

CARNEGIE PUBLIC REALM REVIEW

STRUCTURE PLAN REVISION 2022

City Futures, Glen Eira Council

City of
**GLEN
EIRA**

**GLEN EIRA
CITY COUNCIL**

ACKNOWLEDGEMENT OF COUNTRY

Glen Eira City Council acknowledges the Boonwurrung/Bunurong and Wurrundjeri Woi Wurrung peoples of the Eastern Kulin Nation as Traditional Owners and Custodians, and pays respect to their Elders past, present and emerging. We acknowledge and uphold Traditional Owners' continuing relationship to the land and waterways.

Glen Eira extends this respect to all First Nations' peoples.

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Leaf Lane, Carnegie

1. INTRODUCTION

The public realm is Glen Eira City Council's largest physical asset. Streets and public spaces should be designed as highly functional places for all members of the community to live, work and play. The public realm contributes to the character of a place, fosters business activity and community connectivity. For this review the public realm includes the following:

- streets and roads (from building line to building line including footpaths and roadways)
- public plazas
- open spaces including parks
- laneways
- publicly accessible pedestrian links and arcades.

The public realm can have a positive or negative impact on a community. Poorly designed streets and public spaces can result in an unwelcoming, unsafe and disfunctional places. Well-designed streets facilitate placemaking and result in both liveable and lovable public spaces.

Street design can influence the way people travel by encouraging a modal shift towards walking, cycling and public transport. Well-designed streets promote good physical and mental health for the community.

Good street design can also facilitate environmentally sustainable outcomes. Glen Eira's public realm, including the Carnegie major activity centre, should comprise of well designed streets and public spaces with consideration given to carbon emissions, water collection, heat island effect, biodiversity and waste impacts.

A well-designed public realm will assist the Council in achieving the following committed targets:

<p>50:50 mode share of car and non-car trips by 2031</p>	<p>22% municipal tree canopy cover by 2040</p>	<p>Zero net community emissions by 2030</p>	<p>Supporting community physical and mental health</p>
<p><i>Integrated Transport Strategy 2018-2031</i></p>	<p><i>Glen Eira Urban Forest Strategy, 2021</i></p>	<p><i>Our Climate Emergency Response 2021-2025</i></p>	<p><i>Glen Eira Community Wellbeing Plan 2021-2025</i></p>



Library forecourt (Jersey Parade Reserve), Carnegie



Koornang Road, Carnegie at night

2. BACKGROUND

The Carnegie Structure Plan was adopted by Council in February 2018. In December 2018 Council endorsed Amendment C184 and resolved to seek authorisation from the Minister for Planning to prepare and exhibit the amendment. The amendment was publicly exhibited in July and August 2020.

In March 2021 Council abandoned Amendment C184 because, in part, it lacked strategic justification. They then endorsed a new process that includes the preparation of a Housing Strategy and a revised Carnegie Structure Plan and Bentleigh Structure Plan. This will utilise and build on the work completed to date to inform the preparation of new amendments for both Carnegie and Bentleigh activity centres.

This document provides updated public realm recommendations that will inform the 2022 amendment to the Carnegie Structure Plan.

2.1 PURPOSE OF THE REVIEW

The purpose of the *Carnegie Structure Plan – Public Realm Review 2022* (The Review) is to:

- Review the public realm recommendations listed in the *Carnegie Structure Plan 2018*.
- Identify any projects and Council decisions that have progressed or changed since adoption of the *Carnegie Structure Plan 2018*.
- Consider the public realm implications of recent studies including the *Carnegie Activity Centre Transport Study 2022* and the *Carnegie Built Form Framework Review 2022*.
- Consider the public realm implications of recently adopted Council strategies including *Our Climate Emergency Response Strategy*, the *Glen Eira Urban Forest Strategy* and the *Open Space Strategy Refresh*.
- Provide a series of updated public realm recommendations that align with Council's current strategic direction.
- Identify additional opportunities for improving the Carnegie public realm.
- Recommendations and findings from this review will inform the *2022 Carnegie Structure Plan*.

2.2 PREVIOUS PUBLIC DOMAIN STUDIES

Several public realm studies have been completed for the Carnegie activity centre. Ideas and analysis presented in these reports were considered as a part of this Review. These studies include:

- *Carnegie Urban Design Analysis*, Planisphere, 2017
- *Carnegie Transformative Concepts Review*, Onemilegrid, 2017
- *Carnegie Transformative Concepts*, Planisphere, 2017

The Review will provide a summary of recommendations that are still relevant and update concepts that have changed over the last four years.

2.3 STUDY AREA

The Carnegie activity centre is focused around the Koornang Road shopping strip between Dandenong Road and Neerim Road. The Structure Plan study area also includes two smaller centres on Hewitts Road and Truganini Road.

Koornang Road is a heritage streetscape which features fine-grain shopfronts and a diverse range of retail and hospitality offerings. The wide variety of food and beverage venues ensures the centre is active during the day and in the early evening.

The main pedestrian activity in the centre occurs along Koornang Road and the library forecourt (Jersey Parade Reserve). The library forecourt is a community gathering point, with access to community services including the library and a childcare centre. The space includes public seating, a small stage area and street trees.

Laneways serve a critical role in facilitating pedestrian movement within the Carnegie activity centre. Four key pedestrian links connect Koornang Road with carparks on Shepparson Avenue and Kokaribb Road. These links also connect to neighbouring residential areas, contributing to the walkability of the activity centre.

Carnegie station is located on Koornang Road and provides public transport services via the Cranbourne/Pakenham line. The recent removal of the level crossing on Koornang Road has improved the public realm around this site. It has also improved the walkability of the centre, reconnecting the north and south of Koornang Road. Several new public spaces were created through the project including

along the Djerring Trail, which is used for both recreation and active travel.

Council has recently created a new temporary public open space on Neerim Road which adjoins the large Council owned carpark to the south of the library. Koornang Park is located further south along Koornang Road and is adjacent to a series of shops which are also included in the study area.

2.4 METHODOLOGY

1. BACKGROUND REVIEW AND CONTEXT ANALYSIS

- Review of previous public domain studies and the *Carnegie Structure Plan 2018*.
- Understand strategic context changes since 2018.
- Review of best practice standards and opportunities.
- Understand current needs and desired future character of the Carnegie activity centre based on *Carnegie Activity Centre Transport Study 2022* and *Built Form Framework Review 2022*.

2. SITE INVESTIGATION

- Analysis and assessment of opportunities and constraints in the study area.

3. RECOMMENDATIONS

- Provide a series of updated public domain recommendations that respond to the future needs of Carnegie.



Study area map

3. STRATEGIC VISION

Plan Melbourne, State Government of Victoria

Plan Melbourne is a metropolitan planning strategy that defines the future shape of the city and state over the next 35 years. Carnegie activity centre is identified in *Plan Melbourne* as a major activity centre.

The following directions from *Plan Melbourne* directly influence public realm in Carnegie:

- Create a city of 20-minute neighbourhoods and support them with improved local travel options.
- Create more great public places across Melbourne.
- Create neighbourhoods that support safe communities and healthy lifestyles.
- Deliver local parks and green neighbourhoods in collaboration with communities.
- Make Melbourne cooler and greener.
- Improve air quality and reduce the impact of excessive noise.

Movement and Place in Victoria, Victorian Department of Transport

Movement and Place in Victoria advocates for streets as places for people and not simply movement corridors. The strategy provides a framework to categorise streets and places.

Glen Eira is currently developing a set of street design guidelines, which considers place-specific street design based on the Victorian Department of Transport policy and the Glen Eira *Integrated Transport Study*. The draft *Glen Eira Street Design Guidelines* have been identified below as a key background document informing this review. See Section 3.1 – Strategic changes since 2018.

Glen Eira Council Plan 2021-2025

The *Glen Eira Council Plan* identifies Council's goals and aspirations. All of Council's strategic plans, including the *Carnegie Structure Plan*, must work towards the following vision.

Striving for a city that is:

- Liveable and well designed
- Accessible and well connected
- Safe, healthy and inclusive
- Clean and sustainable
- Informed and engaged

Glen Eira City Plan

The *Glen Eira City Plan* identifies the following vision for Carnegie:

“Carnegie will be a safe, connected and welcoming centre that embraces its authentic urban character and cultural identity. The centre will be a destination for night-life, shopping and employment, supporting a range of businesses and interconnected spaces that meet the needs of the local community.”

Public domain improvements are identified in Theme One – Placemaking, including:

1.4 Better quality and greener streetscape

Our streetscape and public realm are a major contributor to the identity of a neighbourhood. Our centres should be clean and attractive, and they should promote active transport options, particularly walking. We must improve the walkability of our neighbourhoods by increasing pedestrianisation of our centres and ensuring safe and convenient access for all members of the community.

Strategies and Actions:

- 1.4.1 Create green spaces and streetscapes with large canopy trees and lush plantings.
- 1.4.2 Upgrade streetscapes and public realm for enjoyment by the local community.
- 1.4.3 Promote the upkeep and maintenance of existing buildings and shopfronts.
- 1.4.4 Strongly encourage walking and cycling as the main travel methods to local centres through creating safe, friendlier and tree lined routes.

3.1 STRATEGIC CHANGES SINCE 2018

The purpose of this review is to provide recommendations for the Carnegie public realm which reflect the current strategic direction of Glen Eira Council. The following strategies were adopted by Council (or drafted at the direction of Council), since the *Carnegie Structure Plan 2018* was completed and influence the updated recommendations in this review:

Our Climate Emergency Response 2021-2025

Declaring a climate emergency in May 2020, Glen Eira City Council recognised the need for immediate action on climate change. Council adopted *Our Climate Emergency Response Strategy 2021-25 (Dhumbali Wurrungi-biik Parbin-ata)* to guide Council's approach to reducing carbon emissions. The strategy commits Council to achieving:

- Zero net corporate emissions by 2025.
- Zero net community emissions by 2030.

Goals and objectives relevant to this review include:

Goal 3: Council-owned buildings and infrastructure are resilient and safe for our staff and community.

- Objective 3.1: Ensure new and existing buildings and infrastructure are resilient to climate change impacts.
- Objective 3.2: Increase and diversify public green space across the municipality, ensuring equal access for all.

Goal 4: Our community is protected from the worst impacts of climate change.

- Objective 4.1: Support residents and businesses to insulate themselves against climate change impacts.

Goal 5: Net zero corporate emissions by 2025

- Objective 5.1: Ensure all Council buildings, assets and infrastructure are energy efficient, fossil fuel free and powered by 100 per cent renewable energy.

Goal 6: Net zero community emissions by 2030

- Objective 6.1: Empower our community to reduce their emissions at home, at work, at school, and as a community.
- Objective 6.2: Support the community to choose zero or low emissions transport.

Risks and Impacts

The strategy lists the following key climate risks and impacts in Victoria:

- Lower rainfall
- More frequent and intense heavy downpours
- Rising sea level and increased frequency and height of extreme sea level events
- Longer, more extreme fire seasons
- Reduction in air quality due to bushfires
- Higher temperatures year-round and more frequent and extreme heat waves
- Fewer frosts

Impacts on our community:

- The health, mobility and prosperity of our community will be impacted by climate change.
- Financial pressure associated with property damage from extreme rainfall events.
- Transportation challenges associated with flood and heat events, including disruption to public transport.
- People with existing mobility issues will find travel even more challenging during extreme weather.

Impacts on Council:

- Increased investment needed to water and maintain open space.
- Tree and habitat loss due to lack of water and/or heat stress.

Proposed changes to the Carnegie public realm should align with Council's targets for reducing carbon emissions. These include:

- Encouraging use of active and public transport.
- Considering locations to integrate water sensitive urban design into streetscapes.
- Considering locations for smart street lighting.
- Increasing urban forest with large canopy street trees.
- Considerations for waste collection.
- Considerations for recycled materials and life-cycles of Council projects.
- Encouraging environmentally sustainable development.

Integrated Water Management Plan (Draft)

Glen Eira's Integrated Water Management Plan (IWMP) is a commitment to working together with waterways and an exploration of the relationships between water, place and people. This plan is informed by *Our Climate Emergency Response Strategy 2021-2025*. Integrated Water Management (IWM) is a collaborative approach to water planning and management encompassing water supply (drinking and non-drinking water), wastewater, stormwater, and groundwater that supports sustainable environments and healthy communities. IWM involves collaboration between state and local governments and the private sector, delivered through urban planning, design and development

The draft *IWMP* lists the following strategic outcomes of integrated water management:

- Safe, secure and affordable supplies in an uncertain future.
- Effective and affordable wastewater systems.
- Avoided or minimised flood risks.
- Healthy and valued waterways and marine environments.
- Healthy and valued landscapes.
- Community values are reflected in place-based planning.
- Jobs, economic benefits and innovation.

This plan has the following implications on the Carnegie Public Realm:

- Opportunities to include water sensitive urban design infrastructure to reduce flood risk and improve water quality and security.
- Material selection for streetscape improvements and opportunities to introduce permeable surfaces where appropriate.
- Considerations of flood risks and water management.

Glen Eira's Urban Forest Strategy

Glen Eira's urban forest is the sum of all trees and landscaping in the public and private realm. The urban forest provides a wealth of benefits including shade provision, carbon storage, habitat for wildlife, reducing air pollution, neighbourhood amenity, stormwater capture, as well as assisting in mitigating the effects of climate change.

Guided by Council's vision and supported by direction provided in *Living Melbourne*, the *Urban Forest Strategy* sets out the following five action areas to enable and inspire our whole community to better protect and strengthen our natural assets:

- Maintain and protect Glen Eira's public and private land urban forest.
- Grow the future urban forest through designed solutions for trees and innovative green infrastructure on public and private land.
- Adapt to climate change and reduce urban heat impacts through embedding leading practice urban forest management into Council's decision-making, investment and processes.
- Engage and collaborate across sectors with the community, developers and other agencies.
- Monitor and evaluate the progress of the urban forest, including progress towards targets.

On Council managed land, Glen Eira Council aims to achieve the following by 2040:

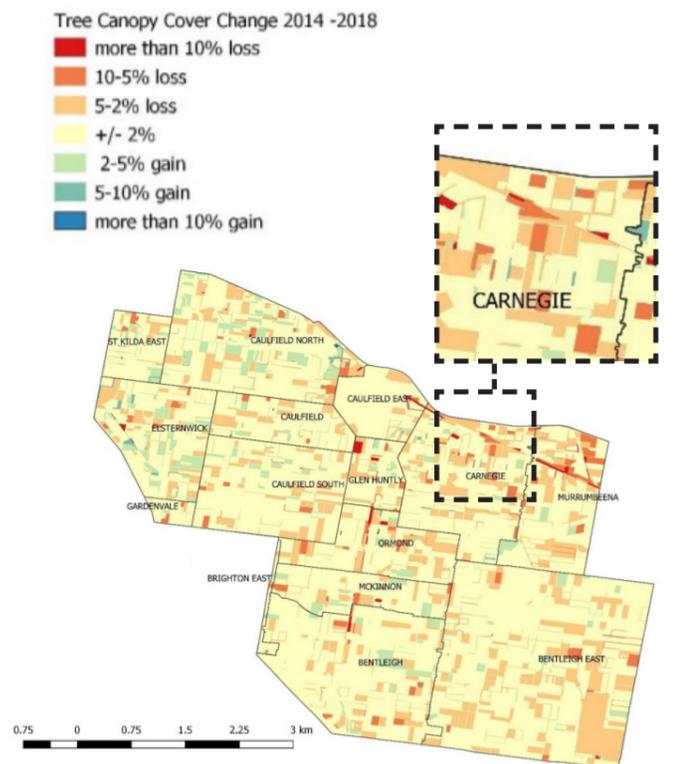
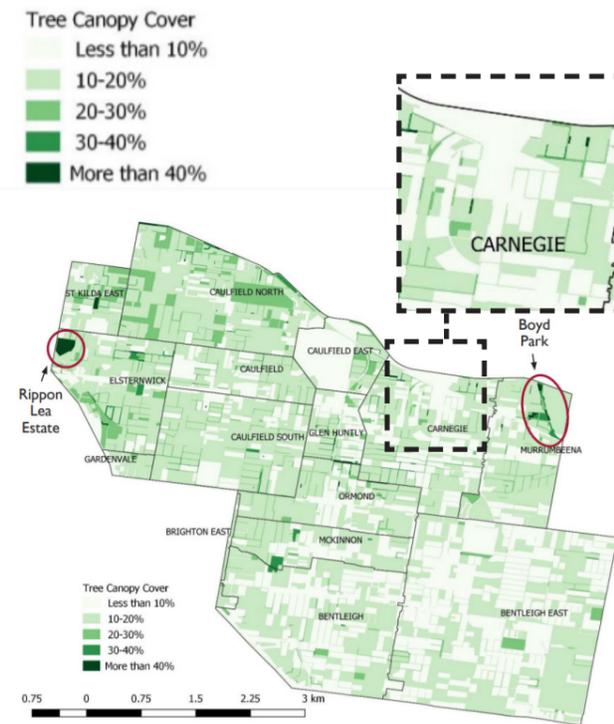
- Tree canopy cover over roads and streets will increase from 15.6 per cent to 18 per cent.
- Tree canopy cover in parklands will increase from 14 per cent to 25 per cent.
- Tree canopy cover of public car parks will be at least 25 per cent.
- No one species will represent more than ten per cent of the public urban tree population.

Council aims to increase tree canopy cover over the whole municipality from 12.5 per cent to 14 per cent by 2040.

The *Urban Forest Strategy* identifies areas with low tree canopy cover and loss. The Carnegie activity centre is identified as an area with both low levels of canopy cover and high levels of tree canopy loss. Therefore, additional tree canopy planting in the Carnegie activity centre is vital to establishing Glen Eira's urban forest. See mapping.

Implications of the *Urban Forest Strategy* on the Carnegie public realm:

- Protect adequate sunlight provision in areas with large canopy trees.
- Consider locations for, and prioritise planting of additional canopy trees in the activity centre.
- Maintain and protect existing trees.
- Consider opportunities for water sensitive urban design.
- Considerations for materials selection, water penetration and soil requirements.
- Consider engineered solutions to enable tree planting within hard surfaces such as roadways.
- Consider the use of innovative planting solutions such as green walls and elevated gardens.
- Ensure trees and green infrastructure are incorporated as a key design element within all future developments.



Open Space Strategy Refresh 2020

The *Open Space Strategy Refresh 2020* identifies that there is a need for more public open space in the Carnegie activity centre to support its growing population.

Impacts on the Carnegie public realm:

- Additional parks and open spaces should be provided in the Carnegie activity centre.
- Buildings should provide passive surveillance and active frontages to open space.
- Solar access provision is essential to open spaces and to support the growth of large canopy trees.

The following solar access guideline was also outlined in the *Open Space Strategy Refresh 2020*:

"In high density areas including Carnegie, the designated urban renewal areas and large redevelopment sites, development should not increase overshadowing of any existing or proposed open space from 11am-2pm on 21 June (winter solstice) beyond the shadow of a nine metre high built form on an adjoining property."

Site-specific testing of this guideline was completed in the *Built Form Framework Study*. Details on how this guideline has been applied to the Carnegie public realm are identified in Parts 7 and 8 of this review.

Integrated Transport Strategy 2018-2031

On 12 June 2018, Council adopted the *Integrated Transport Strategy* (ITS). The ITS acts as a high-level strategic document to provide a cohesive transport framework for Glen Eira. The adopted strategy strives for a 50:50 mode share of car and non-car trips by 2031 to be achieved by:

- Increase walking, cycling and public transport trips.
- Increase efficiency on key driving routes.

The key elements for walkable activity centre include:

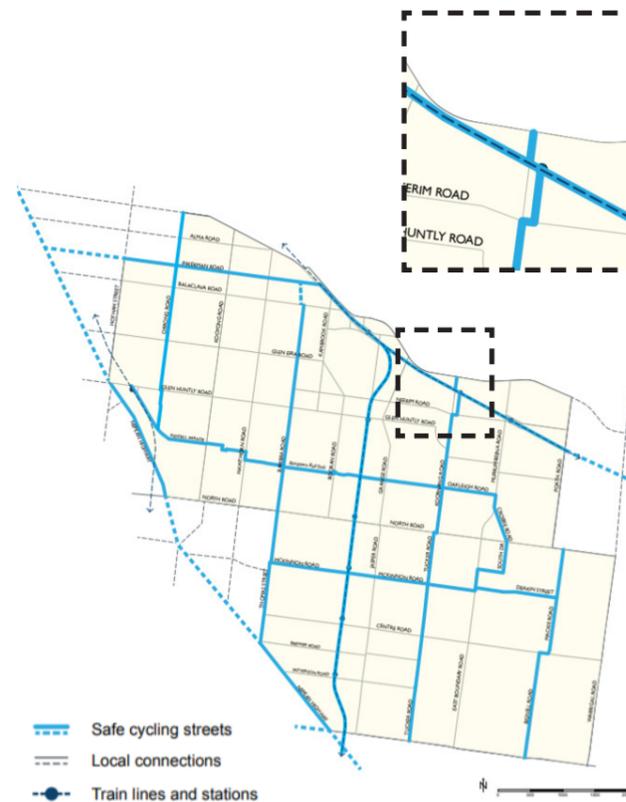
- Wide footpaths to encourage street trading activities.
- Consolidated parking close to key driving routes and interactive wayfinding signage.
- Adequate public facilities, such as toilets, seats and drinking fountains.
- Opportunities to implement shared zones and road closures to create high quality civic spaces.
- High quality pedestrian networks.
- Safe, high quality connections between key destinations and public transport nodes.
- Needs-based and short-term parking spread throughout the centre.
- Safe local connections with regional safe cycling streets. Explore the reinstatement of lost street parking where required.

The Carnegie major activity centre includes both safe cycling streets and great walking and shopping streets, which recommend the following public realm improvements:

Safe cycling streets

A road or street that aims to enable cycling as a legitimate transport mode choice. These streets foster a safe environment for people of all abilities to cycle safely between destinations. Potential Improvements for safe cycling streets include:

- construction of separated, safe bike paths;
- continuation of all bike lanes through intersections;
- minimising car movements across bike lanes at traffic signals;
- consistently reduce vehicle speeds along roads;
- ensuring lighting is of a high standard along the full length of the street; and/or
- exploring the reinstatement of lost street parking where appropriate.



Great walking and shopping streets

A road or street that aims to enable the movement of people for the purpose of walking, shopping and experiencing our activity centres and public places. Potential improvements for great walking and shopping streets include:

- pedestrian priority at all side street intersections;
- investigate road closures and shared zones in key locations to improve the pedestrian network;
- planting high quality canopy trees along roads;
- ensuring high quality lighting along length of roads;
- improving traffic signals to prioritise pedestrians; and/or
- developing destinations and high value places.



The ITS has the following implications on the Carnegie public realm:

- Reduced vehicle speeds to improve safety for people walking and cycling.
- Encourage active and public transport over other transport modes.
- Widen footpaths to encourage street trading activities.
- Provide consolidated parking close to key driving routes and interactive wayfinding signage.
- Provide adequate public facilities, such as toilets, seats and drinking fountains.
- Explore opportunities to implement shared zones and road closures to create high quality civic spaces.
- Create high quality pedestrian networks with pedestrian priority.
- Provide safe, high-quality connections between key destinations and public transport nodes.
- Provide needs-based and short-term parking spread throughout the centre.
- Create safe local connections with regional safe cycling streets.
- Explore the reinstatement of lost street parking where required.

Glen Eira Street Design Guidelines
(Draft only, not adopted by Council)

The draft *Glen Eira Street Design Guidelines* (SDG) builds on the existing policy framework identified in the *Glen Eira Integrated Transport Strategy* and the Department of Transport's *Movement and Place in Victoria* framework. The approach recommends designing streets as destinations for people, not just movement corridors. The SDG will enable Council's streets to be designed as high performing assets that will contribute to achieving targets for increases in street tree canopy, improvements to public health and carbon emission reduction. The SDG provide best practice advice on street design informed by a variety of sources including the National Association of City Transportation Officials *Urban Street Design Guide*.

Principles:

Movement - Our streets must move more people and reduce reliance on private vehicles.

Safety - We have a shared responsibility to make our roads and streets safe for all users.

Health - Our roads and streets should support the physical, mental and social health of all users.

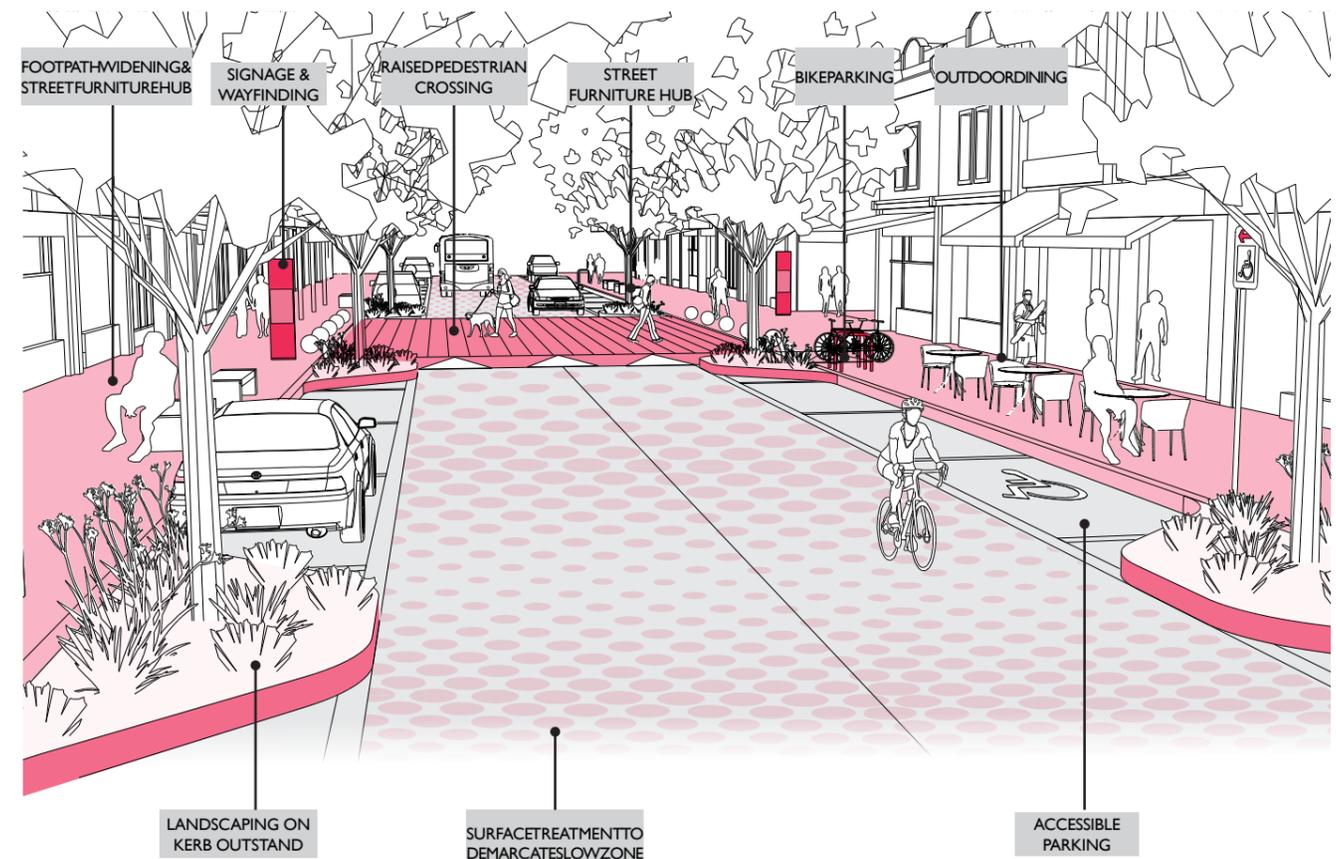
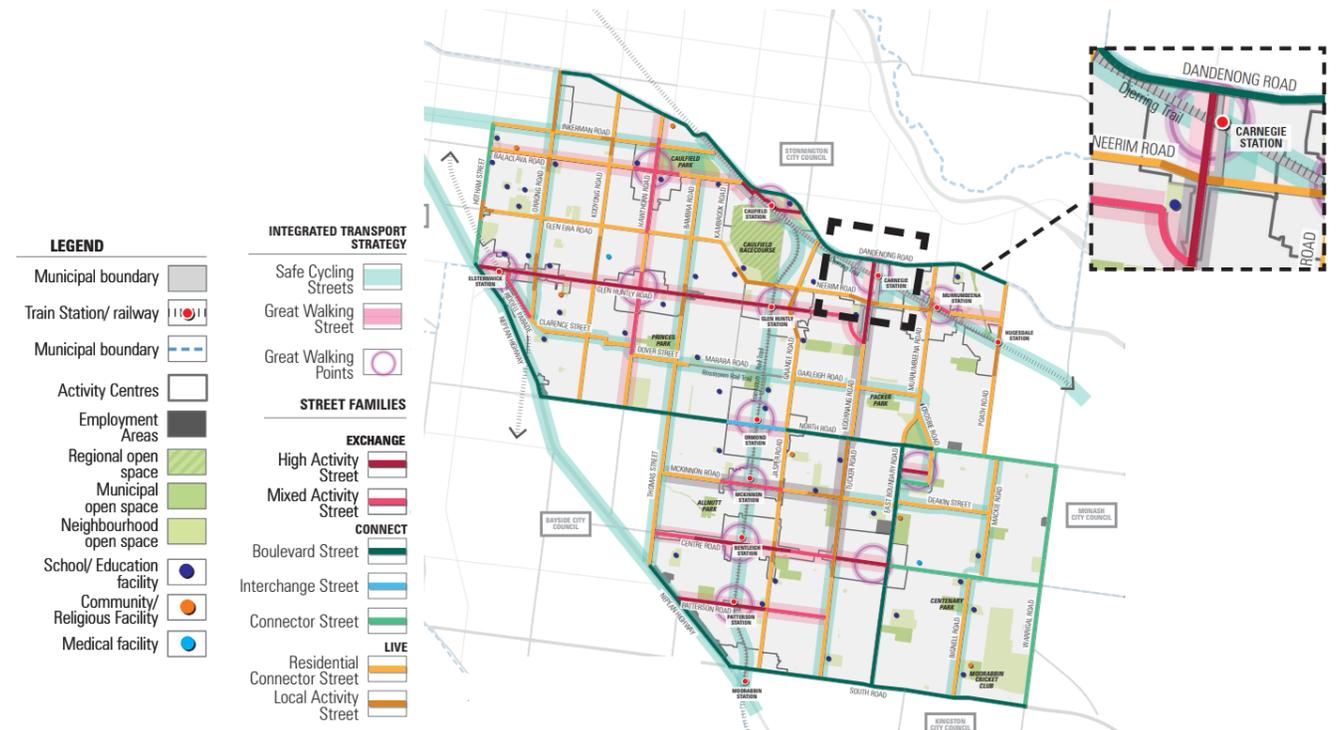
Place - We need place-specific design with human-scaled experience which supports our local economy.

Ecology - Our roads and streets should protect and enhance our natural environment.

Evolving - Our roads and streets can evolve and should be designed to cater for the need of today's community and our future community.

Koornang Road is identified as a high activity street. Design objectives for high activity streets in the SDG (referencing *Urban Roads and Street Design Guide*, June 2020, Victorian Department of Transport) include:

- Support mixed-use land uses with an active ground plane.
- Encourage vibrant on-street activity and amenity for residents, workers, shoppers and visitors.
- Prioritise pedestrian movement and provide multiple crossing locations.
- Enable cycling access to destinations and safe strategic movements (noting that Shepperson Avenue is the preferred cycling route through the activity centre).
- Move high numbers of people through public transport with frequent opportunities to stop.
- Facilitate slow vehicle movement to serve localised land uses.
- Encourage social interaction and support urban amenity and on street activity through flexible street furniture.
- Integrate landscape treatments that complement street size and reinforce local character.
- Enhance climate resilience with appropriate WSUD systems.
- Provide access to off-street parking.



Example of Exchange Street Type

The Glen Eira Local Economy and Place-making Action Plan 2020-2025

The Glen Eira Local Economy and Place Making Action Plan 2020-2025 builds on the overall economic objectives outlined in the *Glen Eira City Plan* to further refine Council's actions and priorities to support economic growth and the creation of local jobs in Glen Eira. The plan identifies Koornang Road as a culinary destination which attracts visitors to the activity centre.

The following principles guide the Action Plan.

Local jobs - Creating more opportunities for local people to work close to home.

Experiences - Creating community rich experiences in our activity centres which cannot be acquired online.

Connections - Connecting people and utilising the skills and knowledge within the community to build the capacity of local businesses.

Sense of place - Fostering a strong sense of place and connection to our centres.

Community leadership - Creating opportunities for the community to take the lead on projects within their local centres.

The plan has the following implications on the Carnegie Public realm:

- Position Carnegie as a culinary destination by supporting hospitality businesses with opportunities for outdoor dining, places to stop and enjoy take-away, and appropriate servicing and access requirements.
- Encourage visitation by improving pedestrian amenity, shade and shelter and pedestrian safety during the day and night.
- Provide opportunities for place-specific public art and placemaking activities.
- Take a collaborative approach to public realm design, working with local businesses and the community to address their needs.
- Delivery of the Carnegie Community Space on Neerim Road.

Glen Eira Community Wellbeing Plan 2021–2025

Glen Eira's Community Wellbeing Plan 2021–2025 outlines the ways in which Council will work to improve the health and wellbeing of all people in Glen Eira, across all ages, genders, backgrounds and abilities. *Glen Eira's Community Wellbeing Plan 2021–2025* takes a life stage approach. This considers an individual's or group's lifelong experiences for insight into aspects of their health across all ages and stages.

Priorities of the plan include:

- Improve public health protection
- Strengthen mental health and social connection
- Enhance active living
- Create healthier environments
- Embrace creativity, learning and diversity
- Promote, respect, care and equity.

Impacts on the Carnegie public realm:

- The public realm must be welcoming, safe and functional for everyone.
- The public realm should encourage social interaction and community connections.
- Enhance accessibility, safety, walkability and interconnectedness across the built environment.
- Encourage active lifestyles through public realm design which encourages people to walk and cycle.
- Consider Healthy Streets principles in future public realm upgrades.

3.2 PROJECT UPDATES AND COUNCIL DECISIONS

Following the adoption of the *Carnegie Structure Plan 2018*, Glen Eira Council has undertaken additional studies, investigations, and projects to realise the vision of key sites in Carnegie. Progression of these projects were reflected upon during this review. The following projects have developed since 2018:

The Carnegie Library Carpark Site (Identified as New Market in the *Carnegie Structure Plan 2018*)

The Carnegie Structure Plan 2018 recommends redeveloping the existing library carpark to provide a market on the ground floor and incorporating opportunities for employment and diverse housing in the upper levels.

It was envisioned that the market and library precinct would be integrated and become a catalyst for revitalisation with the existing shops on Koornang Road, as well as connecting with the newly redeveloped station precinct. While the market and library precinct would be largely serving the residential community throughout Carnegie, the residential mix would drive, vibrancy and life in the Carnegie activity centre.

This project was first presented to Councillors in late 2017 and it was then included in the Carnegie Structure Plan 2018. Additional reports regarding the Carnegie Market Building development were presented to Council in 2019, including project updates, options, costings and feasibility studies.

The potential project options for the site and their impacts to Glen Eira's broader strategic project portfolio and the overall strategic resource plan,

require further discussion with Council in order to determine the appropriate direction for this project. Therefore, it is recommended that the reviewed structure plan identify the Library Carpark as a key site that requires further investigation into its best use. General public realm recommendations for the site are listed in Section 8: Key Public Spaces.

A strategic site at 296-298 Neerim Road, which adjoins the carpark site, was purchased by Council in August 2017. The existing building was demolished and Council resolved to construct a temporary community focused public open space, which was completed in 2021. The creation of this multi-use open space provided additional opportunities for place making, community engagement and economic development initiatives in the Carnegie activity centre. The open space functions as a gathering place and a venue for community, trader and council-led events and activities.

These two sites should be considered holistically for any future redevelopment of the library carpark site.

Completion of the Level Crossing Removal Project - Skyrail, the Djerring Trail, Egan Street and Woorayl Street Reserve

Following the removal of the level crossing at Koornang Road, Carnegie in February 2018, additional public realm improvements have been completed in the activity centre by the Victorian Government in consultation with Glen Eira Council. Through the delivery of the elevated rail line, the Victorian Government have additionally funded and delivered 22.5 hectares of public space

including the Djerring Trail, protection of Woorayl Street Reserve, a new children's playground, a multipurpose recreation area and additional carparking on Egan Street.

Glen Eira COVID-19 Public Space Program

To help local businesses recover following COVID-19 restrictions, Council initiated a public space program where the businesses could apply to extend their footpath trading areas or Council could provide the business with a parklet to extend outdoor dining into adjacent parking bays. In offering these opportunities, Council aimed to:

- Enable safe outdoor options for the community.
- Enhance Glen Eira's urban areas and street character.
- Attract people back to activity centres in a safe, accessible manner.
- Provide a boost for business, helping our local traders recover from COVID-19.

Due to limited footpath widths on Koornang Road, Carnegie was considered a primary location for the Public Space program that put parklets in car spaces in the road reserve. Five parklets have been installed since 2021, including a temporary mega parklet which extended the footpath trading area on Koornang Road by the length of eight car spaces. The mega parklet was later removed and two single car bay parklets were installed in the street. Single car bay parklets have been well received by the business community and support Carnegie's vision of being a culinary destination.

Community space located at 296-298 Neerim Road with the Library carpark behind.



New public open space under the skyrail.
Image Credit: Level Crossing Removal Project



Parklet installed on Koornang Road.



4. 2022 STUDIES

Carnegie Built Form Framework 2022

The *Built Form Framework* sets out the preferred built form outcomes for the Carnegie Activity Centre to ensure new development achieves the vision for the major activity centre in a sustainable way, now and into the future. The built form recommendations include building heights, setbacks and access/egress, are supported by design principles that guide future design outcomes.

The *Built Form Framework* has an important role in ensuring the Carnegie public realm is a functional, comfortable and attractive place for the community. The built form principles that guide the Framework align with the Council's strategic vision for the Carnegie activity centre. The *Built Form Framework* defines and shapes the following architectural and urban design outcomes which impact the public realm:

Walkability

The *Built Form Framework* specifies that the Koornang Road streetscape retains the historical fine-grain subdivision pattern which will encourage a diverse pedestrian experience in the shopping strip. It also promotes active frontages in key locations which facilitates a vibrant and safe streetscape, ensuring a clear physical and visual connection between public and private realm. Additional design requirements for entrances, awnings, signage and vehicle crossovers have been identified to ensure the Carnegie public realm is vibrant, engaging and safe.

Streetwall, setbacks, heights and upper levels

Appropriate streetwall heights, building heights and setbacks are tested and the best outcomes identified, responding to the character of the area and the existing heritage streetscape. This ensures that the public realm is not adversely impacted by the bulk and scale or overshadowing of future development and that the experience of pedestrians and people using public space is enjoyable.

Solar Access

Appropriate solar access to the public realm is key to foster activity and support healthy growth of vegetation. The *Built Form Framework* identifies a hierarchy of open space, responding to Council's *Open Space Strategy Refresh* recommendations. It balances the impacts of solar access controls on development, with the required amount of solar access needed to facilitate high amenity in key public spaces which will support the growing community.

Heritage and Character

The *Built Form Framework* identifies how future development can be designed to protect and enhance existing character of Carnegie and develop the desired character in urban renewal areas ensuring a sense of place and identity. This will have a significant impact on the public realm including the look and feel of the streetscape. The two-storey streetwall that defines Koornang Road will be retained and levels above set back to respect the heritage streetscape.

Interfaces, transitions & equitable development

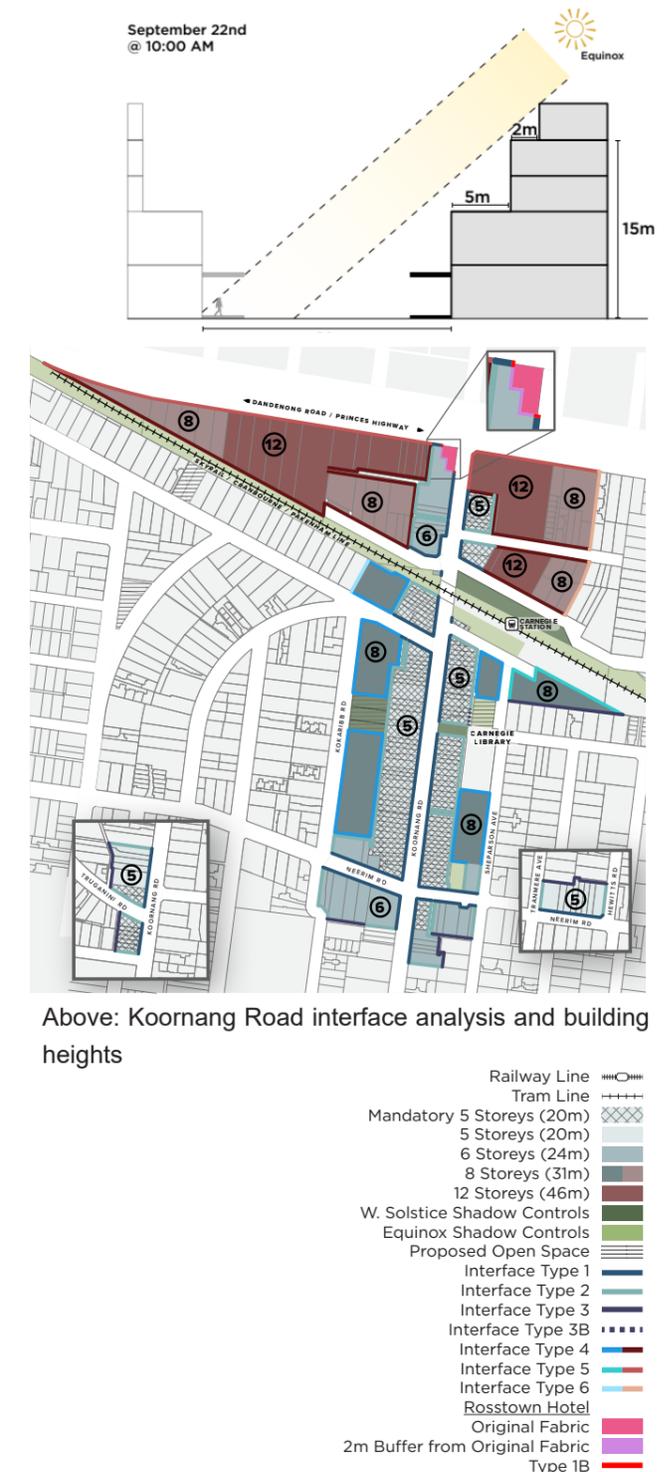
The framework outlines appropriate architectural responses to surrounding context including sensitive interfaces, equitable development and building separation. It identifies site specific interfaces and transitions to ensure neighbouring dwellings, buildings and the public realm are not impacted by unreasonable loss of amenity through visual bulk, overlooking and overshadowing. Larger upper level setbacks are required on sites with sensitive interfaces.

Environmentally Sustainable Design

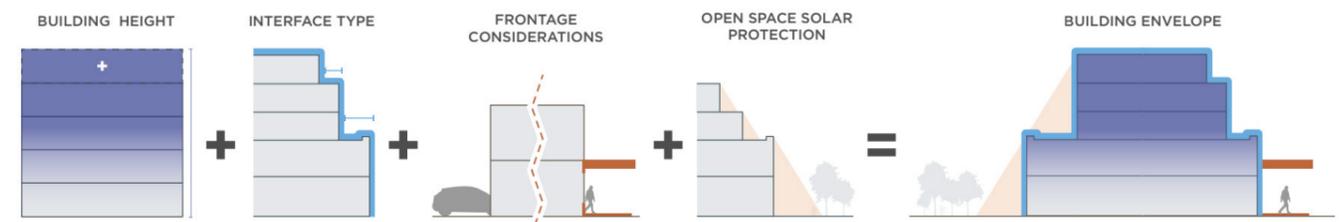
Glen Eira Council has declared a climate emergency and joined the Eastern Alliance for Greenhouse Action in recognition of the impact climate change has on our planet. The Framework aligns with this vision and outlines environmental design requirements for future development.

Servicing and Access

A building's services and access points are essential for the safety and function of the building and the street. The Framework outlines requirements for appropriate design and location to ensure a minimal impact to the public realm. It also identifies the role of streets in the network and how built form should respond to how people move throughout the Carnegie activity centre.



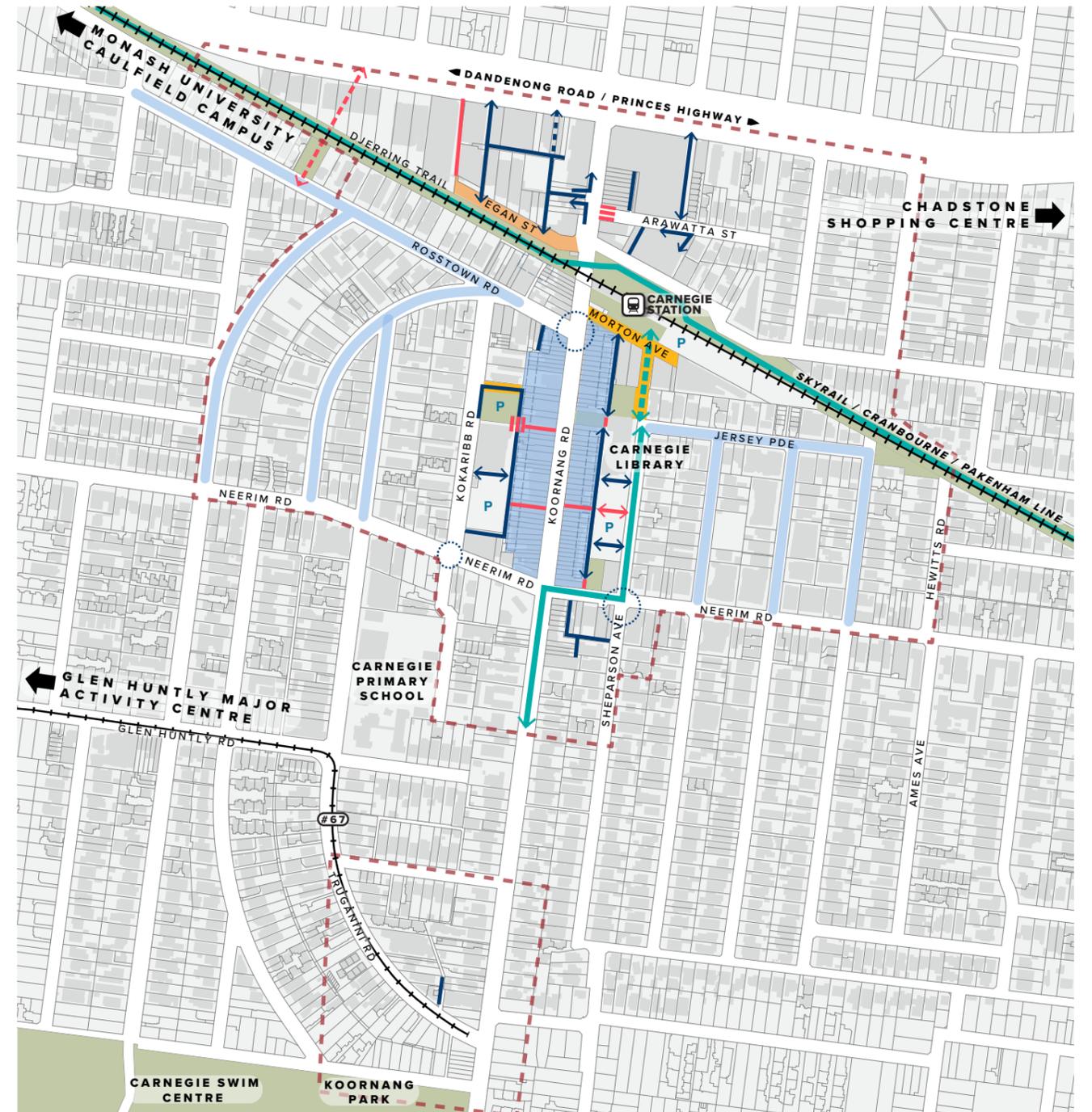
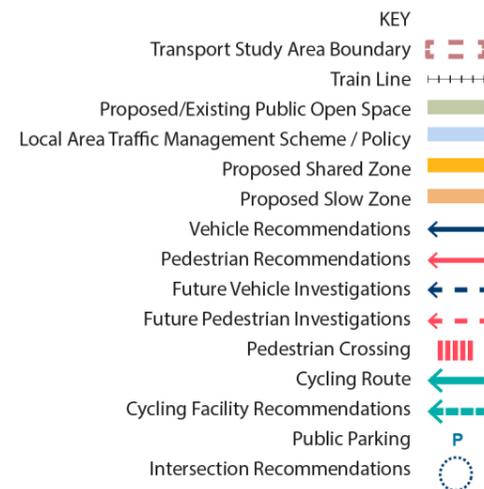
Above: Koornang Road interface analysis and building heights



Carnegie Transport Study 2022

In 2022, a transport analysis of the Carnegie activity centre was commissioned as a part of the Carnegie Structure Plan review. They were asked to conduct an analysis of the existing and future transport network, and the transport requirements needed to support the growth identified in the Built Form Framework. The overarching findings of the study are as follows:

- The existing network is at or near capacity, and there is a need to encourage public transport, walking and cycling to manage travel demand.
- Future development will place pressure on local access capacity of the road network.
- In many cases, the scope for major increases to road capacity is limited. Given the finite capacity of the road network, a degree of peak spreading and displacement of non-local trips on the network.
- Future development requires a connected system of laneways. Some changes to improve laneway capacity and amenity can be planned for, to support the desired level of growth and development.
- To offset the traffic pressures of development and support a transition toward more sustainable patterns of development, a Parking Overlay (or similar) should be developed as a measure to support reduced traffic generation to/from and within the Carnegie activity centre.



5. PUBLIC REALM OBJECTIVES

The following objectives will guide the public realm recommendations identified in this review. These four objectives were selected based on previous public realm studies and Glen Eira Council's current strategic direction, as outlined above. This review aims to achieve the following objectives for Carnegie's public realm:



Better & safer movement

The public realm promotes active and public transport.



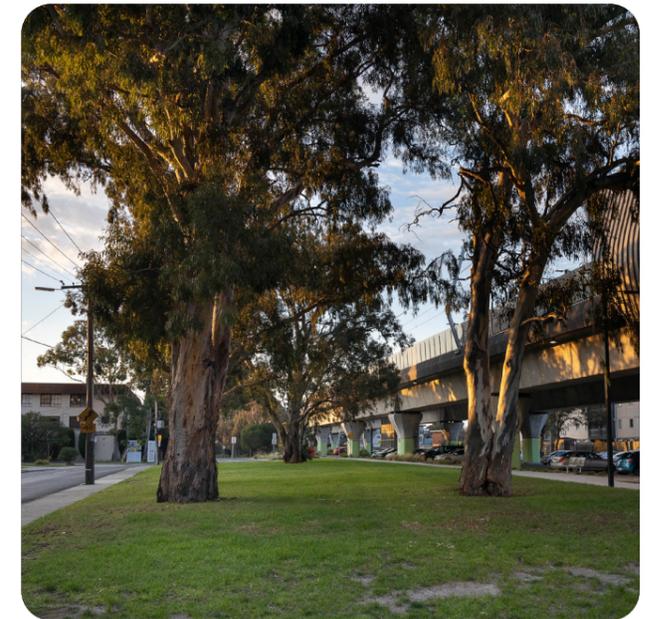
Placemaking

Carnegie is a destination with a public realm that provides diverse experiences and supports local business.



Walkable & healthy places

The public realm is comfortable and everyone feels welcome.



Sustainable streets & spaces

The public realm is an ecosystem with streets designed as linear public open spaces.

6. PUBLIC REALM CHALLENGES

Based on the above strategic review, site analysis of the study area and previous public realm recommendations, four key public realm challenges have emerged for the Carnegie activity centre. These include the following:

1: The Carnegie public realm must be well designed to respond to the climate emergency.

Ensure public realm improvements align with *Glen Eira's Climate Emergency Response Strategy* including the following recommendations:

1. Improve and promote transport options

- Active and public transport routes are promoted as an important alternative to private vehicles with both environmental and health and wellbeing benefits.
- Improving pedestrian and cycling amenity in the public realm so people choose to walk and cycle.

- Investigate the application of 'cool routes' through extensive canopy, light-coloured surfaces and water in the landscape.
- Investigate and identify locations for public electric vehicle charging stations.

2. Promote traditional custodian knowledge

- Pursue opportunities such as interpretive signage, cultural values embedded in design to help communicate and share Traditional Owner knowledge.

3. Reduce urban heat

- Consider design, material selection and increasing urban canopy to reduce urban heat in the precinct. See map to the left.

4. Adaptable community facilities

- Investigate ways that any future community facilities may be multipurpose and adaptable to the changing area.

5. Climate risk assessment

- Ensure a climate risk assessment is undertaken for assets proposed to be refurbished / delivered as part of the structure plan, including infrastructure (e.g. non-arterial roads and drainage).

6. Water management

- Consider water management and drainage in line with the *Draft Integrated Water Management Policy*.
- Identify opportunities for water sensitive urban design including permeable paving, rain gardens and bioretention pits.

7. Grow the urban forest

- Increase canopy tree planting and protect existing canopy trees in Carnegie.
- Reclaim space for improved greening outcomes over the long term as well as opportunistic temporary / permanent reclamation of spaces as they transition over time.
- Protect significant trees in the area. Consider future development impacts on large trees in Woorayl Street reserve and on Kokaribb Road.
- Where appropriate, consider planting of indigenous and native species in the public realm to improve the biodiversity of the area.

8. Sustainable public realm works

- Infrastructure works should consider the circular economy principles (e.g. through material selection requirements).
- Ensure Council's Sustainable Building and Infrastructure Policy is consistently applied throughout the asset lifecycle (e.g. to new streetscapes).

9. Interpretive signage

- Consider interpretive signage in public spaces including messaging relating to climate related action and the importance of any sustainability initiatives incorporated into the precinct (e.g. canopy trees, stormwater harvesting, biodiversity protection or enhancement).

10. Improve waste management

- Investigate precinct approach to improve waste management.
- Consider site locations for a container deposit scheme.

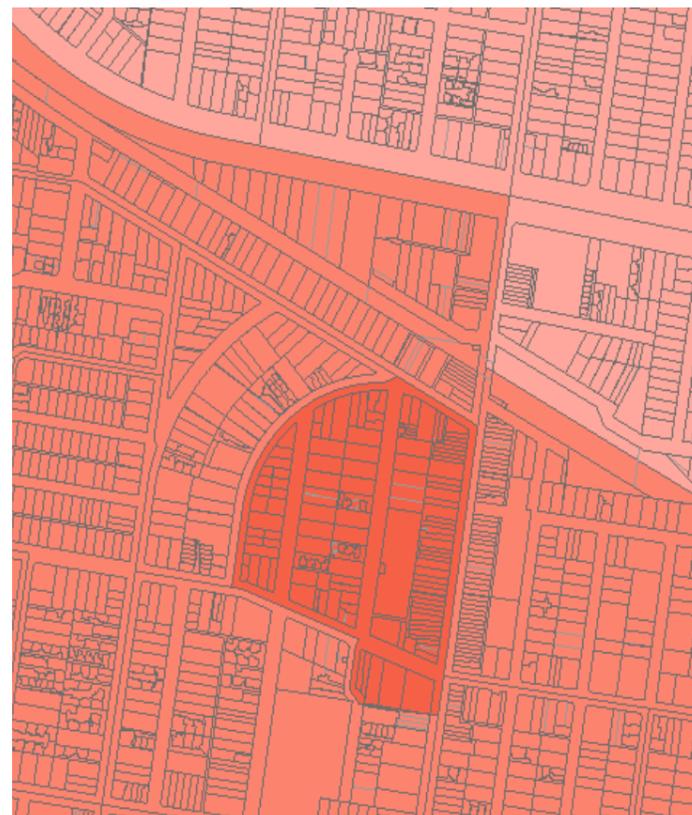


Image: High levels of urban heat in the Carnegie activity centre, Heat Vulnerability Index (2018): Cooling and Greening Melbourne Map, Victorian Department of Environment, Land, Water and Planning

2: Reconnect the two sides of the Carnegie activity centre.

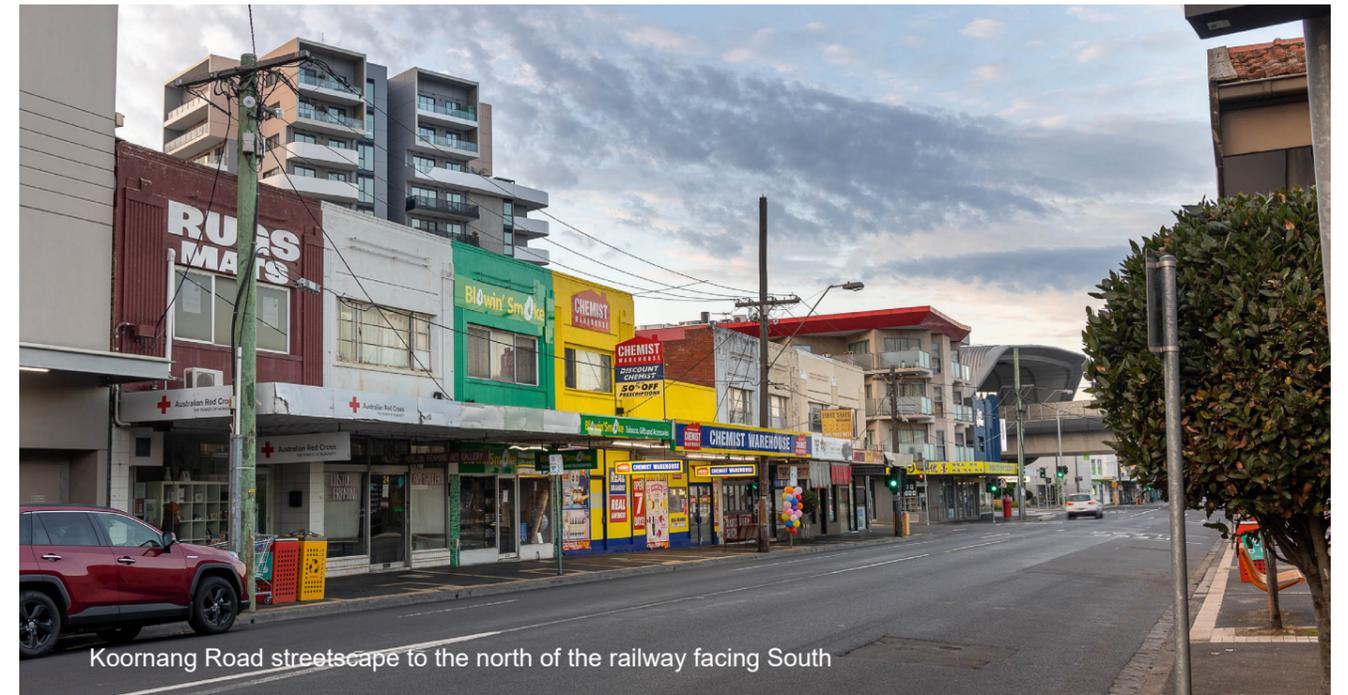
The removal of the level crossing on Koornang Road has reconnected the public realm on the north and south sides of the station, however these two spaces still feel disjointed and unrelated. Reconnect the two sides of the Carnegie activity centre through the following public realm improvements:

- Ensure high quality pedestrian and cycling connections to and through the activity centre.
- Extend the public realm's "village feel" to the north of the station with consistent street trees, realign footpaths, spaces for outdoor dining and street furniture.
- Ensure new developments in the urban renewal area continue the streetscape of active frontages and footpath dining spaces that line Koornang Road.

3: Ensure parking is managed and designed to support a public realm with high pedestrian amenity.

The adverse impacts of carparking on the pedestrian experience can be mitigated through the following public realm improvements:

- To ensure Carnegie's public realm is active and safe, car parks must not have an adverse impact on the appeal and function of the public realm.
- The preferred location for carparking in new developments is within basements.
- Avoid car parking entries on small sites where they impact the activation and safety of the public realm. To encourage development on smaller sites and to facilitate more affordable housing options, consider reducing car parking rates and encouraging non-private vehicle transport uses for new developments in areas close to services and public transport.
- Avoid new vehicle crossovers into properties on Koornang Road and Neerim Road within the commercial part of the activity centre. Avoid new vehicle crossovers on streets with high pedestrian volumes and active frontages.
- Consider the highest and best use of at grade carpark sites and consider integration of public parking into basements (or wrapped podium levels) of new buildings.



Koornang Road streetscape to the north of the railway facing South



Privately owned at-grade carpark adjacent to Woolworths

4: Ensure sunlight to public spaces is protected.

As the Carnegie activity centre continues to grow and the scale of developments increase, existing and proposed public spaces must be protected from extensive overshadowing. Direct sunlight is essential to highly functional and comfortable public spaces. A balanced and evidence-based approach to solar access controls must be taken to protect sunlight provision to public open spaces, while ensuring that these controls do not entirely prohibit reasonable development on adjacent sites. The following solar access guideline was outlined in the *Open Space Strategy Refresh 2020*:

“In high density areas including Carnegie, the designated urban renewal areas and large redevelopment sites, development should not increase overshadowing of any existing or proposed open space from 11am-2pm on 21 June (winter solstice) beyond the shadow of a 9 metre high built form on an adjoining property.”

The *Open Space Strategy Refresh 2020* solar access guideline was applied to sites in Carnegie and tested to consider the impacts of this control on future built form in the major activity centre, during the development of the *Carnegie Built Form Framework Review 2022*. All public open spaces were given a level of protection, however, to balance public space amenity with development potential of neighbouring sites, open spaces were placed in a hierarchy. Some public open spaces were given a higher level of solar access protection so that in Winter these spaces would still receive an abundance of sunlight. Generally, spaces that would already be significantly overshadowed in winter were given equinox controls.

The Carnegie Built Form Framework Review 2022 recommends the following solar access controls for public spaces in Carnegie:

Equinox Controls: *“For open spaces that require equinox controls, no additional shadows must be cast beyond the existing shadow (from existing buildings and infrastructure) or the shadow that would be cast by a street wall built to be nominated street wall height in the planning scheme, from 10am to 2pm on September 22nd”*

Applicable sites:

- Neerim Road open space
- Open space north of the library
- Active recreation space below Skyrail (Immediately west of Koornang Road)
- Skyrail open space west of Egan Street

Winter controls: *“For open spaces that require winter solstice controls, no additional shadows must be cast beyond the existing shadow (from existing buildings and infrastructure) or the shadow that would be cast by a street wall built to the nominated street wall height in the planning scheme, from 10am to 2pm on June 22nd.”*

Applicable Sites:

- Library forecourt (Jersey Parade Reserve)
- Proposed park on Kokaribb Road
- Woorayl Street Reserve.

Shadow analysis and images from *Carnegie Built Form Framework 2022*



7. KEY PUBLIC SPACES

The Carnegie Structure Plan 2018 includes a range of public realm initiatives for key locations within the study area. The Carnegie Structure Plan 2018 states:

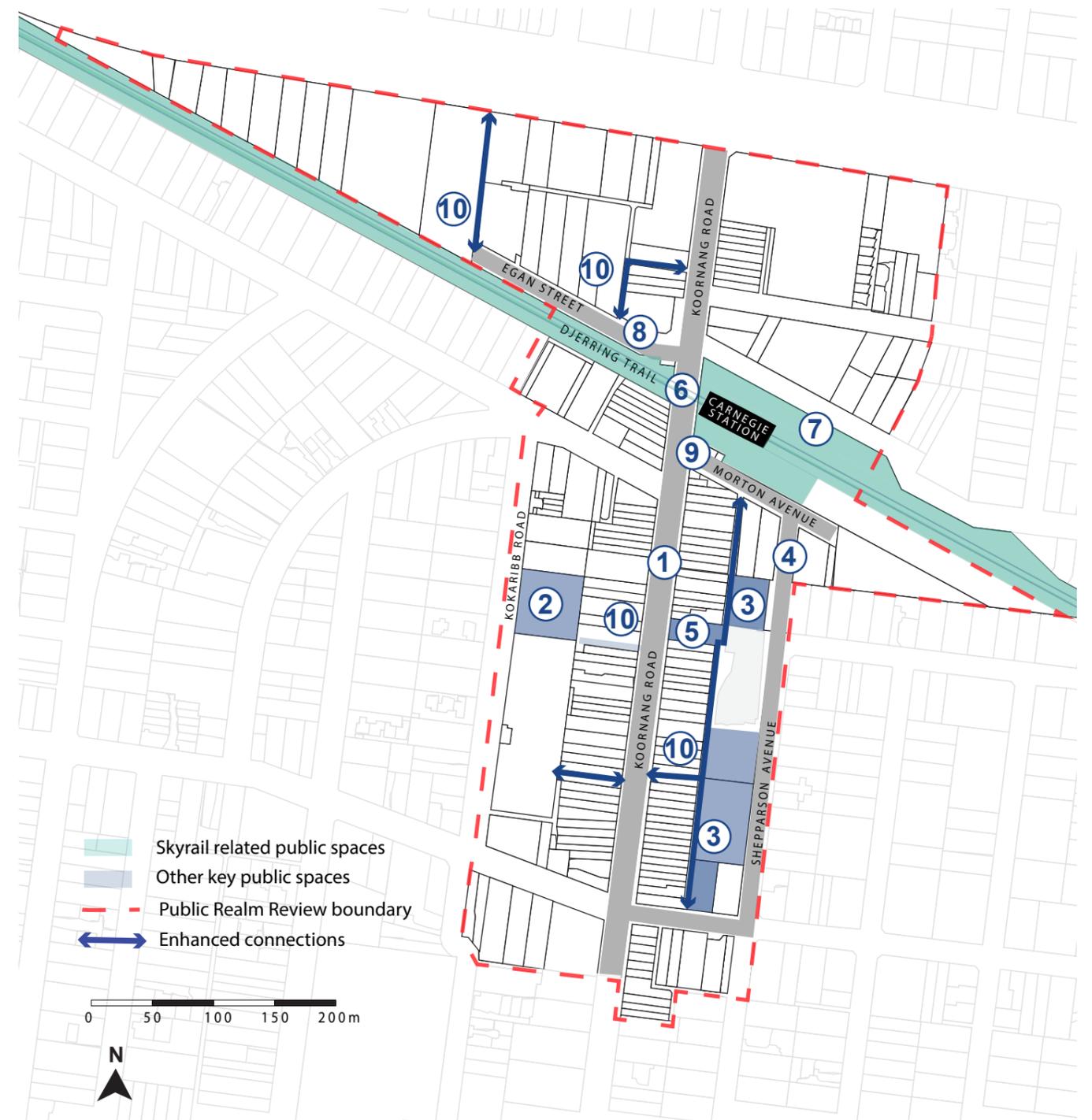
“To improve experiences in the Carnegie community, we will provide a range of opportunities for people to meet and gather through new spaces within the centre. To achieve high quality, functional public spaces, we will implement the following strategies:

- Ensure that public spaces are accessible for all and remain a focal point for the community to meet and gather.
- Provide public spaces that are inclusive and inviting by including public art and pedestrian oriented places.
- Ensure overshadowing from new buildings and works does not result in significant loss of sunlight to future and existing public open spaces and key public spaces.
- Protect and, where possible, increase the level of sunlight to public open spaces.
- Actively explore opportunities for additional open space and improve existing open spaces as recommended in Council’s Open Space Strategy.”

Although the above vision for high quality, functional public spaces remains unchanged, recommendations for key sites in the Carnegie Structure Plan 2018 require an update. The public realm recommendations in this section of the review reflect Glen Eira Council’s policy changes in the last four years. Additional sites in Carnegie have been identified and further public realm improvements recommended.

The key public spaces in the study area include:

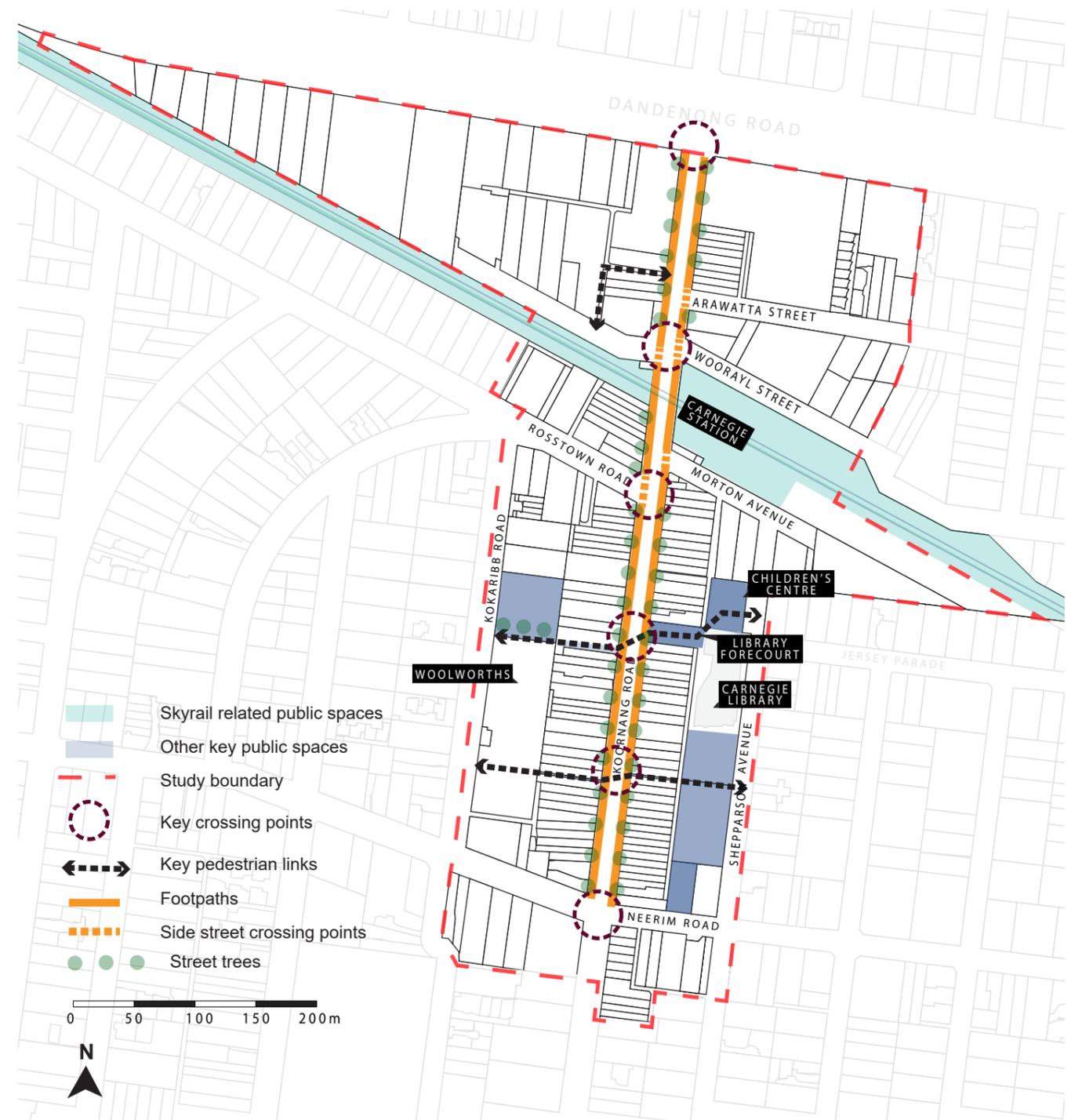
1. KOORNANG ROAD
2. PROPOSED PARK ON KOKARIBB ROAD
3. LIBRARY CARPARKS AND CARNEGIE COMMUNITY SPACE
4. SHEPPARSON AVENUE – SAFE CYCLING STREET
5. LIBRARY FORECOURT (JERSEY PARADE RESERVE)
6. DJERRING TRAIL AND RAILWAY RESERVE
7. WOORAYL STREET RESERVE
8. EGAN STREET
9. MORTON AVENUE
10. LANEWAYS AND PEDESTRIAN CONNECTIONS



1. Koornang Road

Ensure Koornang Road is a welcoming destination for people to live, work, visit and play. Enhance Koornang Road as a walkable streetscape with diverse offerings and experiences in the day and at night through the following public realm recommendations:

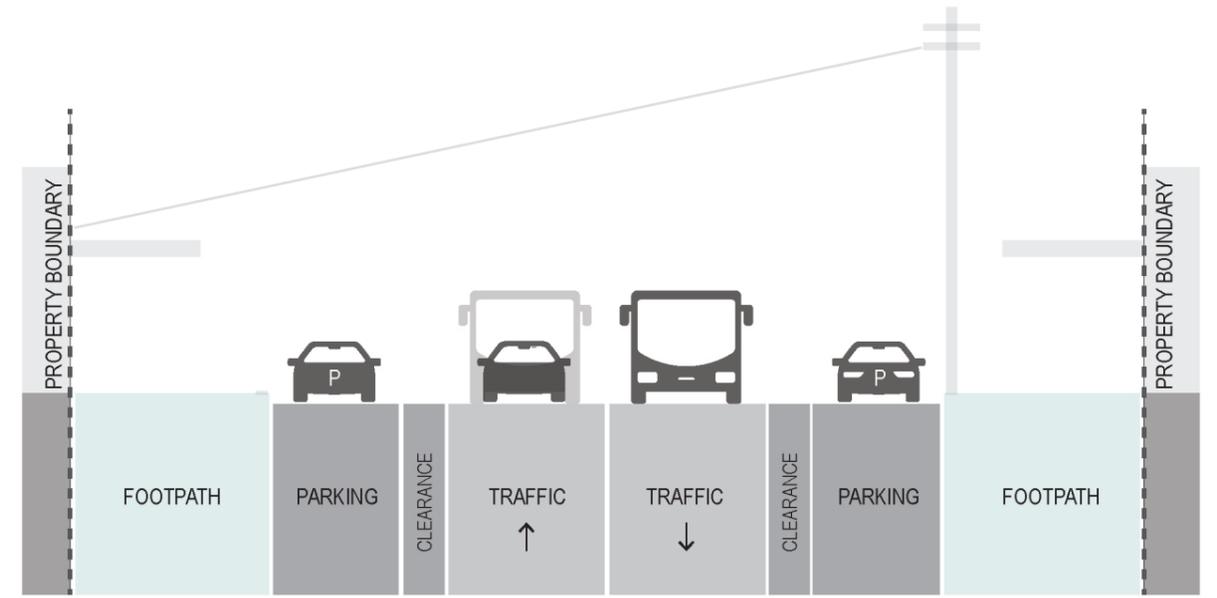
- In key sections of Koornang Road, widen or realign footpaths to improve pedestrian amenity and provide opportunities for additional outdoor dining.
- Introduce a consistent row of canopy trees in kerb outstands or on-street tree bays. Ensure that street tree outstands allow adequate soil volume to enable successful tree establishment.
- Introduce additional landscaping and consider appropriate locations for water sensitive urban design that addresses flood risk and improves water quality and security.
- Investigate ways to improve walkability in the centre through potential improvements to key pedestrian crossings points.
- Avoid additional vehicle crossovers.
- Investigate the feasibility of undergrounding or aerial bundling overhead cables in high pedestrian areas and areas identified for canopy tree planting (in conjunction with relevant authorities and land owners).
- Limit traffic speed to 30km per hour at all times to improve safety for people walking and riding bikes during the day and at night.
- Provide appropriate off-street parking and clear wayfinding. Simplify and consolidate signage where possible.
- Improve street furniture, amenities, bicycle parking, street lighting and paving.
- Protect pedestrian amenity by maintaining or increasing solar access to footpaths from future developments.
- In key locations, introduce additional colour and creativity to the streetscape with place-specific public art and placemaking activations.
- Improve pedestrian links between Koornang Road, Shepparson Avenue and Kokaribb Road. Encourage new developments to provide connections within their development from Koornang Road to the Kokaribb Road carpark, improving connectivity within the centre and activating the rear laneway.
- Improve bus stop amenity with lighting, wayfinding and sufficient space for people to wait.
- Protect and enhance the heritage character of the area. Major works in the heritage streetscape should be in consultation with Council's Heritage Planner.





EXISTING

**KOORNANG ROAD (BETWEEN NEERIM ROAD AND ROSSTOWN ROAD)
EXISTING STREETScape**

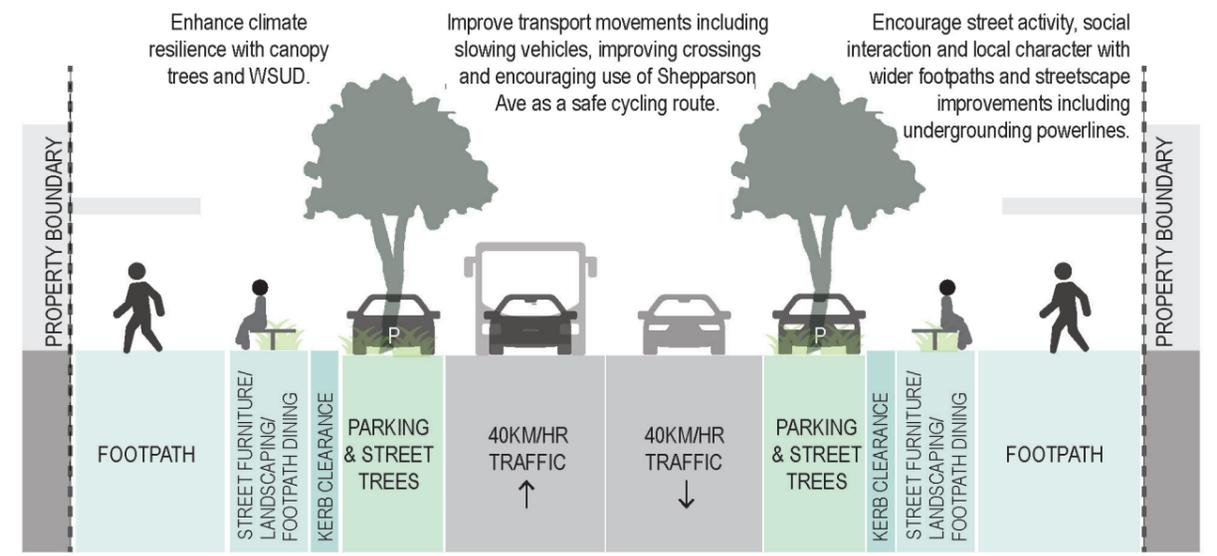


EXISTING TYPICAL STREET SECTION OF KOORNANG ROAD



CONCEPT ONLY

STREETScape CONCEPT



POTENTIAL TYPICAL STREET SECTION OF KOORNANG ROAD

Conceptual only, subject to further detailed investigation, design and approval.

2. Proposed park on Kokaribb Road

Create a new public park on Kokaribb Road on the Council owned carpark site. Ensure the new park is a safe, functional and welcoming public place for everyone, through the following public realm recommendations:

- Investigate relocating publicly accessible car parking in partnership with a future supermarket redevelopment or offset loss in alternative location within the centre.
- Enhance the pedestrian connection between Kokaribb Road and Koornang Road with a new, wide, tree-lined footpath extending from the end of Leaf Lane to Kokaribb Road.
- Introduce additional landscaping and consider appropriate locations for water sensitive urban design that addresses flood risk and improves water quality and security. Ensure that appropriate tree selection is undertaken to maximise tree canopy to align with the *Glen Eira Urban Forest Strategy*.
- For any future development on the supermarket site, provide active frontages on the ground floor encouraging outdoor dining to spill out onto the edge of the public park.
- Any future development on connecting properties must provide passive surveillance over the public park site during the day and at night.
- Any future development on the site should incorporate public toilet facilities on the ground floor to replace the existing toilets on Kokaribb Road. These should be designed with crime prevention through environmental design principles.
- Provide adequate public lighting in the park and consider opportunities for creative lighting installations that improve the look and feel of the park in the evening.
- Identify opportunities to enhance and activate the space with placemaking activities and place-specific public art.
- Formalise service laneway at rear of properties fronting Koornang Road.
- Align the new park design with the *Glen Eira Open Space Strategy Refresh 2020*.
- In the short term, consider activating the carpark site with temporary community events or markets. Linking to key priorities within the *draft Glen Eira Placemaking Framework*. Communicate with neighbouring properties to align with their servicing timeframes and requirements.

Site complexities/constraints:

- Future development of sites to the north and east will partially overshadow the site, despite solar access controls identified in the *Carnegie Built Form Framework 2022*. Locations of landscaping and canopy tree planting should consider future overshadowing on the northern edge of the park.
- Consider the existing and future access and servicing arrangements for the supermarket site and the commercial sites fronting Koornang Road. Maintain vehicle access to the rear of Koornang Road shops. Ensuring loading requirements of trucks servicing the supermarket are supported.
- Consider partnering with the land owner of the supermarket site to facilitate provision of public car parking including the relocation of existing parking from Council land. Managing interim car parking requirements during the construction phase should also be considered.
- Securing permanent pedestrian access from Koornang Road to the new park via Leaf Lane.



Proposed public park on Kokaribb Road



Existing carpark on Kokaribb Road

3. Library Carpark and Neerim Road Community Space

Investigate future options for the redevelopment of the at-grade carpark site (identified as the New Market Site in the *Carnegie Structure Plan 2018*), including the following public realm recommendations:

- Streetscape works to improve the pedestrian amenity of the laneway connecting Neerim Road, the library forecourt and Morton Avenue.
- Consider how pedestrian and vehicle conflicts could be better managed in this laneway to create a safe shared space for the Carnegie community.
- Consider how waste collection and screening of bins and services could be better managed in this laneway.
- Look for opportunities to incorporate tree planting in line with the *Glen Eira Urban Forest Strategy*.

Considerations for a future development on the library carpark site and Neerim Road community space site include:

- Consider how the spaces will connect and function as one site.
- Align future pedestrian connections with existing laneways that access Koornang Road.
- Activation of ground floor frontages to Neerim Road, Shepparson Avenue and the existing laneway.
- Provision of public car parking within any future development of the site.
- Appropriate vehicular, cycling, and pedestrian access to any future building on the site.
- Maintaining service access to the rear of Koornang Road shops.
- Minimising visual impact of any future development when viewed from Koornang Road, respecting the heritage significance of the Koornang Road streetscape.
- Identify areas that meet the requirements of 'public open space' as defined in Council's *Open Space Strategy*.
- Consider the relocation and potential integration of the childcare facility into a future development on the carpark site, to create a public plaza on the northern side of the library.
- Consider future needs of the library including expansion, community facilities, new access points etc.



Proposed redevelopment of library carparks



Existing laneway connecting library and carparks

4. Shepparson Avenue

Shepparson Avenue is identified as a safe cycling street and provides a link between Carnegie Station, the Djerring Trail and the broader network. The following public realm improvements are recommended for this street:

- Investigate removal of some on-street parking on one side, to widen the footpath.
- Improve pedestrian amenity on the desire line to/from Carnegie Station.
- Introduce cycling facilities and wayfinding to formalise the street as the main cycling connection to Djerring Trail.

Shepparson Ave and Morton Ave intersection



5. Library forecourt (Jersey Parade Reserve)

Protect and enhance pedestrian amenity in this community space through the following public realm improvements:

- Protect solar access to the space to safeguard the survival of large trees and to ensure the space remains comfortable for pedestrians.
- Provision of sufficient public seating and street furniture.
- Mitigation of pedestrian and cycling conflicts at the intersection between the forecourt and the rear laneway. Ensure that the space remains free of motor vehicles.
- Consider integration of permeable materials in the space.

Library forecourt public space



6. Djerring Trail and Railway Reserve

Enhance the amenity and functionality of the Djerring Trail and Railway Reserve through the following public realm improvements:

- Protect solar access in the space to ensure the trail remains comfortable for people walking or cycling.
- Improve wayfinding to and along the Djerring Trail.
- Use wayfinding and signage to emphasise the significance of place.
- Consider speed calming measures for cyclists at conflict points, particularly where there are high pedestrian volumes e.g. near the station entrance.
- Consider locations for break/stopping points along the trail for people walking and cycling.

Public space in under the skyrail



7. Woorayl Street Reserve

Protect and improve the amenity of the green space and playground in Woorayl Street, through the following public realm considerations:

- Ensure protection of the Council's Classified Remnant Red Gums (Eucalyptus camaldulensis) in line with requirements of Glen Eira's Classified Tree Local Law.
- Maintain solar access provision to the green space.
- Maintain passive surveillance over the playground during the day and at night.

Significant trees in Carnegie



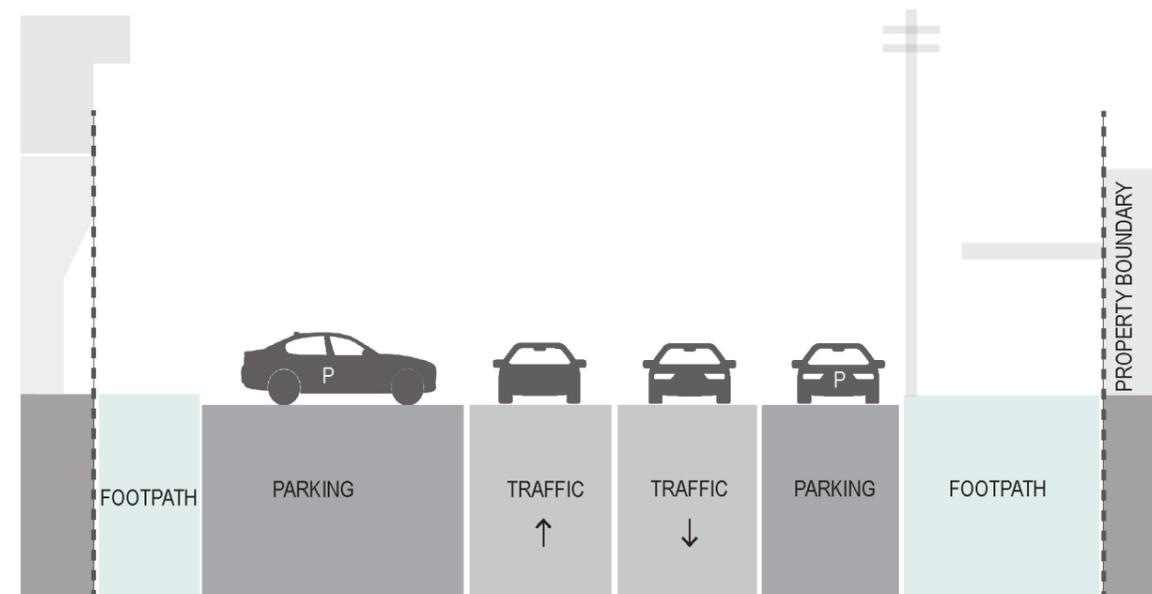
8. Egan Street

Egan Street will become an important street for people living in the urban renewal area, due to the high traffic volumes on Dandenong Road. This street will provide a liveable, walkable, slow road environment to prioritise pedestrians, on-street dining and street greening. This important street will connect the urban renewal precinct to the Carnegie Activity Centre. Consider the following public realm recommendations:

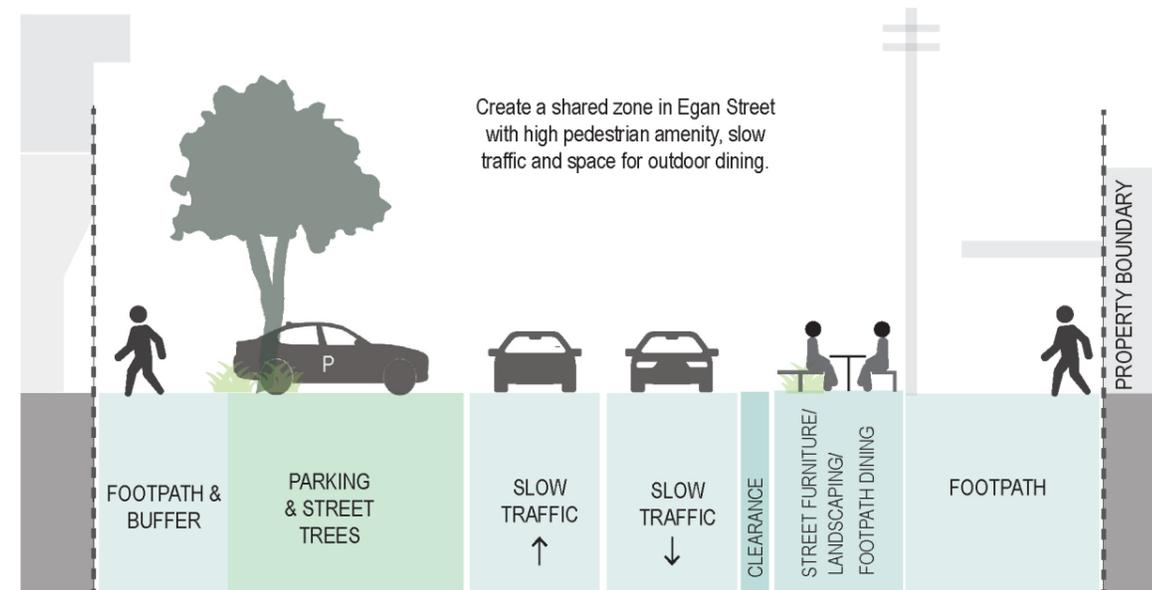
- Encourage a vibrant streetscape with active frontages, passive surveillance, and alfresco dining along the northern footpath to create a walkable street for the increasing number of residents in the area.
- Create a safe street environment with high pedestrian amenity.
- Consider streetscape greening that is appropriate in shaded areas, due to likely overshadowing of the northern footpath from future development.
- Consider planting of canopy trees on the southern side of Egan Street.
- Create a walkable streetscape with continuous awnings along the length of the northern footpath, providing shelter from wind and rain.
- Improve the connection with the new public recreation space under the skyrail and the Djerring Trail.
- Provide ample bicycle parking to encourage people to stop and visit local shops and cafes on Egan Street.
- Avoid, consolidate or minimise additional vehicle crossovers along this street.



Egan Street looking West away from Koornang Road.



EXISTING TYPICAL STREET SECTION OF EGAN STREET



POTENTIAL TYPICAL STREET SECTION OF EGAN STREET

Conceptual only, subject to further detailed investigation, design and approval.

9. Morton Avenue

Convert Morton Avenue to a one-way street (eastbound) and improve pedestrian amenity through the following public realm improvements:

- Create a vibrant and welcoming shared streetscape with coherent wayfinding, active frontages, and alfresco dining spaces.
- Investigate traffic calming devices to improve safety of all road users and prioritise pedestrians.
- Create a walkable streetscape by ensuring new developments incorporate continuous awnings along the length of the southern footpath, providing shelter from wind and rain.
- Ensure there is passive surveillance over the street during the day and at night.
- Plant a continuous row of canopy trees along the length of the street and consider opportunities for water sensitive urban design.
- Improve cycling facilities in the street by formalising the connection between the Shepperson Avenue safe cycling street and the Djerring Trail.
- Identify opportunities to inject colour and activity into the streetscape with place-specific public art.

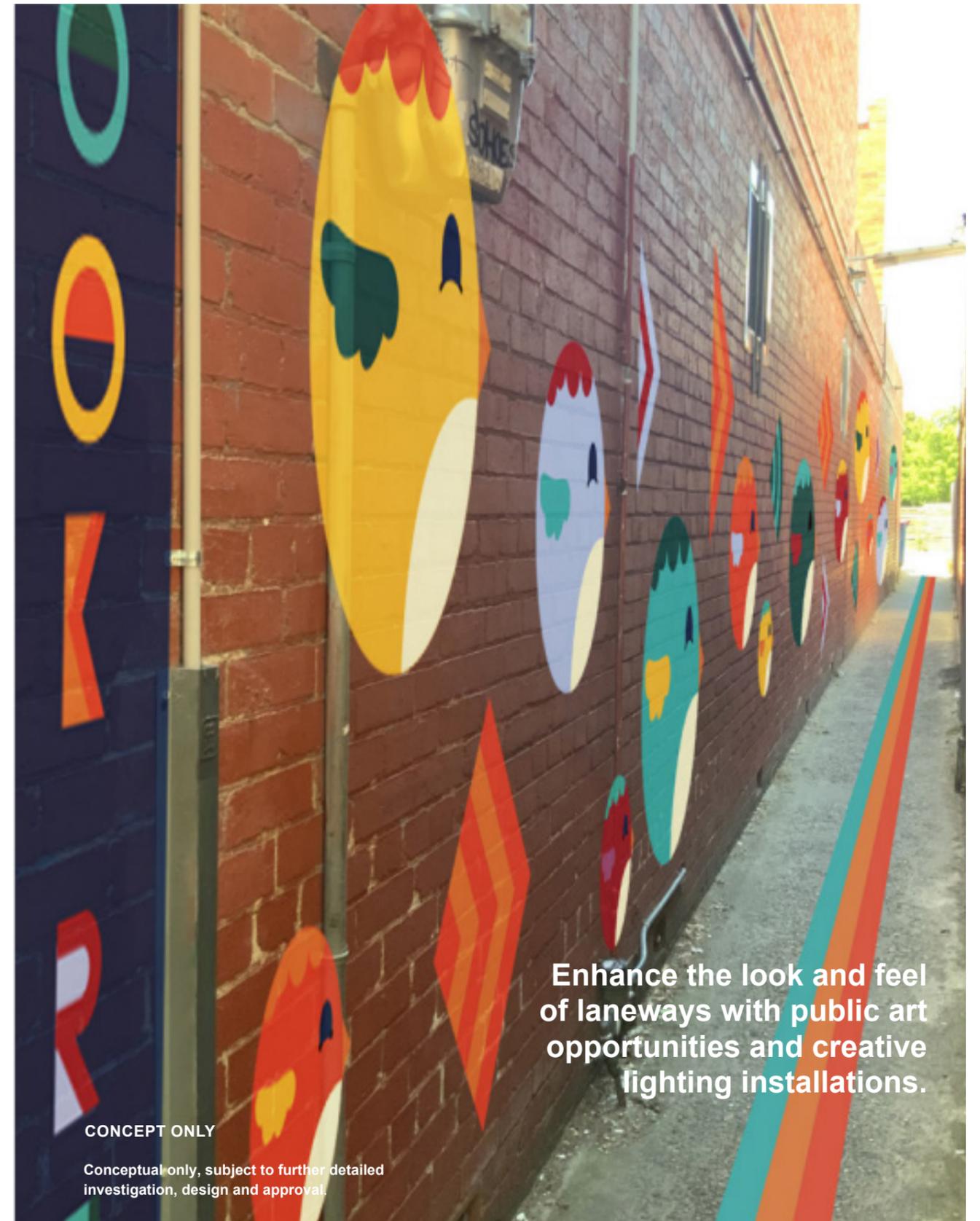
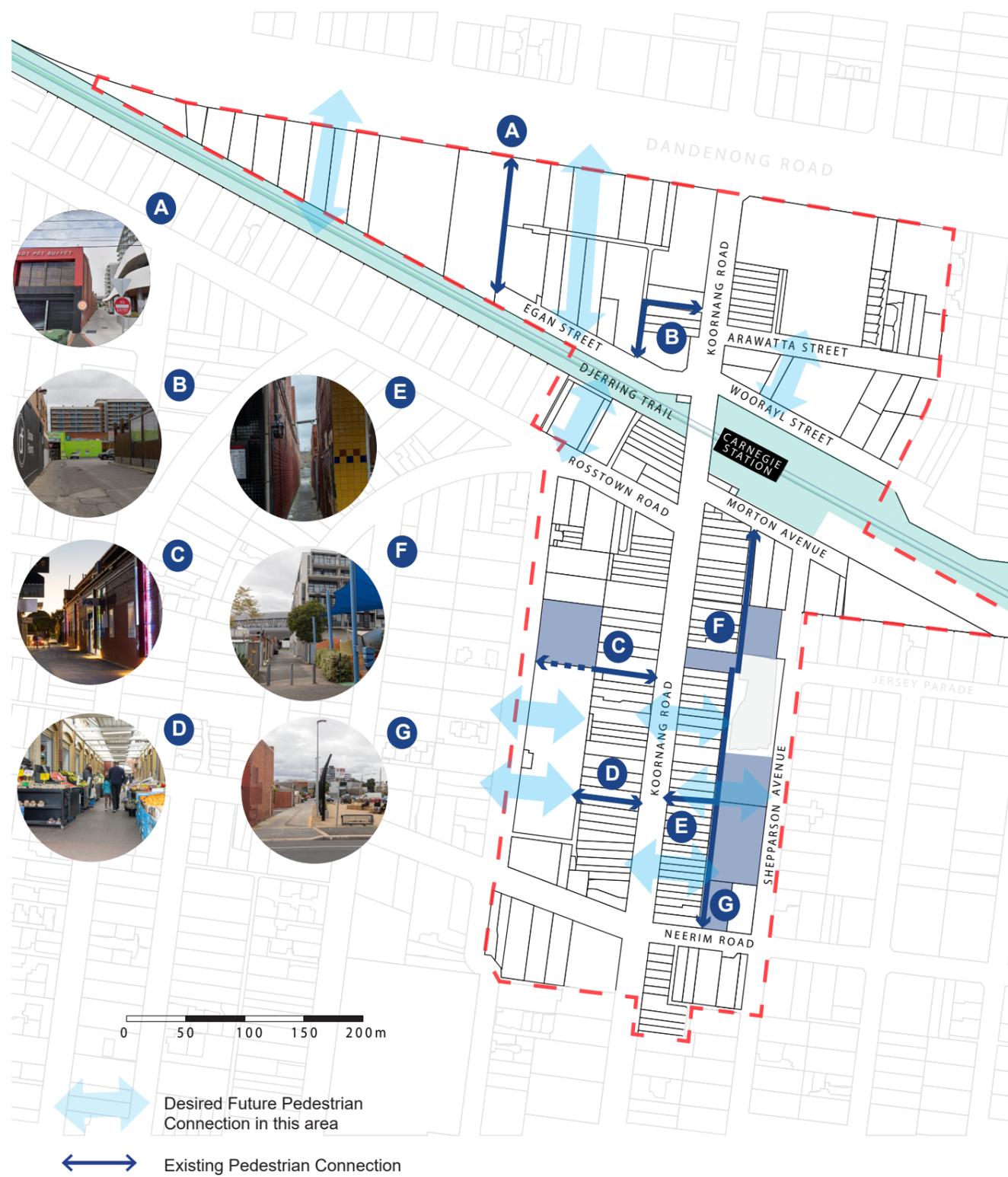
Morton Avenue facing West towards Koornang Road.



10. Laneways and pedestrian connections

Improve laneways, arcades and pedestrian connectivity throughout the centre through the following public realm improvements:

- Ensure laneways are publicly accessible 24 hours a day.
- Encourage arcades to be publicly accessible during the day and allow an accessible path of travel. For public safety, arcades should be physically closed in the evening and early morning.
- Ensure laneways are visually open to the sky and have clear visual connections from street to street.
- Provide an accessible path of travel from street to street and wayfinding signage identifying the street to which the laneway/arcade connects.
- Ensure pedestrian laneways are safe, well lit, have good passive surveillance during the day and at night, and are free from entrapment spaces.
- Enhance the look and feel of laneways with public art opportunities including creative lighting installations.
- Encourage ground floor active frontages and where space permits, outdoor dining opportunities to activate laneways and pedestrian links.
- Encourage second storey active frontages and visual connections during the day and at night.
- New laneways or pedestrian connections must provide sufficient width (minimum three metres) clear of obstructions to support both movement and stopping spaces, incorporate active frontages, provide good pedestrian amenity and safety.
- Encourage new developments to provide connections within their development for pedestrians to access the rear of the site. This can be internal or external and should include passive surveillance.



8. NEXT STEPS

The following next steps are recommended as a part of this review:

Introduce planning controls which:

- Protect the public realm from adverse overshadowing from future developments.
- Improve safety of the public realm through passive surveillance and crime prevention through environmental design principles.
- Improve the walkability of the centre by supporting development that enhances the fine-grain streetscape with active frontages, continuous awnings, opportunities for footpath dining and high pedestrian amenity.
- Protect the public realm from the adverse effects of vehicles while addressing the needs of the community through sufficient parking provision.
- Improve the pedestrian permeability of the centre by increasing and enhancing pedestrian connections.
- Encourage walking, cycling and public transport use over private car use.
- Grow the urban forest and address the climate emergency.

Complete additional studies including:

- **Planning for opportunity sites in Carnegie.**
Secure council direction for the two opportunity sites, the library carpark and Kokaribb Road carpark. This should include:
 - Undertaking community infrastructure assessment for the Library carpark site and gaining Council direction for future development on this site.
 - Support an appropriate redevelopment of the Kokaribb Road supermarket site that incorporates the parking currently provided in the council carpark and enables council to develop a new park on the land to the north, with consideration given to the complexities of the site.
- Identify ways to enhance Carnegie's evening economy and public realm activity, linking to framework objective of Economic Prosperity in Council's draft *Placemaking Framework*.
- Undertake a simple people and public life study to understand how people use the library forecourt and Koornang Road and requirements for street furniture and other public realm improvements.

Capital projects to consider for long term investment include:

- Kokaribb Park - This project is likely to be linked to the redevelopment of the neighbouring supermarket site.
- Library carpark south - Update development studies for the site and consider budget requirements for this future development.

Prioritise the following public realm capital works projects:

- **Koornang Road Streetscape Improvements**

Improve pedestrian crossings, widen footpaths at key locations improving pedestrian amenity and providing more space for outdoor dining opportunities, street furniture and bike parking upgrades, repave footpaths, plant large canopy trees in kerb outstands or on-street tree bays, consolidate signage and improve wayfinding. Reduce crossing widths on side streets, Limit traffic speed to 30km/hr at all times. Investigate feasibility of undergrounding powerlines, improving street lighting and opportunities for WSUD.

- **Urban Forest**

Undertake canopy tree planting program to increase urban forest in the Carnegie activity centre.

- **Shepparson Avenue Safe Cycling Street**

Introduce formal cycling facilities on Shepparson Avenue and Morton Avenue, connecting people riding bikes to the Djerring Trail. Consider widening the footpath to remove the pedestrian pinchpoint on the western footpath of Shepparson Avenue near Morton Avenue. Introduce one-way street on Morton Avenue.

- **Laneway Improvements**

Improve the amenity and safety of existing pedestrian links and laneways through lighting, public art and wayfinding.

- **Library Laneway Improvements**

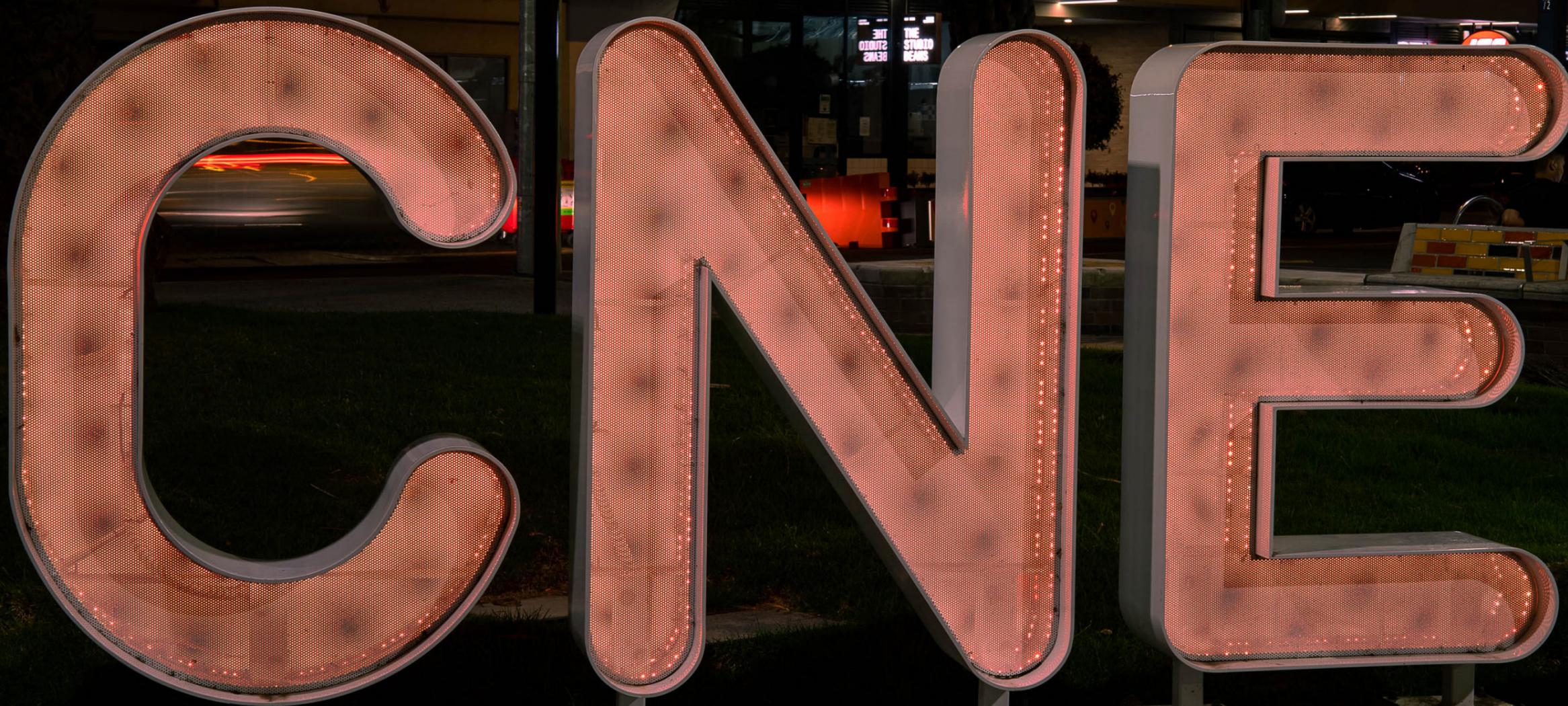
Improve the laneway treatment and investigate improvements to waste collection to improve the pedestrian link between the library carpark and rear of the Koornang Road shops.

- **Egan Street**

Complete a streetscape renewal project to create a safe pedestrian environment on Egan Street aligning with construction of new developments.

- **Djerring Trail**

Explore ways to enhance functionality of Djerring trail.



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