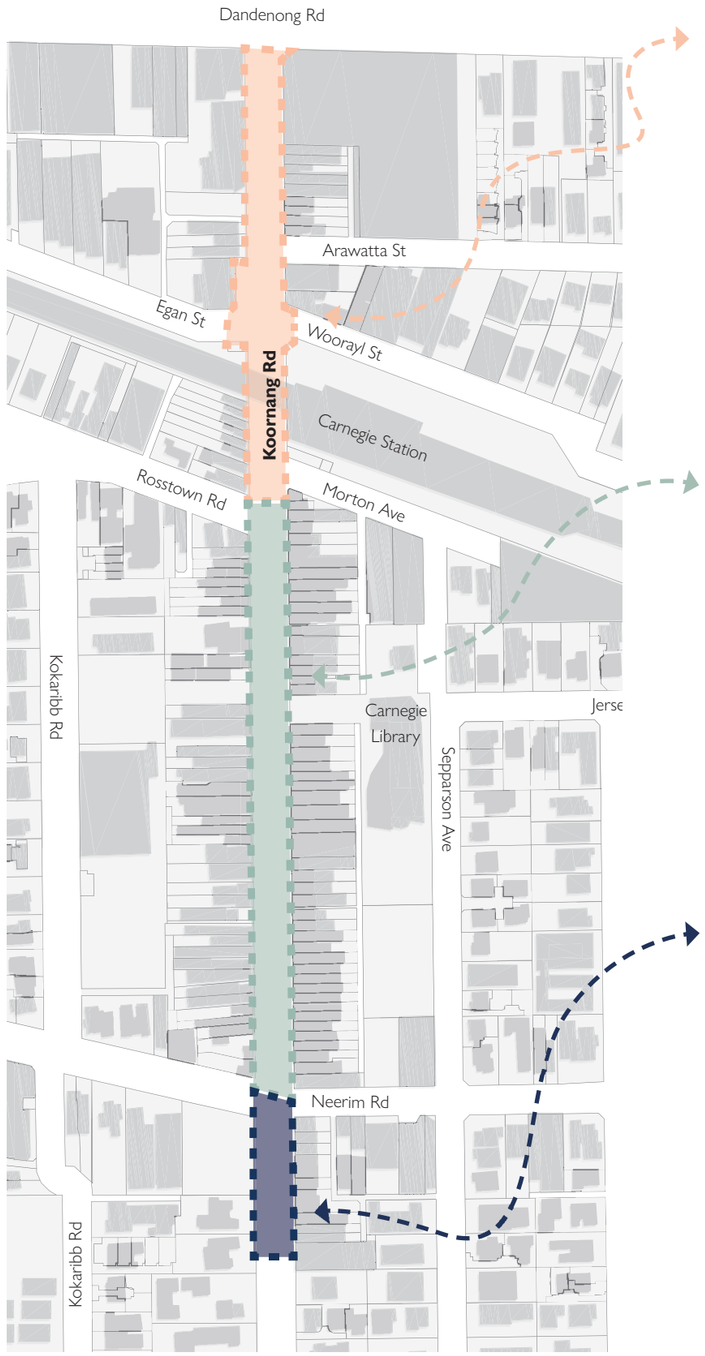
CHAPTER 2
ANALYSIS & OPPORTUNITIES

KOORNANG RD PRECINCTS

KOORNANG RD PRECINCTS

There are 3 distinct character precincts along the commercial stretch of Koornang Road:

1. Northern Precinct (Dandenong Rd – Carnegie Station)
2. Central Precinct (Carnegie Station – Neerim Rd)
3. Southern Precinct (south of Neerim Rd)



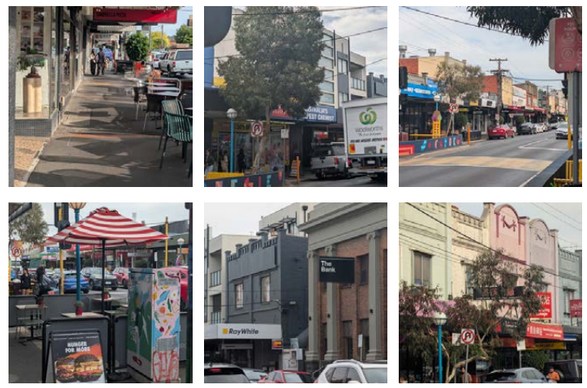
NORTHERN PRECINCT:
DANDENONG RD - CARNEGIE STATION

This area has a high volume of vehicle traffic, due to the large shopping centre on the corner of Dandenong/Koornang Rd. The area also includes the Djerring Trail that runs underneath the rail corridor and the recently upgraded Carnegie Station.



CENTRAL PRECINCT:
CARNEGIE STATION - NEERIM RD

The largest and busiest section of Koornang Road, acting as the 'core' of Carnegie. Shops have a consistent frontage along the street and there is activity on the footpath including outdoor dining, displays and seating areas. Also includes several key laneway connections to rear car-park areas and the large forecourt to the Carnegie Library.



SOUTHERN PRECINCT:
SOUTH OF NEERIM RD

South of Neerim Road there are several shops along the eastern side of Koornang Road that continue to provide outdoor dining and activation of the street. The large parcel of land on the corner of Neerim/Koornang Road remains undeveloped at this time.



SURVEYING KOORNANG ROAD- PART 1

There are many aspects, beyond those listed here, that go into making Koornang Rd a great and successful street.

However, to help understand the existing conditions of the street and what may need addressing, the following pages outline examples of the public features that make up Koornang Rd.



FOOD & SHOPPING

The main attraction of Koornang Rd is the excellent mix of shops and the broad variety of offerings, from great restaurants, retail and services.

This is one of the strongest drawcards of Koornang Rd and creates the sense of vibrancy and activity that makes the street busy, day and night.

Outdoor dining along the footpath is a defining feature of the street, and should be supported by a high quality footpath and public realm.









VEGETATION

There are sparse examples of vegetation along Koornang Rd. Existing street trees are generally small Figs/Bay Laurel's that have been clipped into a 'lollipop' shaped form.

Larger trees towards the Library forecourt have grown close to powerlines and have been heavily pruned on one side.









STREET FURNITURE

A wide variety of street furniture adorns Koornang Rd. The street is quite well serviced with seats, bins and bike hoops. Most public assets are colourfully painted and stand out within the street.

However, there is a lack of consistency across the styles of furniture. Furniture has been progressively installed across the years, and this 'ad-hoc' style of installations has resulted in a disjointed character .









SURVEYING KOORNANG ROAD - PART 2

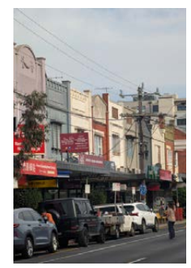
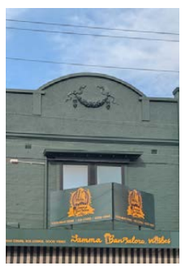
PAVEMENT

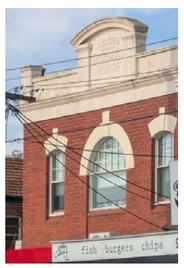
The predominant pavement along Koornang Rd footpath is asphalt with clay brick banding. There are patches of repair works and uneven surfaces across the length.




HERITAGE FABRIC

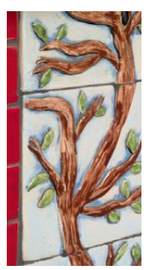
Most buildings along both sides of Koornang Rd are protected by a Heritage Overlay. The heritage precinct has intact buildings, dating to the Late Federation, Inter-war and Post WWII periods.

PATTERNS & DETAILS

There is a wide variety detailed patterns and colourful details to be found along shopfronts across the commercial strip. These details tell stories of place and enhance the public realm

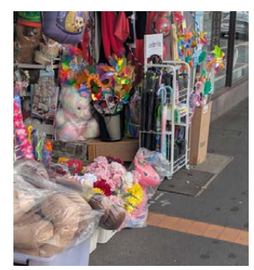


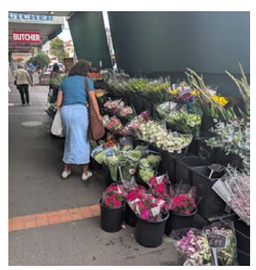




OUTDOOR TRADING

The street is bustling with activity at all times of the day, from outdoor dining to market style stalls. This brings a vibrancy, however it must be carefully managed to ensure the footpath remains accessible.



TOPOGRAPHY

Koornang Rd slopes gently down from Dandenong Rd, to a low point at the Chook Run pedestrian crossing. Overall the road falls 1m across the length of the study area.



SIGNAGE

There is a large amount of signage along Koornang Road (e.g.: advertisements, parking restrictions and traffic signs). A rationalisation of the public signage could assist in 'decluttering' the street.

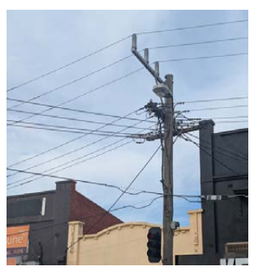





UTILITY SERVICES

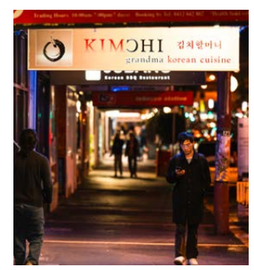
The street is filled with many utility services (gas, electricity, Telstra etc..). Many sit within the footpath paving, but services also exist above (powerlines, lights, traffic lights).

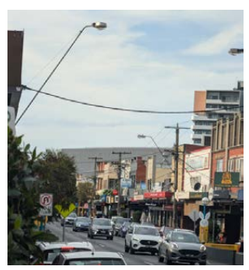
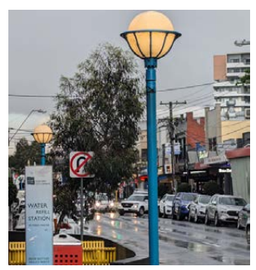




LIGHTING

A mix of lights illuminate the street. Public amenity lights are limited and most illumination comes from street lights and shopfronts and illuminated advertising signs.



INITIAL COMMUNITY ENGAGEMENT

ENGAGEMENT APPROACH

Initial community engagement was undertaken over a four-week period from 9 June to 6 July 2025. This was to understand the existing issues on Koornang Rd and the key priorities to be addressed in the draft Masterplan. Council received 314 pieces of feedback, comprised of:

- 281 survey submissions (Have Your Say)
- 20 community member comments at in-person pop-up session
- 8 'gather tool' public forum contributions
- 1 in-person workshop with Koornang Road Traders Association

WHO IS THE COMMUNITY

Of the 314 submissions received:

- Most respondents were aged 25 to 54.
- Most respondents were women (68%), followed by men (27%)
- Most respondents lived in Carnegie (73%), followed by Murrumbeena (31%).
- Among those who selected an identity group, the most common were those from a multicultural background or those born overseas (21% each).



Community drop-in session @ Koornang Rd Stage 1 Engagement (June 2025)

WHAT WE HEARD

The top three key themes prioritised by the community through the engagement process were:



MORE GARDEN BEDS & STREET TREES

The poor quality of existing vegetation and planting along Koornang Road was highlighted by the community, along with the need for more appropriate street trees, vibrant garden beds, and better protection from the elements.



IMPROVED PEDESTRIAN SAFETY

The most pressing issue was the need for improved pedestrian safety along Koornang Road. People advised that they didn't feel safe at times trying to cross Koornang Road and felt the street was dominated by motor vehicles.



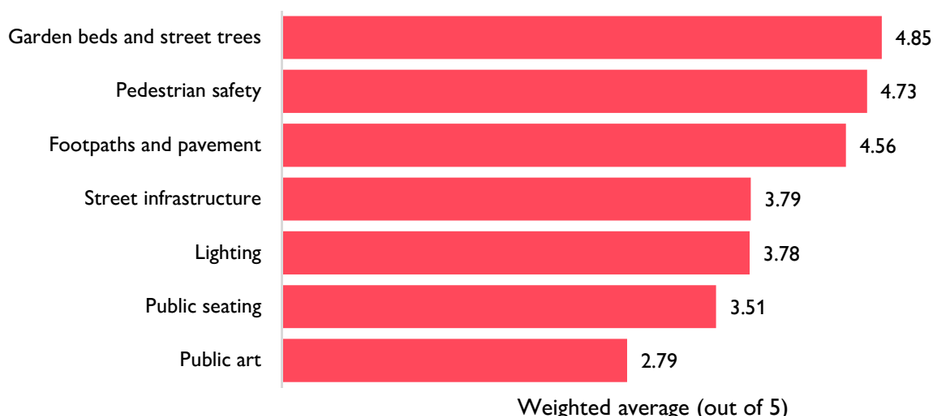
BETTER FOOTPATHS & PAVEMENT

The quality and maintenance of the existing footpaths were raised as an issue to be resolved. There is a need for consistent footpath paving, with high-quality pavement and more vibrant public spaces along the length of the street.

One of the key questions asked as part of the engagement process was:

- *"Please rank the following street features in order of priority for improvement on Koornang Rd".*

Council received 281 responses to this question as part of the engagement process. The following street features were identified by the community as priority areas for improvement:



Survey results - Priorities for improvement Stage 1 Engagement

COMMUNITY ENGAGEMENT - DIRECT FEEDBACK

DIRECT FEEDBACK

Council received direct feedback both in-person and through submissions on the 'Have Your Say' page. The following sections outlines some of the direct sentiments of the community in relation to different topics relating to Koornang Rd.

TRAFFIC & MOVEMENT:

"The street (and surrounding streets) should be recognised as pedestrian zones where people come first and cars second."

"Remove parking between the station and Neerim Road to improve traffic flow"

"The intersection of Morton Ave and Shepparson Ave is too wide and cars take this corner very quickly without using indicators."

"Make Koornang Road a 30km speed limit zone & safer for pedestrians or a mall with no cars would be even better."

PEDESTRIAN SAFETY:

"The footpath on Koornang road is very busy and congested. Particularly in areas with furniture, restaurant areas, and at the fruit shops. Parking should be removed from the street in these areas to allow the footpath to be expanded here."

"Food delivery bike riders are often on the footpaths both riding & parking. They should have a dedicated on-road area created for them so they're not using footpaths at all as it's dangerous and unsafe."

"I often feel unsafe walking as a pedestrian along Koornang Rd during busy rush hours (school pick-ups or end of day)."

""Encourage active travel and make it safe"

GREENERY AND AMENITY:

"We would love to see more trees, native plants and bright flowers!

"More trees, increase public space as density is increasing"

More trees and plants, ensuring they don't ruin sight lines"

"More public seating, clean drains"

"More meeting places"

CARNEGIE TRADERS ASSOCIATION

Council officers undertook a presentation and discussion with the Carnegie Traders Association regarding their aspirations for the masterplan and key issues affecting the road. A summary of the feedback received is outlined below:

GENERAL COMMENTS:

- The 'vibrancy' of Koornang Rd is what makes it special and unique. There is an amazing mix of businesses and the variety of offerings along the street are what draws people in.
- The street is busy both day and night. The street has the busiest night-time economy in all of the Glen Eira municipality.
- Access is generally easy and convenient.
- Very low vacancy rates along Koornang Rd.

OPPORTUNITIES:

- Reduce redundant signage and visual clutter along the streetscape.
- Provide more spaces for events and facilities to host events (in conjunction with traders).
- Providing enough car parking along the street is very important to traders.
- Provide a signalised crossing point at the Chook Run/arcade crossing point.

CONSTRAINTS/ISSUES:

- People are very vulnerable at crossing points.
- There are not enough places for people to park bicycles along the street.
- Uber drivers ride their bikes along the footpath and it is very dangerous. Needs better enforcement.
- Footpath is in poor condition due to service authority works.

CONSTRAINTS & ISSUES

UNDERGROUND UTILITY SERVICES



Koornang Road contains a dense concentration of underground services within the road reserve and underneath the footpath, including telecommunications (Telstra), gas, electricity, stormwater, drainage and sewer infrastructure.

These assets significantly influence the placement of street furniture, paving, trees and lighting, as minimum clearance zones and access requirements must be maintained to allow for servicing and future upgrades.

Similarly, service authorities require access for maintenance and will replace excavation work with asphalt, regardless of surface material.

IMPACT:

- Street trees will need to be setback appropriately from underground services. Most services run under the footpath.

- Predominant footpath material should be asphalt, to match with constant service authority maintenance works.

SHOP AWNINGS



Continuous shop awnings and weather protection structures are present along both sides of Koornang Road for the majority of the study area, with only occasional breaks in awning coverage. These awnings create a strong and consistent pedestrian environment but also impose physical constraints within the footpath zone, reducing vertical and horizontal space available for trees and lights.

For tree planting, awnings present the most challenging growing condition along Koornang Road. With awning soffits generally located at approximately 3 metres above ground level, only very small or narrowly formed tree species can be accommodated, significantly limiting canopy potential.

IMPACT:

- Careful selection of tree species is required (small/compact/shade tolerant), to replace existing trees in the footpath.

OVERHEAD POWERLINES



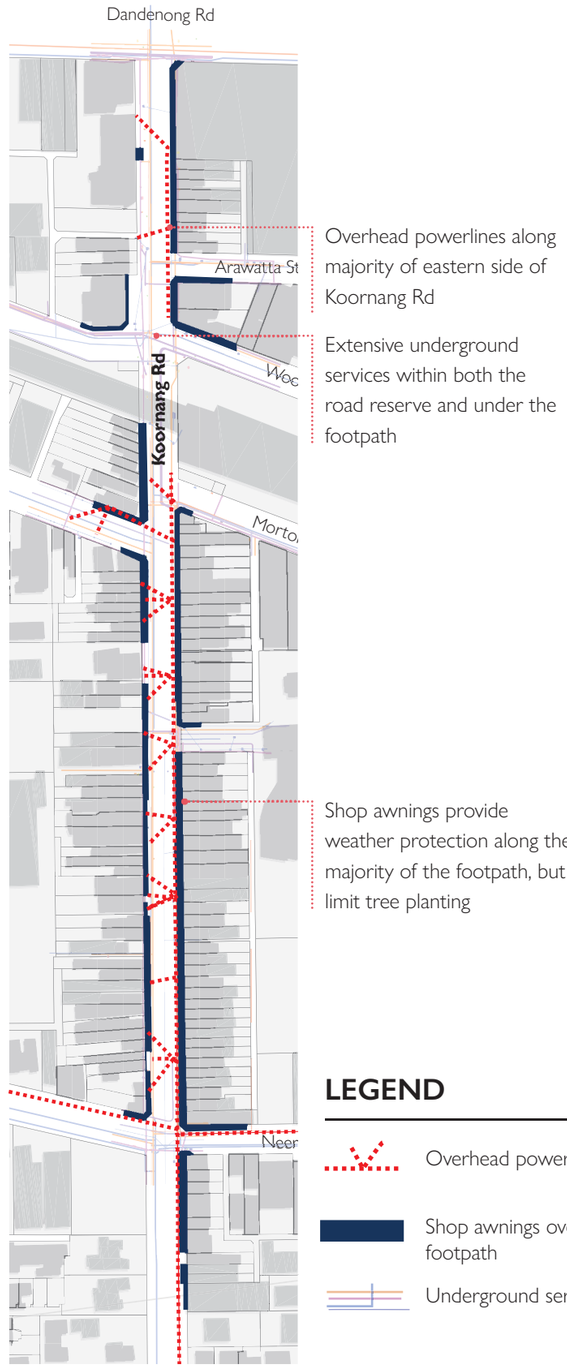
Overhead powerlines present a vertical constraint along Koornang Road. The primary overhead powerlines run for almost the entire length of the study area along the eastern side of the road, with the exception of the Carnegie Station where powerlines have been moved underground.

In addition, multiple cross-road overhead connections extend from the main line to supply adjacent businesses, creating a network of aerial infrastructure that spans both footpaths and roadway.

IMPACT:

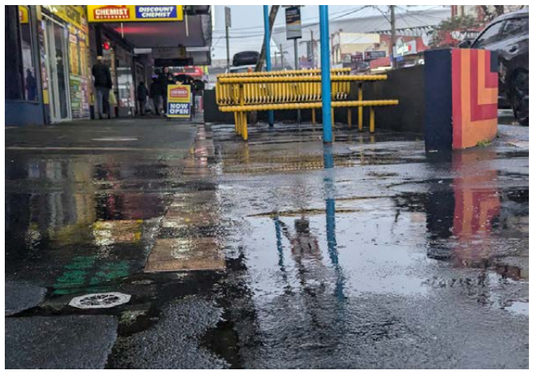
- Street trees planted clear of shop awnings on the east side of the road will need to be pruned to avoid overhead powerlines.

- There are limited powerlines along the western side of the street



CONSTRAINTS & ISSUES

FLOODING & DRAINAGE



Flooding is an increasing challenge along Koornang Road. Melbourne Water's updated flood modelling indicates that flood events affecting the corridor are expected to become more severe and more frequent over coming years and decades, driven by climate change and more intense rainfall patterns.

This heightened flood risk is an important consideration for any future public realm upgrades and infrastructure improvements along the street.

Adding 'volume' to the street through additional kerbs, or altering the flow path of water will require approval from Melbourne Water. These works needs to be carefully planned and modelled, to ensure they are supported and importantly do not increase flood risk.

IMPACT:

Ensure that any future public realm works do not increase flood risk along Koornang Rd or surrounding areas.

TRAFFIC MOVEMENT AND ACCESS



Traffic movement and access along Koornang Road present an ongoing constraint due to the intensity of retail activity, frequent vehicle turning movements and the interface between private vehicles, pedestrians and buses. This can make for a challenging environment for pedestrians.

There are 89 car parks within the study area, along the length of Koornang Rd. These are highly valued and have a high turnover.

Existing car parking bays along the street are often tight by contemporary standards, making access and manoeuvring difficult and increasing the likelihood of conflict with passing traffic and bicycles.

IMPACT:

Consider slightly increasing size of parallel parking bays for easier movement and accessibility. .

POOR QUALITY TREE GROWTH



Existing street trees along Koornang have limited canopy spread and are generally in a poor arboricultural condition.

They receive limited sunlight, water and have been heavily pruned to limit their height and spread along the footpath and underneath powerlines.

IMPACT:

Replacement of street trees with more appropriate species.

Increase tree canopy planting and garden beds along the street.

OPPORTUNITIES: VEGETATION

REPLACEMENT OF EXISTING STREET TREES



Example of canopy trees along an urban streetscape

There are a total of 42 canopy trees along the footpaths on both sides of Koornang Rd, the majority of which are generally in a poor condition (based on a recent arborist assessment).

The most prolific species is the Bay Laurel Tree (*Laurus nobilis*), with 27 specimens along the street. These have been pruned to maintain size and shape so they fit under the shop awnings. A majority of the Bay Trees are showing signs of stress, likely caused by limited sunlight exposure and poor rainwater filtration.

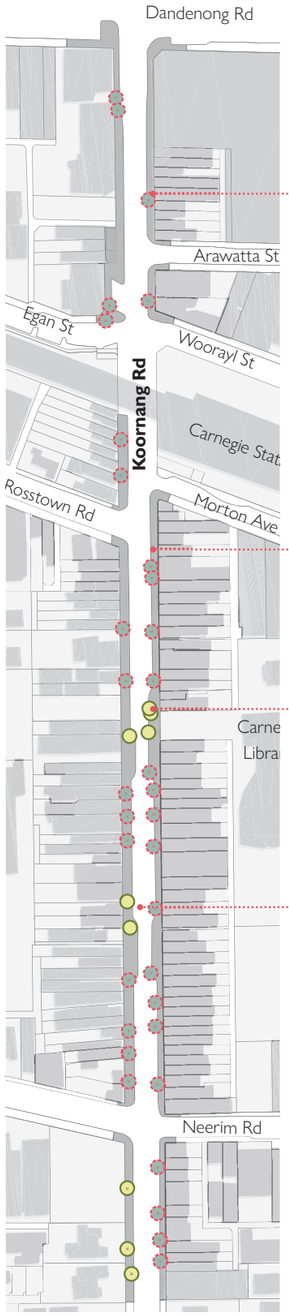
The Masterplan presents an opportunity to provide a more suitable palette of tree planting across the street, which will improve canopy cover and the overall character of the street.

The plan will also propose low level garden beds to compliment tree planting and further 'green' the street.

CONSTRAINT ADDRESSED:

- Staged replacement of all poor quality street trees along Koornang Rd. Improve urban greenery and visual appeal.

EXISTING TREES TO BE RETAINED/REPLACED



Staged replacement of poor quality street trees along the footpath

All existing trees along Koornang Rd are either in 'fair' or 'poor' condition

Retain large canopy trees at the edge of the Carnegie Library forecourt

Retain established Eucalyptus trees in footpath opposite Chook Run

LEGEND

- Existing street tree - to be retained
- Existing street tree - to be replaced
- Existing footpath

INSTALLATION OF TREES 'IN-ROAD'



Example of trees installed 'in-road

Due to overhead awnings and extensive underground services, large canopy trees cannot be accommodated within the existing footpath.

The masterplan therefore identifies opportunities to locate large canopy trees within the car parking bays, where suitable soil volumes and growing conditions can be provided.

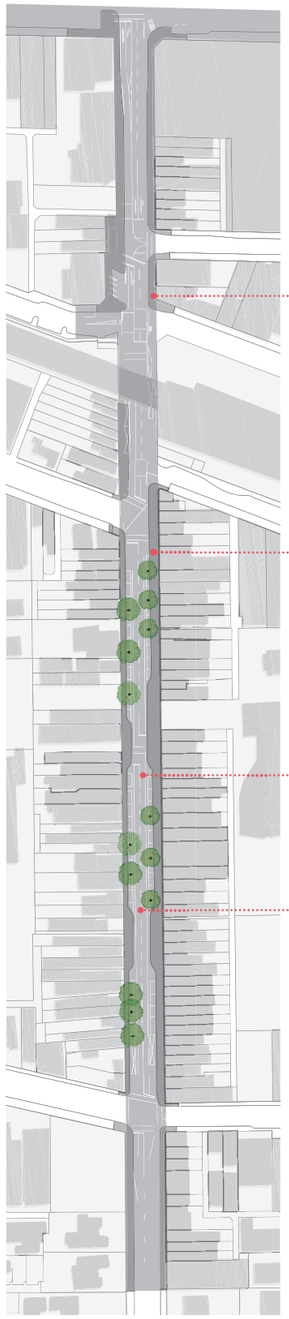
Trees within the roadway offer significant benefits, including increased shade, improved thermal comfort, enhanced streetscape quality, and water-sensitive urban design outcomes through stormwater capture and flood mitigation.

All options have been tested through detailed flood and traffic modelling to ensure safety and suitability for Koornang Road. While some options may slightly reduce on-street parking, the long-term benefits of increased canopy, amenity, and biodiversity are considered to outweigh these impacts.

CONSTRAINT ADDRESSED:

- Large canopy trees installed in selected parking bays, clear from shop awnings, underground services and powerlines.

PROPOSED TREES 'IN-ROAD' LOCATIONS



No trees 'in-road' north of Rosstown Rd, due to constraints such as increased vehicle traffic and turning movements, as well as underground services.

Medium size canopy trees on east side of Koornang Rd, due to overhead powerlines

Large size canopy trees on west side of Koornang Rd, as there are limited overhead restrictions

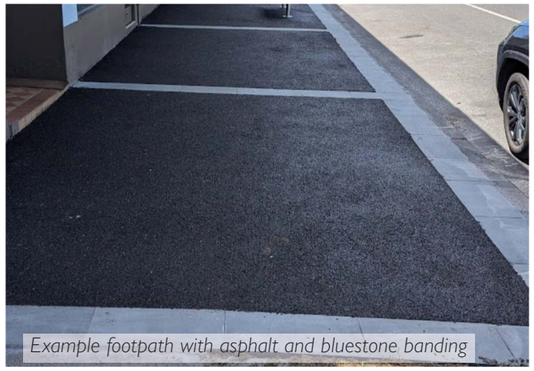
Total of 5 car parks converted across entire length of street, to allow for 15 large canopy trees to be planted

LEGEND

- Proposed large canopy tree planted in parking lane (1 car park = 3 canopy trees)

OPPORTUNITIES: PAVEMENT & STREET FURNITURE

RENEW EXISTING FOOTPATH AREAS



Example footpath with asphalt and bluestone banding

The footpath along both sides of Koornang Rd is generally asphalt, with clay brick banding. The condition of the footpath is inconsistent in parts, due to service authority works and patchwork renewal over several years.

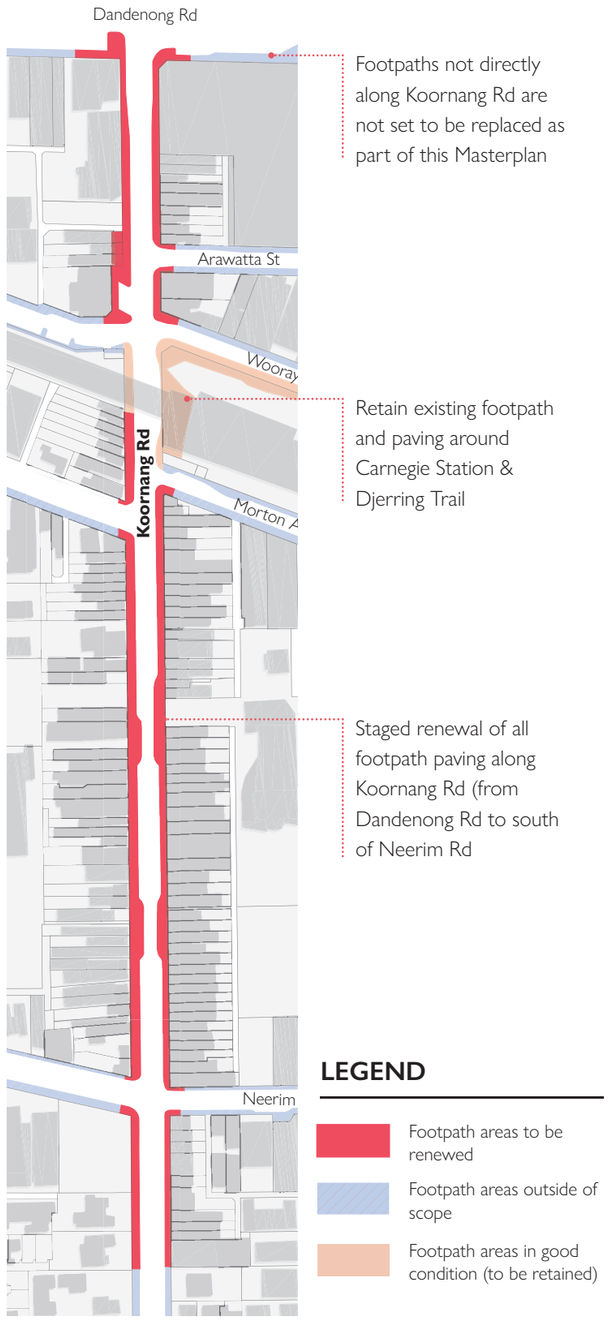
The use of asphalt as the primary surface treatment is preferred, as it allows for easy matching into existing conditions following service authority works Given the large amount of underground services, there will be inevitably be ongoing service authority works along the street. It is quick to lay, so has minimal impact on trade.

Asphalt is a durable and safe, whilst also being an affordable surface treatment when used in large quantities. Detail can be added to footpath through the use of sawn bluestone, which will replace the existing clay brick pavers.

CONSTRAINT ADDRESSED:

- ✓ Improved pedestrian safety, amenity and character of street through consistent and refreshed footpath paving

FOOTPATH RENEWAL SCOPE



CONSISTENT STREET FURNITURE PALETTE



Example of Glen Eira CC standard timber bench seat

To establish a consistent character along Koornang Road, the masterplan proposes rationalising existing street furniture. The street currently contains furniture from multiple eras, resulting in a disjointed appearance and assets of varying quality and condition, including inconsistent benches, bins, lighting, and bike hoops.

A robust, high-quality, and timeless furniture palette (using hardwood, stainless steel, and muted tones in line with the Glen Eira Street Design Guidelines), will create a cohesive identity. Replacing the coloured 'lollipop' lights at the pedestrian crossings with contemporary luminaries, will further modernise the street and improve night-time amenity.

Colour and playfulness could instead be introduced through public art and vibrant tree and understorey planting.

CONSTRAINT ADDRESSED:

- ✓ Consistent character, improved amenity and durable materials. Providing more places for people to rest and enjoy the street.

FEATURE PAVING AT KEY AREAS



Example of feature paving at Carnegie Station

In addition to the standard footpath paving materials of asphalt and sawn bluestone banding, there are also opportunities to provide a higher level of paving treatment at key intersections and crossing points along Koornang Rd.

The recent paving upgrade around the Carnegie Station forecourt are high quality and set the character of the centre. These high quality paved areas of bluestone and brickwork are typically the first experience that many visitors have with the public realm when they arrive in Carnegie, either via train, bus or bicycle along the Djerring Trail.

These materials can be repeated at busy pedestrian crossing points, to reinforce the materiality of the centre and create a sense of place.

CONSTRAINT ADDRESSED:

- ✓ Connection to place, by reinforcing existing materials and recent upgrades as part of upgrade to Carnegie Station.

OPPORTUNITIES: PUBLIC ARTWORK & GATHERING PLACES

INCREASE PUBLIC ARTWORK



Example of public artwork - community mural

Koornang Rd has a rich history which can be celebrated and enhanced through public artwork. Public artwork can take many forms including sculptures, temporary installations, murals and lighting. However, setting aside designated areas and general 'themes' for future artwork can assist in creating a cohesive identity for the street.

Some of the themes to be considered for future public artwork include:

- First Nations history and connection to Koornang Rd.
- The multicultural history and current offerings along Koornang Rd.
- Reference to the wide variety of shops and retail offerings along Koornang Rd.
- Reference to the local community and residents of Carnegie.

These could be temporary, permanent, or ephemeral installations.

CONSTRAINT ADDRESSED:

✓ Improve public amenity and storytelling of Carnegie/Koornang Rd, enhancing the character and history of place.

ENHANCE PLACES FOR PEOPLE TO GATHER



Example of seating that encourages people to gather

Part of what makes Koornang Rd so successful is the people that regularly use the centre and visit it on a daily basis.

Enhancing the existing gathering places, as well as providing more places to stop and rest, will support the ongoing use of the centre and ensure the centre is designed for people first and foremost.

There are several locations along the street where the footpath is wider and this allows for people to congregate, without disrupting the flow of pedestrian traffic along the footpath.

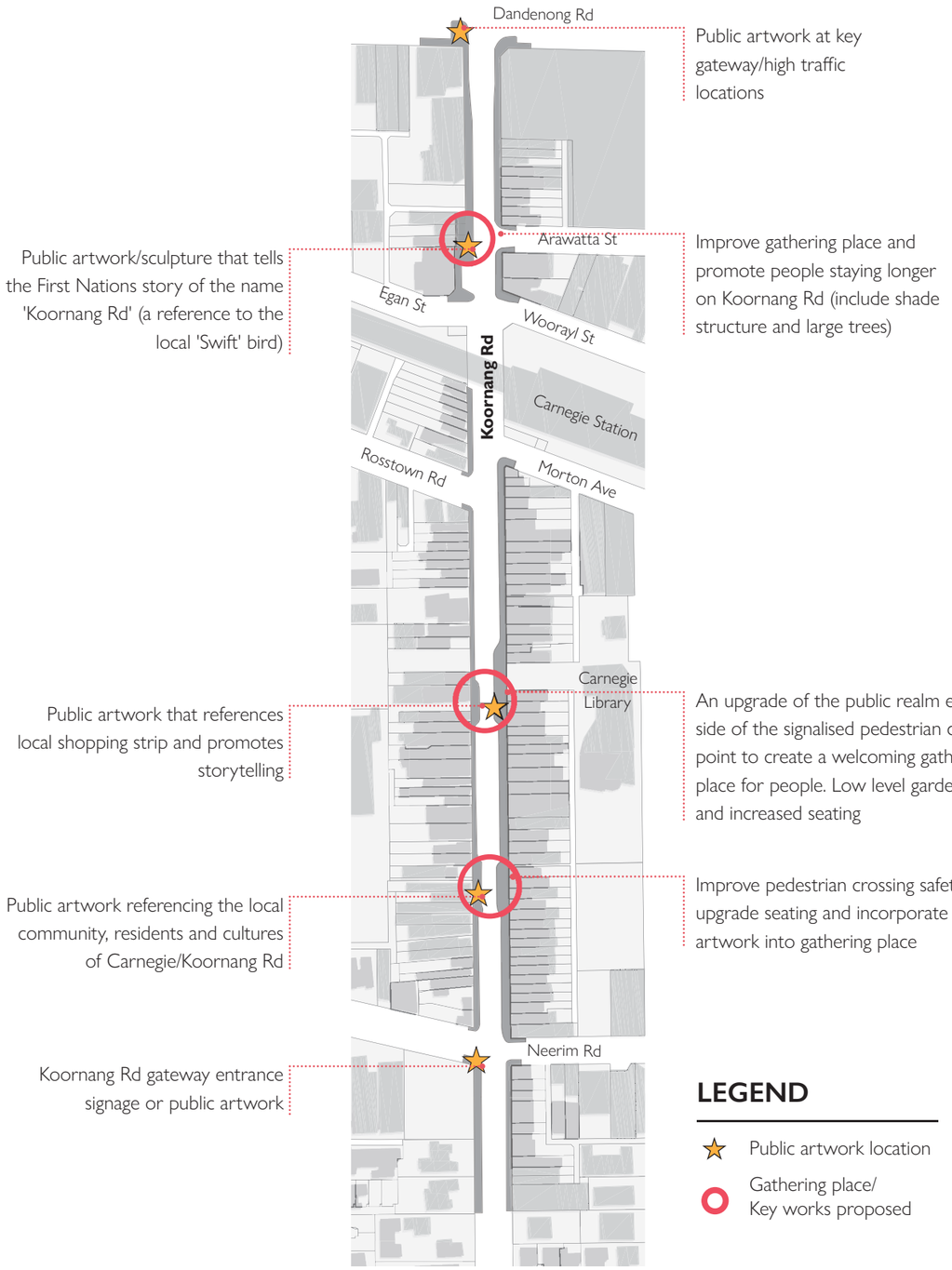
These places are:

- Opposite Arrawatta St.
- The signalised pedestrian crossing near the Library forecourt/Leaf Lane.
- The southern pedestrian crossing opposite the arcade laneway/Chook Run laneway.

CONSTRAINT ADDRESSED:

✓ Increase public greenery as well provide opportunities for people to spend more time on Koornang Rd.

PUBLIC ARTWORK & GATHERING PLACE LOCATIONS



OPPORTUNITIES: IMPROVE PEDESTRIAN SAFETY

IMPROVE PEDESTRIAN CROSSING POINTS



Example of formalised pedestrian crossing

A key theme heard during community engagement was that pedestrians feel unsafe when crossing Koornang Rd.

The masterplan considers options to improve pedestrian safety along the street, as well as at key crossing points. Flooding and traffic modelling constraints limit some of the viable options, however there are ways to improve pedestrian safety that still address these issues.

The pedestrian crossing that requires the most immediate need for improved safety is the 'southern' crossing, which is opposite Carnegie Arcade and Chook Run. A key focus of this masterplan is to improve pedestrian priority here and make crossing the road safer/easier.

CONSTRAINT ADDRESSED:

- People currently feel unsafe crossing Koornang Rd. The masterplan will propose improvements to pedestrian crossings and pedestrian safety

IMPROVE NAVIGATION AND ACCESSIBILITY



Example of text and navigational aids in pavement

Making the footpath a consistent, smooth surface and removing visual clutter will improve accessibility.

There is a large amount of visual clutter along the street, with repetitive signage and many different colours that can confuse pedestrians.

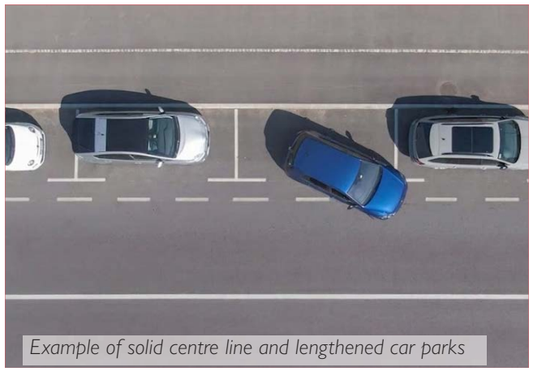
Pedestrian wayfinding can be improved through incorporating navigational aids into the footpath surface itself, such as bluestone etching of directions and landmarks, decals and subtle navigation cues.

Public signage can also be consolidated as part of any upgrade, allowing a review of which signs are still required.

CONSTRAINT ADDRESSED:

- Reduce visual clutter along Koornang Rd, improve pedestrian wayfinding and accessibility for people of all mobilities.

REDUCE VEHICLE CONGESTION



Example of solid centre line and lengthened car parks

Another common concern raised during community engagement was that motor vehicles still undertake illegal 'U' turns along Koornang Rd. In addition, there is a lot of manoeuvring of vehicles into tight parallel car parks, which increases congestion whilst traffic waits.

There are cost effective and simple solutions to resolve some of these concerns, such as revised linemarking for car parks that increases their length (making them easier and quicker to get in/out of), as well as solid linemarking down the centre of Koornang Rd that clearly prohibits 'U' turns.

Flooding constraints limit any ability to provide raised kerbs or central median strips, however, similar results may be achieved through simple linemarking.

These small changes can dramatically improve traffic flow and help reduce congestion.

CONSTRAINT ADDRESSED:

- Improve flow of traffic through subtle linemarking changes, which will assist in reducing vehicle congestion and manoeuvring.

PUBLIC ARTWORK & GATHERING PLACE LOCATIONS



SUMMARY OF CONSTRAINTS, IMPACTS & OPPORTUNITIES

CONSTRAINT	IMPACT	OPPORTUNITY
• Dense network of underground services along the footpath and road reserve.	• Street trees will need to be setback appropriately from underground services. • Service authorities will be constantly excavating the footpath to access and maintain their assets.	• Asphalt should be the predominant footpath material, to match-in with service authority works. • Sawn bluestone banding can be used to create detail and replace existing clay brick banding. • Replacement street trees located away from existing underground services.
• Shop awnings over the majority of the footpath areas.	• Limited sunlight, water and vertical clearance height for trees to establish.	• Careful species selection and replacement planting. • Prioritise large tree canopy outside of shop awnings footprints.
• Overhead powerlines along the east side of Koornang Rd.	• Vertical restriction on large canopy growth which will require pruning.	• Selection of tree canopy species that will grow to appropriate height and respond well to pruning.
• Increased risk of flooding and drainage issues (based on updated Melbourne Water flood modelling).	• No ability to raise or significantly alter the existing level of Koornang Rd (including raised pedestrian crossings).	• Provide opportunities for passive irrigation and WSUD that improves flood water treatment. • Detailed flood modelling undertaken as part of the preparation of this masterplan, to ensure proposals are supported. • Work with Melbourne Water to ensure future works are supported and improve flow of water along Koornang Rd.
• High motor vehicle traffic volumes along Koornang Rd.	• People feel unsafe when crossing Koornang Rd at various locations. • Priority is given over to the motor vehicle. • Illegal 'U' turns by vehicles along the street.	• Traffic modelling to support masterplan proposals and ensure road continues to function with high traffic/ pedestrian volumes. • Improve pedestrian crossings points. Particularly at the southern pedestrian crossing and side road crossing points, where feasible. • Solid linemarking down the centre of Koornang Rd to help prevent illegal 'U' turns.
• Undersized parallel car parking bays.	• Difficult for vehicles to manoeuvre • Traffic congestion due to waiting for parking • More likely collisions due to tight movement.	• Increase length of parallel parking bays as part of new linemarking in the road.
• Lack of consistent character along Koornang Rd and poor quality public realm assets.	• Street has vibrancy, but lacks character and feels 'dated' • No priority for public artwork. • Lack of spaces for people to gather and comfortably stay.	• Consistent palette of street furniture and public realm assets to create a defined character for the street. • Provide opportunities for public artwork at key points along Koornang Rd, to promote local history/ storytelling and create visual interest. • Upgrade key gathering points at major pedestrian crossing points, to encourage people to spend more time comfortably on Koornang Rd.

TESTING DESIGN IDEAS

A wide range of design ideas were tested in the development of this masterplan. Koornang Road is a highly constrained and complex street, with significant challenges including flooding, extensive underground services, and high vehicle and pedestrian volumes.

As a result, many options were found to be unviable. The proposed interventions therefore represent the most realistic and achievable outcomes for the street, balancing technical constraints while maximising public realm improvements and responding to the community's aspirations.



Zebra crossing



Trees in the centre of the road



Raised pedestrian crossing



Pedestrian operated signals



Tree in parking bay

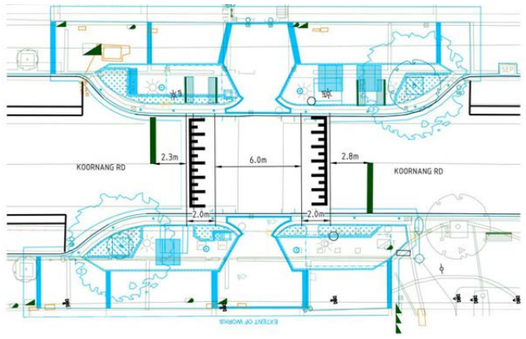


Slow speeds / shared zone

NORTHERN CROSSING (AT 86 KOORNANG RD)

OPTIONS CONSIDERED:

- Raised pedestrian crossing at existing signalised crossing



ASSESSMENT:

While this option presents many benefits to pedestrians, introducing a raised safety platform at the existing signalised pedestrian crossing opposite the Library forecourt/Leaf Lane is not supported by the flood assessment and as such is not recommended.

Based on updated Melbourne Water flooding modelling data and detailed testing - the construction of the a raised crossing is deemed likely to trap additional water in the already low point of the road and increase flood risk.

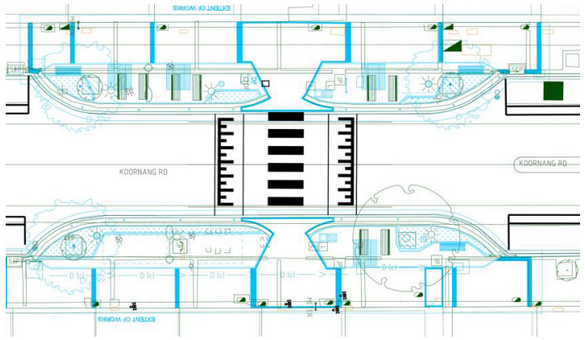
CONCLUSION:

✗ Raised pedestrian crossing not supported

SOUTHERN CROSSING (AT 124 KOORNANG RD)

OPTIONS CONSIDERED:

- Raised pedestrian crossing
- Zebra crossing (at-grade)
- Pedestrian operated signals



ASSESSMENT:

Similarly, flood modelling undertaken does not support a raised pedestrian crossing at this location on Koornang Rd. A zebra crossing was tested through traffic modelling and pedestrian surveying. This is not supported due to high vehicle volumes (10,000+ vehicles per day), which would make it unsafe for pedestrians to step out onto the road without priority.

Pedestrian operated signals will give pedestrians priority and is the safest option. Detailed traffic modelling has supported this concept and indicated that vehicle queuing lengths will be acceptable. The Department of Transport & Planning has provided 'in-principle support', with final approval subject to detail design.

CONCLUSION:

✗ Raised pedestrian crossing not supported

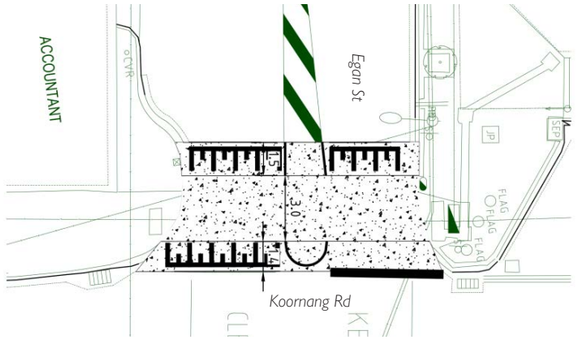
✗ Zebra crossing (at-grade linemarking)

✓ Pedestrian operated signals supported

SIDE ROAD INTERSECTIONS WITH KOORNANG RD

OPTIONS CONSIDERED:

- Raised pedestrian crossings at:
  - Egan St
  - Morton Ave
  - Arawatta St
  - Rosstown Rd



ASSESSMENT:

Several raised crossings were tested from a traffic and flood risk perspective to improve pedestrian connections and safety across side road intersections along Koornang Road.

Future flood risk extends to side streets along Koornang Rd, with several intersections affected by water ponding at their low points.

The intersection of Egan St & Koornang Rd is the only location where a raised pedestrian crossing can be supported from a flood modelling perspective. This will require the installation of additional drainage, as well as maintaining existing kerb and the existing camber in the road surface to support water runoff.

CONCLUSION:

Raised pedestrian crossing at:

✓ Egan St

✗ Arawatta St

✗ Morton Ave

✗ Rosstown Rd

TESTING DESIGN IDEAS

TREES IN CENTRE OF ROAD

OPTIONS CONSIDERED:
- Raised central median with avenue of trees
- Raised central median with garden bed strips
- Central median strip in small segments



ASSESSMENT:

One of the key aspirations of the community is for increased tree canopy and greening along Koornang Rd. Concepts were tested for a variation of raised median strips down the centre of Koornang Rd. This area is free of underground and overhead restrictions and would allow for substantial tree canopy to establish.

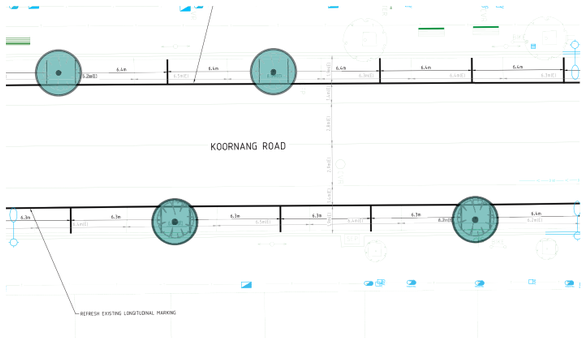
However, available widths for a central median (approximately <1m - 1.3m) are not suitable for planting canopy trees. The width of the road presents challenges for vehicle turning circles and Koornang Rd is a bus route, which requires horizontal clearance that would make it difficult for trees to establish successfully. Also, the minimum width for a pedestrian refuge is at least 1.5m wide.

CONCLUSION:

- ✗ Raised central median with avenue of trees
- ✗ Raised central median with garden bed strips
- ✗ Central median strip in small segments

TREES IN SELECTED PARKING BAYS

OPTIONS CONSIDERED:
- Kerbside tree pits in selected parking bays



ASSESSMENT:

A typical parallel parking space along Koornang Road is approximately 6m long. By reallocating the length of one space, a 2m x 2m tree pit can be introduced, allowing for the planting of three large trees for each bay removed. This delivers a significant canopy and amenity gain, in exchange for a minimal reduction in parking.

Community engagement highlighted both the importance of parking and strong support for increased tree planting. The proposed approach responds to both priorities. The repainting of parking linemarking will increase the size of remaining bays to 6.3m–6.5m, making it easier for vehicles to manoeuvre and improving traffic flow, while retaining all loading and disabled bays.

Technical flood and traffic modelling supported this option.

CONCLUSION:

- ✓ Kerbside tree pits in selected parking bays

FORMALISING SLOWER VEHICLE SPEEDS

OPTIONS CONSIDERED:
- Reduce speed limit along Koornang Rd to 30km/h



ASSESSMENT:

Slowing vehicle speeds along Koornang Rd and prioritising the road for pedestrians is one of the key aspirations of this masterplan.

Analysis of existing traffic speeds along Koornang Rd indicate that vehicles rarely travel faster than 30km/h due to the stop/start conditions and high traffic volumes. Therefore, mandating a 30km/h speed limit is not considered appropriate at this point in time. With the addition of a signalised pedestrian crossing at the Chook Run/arcade crossing point, vehicle speeds will be further slowed.

A 30km/h speed limit may be appropriate in the future, however it is not considered an immediate action as part of this masterplan.

CONCLUSION:

- ✗ Reduce speed limit to 30km/h
- ✗ Shared zone along Koornang Rd

KOORNANG RD AS A SHARED ZONE

OPTIONS CONSIDERED:
- Shared zone on Koornang Rd with cyclists and vehicles



ASSESSMENT:

A shared zone on Koornang Rd would require cyclists and motor vehicles to operate within the same traffic space, which can only function safely where vehicle speeds are limited to 30km/h.

With parallel parking on both sides, vehicles are regularly stopping, reversing, and pulling into traffic, creating constant interruptions to flow. The limited road width also means drivers are unable to safely pass cyclists, which can lead to congestion, frustration, and increased stress for both cyclists and motorists.

Retaining the existing lane configurations is considered the safer option. Cyclists are encouraged to use alternative, lower-stress routes nearby, ensuring Koornang Rd continues to function effectively for its high traffic and parking demands.

CONCLUSION:

- ✗ Shared zone on Koornang Rd between cyclists and vehicles.

CHAPTER 3
MASTERPLANS

OVERVIEW

PRINCIPLES

Based on the community engagement received, as well as the analysis of opportunities and constraints along Koornang Rd, the following principles are used to inform the masterplan proposals:



IMPROVE AMENITY

- A high quality streetscape that utilises a consistent suite of furniture/materials.
- Increase seating and street furniture where there is demand.
- Provide shade throughout the street.
- Provide more gathering places.
- Reduce visual clutter (consolidate signage, remove pedestrian fencing/barriers).
- Support public artwork & placemaking.



INCREASE GREENERY

- Replace poor quality trees underneath shop awnings with garden beds and shrubs.
- Install large canopy trees within the road (kerbside) at key locations.
- Incorporate water sensitive urban design into landscape planting.
- Provide in-ground garden beds at key locations.



IMPROVE PEDESTRIAN SAFETY

- Improve safety of pedestrian crossing points, where feasible.
- High quality footpath treatments that support pedestrian activity, particularly for people with limited mobility.
- Clear sightlines and priority of pedestrians when crossing Koornang Rd
- Improve wayfinding and pedestrian navigation along Koornang Rd.

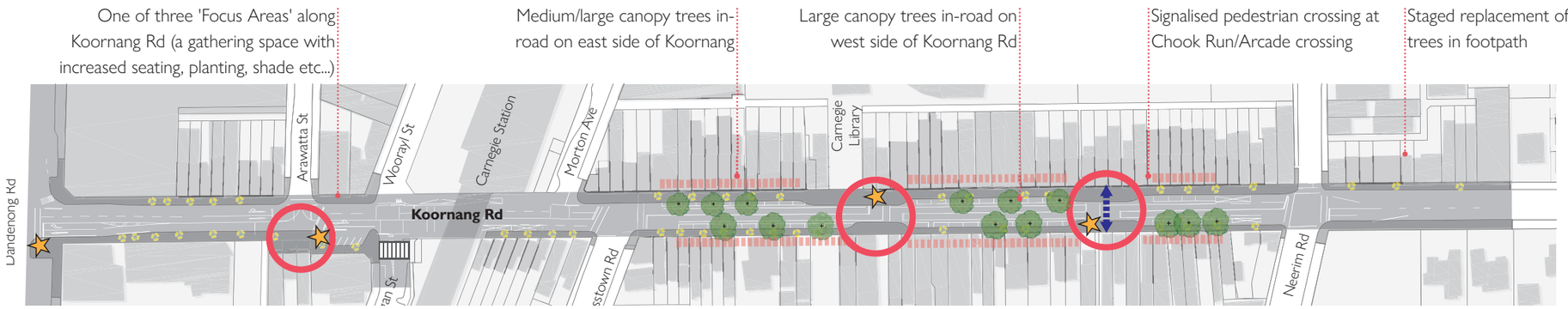


FINANCIAL SUSTAINABILITY

- Provide a design that is affordable and achievable.
- Allow for a staged delivery of the masterplan, to avoid disruption along the street.
- Work within existing site constraints.

SUMMARY OF KEY INITIATIVES

The plan below provides an overview on the key initiatives that are proposed within the masterplans.
These initiatives are informed by the above principles, as well as the feedback from engagement to date:



LEGEND

- Small tree (in footpath)
- Large tree (in-road)
- Footpath to be upgraded
- Gathering place/ Key works proposed
- Public artwork location
- Signalised pedestrian crossing
- Raised pedestrian crossing
- Increase parallel car park sizes

NORTHERN PRECINCT - DANDENONG RD TO CARNEGIE STATION

LOCATION PLAN



OVERVIEW

This precinct is the primary entrance to Koornang Rd and has the largest amount of vehicle movements. Anchor businesses such as Rosstown Hotel and Carnegie Central Shopping Centre generate large numbers of visitors and movement.

The primary upgrade in this precinct is the creation of a large open gathering space, opposite Arrawatta St. This will be sheltered by a large shade structure, canopy trees and complimented by feature paving, new garden beds and public artwork to create a welcoming place at the northern entrance to Koornang Rd.

KEY INITIATIVES

- Replacement of all existing street trees underneath awnings with new small trees.
- Renewal of entire footpath area with consistent and high quality palette.
- Enhancement of outdoor seating area opposite Arrawatta Street. Includes, sheltered outdoor seating/gathering area, artwork, feature paving and places to rest. (see **FOCUS AREA 1** detail on following page).
- Replacement of all existing street furniture with consistent and high quality assets.
- Installation of additional seats, bike hoops and bins in selected locations.
- Installation of new low rendered wall either side of signalised pedestrian crossing opposite Arawatta St (to be finished with public artwork to compliment the street.
- Location for future sculpture/public artwork to enhance entrance to Koornang Rd. Using the Swift bird, which is called a 'Koornang' in Bunurong/Boonwurrong language.
- Raised pedestrian crossing across Egan St intersection.

LEGEND

- Asphalt footpath
- Bluestone banding
- Garden bed
- Feature brickwork
- Shade structure
- Public artwork location
- Timber picnic table
- Timber bench seat
- Stainless steel bins
- Stainless steel bike hoops
- New small canopy tree
- New large canopy tree

Upgraded paving, seating and location for public artwork

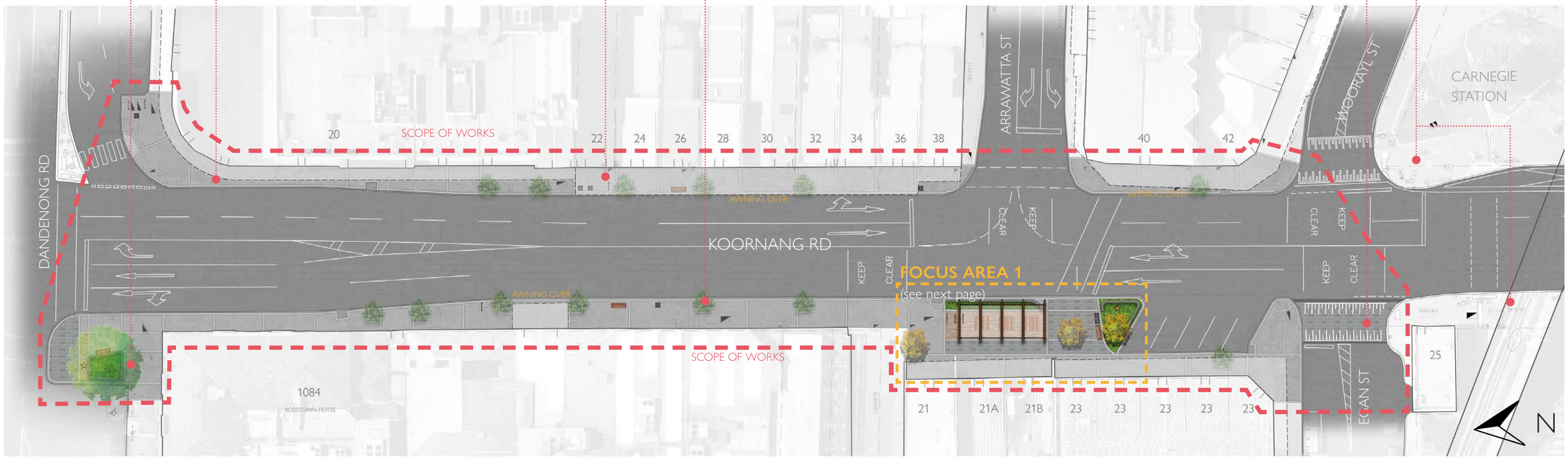
Renewal of all footpath areas with asphalt and bluestone banding

Install new small trees in footpath, underneath shop awnings

Opportunity for canopy trees to be planted, clear of vertical obstructions

Raised pedestrian crossing at Egan St intersection

No changes proposed (Carnegie Station forecourt & Djerring trail)



NORTHERN PRECINCT MASTERPLAN - SCALE: 1:500 (A3)

LOCATION PLAN



FOCUS AREA 1 - OPPOSITE ARRAWATTA ST

SHELTERED GATHERING PLACE

An enhanced gathering place opposite the Arrawatta Street pedestrian crossing will create a protected area for people to sit and enjoy the street.

New garden beds with colourful planting will be complimented by public artwork to be painted onto the face of a new low walls that will frame both sides of the space. New seating, bike hoops, bins and feature paving will help create a welcoming environment.

A space will also be set aside for a future public sculpture to be installed, potentially a 'Swift' bird, which is referred to as 'Koornang' by the Bunurong/ Boonwurrung peoples.



FOCUS AREA 1 - (ELEVATION VIEW) SCALE: 1:100 (A3)



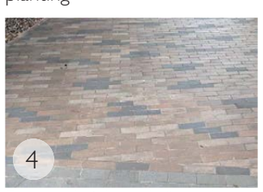
Large canopy trees



Arbour shade structure



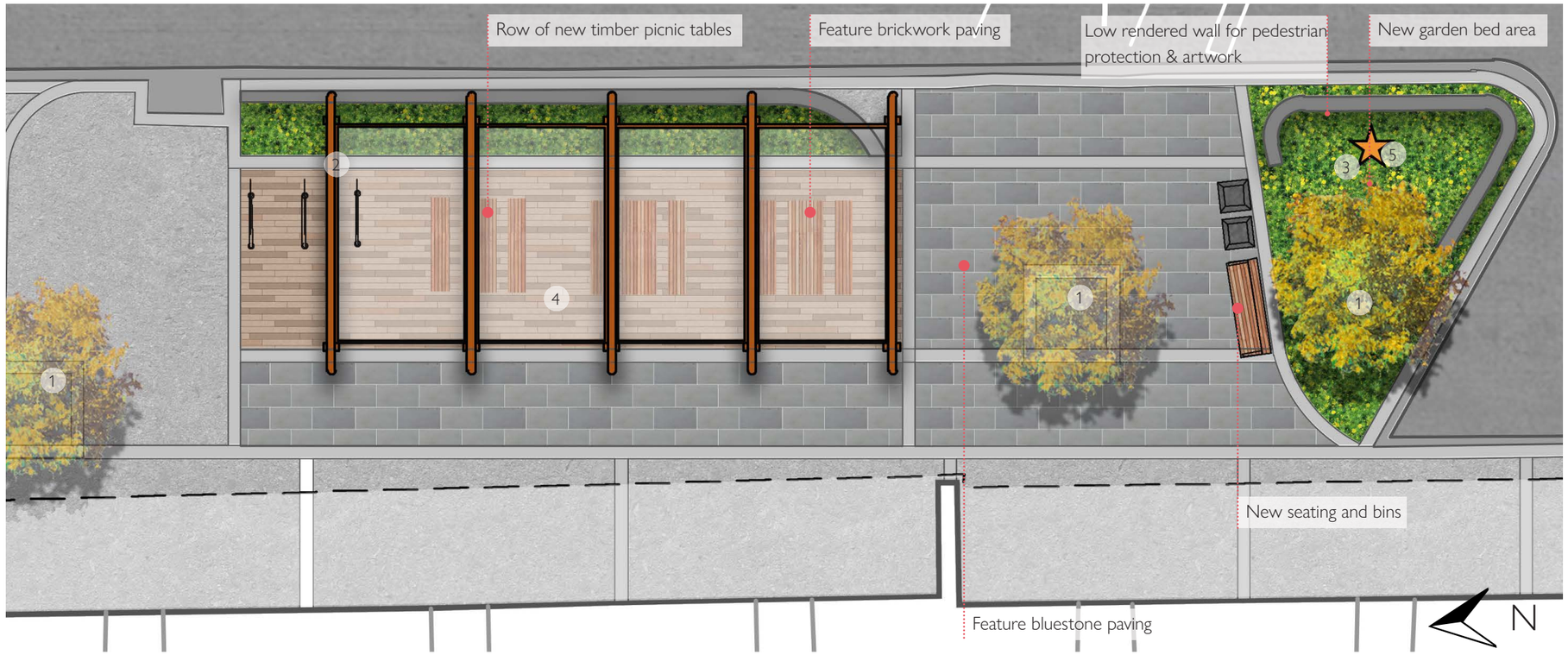
Colourful native understorey planting



Feature brickwork (matching nearby Carnegie station



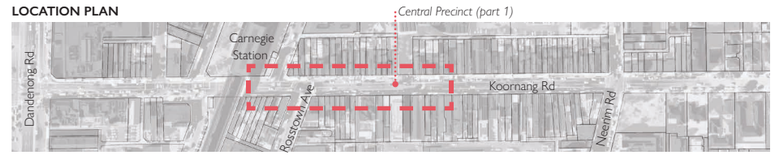
Example of public artwork sculpture (Swift/"Koornang" bird)



FOCUS AREA 1 - (PLAN VIEW) SCALE: 1:100 (A3)

CENTRAL PRECINCT (PART 1) - CARNEGIE STATION TO PEDESTRIAN CROSSING

LOCATION PLAN



OVERVIEW

This precinct is part of the 'core' of Koornang Rd and is bustling with activity, day and night. The fine grain retail frontages line both sides of the street, with awnings above providing weather protection.

Despite the vibrancy, this precinct of the Koornang Rd can be strengthened through refreshed footpath treatments, consistent street furniture and most importantly - improved tree canopy. Due to limitations with awnings above the footpath, the best opportunity for improved tree canopy is to locate trees within the road in selected locations - so that trees are free from overhead obstructions.

KEY INITIATIVES

- Installation of 6 x large canopy trees within the parallel parking bays (requiring conversion of 2 car parks).
- Upgrade parking bays to larger sizes to make parking and manoeuvring easier.
- Staged replacement of all existing street trees underneath awnings with new small trees.
- Renewal of entire footpath area with consistent and high quality palette (asphalt with bluestone banding).
- Installation of additional seats, bike hoops and bins in selected locations.
- Replacement of all existing street furniture with consistent, high quality and durable furniture.
- Upgrade of pedestrian crossing area (seating, lighting, feature paving and garden beds - see **FOCUS AREA 2** detail on following page).
- Retention of large canopy trees in Carnegie Library forecourt and pedestrian crossing point.
- Refresh of Carnegie Library forecourt (uplift existing tree canopies to improve sightlines, clean paving, replace existing picnic tables and remove artificial turf).

LEGEND

- Asphalt footpath
- Bluestone banding
- Garden bed
- Feature brickwork
- Public artwork location
- Timber picnic table
- Timber bench seat
- Stainless steel bins
- Stainless steel bike hoops
- New small canopy tree
- New large canopy tree 'in-road'
- Existing tree - to be retained

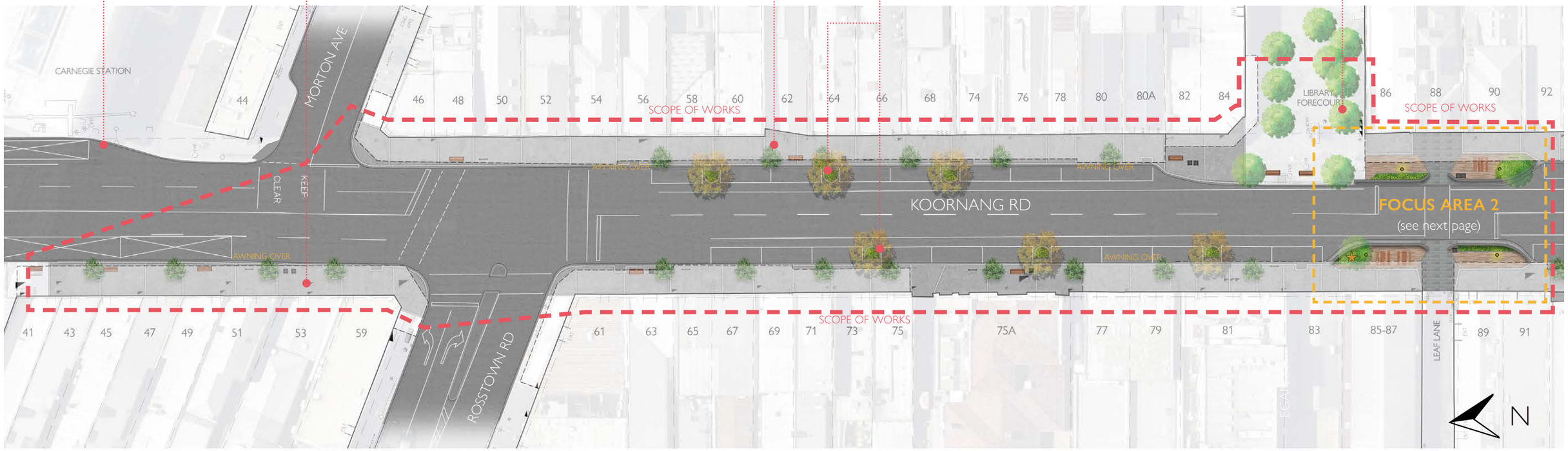
No changes to Carnegie Station forecourt and footpaths

Renewal of all footpath areas with asphalt and bluestone banding

Install new small trees in footpath, underneath shop awnings

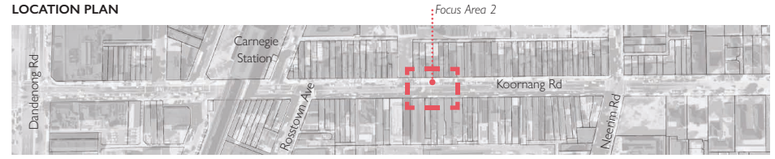
Conversion of one car park on either side of road, to facilitate planting of 6 'in-road' large canopy trees & garden beds

Library forecourt: Uplift existing canopy trees, replace existing picnic tables and seats, remove artificial turf



CENTRAL PRECINCT (PART 1) - PRECINCT MASTERPLAN - SCALE: 1:500 (A3)

LOCATION PLAN



FOCUS AREA 2 - PEDESTRIAN CROSSING (LIBRARY/LEAF LANE)

ENHANCED PEDESTRIAN CROSSING AREA

The existing pedestrian crossing point opposite Leaf Lane and the Library forecourt is the busiest crossing on Koornang Rd. However, the public realm in this location does not support people to stop and rest and enjoy the street. The proposed upgrades include making the seating areas wider, new feature brickwork and bluestone paving, addition of new timber seats, garden beds and lighting.

The upgrades will maintain the crossing as a primary connection point over Koornang Rd, but will also encourage people to stay and engage with each other and enjoy the vibrancy of the street.



FOCUS AREA 2 - (ELEVATION VIEW) SCALE: 1:100 (A3)



SEATING AREA - PERSPECTIVE SKETCH (LOOKING SOUTH)



Retain/enhance existing trees



Hardwood timber picnic tables



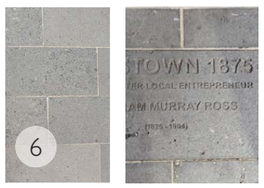
Garden bed planting



Replace light head fixtures



Feature brickwork (matching nearby Carnegie station forecourt)



Bluestone paved areas, with etching of select pavers with local history and wayfinding



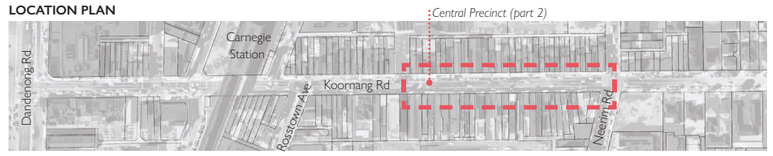
FOCUS AREA 2 - (PLAN VIEW) SCALE: 1:200 (A3)

LEGEND

- Asphalt footpath
- Bluestone banding
- Garden bed
- Feature brickwork
- Bluestone paving
- Public artwork location
- Timber picnic table
- Timber bench seat
- Stainless steel bins
- Stainless steel bike hoops
- New small canopy tree
- Existing tree - to be retained

CENTRAL PRECINCT (PART 2) - PEDESTRIAN CROSSING TO NEERIM RD

LOCATION PLAN



OVERVIEW

The second half of the Central Precinct continues the fine grain retail frontages, awnings over the footpath within outdoor dining and shopping lining the street. Improvements in this section of the street include upgrading the pedestrian crossing to a signalised pedestrian crossing, along with the continued installation of trees within the parallel parking bays (9 trees in total, requiring conversion of 3 parking spaces).

Other improvements will focus on refreshed footpath pavements, replacement of poor quality trees in the footpath and upgraded street furniture.

KEY INITIATIVES

- Installation of nine large canopy trees within the parallel parking bays (requiring conversion of three car parks).
- Upgrade parking bays to larger sizes to make parking and manoeuvring easier.
- Replacement of all existing street trees underneath awnings with new small trees.
- Renewal of entire footpath area with consistent and high quality palette (asphalt with bluestone banding).
- Installation of additional seats, bike hoops and bins in selected locations.
- Installation of pedestrian operated signals at the pedestrian crossing point (DTP has provided 'in principle' support, but full approval will be subject to detail design/modelling).
- Upgrade of pedestrian crossing area (seating, lighting, feature paving and garden beds - see **FOCUS AREA 3** detail on following page)
- Provision for public artwork at the crossing point, to celebrate Koornang Rd's identity.
- Replacement of all existing street furniture with consistent, high quality and durable furniture.
- Solid centreline to replace dashed line down Koornang Rd, to prevent U-turns.

LEGEND

- Asphalt footpath
- Bluestone banding
- Garden bed
- Feature brickwork
- Public artwork location
- Timber picnic table
- Timber bench seat
- Stainless steel bins
- Stainless steel bike hoops
- New small canopy tree
- New large canopy tree 'in-road'
- Existing tree - to be retained

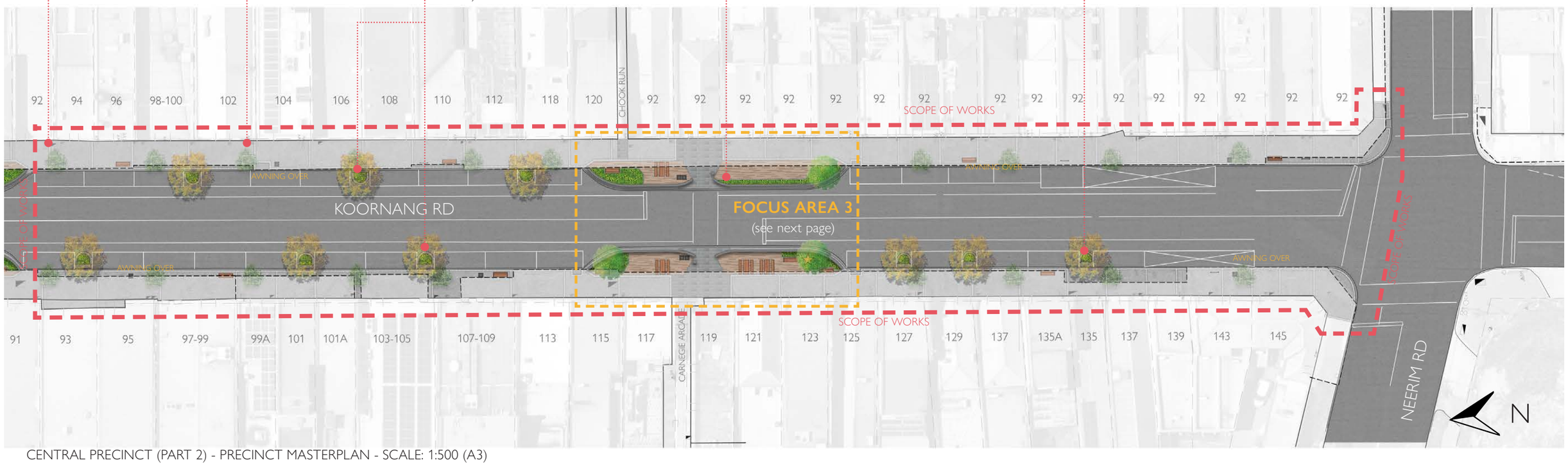
Renewal of all footpath areas with asphalt and bluestone banding

Install new small trees in footpath, underneath shop awnings

Planting of 6 'in-road' large canopy trees & garden beds (conversion of two car parks in total)

Signalised pedestrian crossing

Planting of 3 'in-road' large canopy trees & garden beds (conversion of 1 car park)



CENTRAL PRECINCT (PART 2) - PRECINCT MASTERPLAN - SCALE: 1:500 (A3)

FOCUS AREA 3 - PEDESTRIAN CROSSING

ENHANCED PEDESTRIAN CROSSING AREA

The most critical issue to be solved in this location is the unsafe pedestrian crossing point. Traffic modelling and discussions with the Department of Transport & Planning have provided 'in-principle' support for a pedestrian operated traffic signal at this crossing point. Other options were tested (such as a raised pedestrian crossing, or zebra crossing) - however these are not supported based on traffic and flood modelling results. The signalised crossing will provide pedestrians with a safe way to cross the road, whilst signal timing will be synced with the Neerim Rd intersection to ensure smooth flow of vehicle traffic.

Other upgrades at this location include feature brickwork paving, a larger area dedicated for seating and gathering, colourful garden bed planting, upgraded seating/bins/bike hoops and space for public artwork to be installed. Existing feature lights to be upgraded with modern luminaries and painted matte black.



FOCUS AREA 3 - PERSPECTIVE SKETCH (LOOKING NORTH)



Feature paving



Timber picnic tables



Colourful understorey planting & retain existing trees



Public artwork location (example)



Bluestone paved areas, with etching of select pavers with local history and wayfinding



Pedestrian operated traffic signals (subject to final approval by DTP)



FOCUS AREA 3 - (PLAN VIEW) SCALE: 1:100 (A3)

LEGEND

- Asphalt footpath
- Bluestone banding
- Garden bed
- Feature brickwork
- Bluestone paving
- Public artwork location
- Timber picnic table
- Timber bench seat
- Stainless steel bins
- Stainless steel bike hoops
- New small canopy tree
- Existing tree - to be retained

LOCATION PLAN



SOUTHERN PRECINCT - SOUTH OF NEERIM RD

OVERVIEW

This precinct contains a strip of shops along the western side of Koornang Rd, which then transitions into the residential areas of Carnegie to the south. On the west side of the road, there are medical centres and commercial buildings setback from the street. However, the most defining characteristic is the large vacant allotment on the corner of Neerim Rd.

The footpath area opposite the vacant allotment has indicative changes proposed - however the final design will be dependant upon the proposed development on the vacant corner site.

KEY INITIATIVES

- Replacement of existing street trees underneath awnings with new small trees.
- Addition of one medium canopy tree in space between shop awnings.
- Renewal of footpath area with consistent and high quality palette (asphalt and sawn bluestone banding)
- Installation of additional seats, bike hoops and bins in selected locations.
- Footpath area on corner of Neerim Rd/ Koornang Rd to remain largely unchanged until development is proposed on large corner lot (Council to work with developer on public realm plan).
- Installation of a new bench and paved area at the bus stop on the western side of the road.
- Retention of existing street trees on western side of road.

LEGEND

- Asphalt footpath
- Bluestone banding
- Garden bed
- Timber bench
- Stainless steel bins
- Stainless steel bike hoops
- New small canopy tree
- Existing tree to be retained

Renewal of all footpath areas with asphalt and bluestone banding

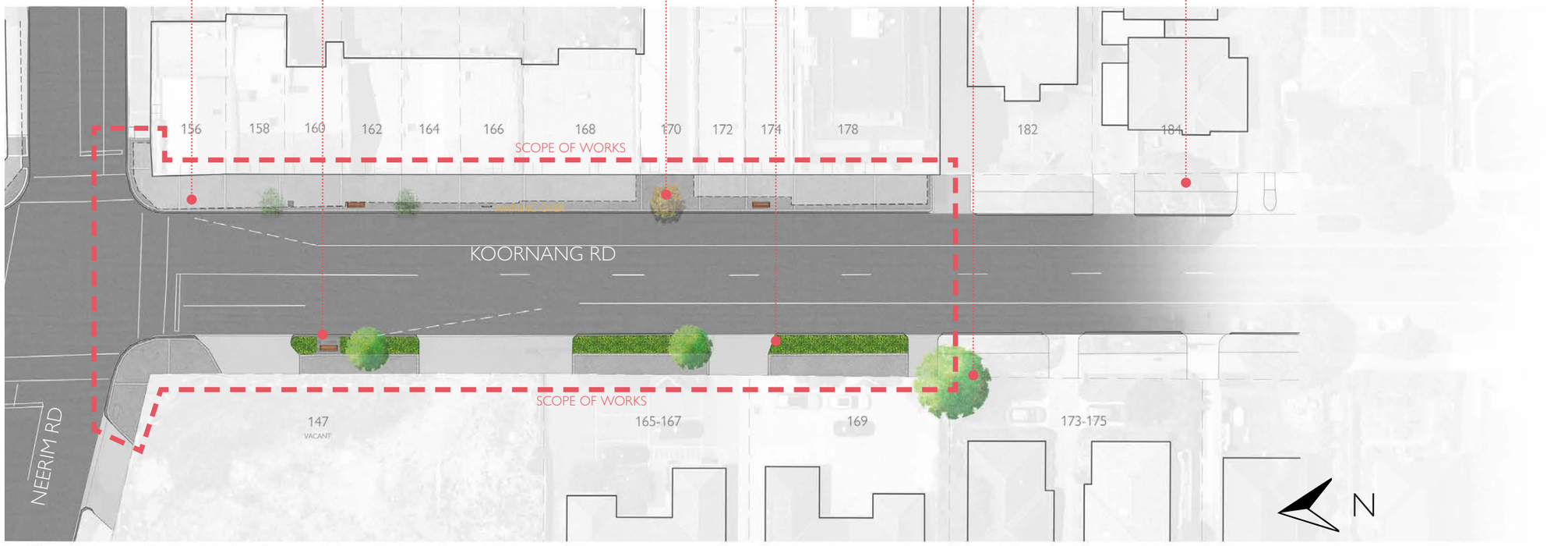
Timber bench seating and paving at bus stop

Install new medium canopy tree in clearance space between shop awnings

Low level garden bed planting within grassed nature strip areas

Retain large existing street trees on eastern side of road

Residential area (no changes proposed)



SOUTHERN PRECINCT - MASTERPLAN - SCALE: 1:500 (A3)

CHAPTER 4
PALETTES & DETAILS

NEW CANOPY TREES 'IN-ROAD'

OVERVIEW

The most transformational component of this masterplan is the proposal for the installation of large canopy trees in selected parking bays along the street. This will provide a lush canopy of greenery and seasonal colour that will make the street more welcoming and visually stunning.

After assessing a variety of options for canopy trees, the many constraints on Koornang Rd have meant that the only viable option for large canopy trees to establish successfully, is to plant them in protected kerb outstands, between parallel parking bays.

The 'in-road' trees will also require final detail design approval from service authorities, to ensure appropriate clearance from their underground.

KEY INITIATIVES

- Planting of 15 large canopy trees within parking bays along both sides of Koornang Rd. This requires the conversion of a total of 5 parallel car parks across the length of Koornang Rd, to facilitate the (there are currently 89 car parks within the study area).
- Creation of a 'green corridor' between Rosstown Ave to Neerim Rd.
- Water sensitive urban design incorporated into tree pits, for passive irrigation and to reduce flood impacts.
- Repainting remaining parking bays to increase size to approximately 6.3-6.5m long bays, which will make manoeuvring easier and improve traffic flow (without affecting parking numbers).

CANOPY TREES



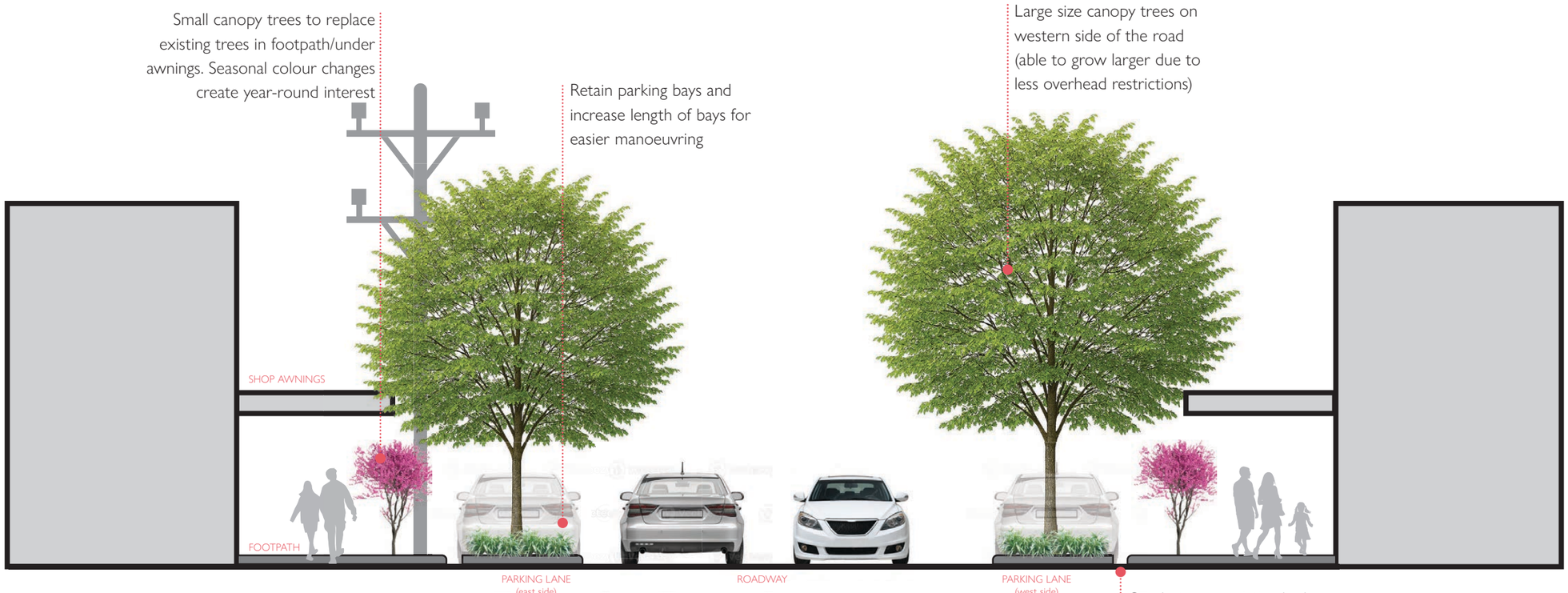
Large tree:
ZELKVOVA SERRATA
"CITY SPRITE"
Japanese Zelkova



Large tree:
ULMUS PARVIFOLIA
"TODD"
Chinese Elm "Todd"



Small tree (footpath):
CERCIS CHINENSIS
"AVONDALE"
Chinese Redbud



EXAMPLE CROSS SECTION OF KOORNANG RD - LOOKING SOUTH

PERSPECTIVES - TREES 'IN-ROAD'

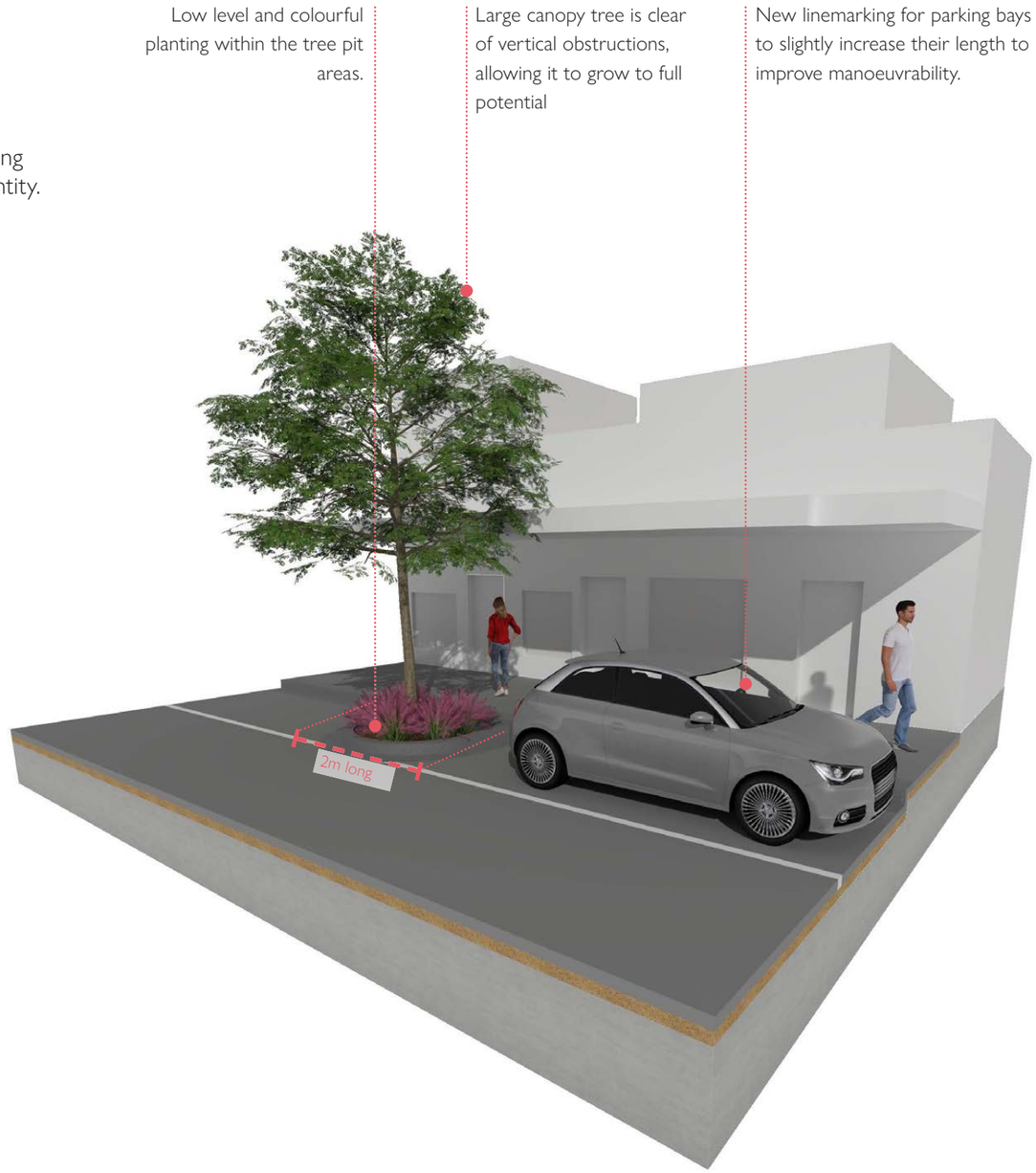
OVERVIEW

The perspectives here demonstrates how the large trees will be installed between car parking bays on Koornang Rd. Each tree pit is typically 2m long, by 2.1m wide and will be passively irrigated by existing stormwater along the street, encouraging tree growth. These tree pits can be filled with colourful low level planting to .

The conversion of one car park (typically 6.5m in length) will facilitate the planting of three trees across a segment of parallel parking. New linemarking for car parks will be undertaken that extends the lengths of the parallel spaces making them easier to get in and out of (reducing manoeuvring and congestion on Koornang Rd), without reducing their quantity.



TREE PIT IN PARKING BAY - SIDE VIEW



TREE PIT IN PARKING BAY - ISOMETRIC VIEW

ARTIST IMPRESSION - TREES 'IN-ROAD'

OVERVIEW

This sketch perspective demonstrates what Koornang Rd can look like when the new canopy trees within the parking bays have established.

Looking south from the pedestrian crossing at Leaf Lane, towards Neerim Rd.



LOOKING SOUTH TOWARDS NEERIM RD (CANOPY TREES & PEDESTRIAN SIGNALS AT CROSSING

MATERIALS PALETTE

FOOTPATH TREATMENTS

TYPICAL FOOTPATH:



ASPHALT WITH SAWN BLUESTONE BANDING

Size 7 asphalt with sawn bluestone banding (245mm x 495mm x 40mm). Banding to align as close as possible to title boundaries between shops, and run along back of kerb.

WHERE TO USE:

This will be the typical footpath treatment for the footpath along Koornang Rd. To be used the entire length of Koornang Rd except for feature areas and crossing points.

FEATURE BRICKWORK:



NARROW BRICKS WITH MIXED COLOURS

Mix of 3 x Bowral 'Hamlet' bricks (Blue, Sepia and Ash). 230mm x 76mm x 65mm in stretcher bond pattern. Colours mixed in random pattern.

WHERE TO USE:

To be used at proposed gathering place seating areas Chosen as a reference to Carnegie Station forecourt.

TREE PIT COVERS:



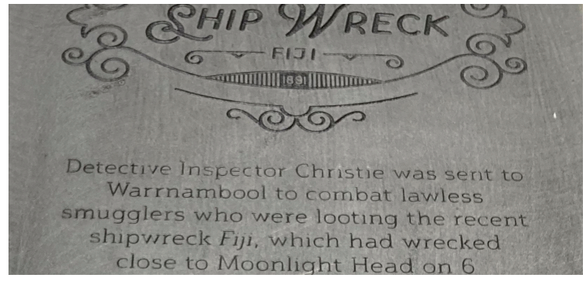
FIBREGLASS AND STAINLESS STEEL PIT COVER

"Glen Eira" Tree Grate by Terra Firma, 1200mm x 1200mm. Galvanised steel frame with charcoal coloured fibre glass pit lids. Removal inner ring to accommodate trunk growth.

WHERE TO USE:

To be used for all proposed street trees on the footpath, not within garden beds.

LOCAL STORY TELLING:



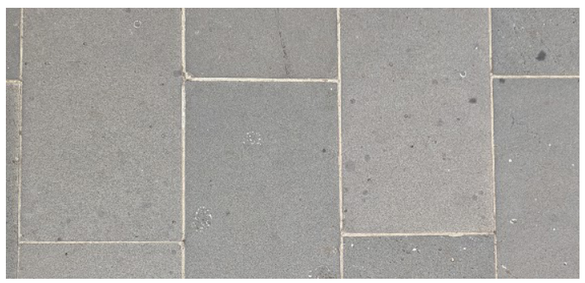
BLUESTONE ETCHING

Text and images etched into bluestone where large bluestone feature areas are proposed.

WHERE TO USE:

To be used for wayfinding to nearby laneways/landmarks and also a tool for storytelling and local history.

FEATURE PAVING:



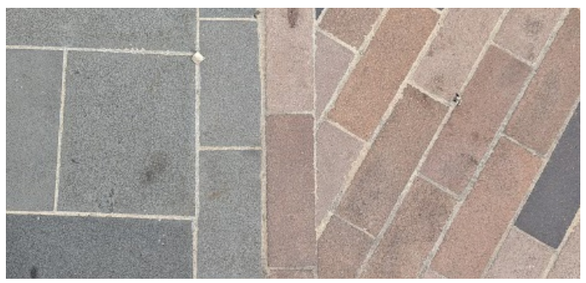
SAWN BLUESTONE

Sawn bluestone (245mm x 495mm x 30mm) in stretcher bond pattern.

WHERE TO USE:

To be used at high use pedestrian points such as pedestrian crossing points and street corners.

INTERFACE TREATMENTS:



NARROW BLUESTONE/BRICK EDGING

Narrow bluestone (100mm x 200mm x 30mm) edging around perimeter of feature bluestone paving areas.

WHERE TO USE:

To be used where interfacing with brickwork and asphalt surfaces that abut larger bluestone areas.

TACTILE STRIPS AT CROSSING POINTS:



GRANITE & BLUESTONE TGSI TACTILE STRIPS

Kahn Modular - "Discrete Warning & Directional" tiles. Contrast colour of 'Ivory' against bluestone for compliance with luminous contrast requirements.

WHERE TO USE:

At pedestrian crossing points where bluestone pavers are proposed to the interface with the road.

STREET FURNITURE PALETTE

SEATING:



TIMBER BENCH SEAT WITH RECYCLED CAST ALUMINIUM

'Fulcrum' timber bench seat. Hardwood timber slats (Cutek Stain) with recycled cast aluminium fixtures (Mill Finish).

INSTALL REQUIREMENTS:

Offset 600mm from back of kerb. Facing away from street. Minimum 1.8m space between bench and shopfronts.

GROUP SEATING:



TIMBER PICNIC TABLE

'Fulcrum' timber picnic tables. Hardwood timber slats (Cutek Stain) with recycled cast aluminium fixtures (Mill Finish). Wheelchair accessible option at one end.

INSTALL REQUIREMENTS:

Maintain 1m apron and clearance around outside edge of picnic table. Face wheelchair accessible end towards shopfronts.

LIGHTS:



MODERN LIGHT FIXTURES

BEGA 'Edge-lit pole-top luminary' (Symmetric). Matte black, powerdercoated. Or similar, modern light fixture.

INSTALL REQUIREMENTS:

Luminaries to replace existing 'ball top' luminaries along Koornang Rd. Retain existing light poles and paint black.

BIKE HOOPS:



STAINLESS STEEL CURVED BIKE HOOP

'BR10' bike hoop, bolted into concrete footings.

INSTALL REQUIREMENTS:

Maintain minimum 1.1m spacing between hoops. Align parallel to road edge. Placed at high traffic locations.

BINS:



STAINLESS STEEL BIN ENCLOSURE

Perforated steel bin enclosure for 240L bins. The enclosure can also be fitted with the 'letterbox' lid, which provides weather protection and can reduce odours.

INSTALL REQUIREMENTS:

Offset 600mm from back of kerb. Generally locate where existing bins are located. Maintain 1.8m clearance between bin and shopfronts.

TREE SELECTION PALETTE

The trees outlined below are example species that can be installed across the street as part of the streetscape works. The selected species are hardy, reliable and will provide seasonal interest as they change colour over the year. There is also a multicultural planting theme, referencing the many multicultural businesses and communities along Koornang Road. These tree species can be used where appropriate when replacing existing trees.
In some instances, it may be appropriate to replace existing trees with the same species (typically an Ornamental Fig or Bay Laurel)

SMALL CANOPY TREE (UNDER AWNING)



CERCIS CHINENSIS "AVONDALE"
Chinese Redbud

The 'Chinese Redbud' is compact and deciduous, with beautiful purple/pink flowers that appear in Spring. It is a small tree that is drought tolerant and tolerates part shade. The Chinese Redbud tree has been chosen to honour the many multicultural businesses, residents and visitors that contribute to the vitality of Koornang Rd.

MATURE SIZE:
3m high x 2.5m wide

WHERE TO USE:
Due to the limitations with sunlight and vertical clearance, this tree is to be used underneath shop awnings when undertaking succession planting to remove the existing trees under awnings.

SMALL/MEDIUM CANOPY TREE



LAGERSTROEMIA INDICA X FAURIEI "TONTO"
Crepe Myrtle "Tonto"

The Crepe Myrtle 'Tonto' is hardy, compact and colourful. It displays beautiful purple/pink flowers in late Summer to Autumn. The flowering time will compliment the Chinese Redbud tree and will contribute to the colourful planting palette along the street - creating year-round interest.

MATURE SIZE:
3m high x 3m wide

WHERE TO USE:
The 'Tonto' is hardy and able to withstanding difficult growing conditions. As such, it can be utilised on the eastern side of Koornang Rd when undertaking succession planting for existing trees underneath shop awnings. It may also be planted on the western side of the road within the footpath areas, where vertical

LARGE CANOPY TREE (IN-ROAD)



ZELKOVA SERRATA "CITY SPRITE"
Japanese Zelkova "City Sprite"

This tree is a semi-dwarf cultivar of the Japanese Zelkova. It is a compact and deciduous tree that is able to grow well in difficult urban environments. It has a dense oval shape for its canopy and a tidy growing habit. In summer it has bright green leaves, which turn yellow and brown in autumn before shedding - allowing sunlight to reach the street in winter.

MATURE SIZE:
10-15m high x 7-13m wide

WHERE TO USE:
The 'City Sprite' will succeed best in full sun and will require at least 4-5m of vertical clearance. As such, this tree can be planted within the footpath where there is vertical clearance, or can be used within the proposed kerb outstands between parallel parking bays.

LARGE CANOPY TREE (IN-ROAD)



ULMUS PARVIFOLIA 'TODD'
Chinese Elm "Todd"

The Chinese Elm 'Todd' has a strong vertical growing habit, with fine leaves and an even branch structure. It is a very hardy tree that handles difficult urban environments, delivering excellent shade, dense canopy and year-round visual colour appeal through its leaves, which change to yellow and orange in Autumn. It also has an attractive bark texture that adds character and interest.

MATURE SIZE:
10-15m high x 10-15m wide

WHERE TO USE:
The Chinese Elm 'Todd' is capable of growing quickly and can become a large canopy tree once established. It should be planted within the proposed kerb outstands within Koornang Rd, between the parallel parking bays. When clear of vertical and underground restrictions, the tree will spread to create a dense canopy and a

GARDEN BED PALETTE

DETAILS AND TYPICAL PLANTING MIX

GARDEN BED HOOPS



RUSTED STEEL HOOPED GARDEN BED EDGES

16mm steel garden edging hoops. Approximately 600mm above surface level, interlaces to create a consistent barrier along garden bed edge.

WHERE TO USE:

Along perimeter of at-grade garden beds along Koornang Rd.

PLANTING MIX



TYPICAL GARDEN BED PLANTING MIX

Low level garden bed planting is a mix of native shrubs, indigenous grasses, colourful perennials along with selected ground covers.

The colour theme is a mix of yellows, purples and reds, with different forms and leaf shapes to create visual and seasonal interest.

All plants are generally low in height, to ensure that sightlines are maintained for vehicles and people, as well as being relatively low-maintenance species that can handle the tough conditions of Koornang Rd.

WHERE TO USE:

Selected plants from the preferred palette can be used in any garden bed areas along Koornang Rd. The repetition of similar plants will create a consistent character theme for the street.



Banksia spinulosa



Hardenbergia violacea 'HB2'



Melaleuca viminalis 'Little John'



Santolina chamaecyparissus 'Nana'



Westringia fruticosa 'WES03'



Dichelachne crinita



Poa 'Eskdale Blue' PBR



Echinops ritro 'Veitch's Blue'



Chrysocephalum semipapposum



Myoporum parvifolium `PARV01`



Eremophila glabra 'Kalbarri



Pycnosorus chrysanthes



Stylidium graminifolium

KOORNANG RD
STREETSCAPE MASTERPLAN