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Keilor Road L07 (Hoffman Rd to Cooper St) Streetscape Plan 2022/2023



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Moonee Valley City Council respectfully acknowledges the traditional custodians of this land, the Wurundjeri Woi-wurrung people of the Kulin Nation, their spirits, ancestors, elders and community members past and present.

Council also extends this respect to Elders and descendants of other Aboriginal and Torres Straights Island peoples in Moonee Valley.

# Introduction

## Background

“Keilor Road” has a long history as an important transport link which connected the goldfields of North Western Victoria to Melbourne. Today, Keilor Road connects the M79 Calder Freeway and Mt Alexander Road. The Department of Transport and Planning (DTP) is the road authority and under The Road Management Act 2004 it is local Council’s responsibility to manage the pedestrian realm (footpath).

Niddrie/Keilor Road Activity Centre is one of six Major Activity Centres in Moonee Valley identified in Plan Melbourne 2017-2050. It holds an important role as the destination for retail, business, cultural and entertainment uses. It is well serviced by tram, and with its proximity to Melbourne CBD, Essendon Airport and Melbourne International Airport, it is well placed to accommodate a growing and changing population.

The MV2040 Strategy is Council’s long term plan for improving the health, vibrancy and resilience of our city. Council is moving towards a neighbourhood planning approach to create a more walkable, inclusive, vibrant and healthy city. MV2040 identifies the Keilor Road/Essendon North neighbourhood as one of 13 neighbourhoods in Moonee Valley. MV2040 states that “Keilor Road will be a revitalised and inviting centre with a mix of small and large businesses, cafes and restaurants supported by a strong transport network”.

MV2040 Urban Design Focus for Keilor Road includes the following:

- Encourage a mix of uses which contribute to the vibrancy of the day and night time economy along Keilor Road
- Beautify Keilor Road, and encourage activation and greening
- Ensure an attractive and green public realm through consistent urban design

Other relevant works that have been prepared by Council include:

- Local Area Transport Management Plan
- Connected Action Plan
- Open Space Strategy 2009
- Footpath Trading Policy 2018
- Tree Management Plan 2018-2022
- Keilor Road (Niddrie) Streetscape Plan 2020

## Project Context

The Keilor Road/Essendon North neighbourhood is expected to undergo significant growth in the period towards 2040. Most new dwellings are likely to be in the form of apartment developments built along Keilor Road and Mt Alexander Road.

While it is expected that new developments may attract a younger population, it is also forecasted to accommodate an increased number of empty nesters, mature families, older lone persons and persons in care accommodation. With limited land available for open space to cater for the growing and diversifying population, it is becoming increasingly important for the urbanised public realm, including streetscapes, to provide some of the open space functions such as shade, seating and greenery.

This project focuses on an improved pedestrian environment and experience of the section of Keilor Road between Hoffmans Road and Cooper Street in Essendon North. The project aims to have a positive impact on everyone in the community, particularly the trading community. It is also envisaged that the more accessible and inviting streetscape will cater for the vulnerable populations within the community, who often make small, varied and frequent trips around their neighbourhood on foot and public transport. This may include people with limited mobility, women with small children and people of culturally and ethnically diverse background.

In late 2019 Council declared a Climate Emergency. Keilor Road Streetscape Plan responds to this by placing a stronger focus on sustainable streetscape design that benefits the future population. This includes more shade trees and garden planting, permeable pavements and WSUD (Water Sensitive Urban Design) treatments such as passive irrigation to garden beds.

## Streetscape Plan

Following from the Keilor Road (Niddrie) Streetscape Plan 2020, which focused on the area outlined in MV2040 as the “Western End of Keilor Road” in Niddrie, this plan focuses on the adjoining section of Keilor Road, between Hoffmans Road and Cooper Street in North Essendon.

The streetscape plan provides direction and design principles to guide the future Keilor Road streetscape improvement works. It proposes a cohesive design intent to create a safer, green, attractive and vibrant pedestrian experience while also resolving existing issues with site specific design. The intent is to capture and enhance the unique locality and character of Keilor Road/Essendon North.

Upon completion of the streetscape plan, it is expected that the concept design will be further developed in detail and constructed in a staged approach over the coming years. This will be subject to future Council budget review and adjustment.

# History

## Pre-Settlement

Evidence indicates Indigenous people inhabited the Keilor area for at least 40,000 years – a span of 1600 generations, making it among the oldest known inhabited sites in Australia.

The project site is located just east of Keilor in Victorian Volcanic Plain bio-region. Pre 1750, the EVC (Ecological Vegetation Class) of the site is Plains Grasslands and Chenopod Shrublands (EVC132). It is described as a treeless environment with low growing vegetation, mostly less than 1m tall, dominated by largely graminoid (grasses and other grass-like plants) and herbs which occupied fertile cracking basalt soils that were prone to seasonal waterlogging. This location would receive at least 500mm of rainfall each year.

During the latter stages of the ice age, megafaunas roamed in this area. Diprotodon (Giant Wombat), Thylacoleo (Marsupial Lion), Palorchestes Azael and Procoptodon (Short-Faced Kangaroo) were among them. These animals and many others, such as wallabies, bandicoots, freshwater shellfish, possums, echidnas, swans and bush turkeys, along with different plants including the yam daisy, provided a rich harvest for the Aboriginal people who lived in the area.

## Formation of Keilor Road

Keilor Road “was formed in the very early days of settlement, and so named as leading to the village of Keilor. The name [Keilor] is said to be from a Gaelic word meaning ‘plenty.’” (Frost, L. & Essendon Historical Society. Street names of Essendon, Moonee Ponds, Ascot Vale and Strathmore. Moonee Ponds, Vic. : Essendon Historical Society, 1996 (2001 ed.), p. 24.)

The gold rush era made Mt Alexander Road and Keilor Road one of the most used thoroughfares from Melbourne to North West Victoria. “Turning into Keilor Road at the Lincolnshire Arms [from Mt Alexander Road], the remainder of the journey to the diggings was through more or less hilly country which tried the stamina of horses and the temper of the drivers. There were places of entertainment and ‘beer shops’ at intervals along the road” (p. 3). (J McJunkin, History of Essendon 1948 (manuscript received by Essendon Council, 11 December 1921).

## 1920's - Urban Development

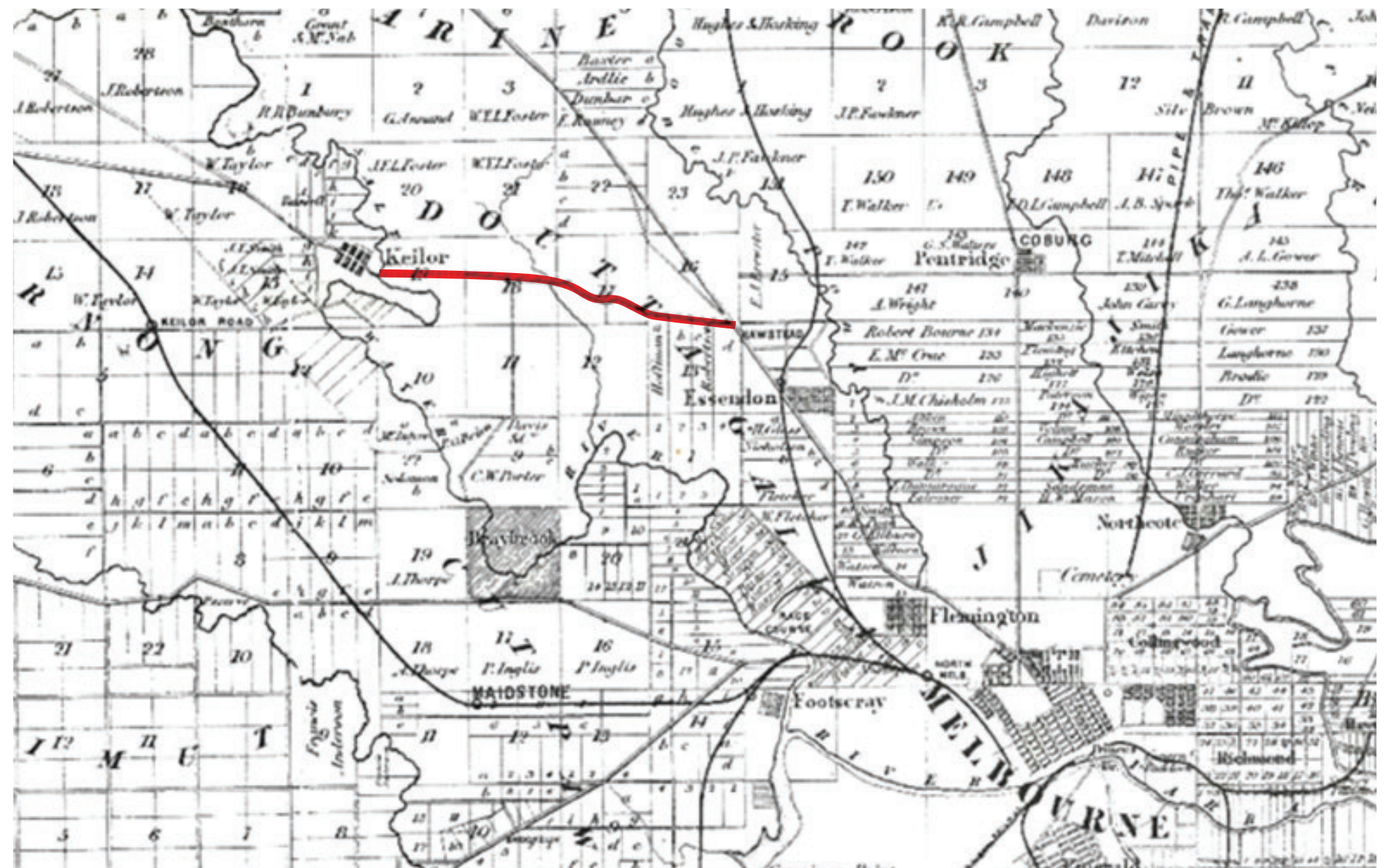
In the 1920's cattle were still being driven down Keilor Road and privately-run sale yards at the corner of Keilor and Bulla Roads continued to auction cattle (Moonee Valley Thematic Environmental History, 2012)

“The demand for housing coupled with improved roads, bridges and public transport into the north-west part of the City of Moonee Valley (then part of Keilor Shire) led to the opening up of new suburbs. The extension of the electric tram line to the Keilor Road State School in 1923, and further to Niddrie in 1937 and the Essendon Airport in 1943, stimulated new subdivisions (Heritage Alliance, 2005:27).

Growth moved slowly westward, from the Mt Alexander Road junction, with a shopping strip developed there in the late interwar period. In large part, commercial development followed the route of the tramway.

The Essendon electric tram service arrived at the Mt Alexander Road junction in 1906, and was extended about a kilometre along Keilor Road to Gillies Street in 1923. In 1937 the line was extended as far as Birdwood Street, Essendon North, and then further to the Essendon Airport in 1943 (Heritage Alliance, 2005:18).

By 1945 there was fairly dense commercial development along Keilor Road as far as Gilbertson Street, with residential development to the south and north.” (Moonee Valley City Council, Moonee Valley Heritage Study 2015 p.261)



▲ Jeff Leeuwenburg, The Making of Melbourne in Maps, Longman Cheshire, 1987, p 13. Parish Plan of Melbourne Region, 1850-51 Part map. Keilor Road is highlighted in red

# Site Analysis - land use and built form

Properties fronting onto Keilor Road are consistently zoned Commercial 1. The land use and built form including interface treatment and setbacks along this section of Keilor Road vary widely. This ranges from traditional style small retail to big box and drive-through retail, through to single storey residential to multi storey medium density residential. This is a major contributing factor to the lack of cohesion of built form along the streetscape.

While new intensive and higher density developments are forecasted to occur along Keilor Road corridor, Keilor Road Activity Centre Structure Plan 2011 calls to ensure consistent fine grain street character and a strong and consistent ground floor activation along Keilor Road. This direction can be further reinforced by consistent, robust yet versatile streetscape that will work with a variety of built form, styles, land use and interface conditions.

## Heritage Buildings

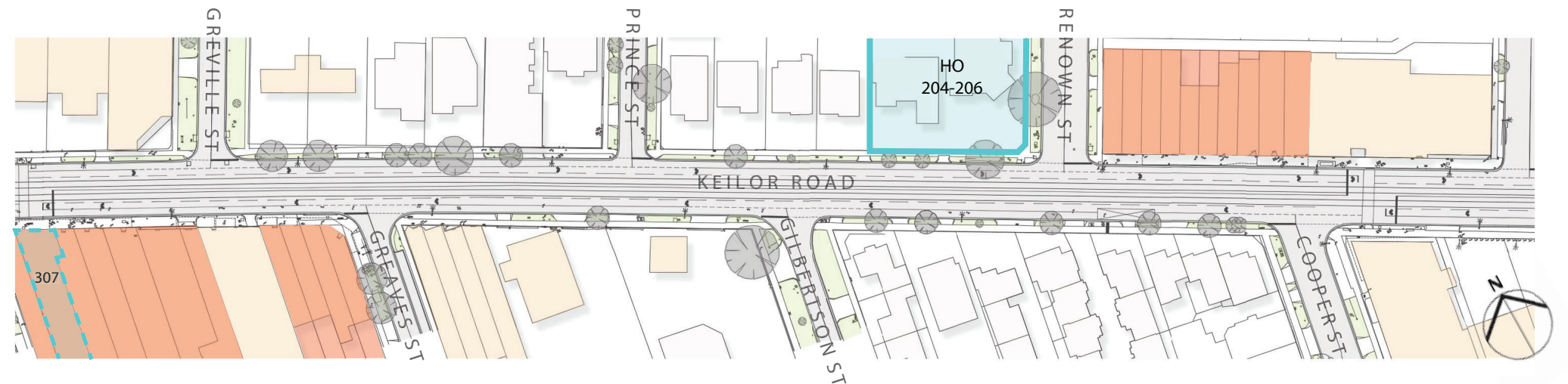
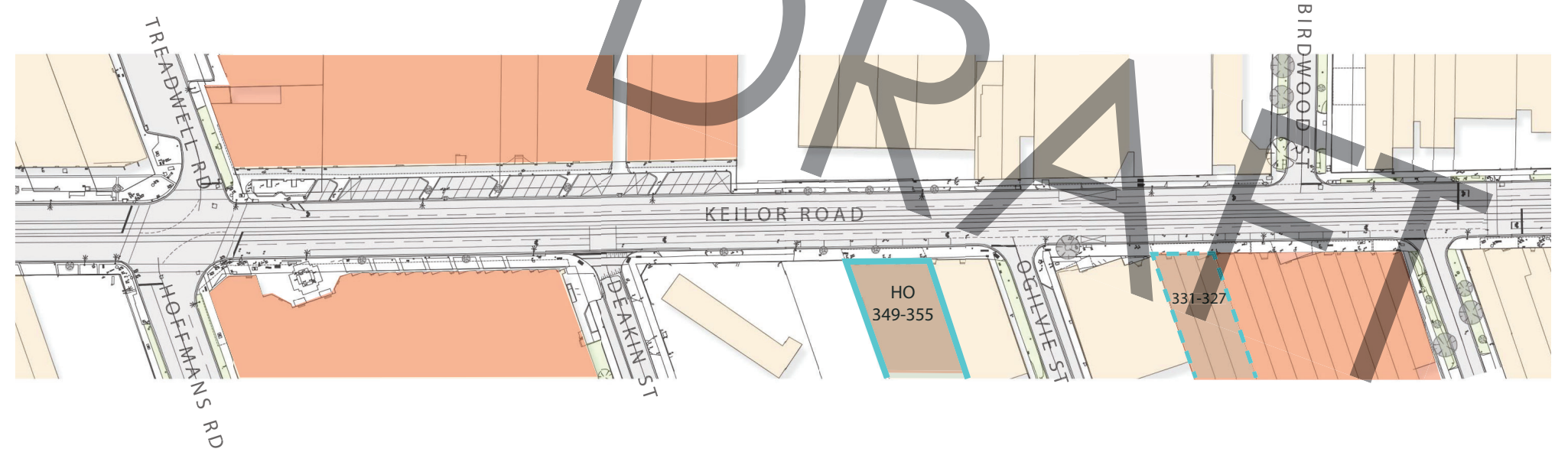
There are two places on Moonee Valley Heritage Overlay within the project area:

### Post War:

The buildings at 349-355 Keilor Road consists of a row of two storey brick shops designed by WAM Blackett of architectural firm Gawler, Churcher & Blackett. This building was constructed in 1951 and is one of the very few post-war places on the Heritage Overlay. These post war shops were constructed as part of the development of Keilor Road after World War 2. Other typical brick buildings of the same style and era are 307 and 331-327 Keilor Road.

### Edwardian:

Edwardian: The Federation house (typically 1890-1915) of grand proportions and 1940's dairy (Oakland's Park Dairy) on 204-206 Keilor Road, are representative of their type and period, recalling the period when Keilor Road shopping centre and the introduction of the tramway were established to service the suburban context.



▲ 349-355 Keilor Road post war brick shops



▲ 204-206 Keilor Road Edwardian Federation house

- Big box retail/service
- Traditional style small grain retail with awning over Keilor Road footpath
- Residential/traditional residential building used for office services
- HO Heritage Overlay
- Building of heritage interest (assessed in Gap study and deemed not significant)

# Site Analysis - pedestrian connection

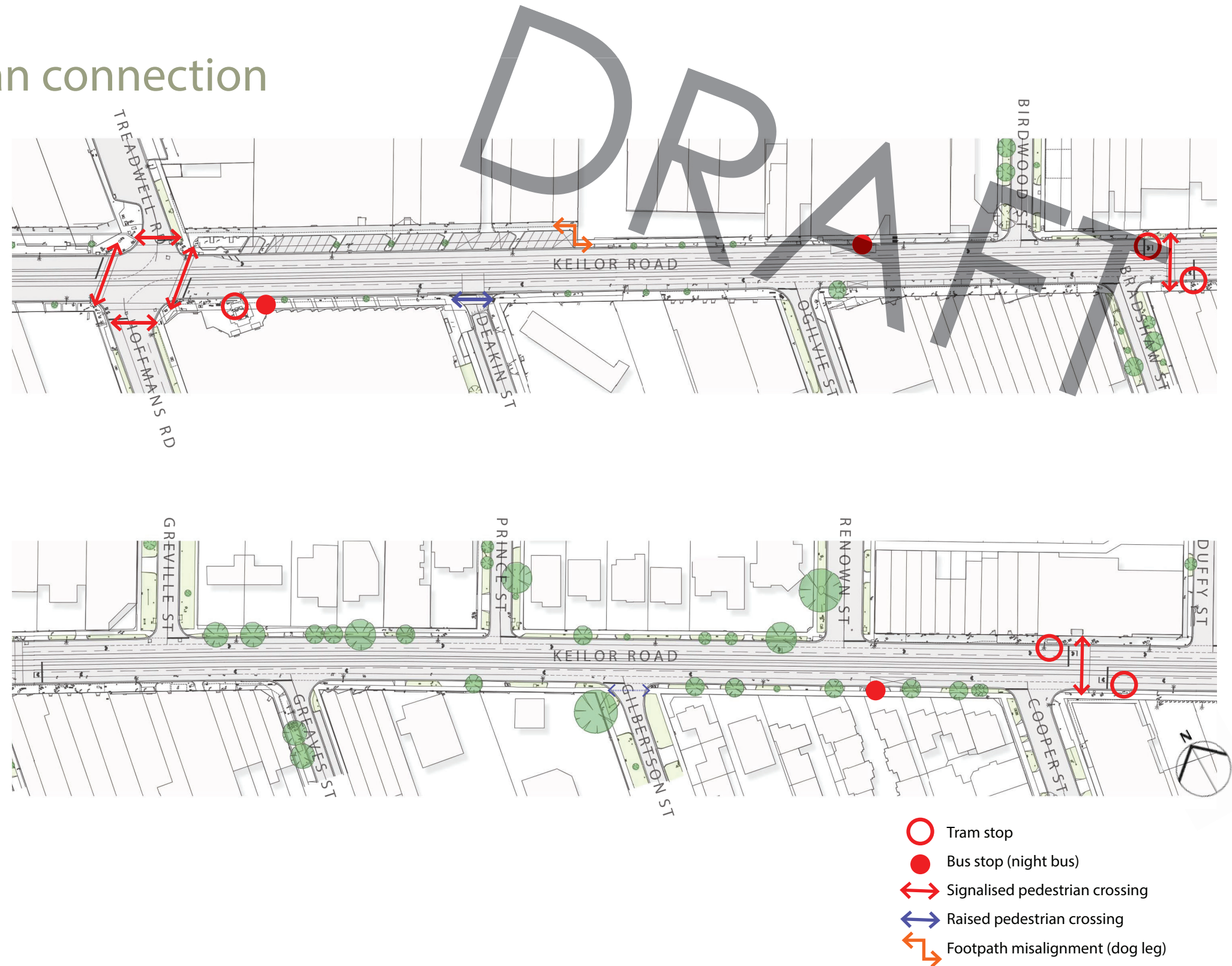
Keilor Road is heavily dominated by vehicle and tram use and consists of a carriageway, on-street car parking, tram track and associated overhead wires. Currently there is little emphasis on visual amenity and pedestrian experience.

Pedestrian connectivity is limited, particularly in the north-south direction across Keilor Road, due to the presence of large volumes of vehicle traffic along Keilor Road. Three safe signalised pedestrian crossing points align with tram stops at approximately 350m intervals. These crossing points in combination with the public transport stops present a design opportunity to improve the pedestrian experience.

The footpath running east-west has good visibility and is easy to navigate, with the exception of a dog leg to the footpath in between 312 and 302-308 Keilor Road. The road also has a number of intersections with adjoining side streets. Among these intersections, there is only one raised (at grade) pedestrian crossing at Deakin Street.

The footpath along Keilor Road has multiple vehicular crossovers. As the density of development increases along Keilor Road, there is the potential for additional vehicle movements directly from Keilor Road that could contribute to increased congestion, as well as conflicts with increased number of pedestrians using the footpath. To improve safety and reduce conflict, it is recommended that future private developments which front onto Keilor Road locate vehicle entrances to the rear or side streets and consolidate, remove and minimise direct entrances onto Keilor Road.

In September 2022, Victorian State Government announced the rollout of Next Gen trams starting from 2025. Next Gen trams have a lower floor, which provide better access for people with mobility needs and those travelling with prams, as well as offering improved capacity. Tram line 59 that services Keilor Road is one of the first routes to see the rollout. The proposed streetscape design will take this into consideration, and will be further developed in liaison with relevant Government agencies.



# Site Analysis - street furniture

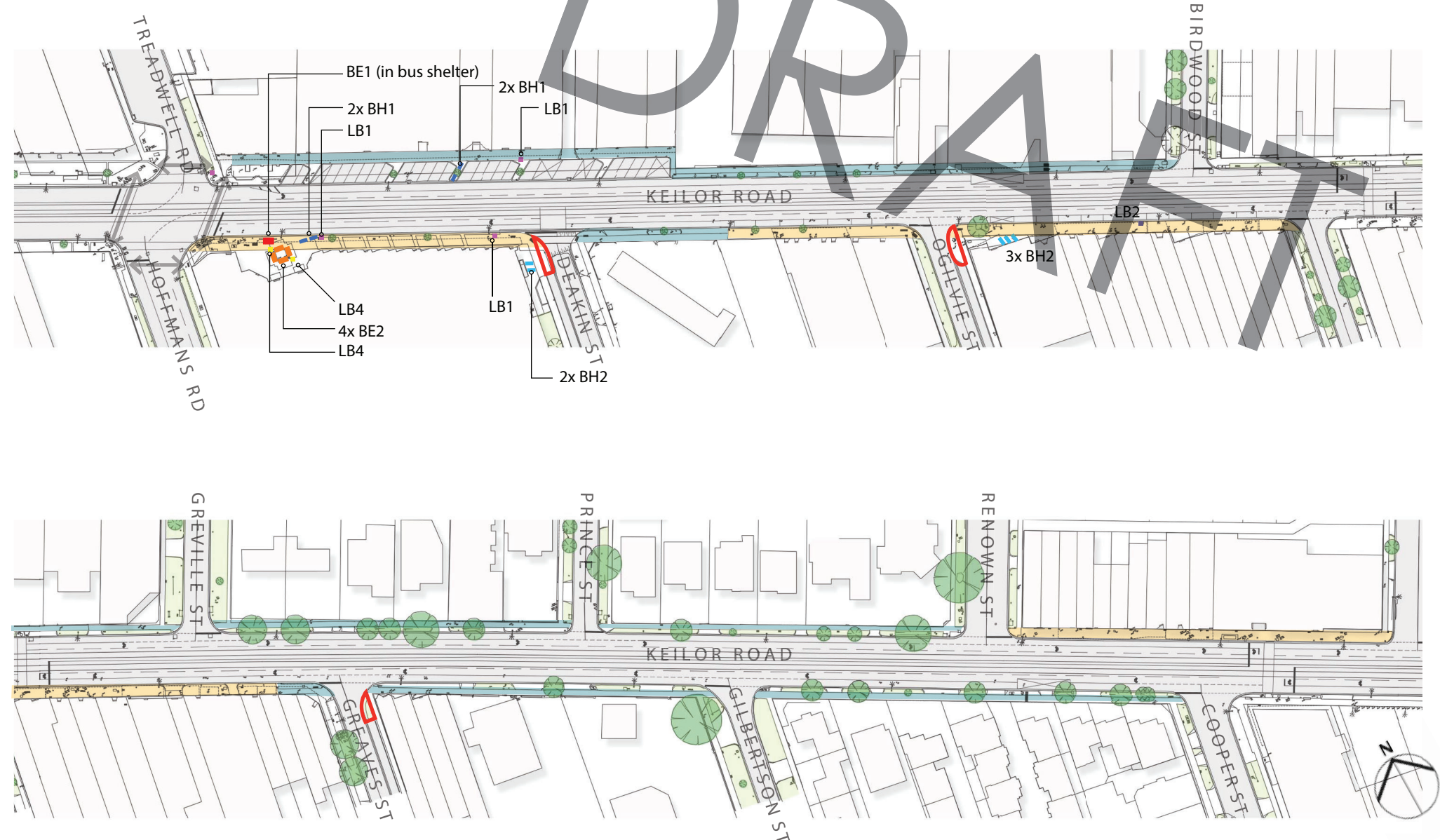
The large open forecourt at the entrance to Niddrie Central Shopping Centre provides an excellent opportunity to improve pedestrian amenity and experience in this section of Keilor Road. Beyond this, there is a significant lack of pedestrian amenity and bicycle infrastructure, which includes an inconsistent mix of design, material and features.

One of the major constraints is the lack of available space for pedestrians to rest and gather. Although the space is limited along Keilor Road itself, opportunities may exist at the intersections to the adjacent side streets to provide for pedestrian rest stops.

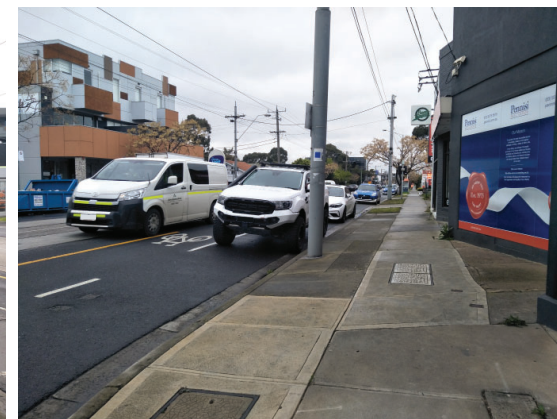
The existing footpath paving is inconsistent with the following typical surface treatments:

- Asphalt (with or without feature red brick banding) in retail areas with no nature strip
- Non-decorative in-situ concrete paving with nature strips in residential areas
- Feature red brick paving at the forecourt of Niddrie Central Shopping Centre

Existing street lighting along this section of Keilor Road is Jemená's standard lighting fixture.



- BE1 ■ Bench in public realm (5, of 2 are part of bus shelter)
- BE2 ■ Bench in private land (4)
- BH1 ■ Bike hoop in public realm (4)
- BH2 ■ Bike hoop in private land (5)
- LB1 ■ Litter bin in public realm - MVCC standard stainless steel (3)
- LB2 ■ Litter bin in public realm - MVCC old standard (1)
- LB3 ■ Litter bin in public realm - wheelie bin (3)
- LB4 ■ Litter bin in private land (2)
- } Existing kerb outstand at side street intersection
- Asphalt footpath
- Concrete footpath

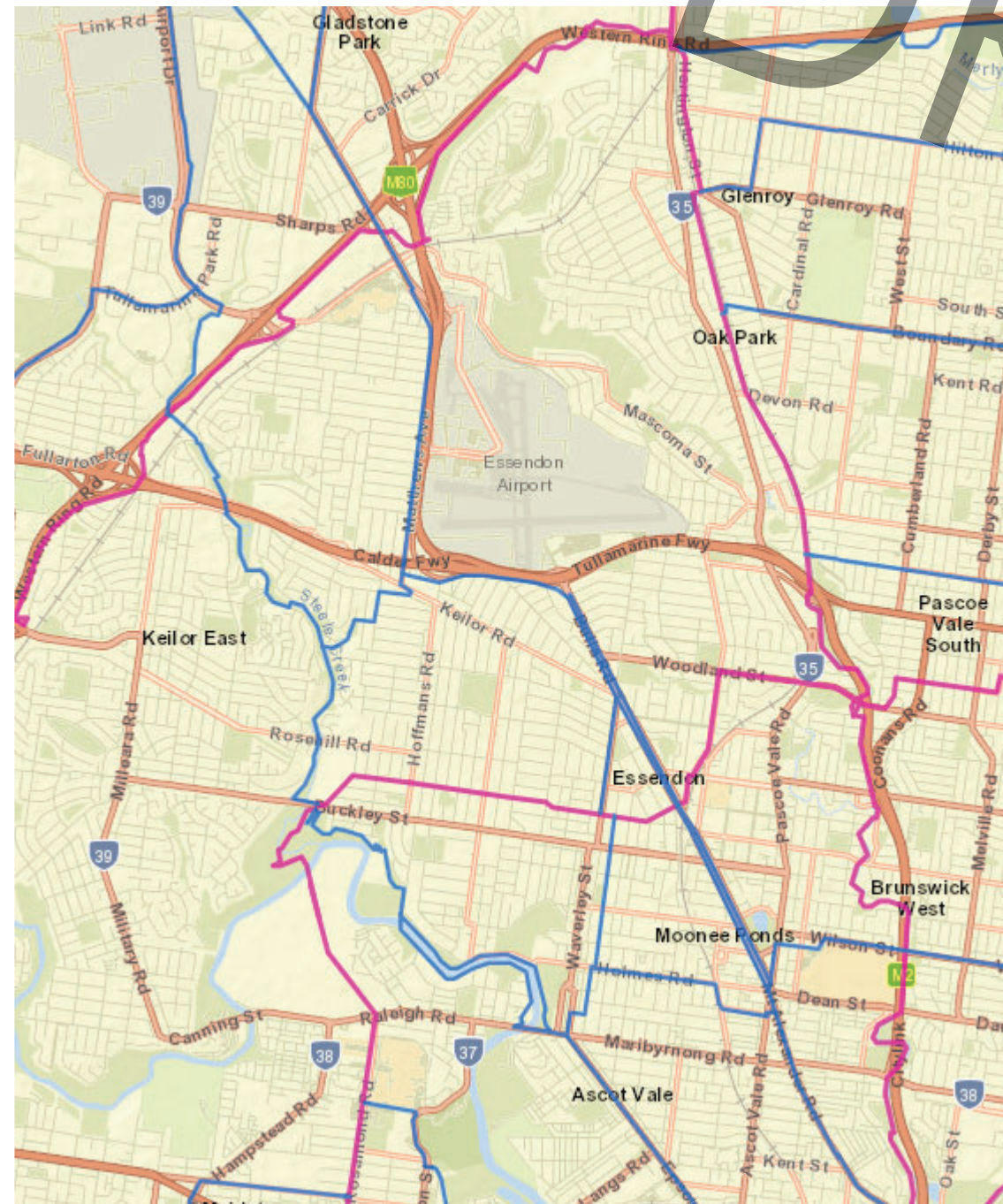


# Site Analysis - cycle network

MV2040 proposes a well-connected network of on-street protected bike lanes that makes cycling the fastest, safest and easiest way to make trips.

The current cycle lane on Keilor Road is a 1.8m wide space in between vehicle carriageway and on-street parking bays. It has no physical or visual (by means of coloured road painting) separation to vehicular carriageway/parking. Considering the amount of vehicle traffic on Keilor Road combined with tram, bus and vehicle movements in and out of on-street parking bays that cross the provided bike lanes, it is not a safe arrangement for cyclists. As such, cyclists tend not to use Keilor Road.

Keilor Road is not designated as a Strategic Cycling Corridor by the Department of Transport and Planning (DTP). A Strategic Cycling Corridor is a cycling network designed to support the needs of commuter trips (to work or education) and other important trips, such as to stations, shops or schools. However, Keilor Road is a central spine to the neighbourhood of Keilor Road/Essendon North. Improving cyclability of Keilor Road itself as well as local cyclability to Keilor Road from the surrounding streets, and vice versa, will greatly support the MV2040 vision for a sustainable and healthy 20 minutes neighbourhood.



Strategic Cycle Corridor Network - DTP





# Site Analysis - trees

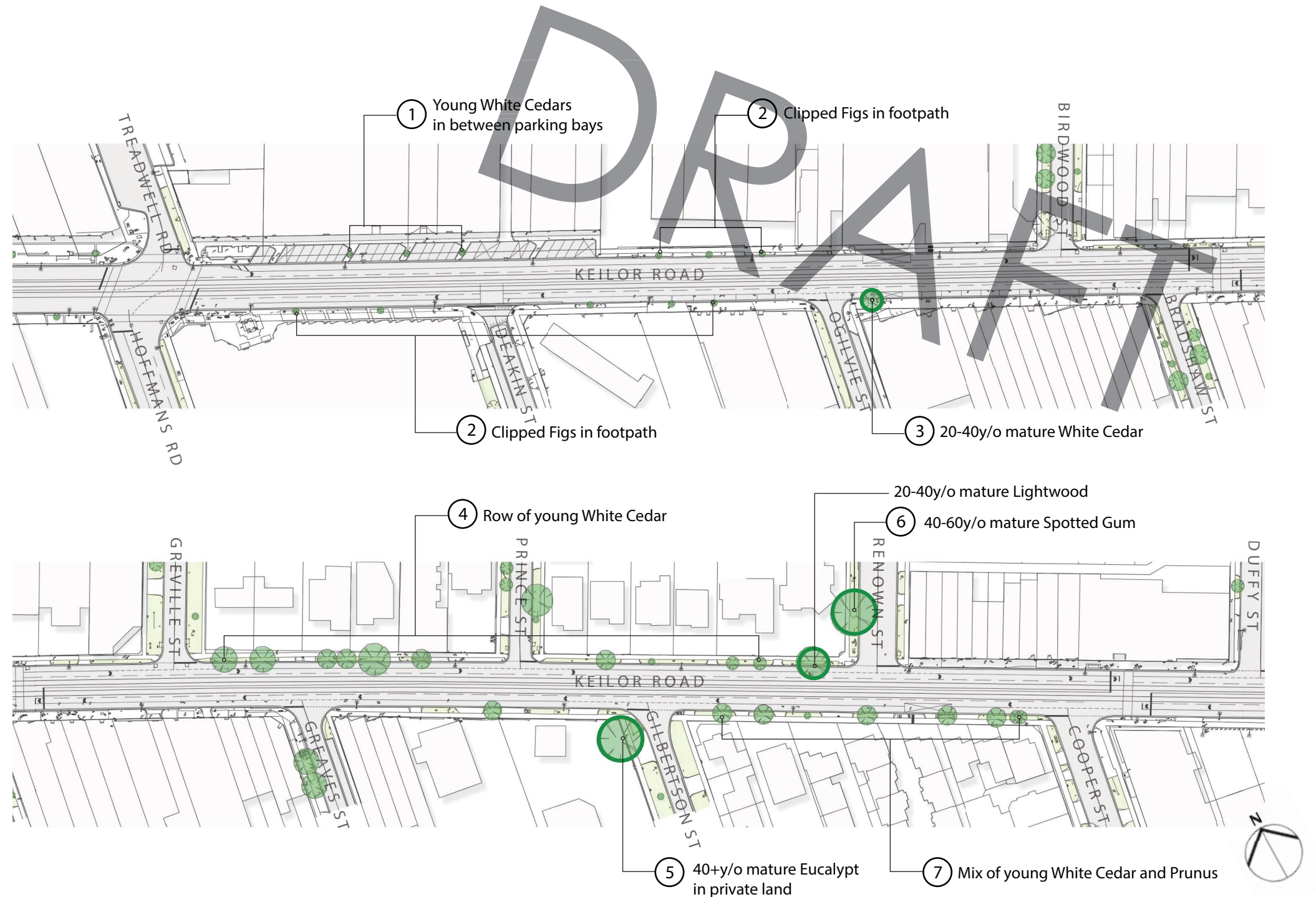
Existing street tree planting is inconsistent and tree canopy cover is significantly bare in certain sections of Keilor Road, particularly towards the western end of the project area.

Generally, canopy street trees exist in the eastern half of the project area, within grassed nature strips associated with residential frontages. White Cedar (*Melia azedarach var. australasica*) is the predominant species along the whole extent of Keilor Road. These existing street trees should be retained, protected and further enhanced by in-fill planting.

Along the retail precinct, where there is a wider footpath and shop awnings above, there is either no tree at all, or small clipped Figs (*Ficus sp.*) planted within the footpath paving. Although these Fig trees provide some greenery to the streetscape, they do not provide shaded canopy cover and are unlikely to sustain healthy growth due to the insufficient soil volume and planting space.

A small number of mature trees with full canopy exists within the project extent and provides valued amenity. The Spotted Gum (*Corymbia maculata*) on Renown Street, and River Red Gum (*Eucalyptus camaldulensis*) within the private land on the corner of Gilbertson Road are good examples. Assessment and management of these trees to protect them is highly recommended.

Street trees on Keilor Road are inhibited by overhead power lines and tram cables. Undergrounding of power lines is recommended when the opportunity arises and as part of private developments to support establishment of full tree canopies. The alignment of any new underground service line must be determined so as not to inhibit current and future street tree planting.



① Young White Cedars in between parking bays    ② Clipped Figs in footpath    ③ 20-40y/o mature White Cedar    ④ Row of young White Cedar    ⑤ 40+y/o mature River Red Gum in private land    ⑥ 40-60y/o mature Spotted Gum    ⑦ Mix of young White Cedar and Prunus

# Community and Stakeholder Engagement

## Community Engagement

Two rounds of community engagement, pre-design and draft phase, are to be carried out to inform the development of the plan. The community will be informed of the final streetscape plan on the Council website. So far, one round of pre-design information gathering engagement has been carried out to inform this draft plan.

### 1. Pre-design Information Gathering

A four-week period pre-design community engagement was carried out to collect information and ideas from the community between 26th September and 23rd October 2022. The pre-design engagement campaign involved:

- A survey on Council's YourSay page
- Mail-out to approx. 1300 properties within 400m radius of project extent
- Installation of 14 posters in the project extent
- Social media campaign throughout MVCC accounts
- Targeted social media advert
- On-site drop-in session between 1-3PM on Tuesday 11th October 2022

Council received 257 responses.

Key findings are as follows;

- Survey respondents were predominantly local (90.7% of respondents live in Moonee Valley with majority (72.4% in total) in the three adjacent suburbs of Essendon, Niddrie and Essendon North).
- Keilor Road is an established local hub that provides variety of services for the local community's daily needs. 124 respondents listed amenities and services on offer is what they like about Keilor Road.
- Among the respondents, walking was the most common mode of travel to visit Keilor Road (54.8%), followed by driving (37%).
- Keilor Road is perceived as "not attractive" in current state (72.7%), while it is generally perceived as "safe" (77.9%)

- Reasons for unattractiveness mostly related to:
  - Vehicular traffic (57 comments)
  - Provision of parking (33 comments)
  - Outdated/ uninspiring streetscape (48 comments)
  - Types, presentation and longevity of businesses (47 comments)
  - Lack of greenery (44 comments).
- When asked what they would like to see in the new streetscape plan, the response was:
  - increased greenery and canopy street tree planting (108 comments)
  - More seating/gathering spaces for the community (32 comments)
  - Other ideas included:
    - improved and wider footpath
    - Extended outdoor dining opportunities
    - Public art
    - Protected bike lanes
    - Decorative lighting.

For further details, refer to "Consultation Report Keilor Road Streetscape Plan L07" November 2022.

## Stakeholder Engagement

The following internal and external groups are identified as project stakeholders. The stakeholder groups will be further engaged through this draft design process.

### MVCC Internal

- Strategic Planning
- Engineering Services including Drainage, Civil Infrastructure and Transport
- Research and Facilities Planning
- Economic Development
- Infrastructure Maintenance
- Parks and Gardens
- Arboriculture
- Statutory Planning
- Asset and Major Projects
- Waste Management
- Local Laws

### External

- Wurundjeri Council
- Department of Transport and Planning (DTP)
- YarraTrams
- Bus Services
- Niddrie and Essendon North Traders Association
- Business owners
- Residents and wider community
- Service authorities including Telstra, Jemena, Optus, Greater Western Water, Downer Gas etc.

# Design Principles

## Design Principles

Based on the site analysis and community and stakeholder engagement, a draft streetscape concept design has been developed. The key guiding principles are:

### 1. Dramatically increase greenery and canopy trees

- Maximise the volume of healthy greenery
- Use vegetation to play a strong role in defining street character and locality
- Continuous full canopy tree planting for a strong identity and spatial structure
- Support healthy plant growth by:
  - Incorporating WSUD and passive irrigation measures
  - Allowing for sufficient soil volume
  - Use latest method such as structural soil to maximise plant wellbeing where appropriate
- Install root barrier to protect adjacent assets where appropriate

### 2. Focus on creation of pedestrian friendly environment

- Create a plaza at Niddrie Central Shopping Centre forecourt. This is the only existing community gathering space within the project extent. It should be retained and enhanced by working with Niddrie Central, which is privately owned.
- Widen footpath and create additional space for pedestrian amenity, tree planting, footpath trading and street activation by rationalising the on-street parking spaces and removing obstacles.
- Identify pedestrian spaces for focused design interventions. These may include:
  - Pedestrian crossing points
  - Tram and bus stops
  - Niddrie Central Shopping Centre plaza
  - Corner spaces of side street intersections
- Improve pedestrian safety and support inclusive mobility
- Provide outdoor seating/gathering opportunities in regular intervals
- Introduce feature design details that celebrate the locality, heritage and identity of Keilor Road
- Rationalise, upgrade and add new street furniture
- Consider micro climate for pedestrian comfort
- Incorporate organic and playful design elements into the streetscape to provide interest and activation in the limited space available.

### 3. Consistent design logic, approach and feature that unites the whole length of Keilor Road

- Consistent street tree planting of *Melia azedarach* 'Elite'
- Asphalt footpath with feature details using red brick and two types of pre-cast concrete pavers
- Use of MVCC standard street furniture suite with custom furniture arrangement at designated pedestrian nodes

### 4. Rationalise and de-clutter streetscape

- Rationalise and de-clutter pedestrian realm by:
  - Review, rationalise and reduce number of posts (ie signage)
  - Review and rationalise service elements such as undergrounding fire hydrant and relocation of service boxes if appropriate and feasible in working with service authorities
- Advocate for undergrounding of overhead power line where feasible as opportunities arise

### 5. Support and promote inclusive and active mode of transport through walkable streetscape and provision of cycling amenity

- Consider introduction of raised pedestrian crossings to create continuous pedestrian footpath surface and control vehicle speed at all intersections where appropriate
- Advocate for separate bike lanes along Keilor Road. In the interim, introduce green paint surface to Keilor Road cycle lanes at street intersections for clear delineation and improved safety
- Bike hoops to be located at side street corners
- DDA compliant footpath

### 6. Plan for the provision of the Department of Transport and Planning (DTP)'s Next Gen tram stops

- Extended footpath area with designated seating/shelter

### 7. Celebrate the locality and its heritage by identifying, protecting and enhancing existing features and stories

- An acknowledgment to the traditional custodians of the land
- Enhance the existing sense of tight knit and friendly community
- Selection of native plant species with particular emphasis on indigenous species
- Explore public art opportunities that reflect the Keilor Road locality

All proposed concept plans in this document are subject to detail design process, including further site investigation such as underground service locating, Council's capital works budget and authority approvals.

## Private Development

Keilor Road is forecasted to attract higher density multi residential and mixed use private developments in coming decades. These developments will play an important role in enhancing the urban design fabric of Keilor Road Activity Centre. It is expected that these developments will influence the character and amenity of the pedestrian experience and will positively contribute to the Keilor Road streetscape.

- Street tree planting to Keilor Road must be included in line with this plan. In order to allow for healthy, full canopy street trees, the following is proposed:
  - Retention and protection of existing street trees
  - Prioritise space to allow for full canopy trees to reach mature size (design of built form including awning, vehicle access points, signage, service features such as fire hydrant etc. shall be set back to allow for tree planting and its full canopy and provide space for optimal root growth)
  - Undergrounding of existing overhead power line (align closer to building line to allow for kerbside street tree planting and root space)
  - Realignment of existing underground services to allow for street tree planting
  - Where street tree planting is absolutely impossible to achieve, provide building setback to create space for tree planting
- Activate public-private realm interface by sensitive consideration of garages, service boxes, and elimination of blank wall and advertisement etc.
- Avoid blank walls and advertisements at ground level
- Provide fine grain and human scale ground floor interface design
- Provision of public art may be considered

# Streetscape Plan

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**1** Upgrade Niddrie Central Shopping Centre forecourt in working with Niddrie Central Shopping Centre

**2** Upgrade corner spaces at side street intersections with upgraded permeable paving, seating/gathering opportunities, tree and garden planting and bike hoops. Consider introduction of kerb outstands where possible to increase pedestrian realm and safer crossing. Explore public art opportunities in some of the corner spaces.

**3** Create pedestrian node at tram stop/signalled crossing points and upgrade with kerb side feature paving, seating, litter bin, tree and garden planting and tram shelter. Extent of kerb outstand will be coordinated with DTP to support their future plan of Next Gen tram stops.

**4** Upgrade current asphalt footpath and introduce feature unit paving banding. Gradually upgrade current concrete footpath paving to consistent asphalt paving with feature banding as opportunity arises (ie adjacent land development).

**5** Introduce green paint surface treatment to existing on-road bike lane at intersections to improve cyclist safety. Advocate for separated bicycle lanes along Keilor Road for the longer term.

**6** Consider raised pedestrian crossing to side street intersections for improved accessibility. \*Subject to detail design, stormwater drainage implication and DTP approval

**7** Advocate for removal of angle parking in favour of wide public realm with outdoor dining/trading opportunity and canopy tree planting, continuing on from Niddrie section of Keilor Road.

**8** Advocate for building set back in favour of wide public realm with outdoor dining/trading opportunity continuing from Niddrie section of Keilor Road where opportunity arises.

**9** Support existing outdoor dining/trading

- New tree planting. Consider passive irrigation
- Existing trees
- New raised pedestrian crossing
- New pedestrian crossing surface treatment upgrade
- New kerb outstand
- New seating
- New garden planting
- grassed nature strip

# Paving Material and Design

To create a consistent, elegant streetscape along Keilor Road, a combination of robust and low maintenance paving materials is proposed.

## Keilor Road Footpaths

### Typology 01 Footpath at shopping strip:

This typology is new asphalt footpath paving with precast concrete feature banding on kerbside. Feature paving shall be consistent with the paver types specified for the Niddrie section of Keilor Road, which is a mix of red brick and two different pre-cast concrete pavers. The paving pattern and arrangement may vary to reflect the site conditions and context.

Where new tree planting in footpath is proposed, a tree trench with structural soil shall be considered to encourage tree health. This will be approximately 1m wide from back of kerb.

### Typology 02 Footpath at residential frontage:

This typology is concrete with grassed nature strip and street tree planting. It is envisioned this typology may be replaced by Typology 01, as private land is developed into higher density premises. This transition may occur gradually and a consistent streetscape treatment will be achieved over time.

## Vehicle Crossovers

The Keilor Road footpath has a significant number of vehicle crossovers. It is recommended for crossovers to be limited, rationalised and reduced in number. Where these entrances are necessary, the Moonee Valley standard concrete crossover ramp and vehicle grade asphalt surface is recommended for visual continuation of asphalt footpath.

## Pram Ramps

Pram ramp design shall be in accordance with Moonee Valley standard detail MV20 in charcoal grey concrete (to colour match to asphalt) with white tactiles.

## Pedestrian Crossings at Side Streets

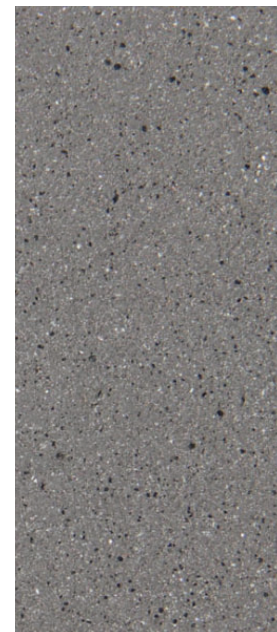
While raised pedestrian crossing is preferred on side street intersections for pedestrian safety and amenity. The detail design process will determine whether site condition, such as drainage will allow for this arrangement. Both raised and flush pedestrian crossings will have a consistent surface material treatment of asphalt top and bluestone pitcher ramps (shoulders). The rough texture of pitcher and the grade difference for raised threshold treatments will prompt vehicles to slow down.

## Corner Spaces

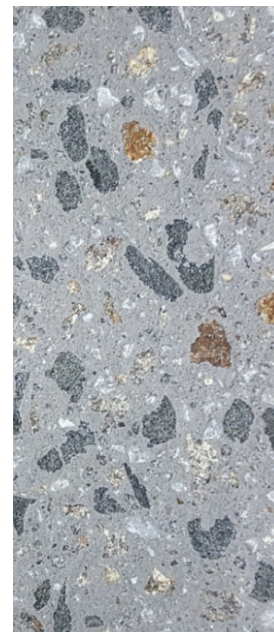
Porous paving is proposed for corner spaces of side streets to passively irrigate the adjacent proposed garden and tree planting areas.



▲ An example of porous paving



▲ Precast concrete paver



▲ Exposed aggregate precast concrete paver



▲ Recycled red brick



▲ Pedestrian crossing example with bluestone pitcher ramps to slow traffic. Consistent surface material and treatment is proposed for both raised and flat crossing arrangements.

# Street Furniture



▲ Council standard stainless steel bike hoops



▲ Council standard streetscape bench



▲ Council standard open top stainless steel litter bin (120L)



▲ Example of custom concrete seat/wall with timber inserts



▲ Example of public art/custom bike hoops



▲ Example of public art

The proposed design includes increased and more evenly distributed provision of street furniture. A mix of Moonee Valley City standard suite and bespoke design is proposed. Older style existing furniture will be replaced with the current suite.

## Moonee Valley City Standard Furniture

Bench seats are proposed along the footpath of Keilor Road are to be Council's standard streetscape bench with timber battens. Customised version of the standard bench (ie longer bench/ double sided bench) may be considered in key pedestrian nodes.

Bike hoops are to be installed in the side street intersection corners as well as along the footpaths, where appropriate.

Council's standard litter bins in Keilor Road is 120L stainless steel bins. Older style bins will be replaced with the current standard bins. In principle litter bins will be located no closer than 2m from seating.

Currently there are no bollards or pedestrian fencing within the project extent. These tend to add to street clutter and are not generally recommended. Should bollards be deemed necessary, a 100mm diameter stainless steel bollard is proposed.

## Custom Furniture

Custom furniture elements to be introduced in corner spaces where it is intended to be more intimate and community focused. These include custom seating elements and bike hoops. Consider robust and solid design and material for longevity and ease of maintenance/replacement.

Integration of public art into streetscape design element (ie custom furniture element or paving) may be considered. Potential public art inspiration may be Indigenous flora and the Megafaunas which once roamed in this area.

## Decorative Lighting

Lighting beyond existing street lighting (including decorative lighting) is not proposed at this stage. Should decorative lighting be considered as the design is further developed, lighting consistent with the Niddrie section of Keilor Road is recommended

# Street trees

Street trees has a major influence on the look, comfort and feel of a streetscape and helps define the street identity.

Following the declaration of Climate Emergency in 2019, Council is committed to increase canopy tree planting within the municipality to combat the climate emergency. MV2040 Green Action Plan sets a 30% canopy cover target by 2040 through enhancing urban forest. Establishing street tree planting with full canopy is becoming increasingly important as road areas occupy the majority of publicly owned land in Moonee Valley.

Existing street tree species on Keilor Road is predominantly *Melia azedarach* (White Cedar) which are currently more established in the south east end of Keilor Road. In-fill and extension of *Melia* planting to the whole extent of Keilor Road is proposed. Where an existing tree needs to be removed, replacement tree planting to be *Melia azedarach*.

New planting shall be a low fruit bearing cultivar *Melia azedarach* 'Elite', accompanied by a tree pit that allows sufficient soil volume (ie use of structural soil) and installation of root barriers to protect adjacent assets.

Traits of *Melia azedarach* includes:

- Australian native
- Deciduous
- Medium sized broad canopy tree
- Seasonal floral display
- Cultivar 'Elite' is low fruit bearing
- Tolerant of urban street environment
- Creation of micro climate (windbreak, shade in summer, sun in winter)

Where spatial constraints exist such as; overhead or underground services or building structure, a site assessment and suitable planting arrangement will be required. Possible solutions may include: tree location (ie cut out tree pit in parking lane), routine pruning to reduce size, or species substitution to a smaller tree species ie *Eucalyptus forrestiana* (Fuchsia Gum), with species substitution being the least preferred.

The ultimate aim is to locate new trees to create a continuous canopy cover along Keilor Road with the combination of new and existing trees.

Where new development is proposed, existing canopy trees along Keilor Road must be assessed with a view of retention and protection. If removal of these trees is deemed unavoidable, this must be compensated by new tree planting that provides equivalent canopy cover and amenity to the streetscape.

New private developments must include and allow for the street tree planting on Keilor Road. The design of awnings, above the footpath and within the road reserve, must be designed so as not to interfere with the space required for the expected tree canopy at maturity. If an existing vehicle crossover is removed, reinstatement of the footpath must include street tree planting. New developments to provide adequate space and to consider realigning underground services for full tree planting.

The existing trimmed *Ficus* trees within the footpath are proposed to be incrementally replaced with larger species as the opportunity arise.

Consistent tree pit design is recommended throughout the whole stretch of Keilor Road. Detail to be galvanised steel edging to tree pit with infill permeable paving. Permeable paving shall colour match asphalt.

In principle, the permanent installation of lighting (such as fairy lights) onto street trees is not recommended due to complications they add to Council's tree maintenance. Short term installation of decorative lighting on street trees for special occasions such as events may be considered on a case by case basis.



▲ Treepit in asphalt with steel edge



▲ *Melia* street tree on south eastern end of Keilor Road

# Garden Planting

Improvements to the streetscape, at the proposed pedestrian crossings at side street intersections and additional kerb outstands, will provide an opportunity for increased greenery along Keilor Road.

Careful selection of plant species and their layout is important to comply with traffic requirements such as clear sight lines for safety. The project will endeavour to select predominantly Australian native species, with particular focus on Indigenous species of Keilor Plains. It will also be supplemented by a selection of exotic species that are robust and known to tolerate Melbourne's urban street environment well. With this combination, a rich layers of contrasting foliage, textures and colours will be displayed for aesthetic enjoyment as well as providing pockets of urban habitat and feeding grounds for small creatures.

WSUD (Water Sensitive Urban Design) and passive irrigation (directing storm water runoff from the adjacent paving surface to irrigate planting for reduced potable water use) to new garden beds will be explored during detail design phase.

Indicative garden plant species include:

- *Austrostipa scabra* (Rough Spear-grass)
- *Austrostipa nodosa* (Knotty Spear-grass)
- *Brachyscome multifida* (Cut-leaf Daisy)
- *Calocephalus citreus* (Lemon Beauty-heads)
- *Chrysocephalum apiculatum* (Common Everlasting)
- *Chrysocephalum semipapposum* (Clustered everlasting)
- *Dianella revoluta* (Matted Flax-lily)
- *Dianella amoena* (Spreading Flax-lily)
- *Dichelachne crinita* (Long-hair Plume-grass)
- *Hardenbergia violacea* 'Mini Haha' (Prostrate Purple Coral-pea)
- *Hymenosporum flavum* 'Gold Nugget' (Dwarf Native Frangipani)
- *Leptorhynchos squamatus* (Scaly Buttons)
- *Lomandra tanika* (Mat Rush)
- *Pimelea humilis* (Common Rice-flower)
- *Poa poiformis* Kingsdale (Tussock-grass)
- *Ptilotus macrocephalus* (Feather-heads)
- *Senecio mandraliscae* (Blue Chalksticks)
- *Themeda triandra* (Kangaroo Grass)
- *Tulbaghia violacea* (Society Garlic)
- *Wahlenbergia communis* (Native Blue Bells)





# Pedestrian Nodes Concept Plans

To provide balance to the often hard environment along Keilor Road, the pedestrian corner spaces intend to provide pockets of green respite, rest and gathering spaces.

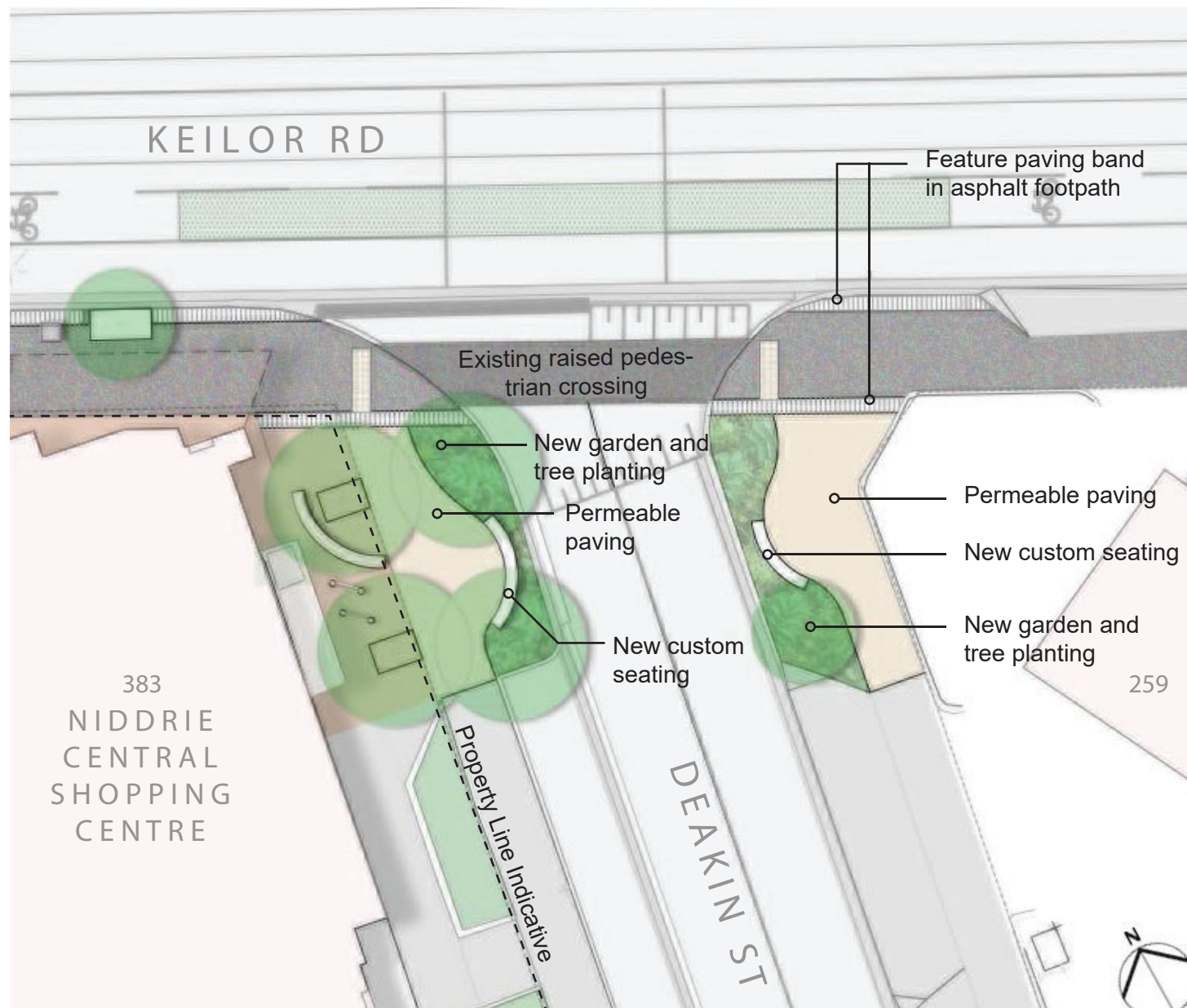
The design features soft organic forms, permeable surfaces and generous greenery with canopy tree planting where space allows. Semi-circular custom seating will provide informal seating opportunities for individuals and small groups to sit and gather. Seating will be nestled within planted areas, offering a protective microclimate, which will help buffer the noise, fume and bustle of Keilor Road traffic.

Provision of new bike hoops at every intersection will provide an "end-of-trip" facility and will encourage the community to cycle to Keilor Road.

Pedestrian spaces at new kerb outstands at existing tram stops will be consistent with the design elements of Keilor Road with asphalt paving and feature paving banding. Tram shelters are proposed in exposed locations, along with generous seating and planting.

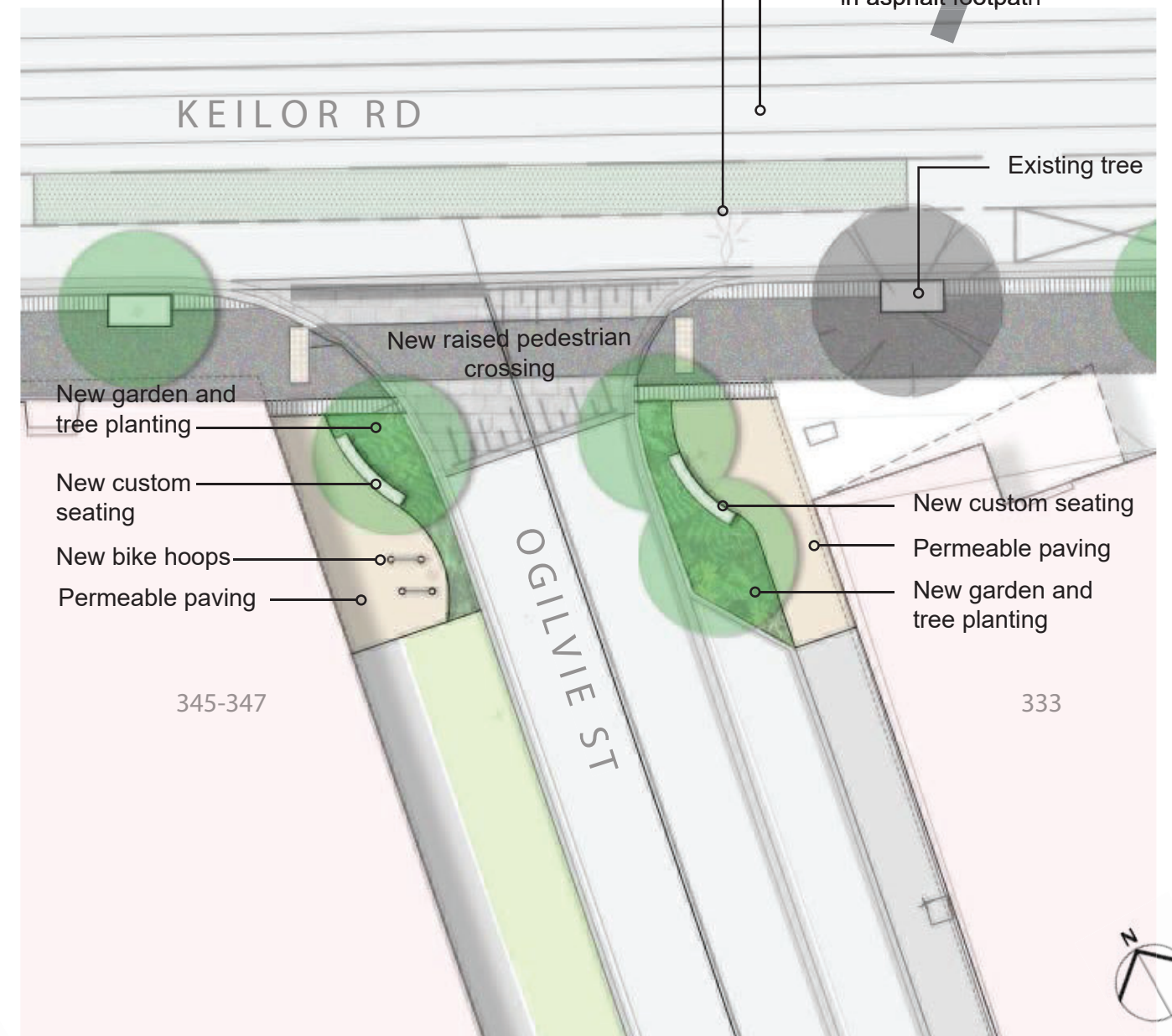
All proposed concept plans are subject to detail design process including further site investigation, such as underground service locating, authority approval and Council's capital works budget process.

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Deakin Street Intersection Plan 1:200 @ A3

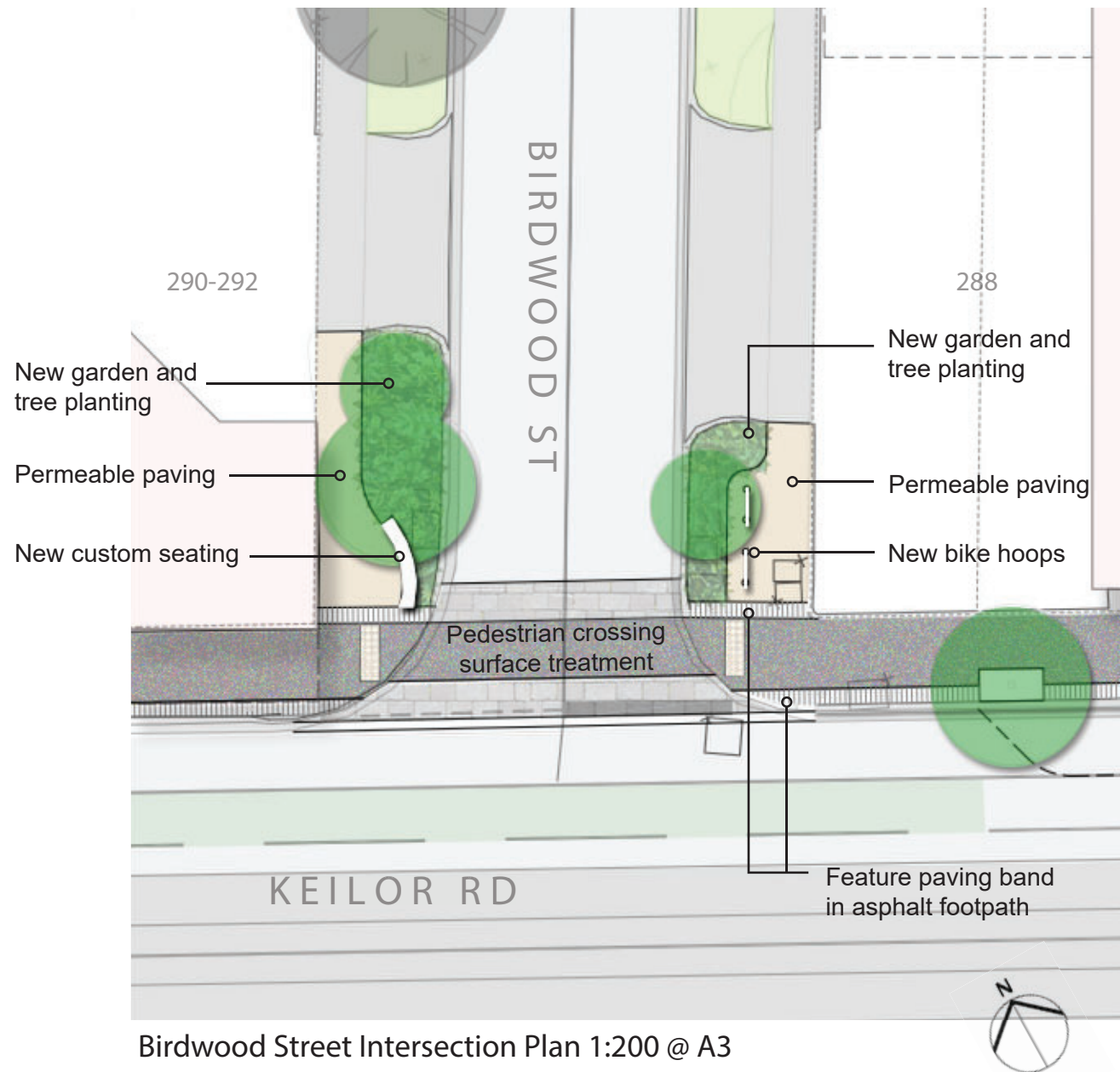
NB: Design within private property of Niddrie Central Shopping Centre is shown as a suggestion only



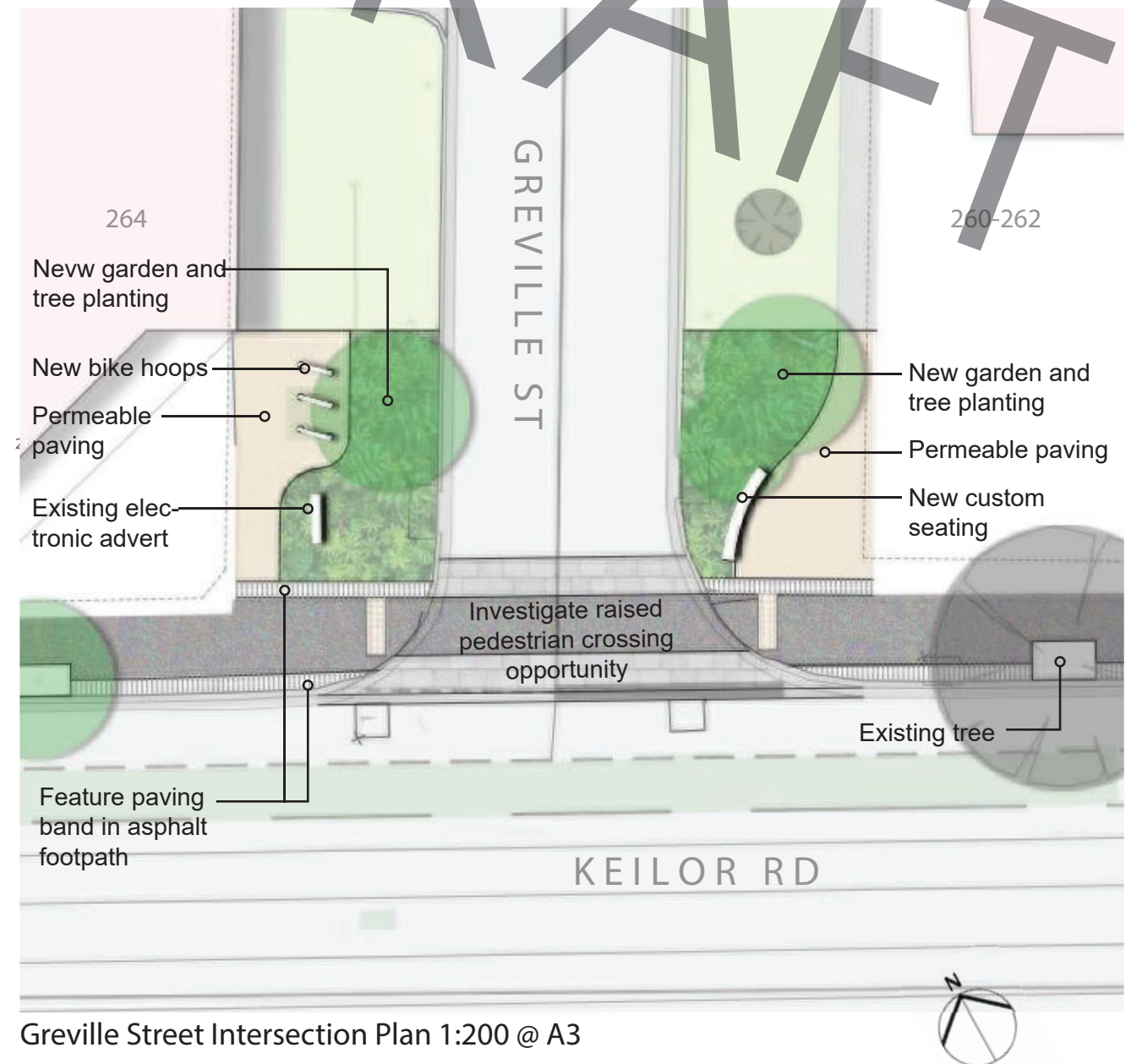
Ogilvie Street Intersection Plan 1:200 @ A3

# Pedestrian Node Concept Plans

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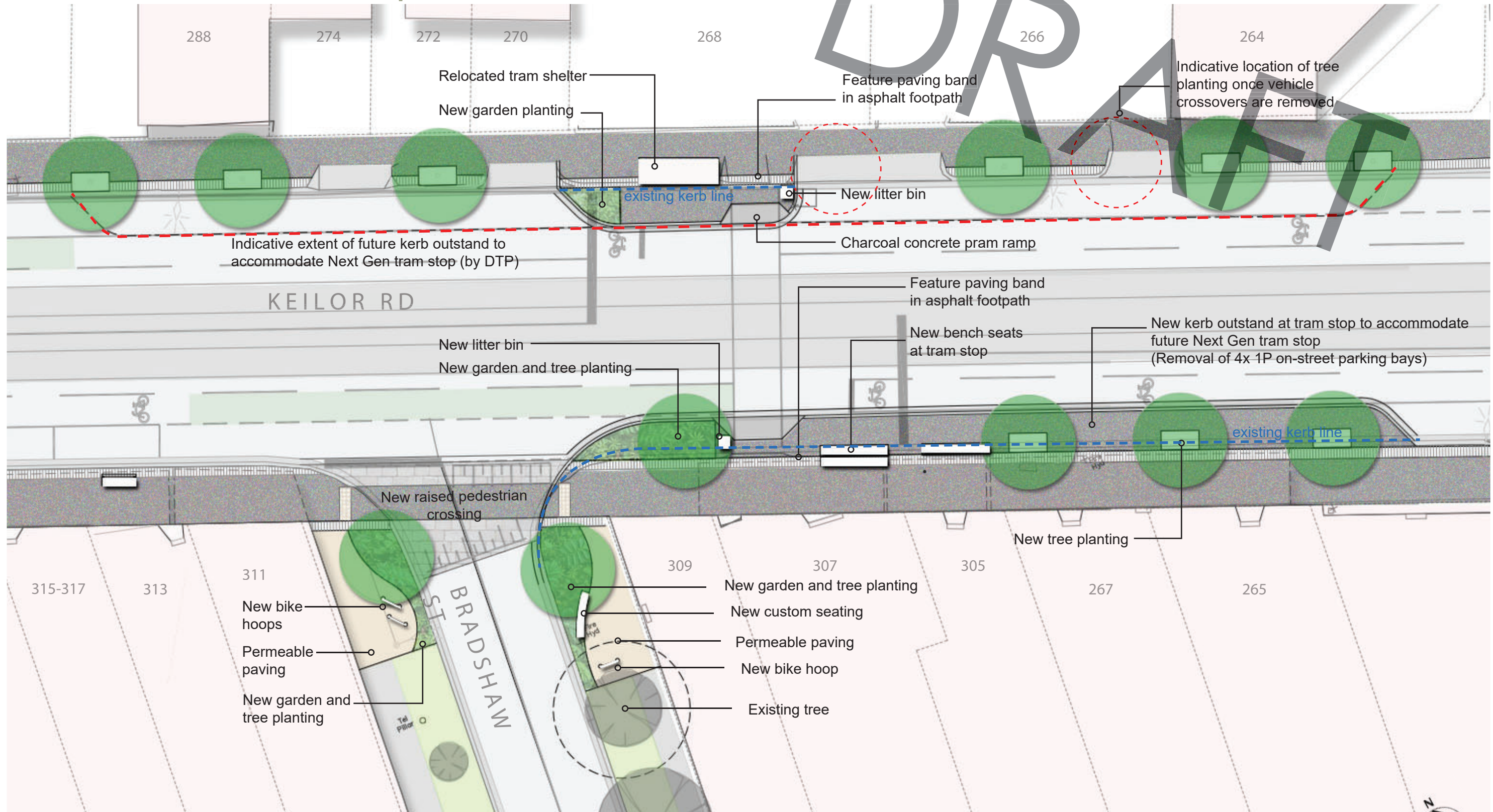


Birdwood Street Intersection Plan 1:200 @ A3



Greville Street Intersection Plan 1:200 @ A3

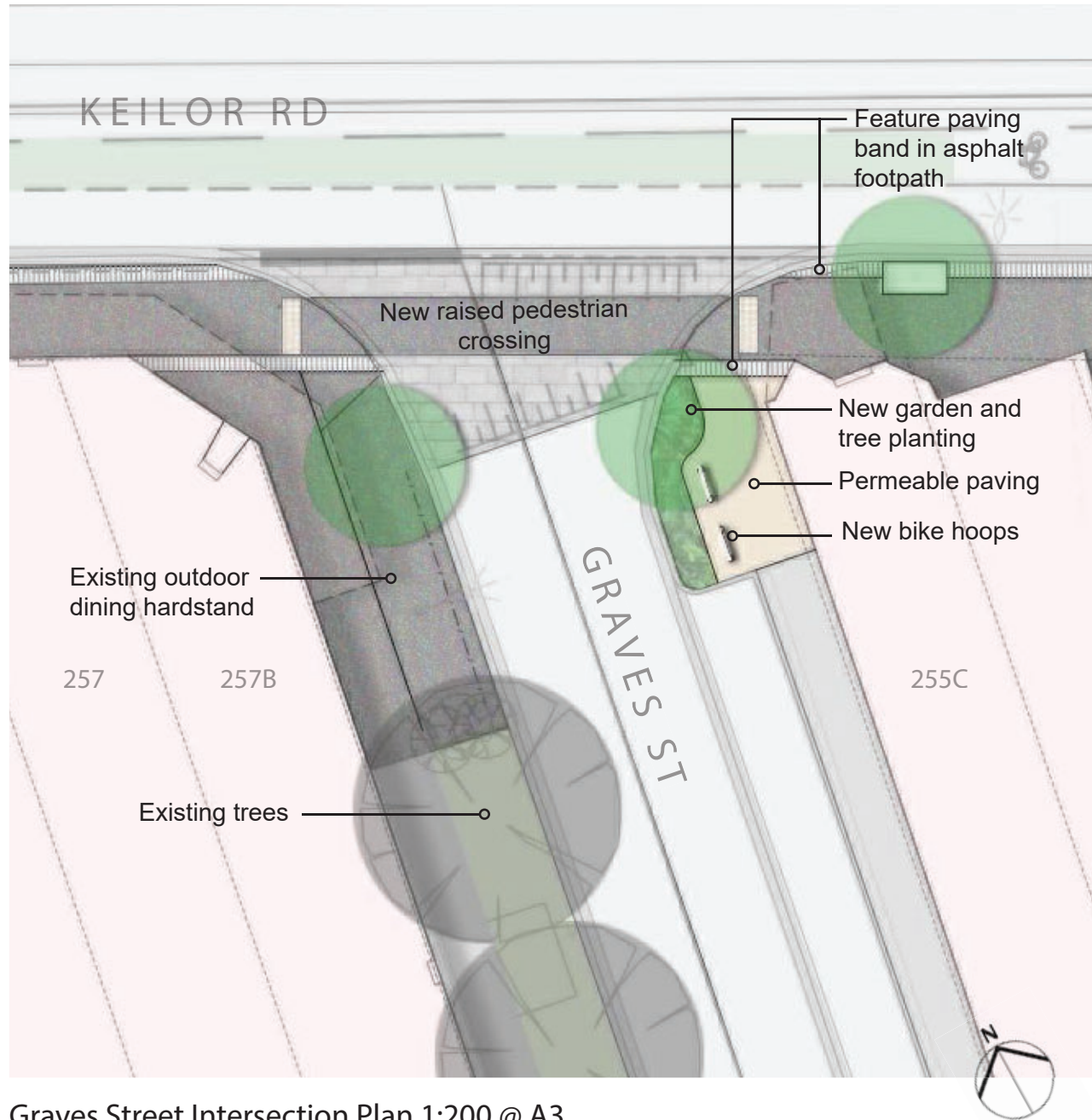
# Pedestrian Node Concept Plans



Bradshaw Street Intersection Plan 1:200 @ A3

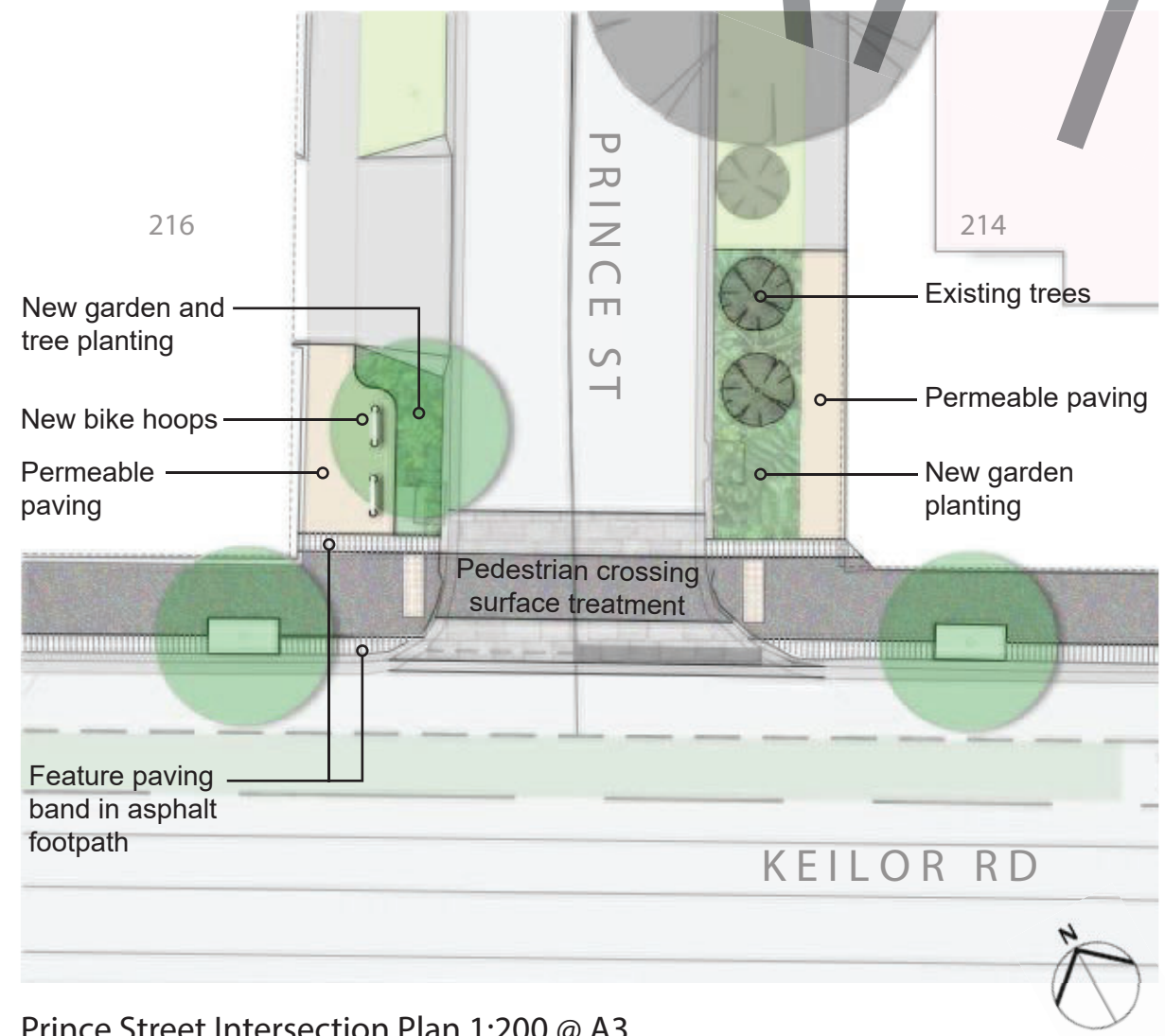


# Pedestrian Node Concept Plans



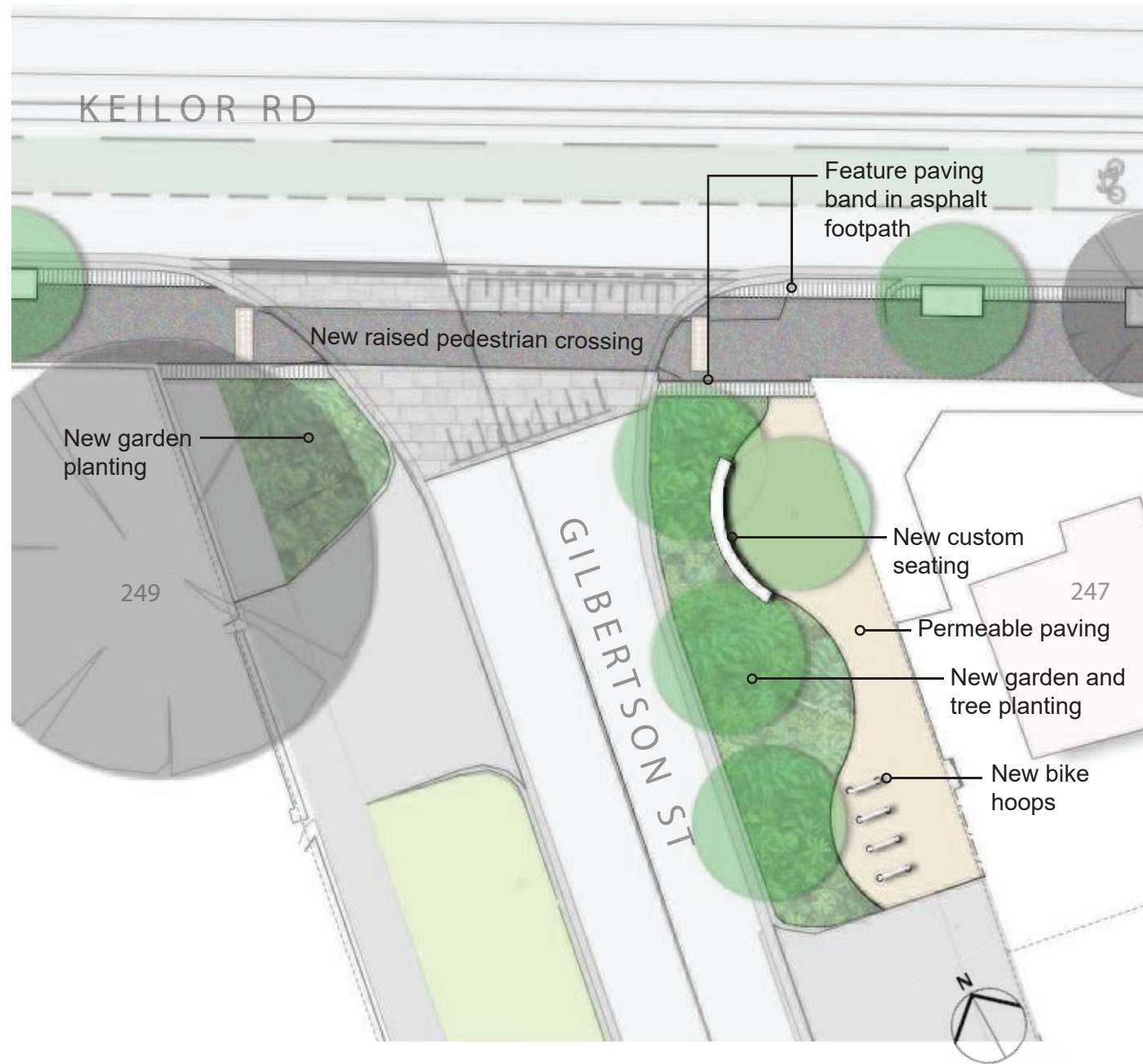
Graves Street Intersection Plan 1:200 @ A3

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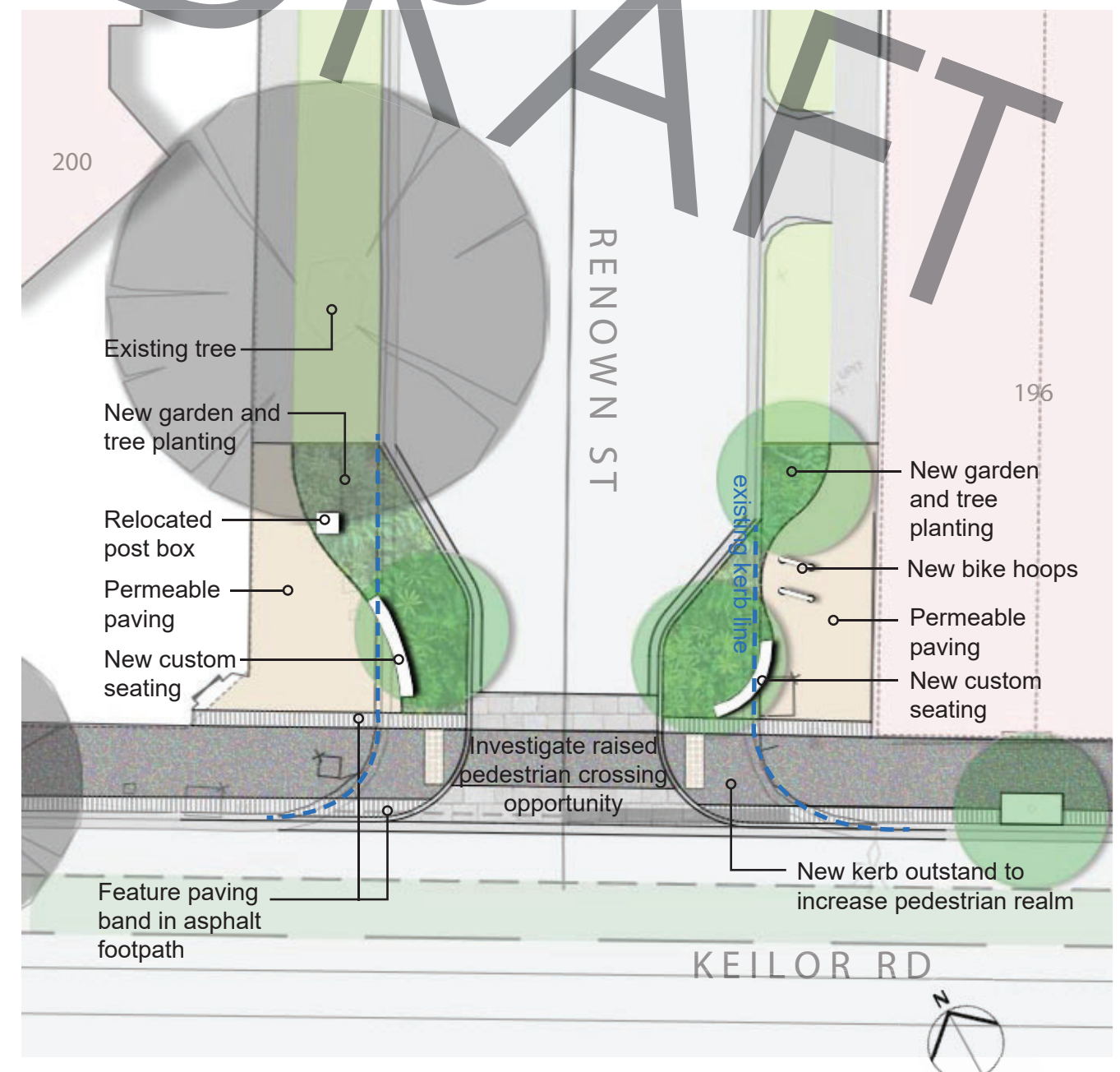


Prince Street Intersection Plan 1:200 @ A3

# Pedestrian Node Concept Plans



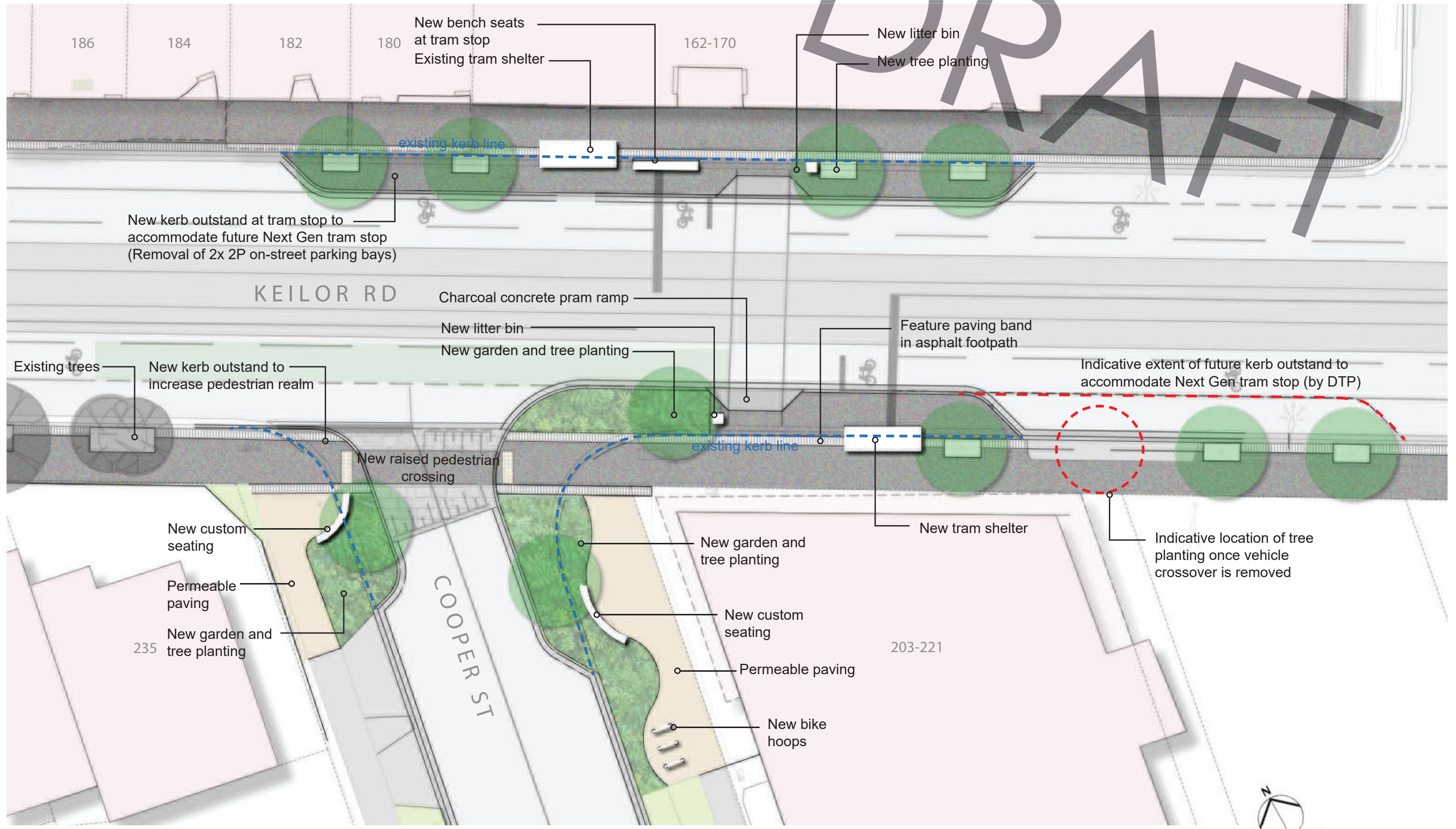
Gilbertson Street Intersection Plan 1:200 @ A3



Renown Street Intersection Plan 1:200 @ A3

# Pedestrian Node Concept Plans

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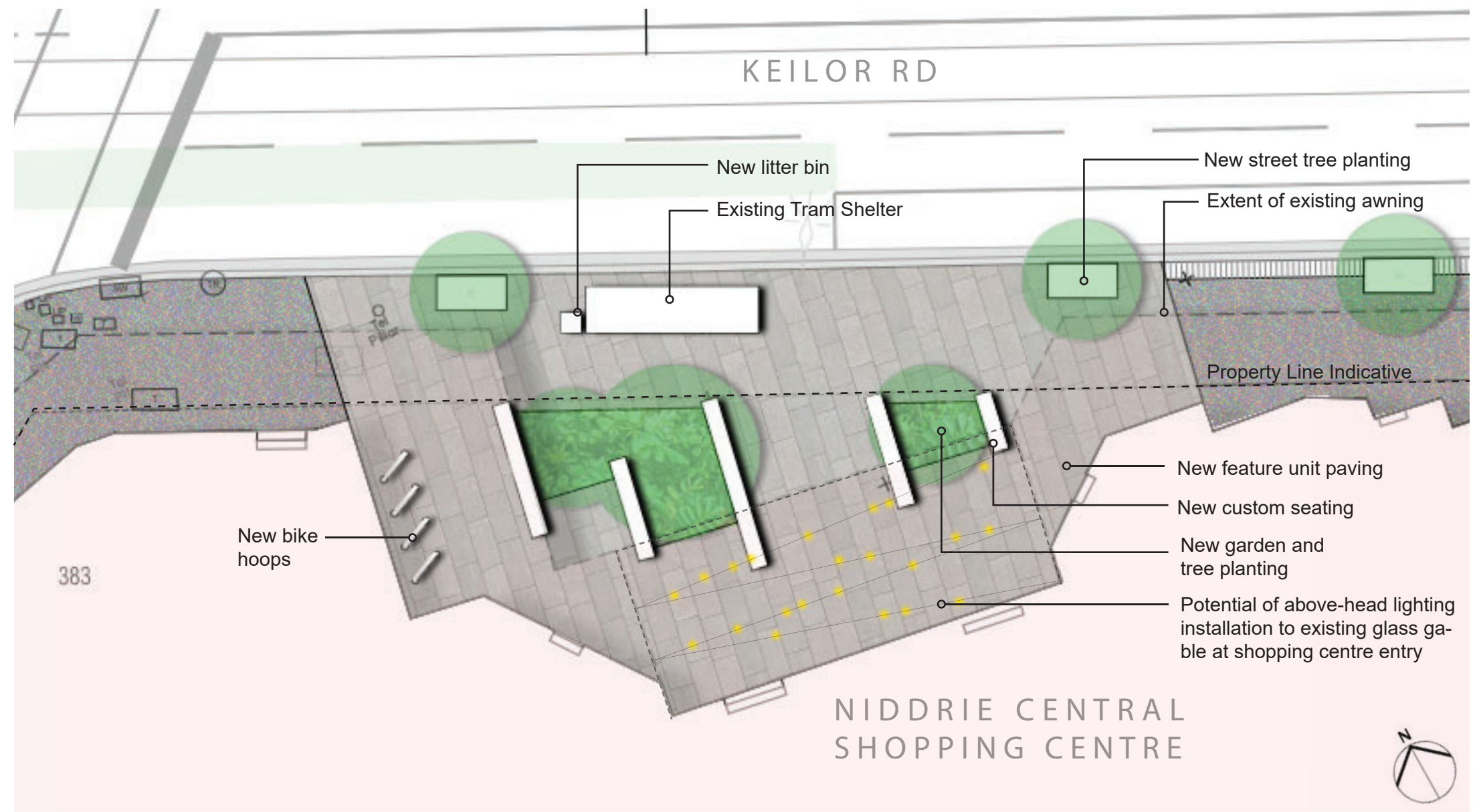
Cooper Street Intersection Plan 1:200 @ A3

# Pedestrian Node Concept Plans

The existing forecourt of Niddrie Central Shopping Centre is the only existing generous public space directly part of the Keilor Road streetscape. It provides a valuable gathering space with an active retail edge. There is an opportunity for this pedestrian amenity to be retained and enhanced. This forecourt space is privately owned land. Proposed design shown in this document within the private realm is a suggestion only.

The design encourages to declutter and simplify the appearance of the forecourt space while increasing greenery and pedestrian amenity through updated paving, increased planting, additional seating and possible introduction of decorative lighting. The large existing signage structure is suggested to be removed. This will allow for a direct view line from Keilor Road to the shopping centre building itself and create space for tree planting, and a more refined and relaxed atmosphere.

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Niddrie Central Shopping Centre Entry Plaza  
Plan 1:100 @ A3

NB: Design within private property of Niddrie Central Shopping Centre is shown as a suggestion only



Keilor Road existing (Google Streetview)



Keilor Road proposed (artist's impression)





Keilor Road existing (Google Streetview)



Keilor Road proposed (artist's impression)

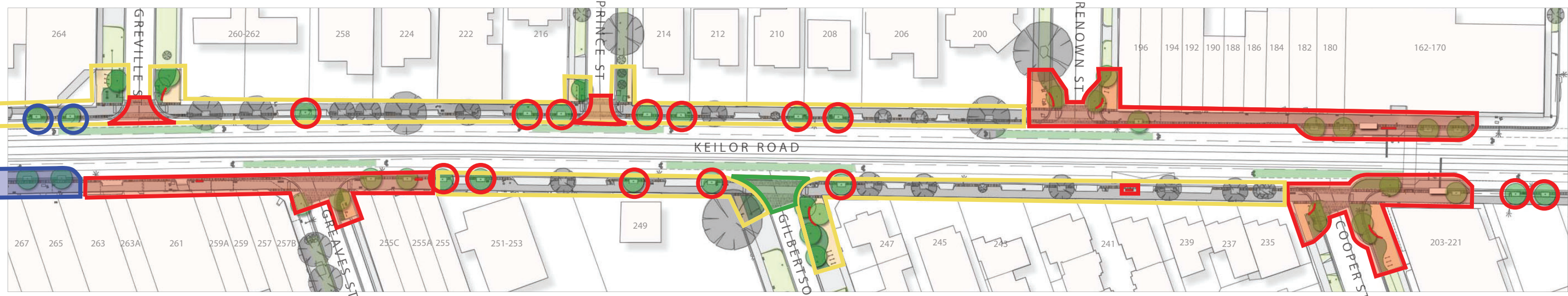
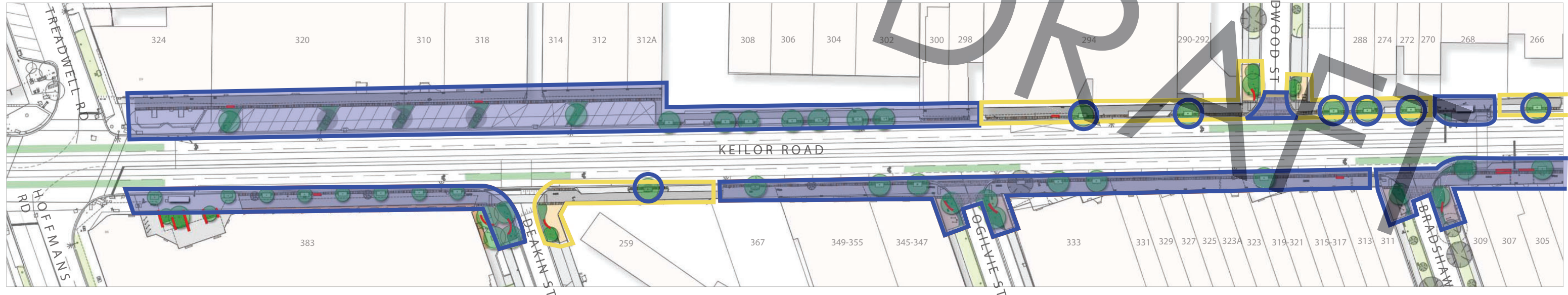
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Keilor Road side street pedestrian node (artist's impression)

# Implementation Plan

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## SHORT TERM

- Stage1 Hoffmans Rd to west of Greville Street
- Stage2 Greville Street to Cooper Street tram stop

Council's capital works delivery for this section of Keilor Road in short term will concentrate on two fronts: streetscape renewal of current retail frontage, and establishment of new streetscape framework including tree planting, pedestrian nodes at tram stop/signalised crossings, and raised pedestrian crossings to side streets. It is planned to be delivered in two stages as indicated above. Key works include;

- 1 New tree planting on Keilor Road
- 2 Tram stop/ signalised pedestrian crossing nodes
- 3 Footpath and corner spaces at retail front
- 4 Raised pedestrian crossings
- 5 Street furniture upgrade (MVCC standard bench and litter bin)
- 6 Bike lane paint treatment at intersections

## LONG TERM

For current residential frontage and sections where future private development may be likely, streetscape upgrade is expected to occur long term in conjunction with private developments.