



City of Nedlands

# ***Agenda***

## ***Special Council Meeting 29 September 2020***

Dear Council member

A Special Meeting of the City of Nedlands is to be held on Tuesday 15 September 2020 in the Ellis Room at Bendat Basketball Centre, 201 Underwood Avenue, Floreat commencing at 6.00 pm for the purpose of considering Florence Road Public Realm Plan and proposed development at 18 Doonan Road Nedlands (5 Single Dwellings) and any available Responsible Authority Reports.

This meeting will also be livestreamed.

Due to COVID Restrictions the 2m<sup>2</sup>, with 1.5 metre social distancing rule applies. Once the venue is at capacity no further admission into the room will be permitted.

The public can continue to participate by submitting questions and addresses via the required online submission forms at:

<http://www.nedlands.wa.gov.au/intention-address-council-or-council-committee-form>  
<http://www.nedlands.wa.gov.au/public-question-time>

Mark Goodlet  
Chief Executive Officer  
25 September 2020

## Table of Contents

Declaration of Opening .....	3
Present and Apologies and Leave of Absence (Previously Approved) .....	3
1. Public Question Time .....	4
2. Addresses by Members of the Public.....	4
3. Disclosures of Financial Interest .....	4
4. Disclosures of Interests Affecting Impartiality.....	5
5. Declarations by Members That They Have Not Given Due Consideration to Papers.....	5
6. Nedlands Town Centre – Florence Road Public Realm Plaza and Laneways.....	6
7. Confidential Items .....	16
7.1 18 Doonan Road, Nedlands – X 5 Single Houses SAT Section 31 .....	16
Declaration of Closure .....	16

## City of Nedlands

**Notice of a Special Meeting of Council to be held at 6:00 pm on Tuesday 15 September 2020 in the Ellis Room at Bendat Basketball Centre, 201 Underwood Avenue, Floreat for the purpose of considering Florence Road Public Realm Plan and proposed development at 18 Doonan Road Nedlands (5 Single Dwellings) and any available Responsible Authority Reports.**

---

### Special Council Agenda

#### Declaration of Opening

The Presiding Member will declare the meeting open at 5.30 pm and will draw attention to the disclaimer below.

#### Present and Apologies and Leave of Absence (Previously Approved)

**Leave of Absence**                      None.  
**(Previously Approved)**

**Apologies**                      None at distribution of this agenda.

#### Disclaimer

Members of the public who attend Council meetings should not act immediately on anything they hear at the meetings, without first seeking clarification of Council's position. For example, by reference to the confirmed Minutes of Council meeting. Members of the public are also advised to wait for written advice from the Council prior to taking action on any matter that they may have before Council.

Any plans or documents in agendas and minutes may be subject to copyright. The express permission of the copyright owner must be obtained before copying any copyright material.

**1. Public Question Time**

A member of the public wishing to ask a question should register that interest by notification in writing to the CEO in advance, setting out the text or substance of the question.

The order in which the CEO receives registrations of interest shall determine the order of questions unless the Mayor determines otherwise. Questions must relate to a matter affecting the City of Nedlands.

**2. Addresses by Members of the Public**

Addresses by members of the public who have completed Public Address Session Forms to be made at this point.

**3. Disclosures of Financial Interest**

The Presiding Member to remind Councillors and Staff of the requirements of Section 5.65 of the *Local Government Act* to disclose any interest during the meeting when the matter is discussed.

A declaration under this section requires that the nature of the interest must be disclosed. Consequently, a member who has made a declaration must not preside, participate in, or be present during any discussion or decision-making procedure relating to the matter the subject of the declaration.

However, other members may allow participation of the declarant if the member further discloses the extent of the interest. Any such declarant who wishes to participate in the meeting on the matter, shall leave the meeting, after making their declaration and request to participate, while other members consider and decide upon whether the interest is trivial or insignificant or is common to a significant number of electors or ratepayers.

**4. Disclosures of Interests Affecting Impartiality**

The Presiding Member to remind Councillors and Staff of the requirements of Council's Code of Conduct in accordance with Section 5.103 of the *Local Government Act*.

Councillors and staff are required, in addition to declaring any financial interests to declare any interest that may affect their impartiality in considering a matter. This declaration does not restrict any right to participate in or be present during the decision-making procedure.

The following pro forma declaration is provided to assist in making the disclosure.

"With regard to the matter in item x ..... I disclose that I have an association with the applicant (or person seeking a decision). This association is ..... (nature of the interest).

As a consequence, there may be a perception that my impartiality on the matter may be affected. I declare that I will consider this matter on its merits and vote accordingly."

The member or employee is encouraged to disclose the nature of the association.

**5. Declarations by Members That They Have Not Given Due Consideration to Papers**

Members who have not read the business papers to make declarations at this point.

## 6. Nedlands Town Centre – Florence Road Public Realm Plaza and Laneways

<b>Council</b>	29 September 2020
<b>Applicant</b>	City of Nedlands
<b>Employee Disclosure under section 5.70 Local Government Act 1995</b>	Nil.
<b>Director</b>	Peter Mickleson – Director Planning & Development
<b>CEO</b>	Mark Goodlet
<b>Attachments</b>	<ol style="list-style-type: none"> <li>1. McDowell Affleck – Laneway (Florence Road to Dalkeith Road) Layout Plans</li> <li>2. Cardno - Technical Memorandum - Florence Road Public Realm Preliminary Design &amp; Florence Road Traffic Review.</li> <li>3. Place Laboratory – Florence Road Town Centre Plaza – Concept Design Report</li> </ol>

### Executive Summary

This report provides further information and seeks Council’s direction on several important matters relating to the public realm and traffic access in the Nedlands Town Centre including:

1. Laneway (Florence Road to Dalkeith Road) and recommended options for the City’s land (Lots 50 and 51 (Number 56) Dalkeith Road), including authorising the initiation of negotiations with the adjoining landowner abutting Lot 51.
2. Florence Road Plaza - Urban Design Concept.
3. Authorising the CEO to enter negotiations with key adjoining landowners to develop the enabling Memorandum of Understanding as the basis for a future agreement to support delivery and funding of required future Nedlands Town Centre – Florence Road Plaza and Laneways (Stanley Street to Florence Road and Florence Road to Dalkeith Road).

The proposed works are an integral part of the draft Nedlands Town Centre Precinct Plan and required to facilitate the Town Centre and integrate the proposed Woolworths/Captain Stirling development and the Aldi development.

## **Recommendation to Council**

### **Council:**

- 1. Authorise the CEO to commence negotiations with the adjoining owner of Lot 51 (Number 56) Dalkeith Road regarding the future ownership/lease/use of the remnant portion of this lot;**
- 2. Adopt ‘in-principle’ the Laneway design (Florence Road to Dalkeith Road) including drainage, carriageway and tie-in works (as prepared by McDowell Affleck);**
- 3. Adopt ‘in-principle’ the Florence Road Plaza (as prepared by Place Laboratory) and that this concept design be incorporated into the draft Nedlands Town Centre Precinct Plan to enable community consultation when the Precinct Plan is re-advertised;**
- 4. Authorise that the City’s position with respect to the Laneway Design (Florence Road to Dalkeith Road) and the Florence Road Town Centre Plaza be communicated to the Metro Inner-North Joint Development Assessment Panel, the State Administrative Tribunal and to the proponents/landowners of the Captain Stirling/Woolworths and Aldi developments;**
- 5. Authorise the CEO to commence negotiations with the proponents/landowners of the Captain Stirling/Woolworths and Aldi development for a Memorandum of Understanding (and possible future Legal Agreement) to cover the implementation, funding and timing of the public works for the Nedlands Town Centre – Florence Road Plaza and associated Laneways including:**
  - a. The laneway, drainage and tie-in works from Stanley Street to Florence Road (Captain Stirling/Woolworths);**
  - b. The laneway, drainage and tie-in works from Florence Road to Dalkeith Road (Aldi/City of Nedlands); and**
  - c. Florence Road Plaza urban design and landscape works.**
- 6. Instructs the CEO to provide a further report/s to Council should negotiations outlined in items 1 and 5 above progress positively; and**
- 7. Notes that a further report will be presented to Council in October 2020 addressing the development of a contributions framework/plan for public and community infrastructure associated with Local Planning Scheme No 3.**

## Discussion/Overview

### Background

On 29 June 2020 the Metro Inner-North JDAP (the JDAP) unanimously deferred consideration of the Woolworths Development Application for 90 days for the following reasons:

1. To provide greater certainty on the traffic, transport, and access issues.
2. To provide further information on heritage issues; and
3. To address the integration of the project in the Nedlands Town Centre.

The JDAP considered that there was insufficient information on three key items to decide on the proposal and deferred the matter to allow time for further information to be provided. The JDAP intended the matter would be re-presented to it no later than 29 September 2020, however the applicant (Urbis) advised on 21 July 2020 that it has now sought a review of the application at the State Administrative Tribunal (SAT) believing this path would provide a more timely decision making process. The matter has been scheduled for mediation in mid-October.

It should be noted that the City of Nedlands is not directly a party to the SAT proceedings. However, it remains necessary for the City to undertake further work to provide advice back to the JDAP and the SAT in respect to the two public realm aspects for the development of this precinct:

- The laneway between Florence Road and Dalkeith Road, and the use of City land, Lot 50 and 51 (Number 56) Dalkeith Road (the sump), recently acquired by the City as part of a land-swap for this purpose from Water Corporation.
- The urban design treatment of Florence Road between the proposed Woolworths development and the proposed Aldi development (consistent with the draft Nedlands Town Centre Precinct Plan), known as the Florence Road Plaza.

As outlined in the 28 July 2020 CEO report, for valid planning conditions to be imposed for these works it is necessary for Council to have plans developed, together with a cost estimate for the works.

It should also be noted that previously, on 14 November 2018 (under Town Planning Scheme No. 2), the JDAP granted Aldi received development approval for their supermarket proposal located on the west side of Florence Road, at 90 Stirling Highway. This approval included a condition (Condition 5) which requires:

“Prior to occupation of the development, the applicant is to enter into a Deed of Agreement with the City of Nedlands to ensure that, should access be made available to Dalkeith Road in the future, the proposed development is able to



facilitate public through access from Dalkeith Road to Florence Road. The Deed of Agreement is to be prepared at the applicant's cost".

### **Florence Road to Dalkeith Road Laneway and Council Land, Number 56 (Lots 50 and 51) Dalkeith Road**

The Nedlands Town Centre Precinct Plan and Local Planning Policy – Dalkeith Road to Stanley Street Laneway and Built Form Requirements identifies the provision of a laneway to provide access to this part of the town centre. The laneway is intended to provide an alternative vehicle access route to the town centre which will supplement the use of Stirling Highway. It will also provide rear service access to commercial (such as Aldi and Woolworths) and future high-density residential redevelopment of this area, including access to car parking and loading areas associated with these premises.

The laneway between Florence Road and Dalkeith Road is proposed to have a 10-metre-wide reservation, and allow for two-way traffic, shared pedestrian/bicycle path and landscaping edge (including an acoustic wall). The eastern section of this lane will be developed on land currently owned by Aldi, while the western section will be developed on City owned land at Number 56 Dalkeith Road (Lots 50 and 51).



**Figure 2 – Aerial Photo of Number 56 Dalkeith Road required for future laneway connecting Dalkeith Road and Florence Road**

### **Options for future of 56 Dalkeith Road (Lots 50 and 51)**

With the establishment of the vehicle access arrangements between Florence Road and Dalkeith Road, Lots 50 and 51 will be encumbered or reduced in size to facilitate the laneway. In terms of future development options, an initial assessment of the site indicates the remnant portions of land appear too small and too narrow to facilitate a viable stand-alone development even considering using 'air-rights' to develop above the laneway.

It is suggested that further investigate is needed to determine the optimal opportunities for the remnant land portions of Lots 50 and 51. One possible outcome is acquisition (at a future time) by the adjoining landowners and incorporating the remnant land into an integrated redevelopment of the adjoining sites. This is likely to provide the best urban design and future redevelopment outcome for the City and the Town Centre.

- **Lot 50** – land area: 561.5 m<sup>2</sup>. LPS3 zoning R-AC1.  
Laneway area: 10.0m x 36.737m = 367.37m<sup>2</sup>  
Remnant portion: 5.284m x 36.737m = 194.12m<sup>2</sup>

Lot 50 abuts Numbers 92 and 94 Stirling Highway (to the north) and fronts Dalkeith Road. It is understood there is no immediate plans for redevelopment of the adjoining sites. The remnant portion of Lot 50 is 194.12m<sup>2</sup> and it is recommended this site be created as a separate land parcel and held by the City. This will enable future redevelopment/use and ownership options to be further explored.

- **Lot 51** (abutting Aldi) – land area: 308.6m<sup>2</sup>. LPS3 zoning R-AC1.  
Laneway area: 10.0m x 20.12m = 201.2m<sup>2</sup>  
Remnant portion: 5.284m x 20.12m = 107.4m<sup>2</sup>

Lot 51 abuts the Aldi site at 90 Stirling Highway and is effectively land-locked (i.e.. it does not have separate direct street frontage). To facilitate the development of the laneway and the future operation of the Aldi development, including the delivery area and car park which will be accessed via the laneway, the remnant portion of Lot 51 (107.4m<sup>2</sup>) will be required to enable access for the Aldi loading area (in place of the currently approved turn-table). It is recommended the City obtain valuations for this land and commence discussions with the adjoining owner regarding the remnant portion of Lot 51 (approximately 107.4m<sup>2</sup>) regarding its future use. Options include lease or sale of this site. A future sale would need to meet sale of land requirements under the Local Government Act 1995 and the future use of this site would be subject of a separate future report to Council.

### **Florence Road to Dalkeith Road Laneway - Design Concept, Costings and Contributions**

The City commissioned McDowell Affleck (engineers) to prepare concept designs and costings for development of the laneway on Lot 50 and 51 (Number 56) Dalkeith Road. Part of these works includes redesigning and relocating the existing open drainage sump into underground storage located in the Dalkeith Road road reserve to enable the laneway to be developed. The concept design drawings are provided in Attachment 1. The required works include:

- Construction/installation of underground stormwater storage located in the Dalkeith Road road reserve.
- Construction of the laneway carriageway (including pedestrian pathway, lighting, drainage and landscaping) on the City's land (Lots 50 and 51) – 56

Dalkeith Road (note this laneway will continue through to Florence Road through the rear of the Aldi site); and

- Modification and tie in works to Dalkeith Road including removal of the current traffic island and carriageway tie in with the new laneway;
- Modification and tie in works to the boundary of the Aldi site including drainage and carriage way tie ins.

The opinion of probable cost of these works is \$2.944 million.

The laneway between Florence Road and Dalkeith Road is required to service the Woolworths and Aldi developments (customer carparking, truck deliveries and waste management), as well as providing local access to this part of the Nedlands Town Centre. It is proposed to seek contributions from Woolworths and Aldi for the construction cost of the drainage and laneway construction. The exact amounts of these contributions are still to be negotiated. It is proposed that a Memorandum of Understanding be negotiated between the parties (Woolworths, Aldi and the City) in this regard. This is discussed further later in this report.

Given there is also a community benefit to the construction the laneway (including construction/installation of underground stormwater storage) the City would be required to make a funding contribution. The City's funding contribution could be recouped as the Nedlands Town Centre develops through a Development Contributions Plan. The formulation of a Development Contributions Plan under the City's New Local Planning Scheme No.3 will be the subject of a future report to Council in October. A Development Contributions Plan is facilitated via a Complex Scheme Amendment process.

### **Florence Road Town Centre Plaza - Urban Design and Costings**

The City commissioned Place Laboratory (urban and landscape designers) to prepare a detailed concept for the urban design enhancements to Florence Road (between the Captain Stirling/Woolworths development and the Aldi development). This detailed concept is known as the Florence Road Plaza.

Importantly, the design concept has been heavily informed by detailed local traffic review and modelling undertaken for the City by engineers, Cardno (detailed a Technical Note - Attachment 2). The modelling concluded the preferred option to create a shared Florence Road Town Centre Plaza was a one-way (southbound) option, consistent with the initial concept plan that formed part of the draft Nedlands Town Centre Precinct Plan.

The Florence Road Plaza Concept report prepared by Place Laboratory is provided in Attachment 3. The plan allows for a Florence Road Plaza with a significantly improved pedestrian/community environment and one-way southbound traffic on this section of Florence Road. From the Florence Road residential area located to the south of the commercial precinct, a one-way northbound lane is proposed. The northbound lane terminates at the southern edge of the commercial precinct eliminating direct through traffic to the

residential streets but allowing residents to exit the precinct and access the town centre. While further design development will be necessary, the design concept is consistent with the draft Nedlands Town Centre Precinct Plan and provides a sound basis for the cost estimate and for wider community engagement.

Key features of the Florence Road Plaza plan include:

- A street with a focus on creating a vibrant place for people with a plaza space (with flush surfaces) and community multiple gathering nodes suitable for many types of organised (markets and food stalls), play spaces, seating, bike parking and places for casual community activities and meeting points;
- Extensive landscaping reinforcing the leafy character of Nedlands and providing shade to the public spaces;
- A safe crossing point between Captain Stirling/Woolworths and Aldi developments with a low-speed one-way vehicle environment;
- Integration with the Captain Stirling/Woolworths development including integrating stairs and street furniture treatments;
- Integration with the Aldi development – including the gathering nodes proposed opposite the Aldi commercial development fronting Florence Road, and the existing significant tree on the Aldi site (cnr. Florence Road and Stirling Highway); and
- Opportunities for a future Florence Road street kiosk and space for temporary activation (e.g. festive food vans, markets and events);
- Bays for commercial servicing and short-term car parking have also been provided, but not to dominate the street as car parking is provided on the development sites.

The opinion of probable cost for the Florence Road Plaza component of the project is \$3.96 million (excluding GST) but which includes a contingency amount of \$888,514.

It is proposed that Woolworths and Aldi would undertake, or fund, streetscape interface works associated within the pedestrian footpath zone of the road reserve, while the City would be responsible for the road carriageway and drainage/service modifications.

### **Memorandum of Understanding and future Agreement to facilitate implementation of the Nedlands Town Centre – Florence Road Precinct Works**

The implementation of this section of the Nedlands Town Centre, the Florence Road Town Centre Plaza (and the associated laneways) includes the following key elements:

1. Laneway, drainage and tie-in works - Stanley Street to Florence Road: associated with the Woolworths/Captain Stirling development.
2. Laneway, drainage and tie-in works - Florence Road to Dalkeith Road: associated with the Aldi development and required to service the Woolworths development. This also includes extensive drainage storage works under Dalkeith Road to relocate the current drainage sump and accommodate stormwater from the catchment at this low-point.
3. Florence Road Plaza – Urban design improvements to create a shared pedestrian/vehicle space and vibrant community plaza located in Florence Road between the Woolworths/Captain Stirling and the Aldi developments.

Because the public realm contains various elements and landowners, a coordinated approach is required to ensure certainty of delivery and funding for all parties (Woolworths, Aldi and the City). It is recommended the CEO be authorised to negotiate a draft Memorandum of Understanding (MOU) with the adjoining landowner parties/development proponents (Woolworths/Property Owner and Aldi) to cover the above scope of public works. This MOU would address timing and delivery responsibilities, and importantly the responsibility for funding contributions. This will ensure that the laneways and Florence Road Town Centre Plaza are developed in a coordinated way and that timing of delivery is aligned with the private developments of Woolworths and Aldi to enable their operation, while minimising construction impacts on the Nedlands community.

If negotiations progress successfully, the draft MOU would be presented to Council for approval. It is anticipated this would then lead to the drafting of a multi-party legal agreement, which would also be presented to Council for approval. It is proposed the City will lead the development of the draft MOU (utilising the City's Lawyers, McLeod's) as the City will play a lead role in the ultimate delivery of this enabling public infrastructure which is required to facilitate the Captain Stirling/Woolworths and Aldi developments as part of the broader Nedlands Town Centre precinct. It is anticipated the cost developing the MOU and the future legal agreement would be shared by the parties.

#### **Key Relevant Previous Council Decisions:**

At the 28 July 2020 Council meeting, Council last considered the Nedlands Town Centre – Florence Road Precinct and resolved to:

1. authorise the CEO to investigate and prepare costed concepts for:
  - a) development of the laneway connection between Dalkeith Road and Florence Road, Nedlands;
  - b) future use and development of the Lots 50 and 51 (Number 56) Dalkeith Road and resolution of the drainage function;
  - c) traffic, engineering and urban design works associated with the proposed Florence Road 'main street'; and

2. requests the concepts and costings for Dalkeith - Florence Road laneway, future use of lots 50 and 51 Dalkeith Road, drainage, and Florence Road 'main street' be presented to Council in September.
3. allocates funds of \$70,000 to enable concepts and costings to be prepared, with the budget adjustment to be made in the 2020-21 mid-year budget review; and
4. instructs the CEO to provide a further report to Council on the development of a contribution framework/plan for public and community infrastructure associated with Local Planning Scheme No 3 by October 2020.

This report responds to items 1, 2 and 3 above. A future report will address item 4 relating to the development contribution framework associated with Local Planning Scheme No.3.

## **Consultation**

Initial consultations have occurred with Woolworths and Aldi in respect to the development of concept plans for the laneways, Florence Road Town Centre Plaza urban design and a possible Memorandum of Understanding.

While both Woolworths and Aldi indicated a desire to maintain two-way traffic in Florence Road, this is inconsistent with the Draft Nedlands Town Centre Precinct Plan and the key objective of creating a community plaza focused on activity and people. Traffic analysis undertaken for the City by engineers, Cardno indicates this precinct, including Florence Road and the proposed laneways will function effectively with one-way vehicle traffic (southbound) in this section of Florence Road (as detailed in Attachment 2).

Detailed informal consultation with the adjoining proponents (Woolworths and Aldi) is yet to occur, however the City officers have provided a copy of the Florence Road Plaza plan prior to the 29 September 2020 Special meeting of Council. The City's officers will engage further with these parties in line with the Council's decision on this matter.

The plans provide the basis for further negotiations with the adjoining landowners/proponents. Further community consultation will however be required to progress the detailed urban design of the Florence Road Plaza and it is proposed that this occur as part of the re-advertising of the draft Nedlands Town Centre Precinct Plan. It is proposed this consultation be undertaken after the Captain Stirling/Woolworths development application has been determined.

## **Strategic Implications**

The development of the laneway connection (Florence Road to Dalkeith Road) and the Florence Road Plaza urban design are consistent with the Draft Nedlands Town Centre Precinct Plan and their development needs to be timed

to align with the development of the Aldi and Woolworths/Captain Stirling proposals.

This report provides the basis for the City to respond to the issues of concern provided by the JDAP and the basis for contributions to be negotiated from adjoining developments towards essential public infrastructure associated with these proposals (Woolworths and Aldi). Should Council not proceed with these actions at this time, the development of this part of the Nedlands Town Centre is likely to be impeded and the City may need to undertake and fund these works without significant contributions that may be possible as part of a development approval.

## **Budget/Financial Implications**

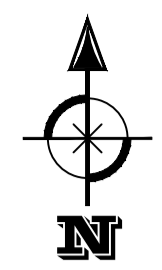
The estimated cost of the public works (as detailed earlier in the report) is summarized below:

- Laneway & Drainage Works (on City Land 56 Dalkeith Road and in the Dalkeith Road road reserve) - \$2.944 million
- Florence Road Urban Plaza Works - \$3.96 million (excluding GST) but which includes a contingency amount of \$888,514.

A further report dealing with the proposed MOU will also address the funding contributions from the development proponents (Aldi and Woolworths) and the financial contribution required from the City. This will enable the City to fully assess the likely financial implications and future budget implications.

It should be noted that the City has not budgeted for these works. It is anticipated the works will need to occur during the next two financial years (2021/22 and 2022/23) and be timed to align with the construction of the Aldi and Woolworths developments. This is subject to confirmation from Aldi and Woolworths on their development timing. It is proposed that the City's funding contributions would need to be from normal annual capital budget expenditure allocations.

It is also anticipated that a report will be presented to Council in October 2020 addressing the matter of Development Contributions under Local Planning Scheme 3. A development contribution plan once in place will also provide opportunity for the city to obtain contributions towards funding for public/community infrastructure, such as the infrastructure required to enable the Nedlands Town Centre.



**LEGEND**

(EXISTING)

ROAD:

BANK:

FENCE:

CONTOUR:

(PROPOSED)

STAGE BOUNDARY:

KERB:

FOOTPATH:

EDGE OF SEAL:

ASPHALT:

**GENERAL NOTES**

1. ALL DIMENSIONS IN METRES U.N.O
2. ALL DETAIL DIMENSIONS IN MILLIMETRES U.N.O

**CONSTRUCTION NOTES:**

1. TOP SOIL IS TO BE STOCK PILED ON SITE AND RESPREAD AROUND THE VERGES ON COMPLETION OF LANEWAY CONSTRUCTION
2. CONTRACTOR TO MAINTAIN ACCESS TO EXISTING LOTS AT ALL TIMES DURING CONSTRUCTION
3. PROVIDE STREET NAME SIGNS TO ALL INTERSECTIONS TO LOCAL AUTHORITY STANDARDS.

**SERVICES AND RESTORATION:**

1. EXISTING SERVICES MARKED ON THIS DRAWING ARE APPROXIMATE FROM DIAL BEFORE YOU DIG AND WATER CORPORATION ESINET DATA AND ARE UNCONFIRMED.
2. THE CONTRACTOR SHALL BE SOLELY AND ENTIRELY RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SERVICES AND STRUCTURES WITHIN AND ADJOINING THE SITE WHICH ARE OR MAY BE INTERFERED WITH DURING THE PROPOSED WORKS.
3. THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO DETERMINE AND CONFIRM THE LOCATIONS AND LEVEL OF ANY AND ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION IN ORDER TO DETERMINE IF CLASHES WITH THE PROPOSED WORKS WILL OCCUR. DIAL 1100.
4. THE INVESTIGATION OF THE EXISTING SERVICES SHALL BE COMPLETED IN A TIMELY MANNER SUCH THAT THE PROGRAM OF THE WORKS IS NOT DELAYED SHOULD A CLASH OCCUR.
5. IF THERE ARE CLASHES WITH PROPOSED SERVICES THEN THE SUPERINTENDENT SHALL BE IMMEDIATELY NOTIFIED SO THAT A COURSE OF ACTION CAN BE DETERMINED WITH THE CONTRACTOR AND THE RELEVANT SERVICE AUTHORITIES.
6. IF THE CONTRACTOR DOES NOT FOLLOW THIS PROCESS THEN NO EXTENSION OF TIMES WILL BE GRANTED FOR ANY DELAYS ARISING OUT OF THE CLASH.

**SITE CLEARING:**

1. CLEAR LANEWAYS AND SERVICE ALIGNMENTS AS REQUIRED. ALL VEGETATION LOCATED OUTSIDE THESE ZONES SHALL BE PROTECTED.

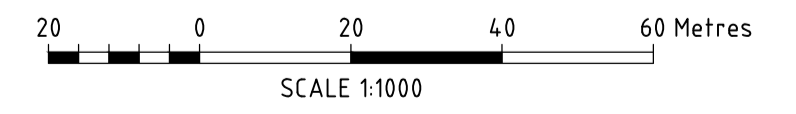
**LIST OF DRAWINGS**

- 16434-CI-G01 LOCALITY PLAN
- 16434-CI-D01 DRAINAGE LAYOUT PLAN SHEET 1 OF 2
- 16434-CI-D02 DRAINAGE LAYOUT PLAN SHEET 2 OF 2
- 16434-CI-D03 DRAINAGE CATCHMENT PLAN
- 16434-CI-R06 LANEWAY 01 LAYOUT PLAN
- 16434-CI-R07 LANEWAY 02 LAYOUT PLAN
- 16434-CI-R08 ROAD AND DRAINAGE DETAILS



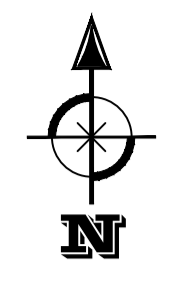
**LOCALITY PLAN**  
SCALE 1:1000

PRELIMINARY



A		INITIAL DRAWING		RS		GVD		MF		18/09/2020		SURVEY METADATA		COPYRIGHT OF ALL THIS DRAWING IS RESERVED BY THE CONSULTANT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING OR DRAWINGS RELATING TO THE PROJECT FOR ACCURATE COORDINATION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CHECKING ALL DIMENSIONS BEFORE PREPARATION OF WORKING DRAWINGS OR COMMENCEMENT OF WORK. THIS DRAWING IS THE PROPERTY OF THE CONSULTANT AND SHALL BE RETURNED UPON REQUEST.		McDowall Affleck CONSULTING ENGINEERS   PROJECT MANAGERS Responsive. Reliable. Results.		CLIENT: City of Nedlands		PROJECT: PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS		TITLE: GENERAL ARRANGEMENT LOCALITY PLAN		SHEET SIZE: A1	
REVISION		DESCRIPTION		DESIGN		DRAWN		CHECKED		DATE		WAPC REFERENCE								SCALE: 1:1000		DRAWING NUMBER: 16434-CI-G01		REVISION: A	





SUPPLY AND INSTALL 4 ROWS OF STORMTRAP  
MODULES 38m LONG IN STRICT ACCORDANCE WITH  
MANUFACTURER'S REQUIREMENTS  
BASE LEVEL OF STORMTRAP TO BE RL 15.475  
REFER DETAIL ON DRAWING 16434-R03

DALKEITH ROAD

FLORENCE ROAD

**LEGEND**

(EXISTING)

ROAD -----

BANK - - - - -

FENCE - - - - -

WATER - - - - -

POWER - - - - -

GAS - - - - -

SEWER - - - - -

DRAINAGE - - - - -

TELSTRA - - - - -

SPOT LEVEL 19.40

CONTOUR 22.0

(PROPOSED)

KERB

DRAINAGE PIPE AND FLOW DIRECTION

COMBINATION SIDE ENTRY PIT TO CITY OF NEDLANDS REQUIREMENTS

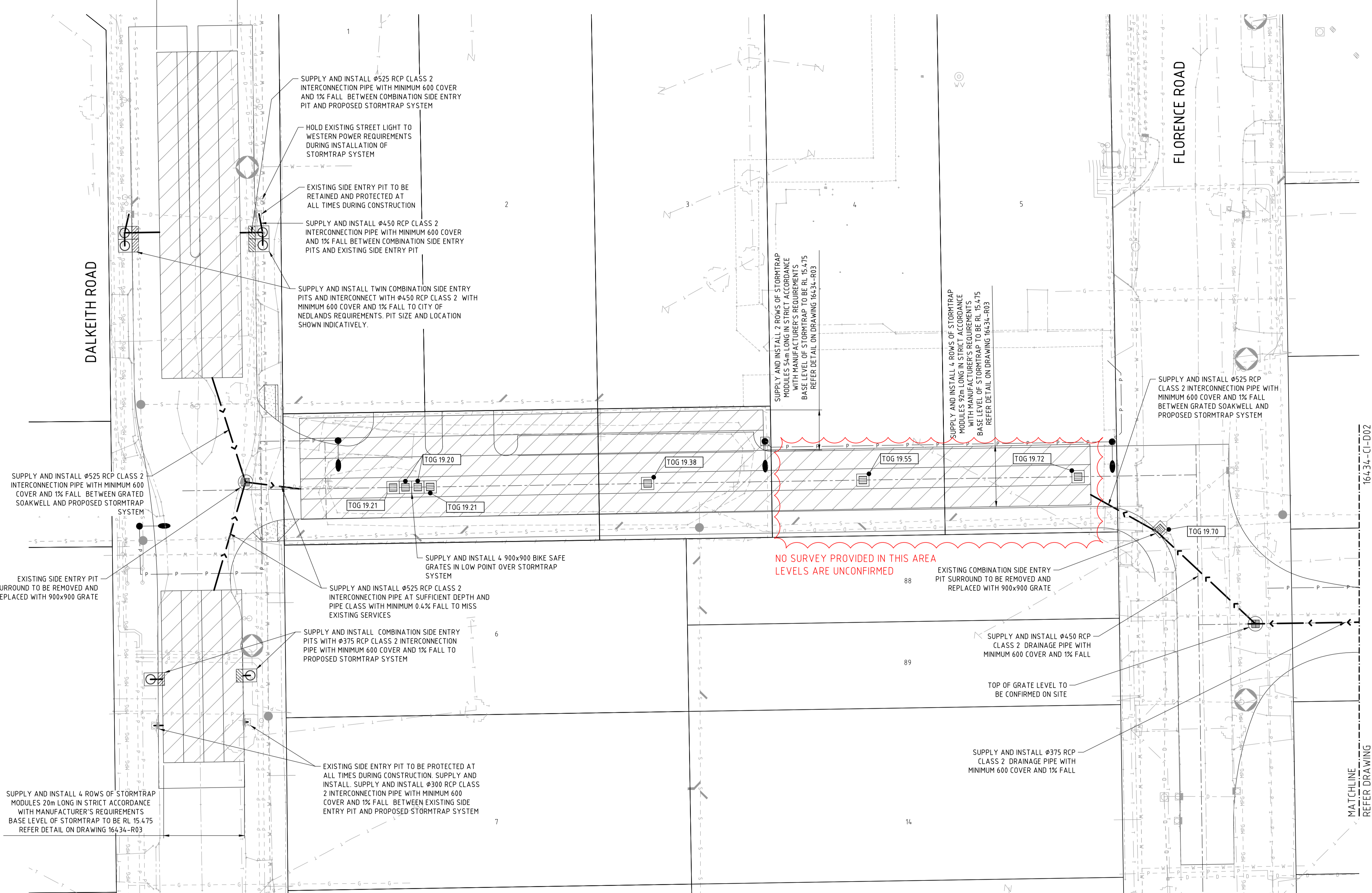
900x900 BIKE SAFE GRATE TO CITY OF NEDLANDS REQUIREMENTS

Ø1500 GRATED SOAKWELL TO CITY OF NEDLANDS REQUIREMENTS

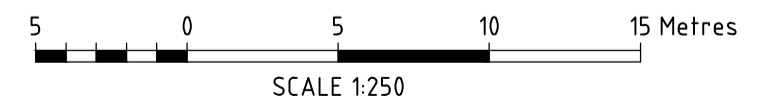
HUMES STORMTRAP MODULES

POWER (DESIGN BY OTHERS)

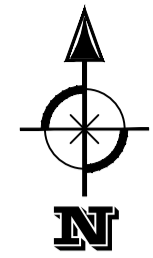
- DRAINAGE NOTES:**
1. STORMWATER GRATE INLET DESIGN IS PRELIMINARY AND MUST BE CONFIRMED WHEN LEVELS ARE PROVIDED ON LANEWAY
  2. ALL CONNECTION LEVELS TO BE CONFIRMED BY CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORKS.
  3. ALL PAVED AREAS TO BE GRADED AT MINIMUM 1 IN 200 TOWARDS DRAINAGE STRUCTURES
  4. ALL DRAINAGE STRUCTURES WITHIN ROAD RESERVE TO CITY OF NEDLANDS SPECIFICATION
  5. CONTRACTOR TO INVESTIGATE AND DETERMINE EXISTING DRAINAGE INVERT LEVELS AT CONNECTION POINT PRIOR TO COMMENCING CONSTRUCTION TO ENSURE PROPOSED DRAINAGE CAN CONNECT INTO EXISTING DRAINAGE SYSTEM. IF ANY DISCREPANCY PLEASE SEEK ENGINEER FOR DIRECTION
  6. ALL HOUSE CONNECTIONS TO BE GRADED AT A MINIMUM 1 IN 100 TO MAIN LINE AND HAVE MINIMUM 600mm COVER UNDER ROAD PAVEMENT
  7. ALL PIPES TO BE RCP PRJ CLASS 2 U.N.O.
  8. ALL GRATED PIT LIDS TO BE CLASS D



**PRELIMINARY DRAINAGE LAYOUT PLAN**  
SCALE 1:250



<p><b>REVISION</b></p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DESIGN</th> <th>DRAWN</th> <th>CHECKED</th> <th>DATE</th> </tr> <tr> <td>1</td> <td>INITIAL DRAWING</td> <td>RS</td> <td>GVD</td> <td>MF</td> <td>18/09/2020</td> </tr> </table>		NO.	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE	1	INITIAL DRAWING	RS	GVD	MF	18/09/2020	<p><b>SURVEY METADATA</b></p> <p>HORIZONTAL:</p> <p>VERTICAL:</p> <p>DATE OF CAPTURE:</p> <p>WAPC REFERENCE:</p>	<p>COPYRIGHT OF ALL THIS DRAWING IS RESERVED BY THE CONSULTANT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING OR DRAWINGS RELATING TO THE PROJECT FOR ACCURATE COORDINATION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CHECKING ALL DIMENSIONS BEFORE PREPARATION OF WORKING DRAWINGS OR COMMENCEMENT OF WORK. THIS DRAWING IS THE PROPERTY OF THE CONSULTANT AND SHALL BE RETURNED UPON REQUEST.</p>	<p><b>McDowall Affleck</b> CONSULTING ENGINEERS   PROJECT MANAGERS <b>Responsive. Reliable. Results.</b></p>	<p>CLIENT:</p> <p><b>City of Nedlands</b></p>	<p>PROJECT:</p> <p><b>PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS</b></p>	<p>TITLE:</p> <p><b>DRAINAGE LAYOUT PLAN</b></p>	<p>SHEET SIZE:</p> <p><b>A1</b></p>
NO.	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE															
1	INITIAL DRAWING	RS	GVD	MF	18/09/2020															
<p>SCALE: AS SHOWN</p>		<p>DRAWING NUMBER: <b>16434-CI-D01</b></p>	<p>REVISION: <b>A</b></p>																	



NO SURVEY PROVIDED IN THIS AREA  
LEVELS ARE UNCONFIRMED

FLORENCE ROAD

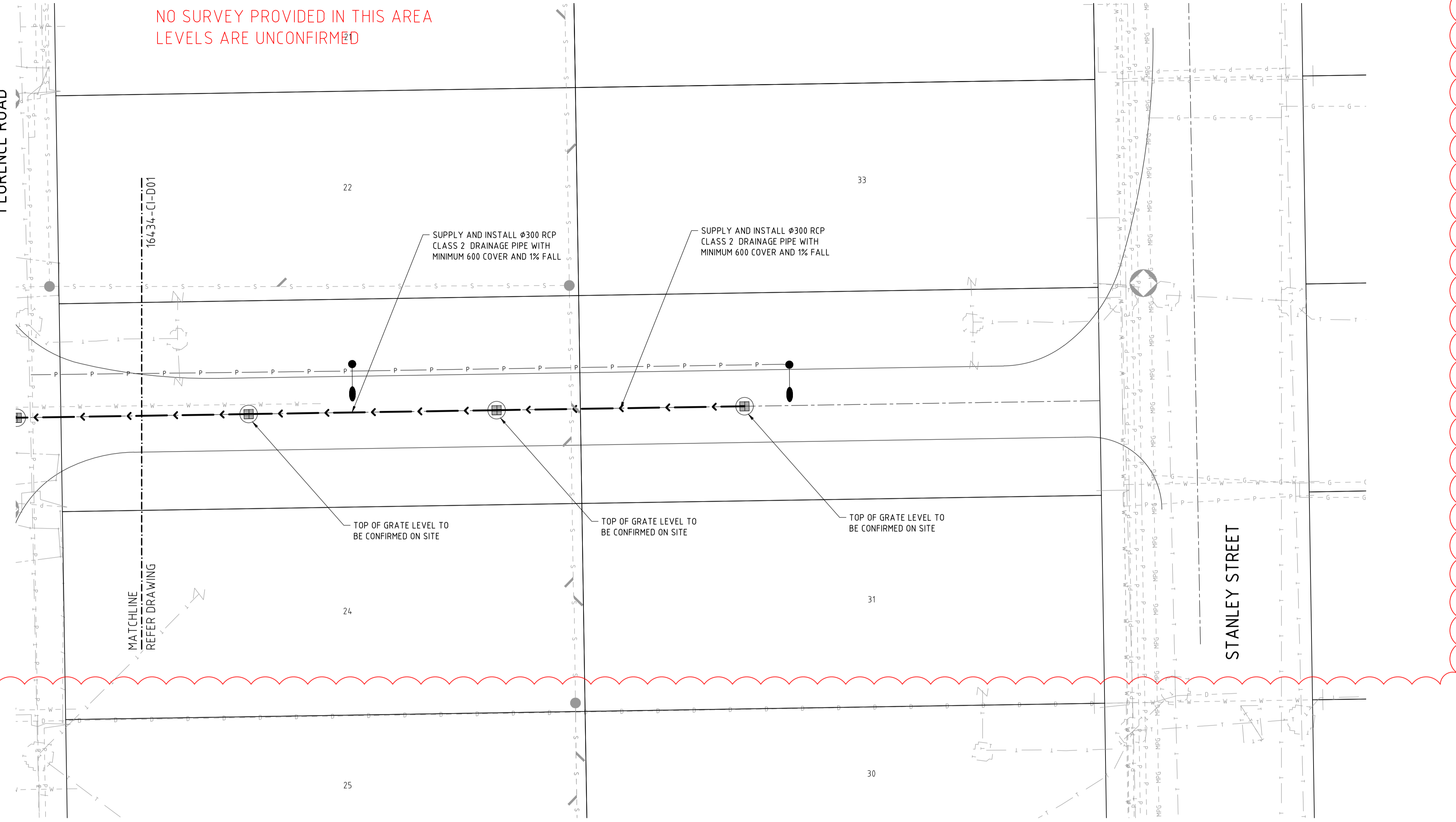
STANLEY STREET

LEGEND

- (EXISTING)
- ROAD
- BANK
- FENCE
- WATER
- POWER
- GAS
- SEWER
- DRAINAGE
- TELSTRA
- SPOT LEVEL
- CONTOUR
- (PROPOSED)
- KERB
- DRAINAGE PIPE AND FLOW DIRECTION
- COMBINATION SIDE ENTRY PIT TO CITY OF NEDLANDS REQUIREMENTS
- 900x900 BIKE SAFE GRATE TO CITY OF NEDLANDS REQUIREMENTS
- Ø1500 SOAKWELL WITH 900x900 BIKE SAFE GRATE TO CITY OF NEDLANDS REQUIREMENTS
- HUMES STORMTRAP MODULES
- POWER (DESIGN BY OTHERS)

DRAINAGE NOTES:

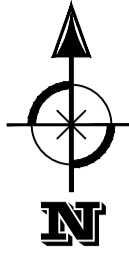
1. STORMWATER GRATE INLET DESIGN IS PRELIMINARY AND MUST BE CONFIRMED WHEN LEVELS ARE PROVIDED ON LANEWAY
2. ALL CONNECTION LEVELS TO BE CONFIRMED BY CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORKS.
3. ALL PAVED AREAS TO BE GRADED AT MINIMUM 1 IN 200 TOWARDS DRAINAGE STRUCTURES
4. ALL DRAINAGE STRUCTURES WITHIN ROAD RESERVE TO CITY OF NEDLANDS SPECIFICATION
5. CONTRACTOR TO INVESTIGATE AND DETERMINE EXISTING DRAINAGE. INVERT LEVELS AT CONNECTION POINT PRIOR TO COMMENCING CONSTRUCTION TO ENSURE PROPOSED DRAINAGE CAN CONNECT INTO EXISTING DRAINAGE SYSTEM. IF ANY DISCREPANCY PLEASE SEEK ENGINEER FOR DIRECTION
6. ALL HOUSE CONNECTIONS TO BE GRADED AT A MINIMUM 1 IN 100 TO MAIN LINE AND HAVE MINIMUM 600mm COVER UNDER ROAD PAVEMENT
7. ALL PIPES TO BE RCP RRRJ CLASS 2 U.N.O.
8. ALL GRATED PIT LIDS TO BE CLASS D




DRAINAGE LAYOUT PLAN  
SCALE 1:250


PRELIMINARY


A		INITIAL DRAWING		RS		GVD		MF		18/09/2020		SURVEY METADATA		COPYRIGHT OF ALL THIS DRAWING IS RESERVED BY THE CONSULTANT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING OR DRAWINGS RELATING TO THE PROJECT FOR ACCURATE COORDINATION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CHECKING ALL DIMENSIONS BEFORE PREPARATION OF WORKING DRAWINGS OR COMMENCEMENT OF WORK. THIS DRAWING IS THE PROPERTY OF THE CONSULTANT AND SHALL BE RETURNED UPON REQUEST.		McDowall Affleck CONSULTING ENGINEERS   PROJECT MANAGERS Responsive. Reliable. Results.		CLIENT: City of Nedlands		PROJECT: PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS		TITLE: DRAINAGE LAYOUT PLAN		SHEET SIZE: A1	
REVISION	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE	WAPC REFERENCE						SCALE: AS SHOWN	DRAWING NUMBER: 16434-CI-D02	REVISION: A											





**LEGEND**


(EXISTING)  
CONTOUR 


DRAINAGE CATCHMENT 1 


DRAINAGE CATCHMENT 2 


DRAINAGE CATCHMENT 3 


DRAINAGE CATCHMENT 4 


DRAINAGE CATCHMENT 5 


DRAINAGE CATCHMENT 6 


DRAINAGE CATCHMENT 7 

DRAINAGE CATCHMENT 8 

DRAINAGE CATCHMENT 9 

DRAINAGE CATCHMENT 10 

DRAINAGE CATCHMENT 11 

DRAINAGE CATCHMENT 12 

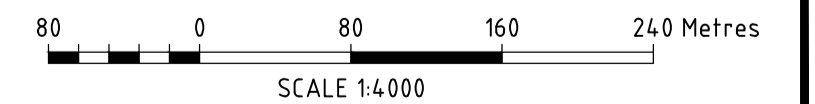
**DRAINAGE CATCHMENT INFORMATION**

CATCHMENT NUMBER	AREA (Ha)	FRACTION IMPERVIOUS (%)
1	0.1630	55
2	0.3497	55
3	2.536	55
4	0.6213	55
5	0.3260	55
6	0.4054	55
7	0.6970	55
8	0.6000	55
9	0.6076	55
10	1.3312	55
11	0.2800	55
12	2.0947	55

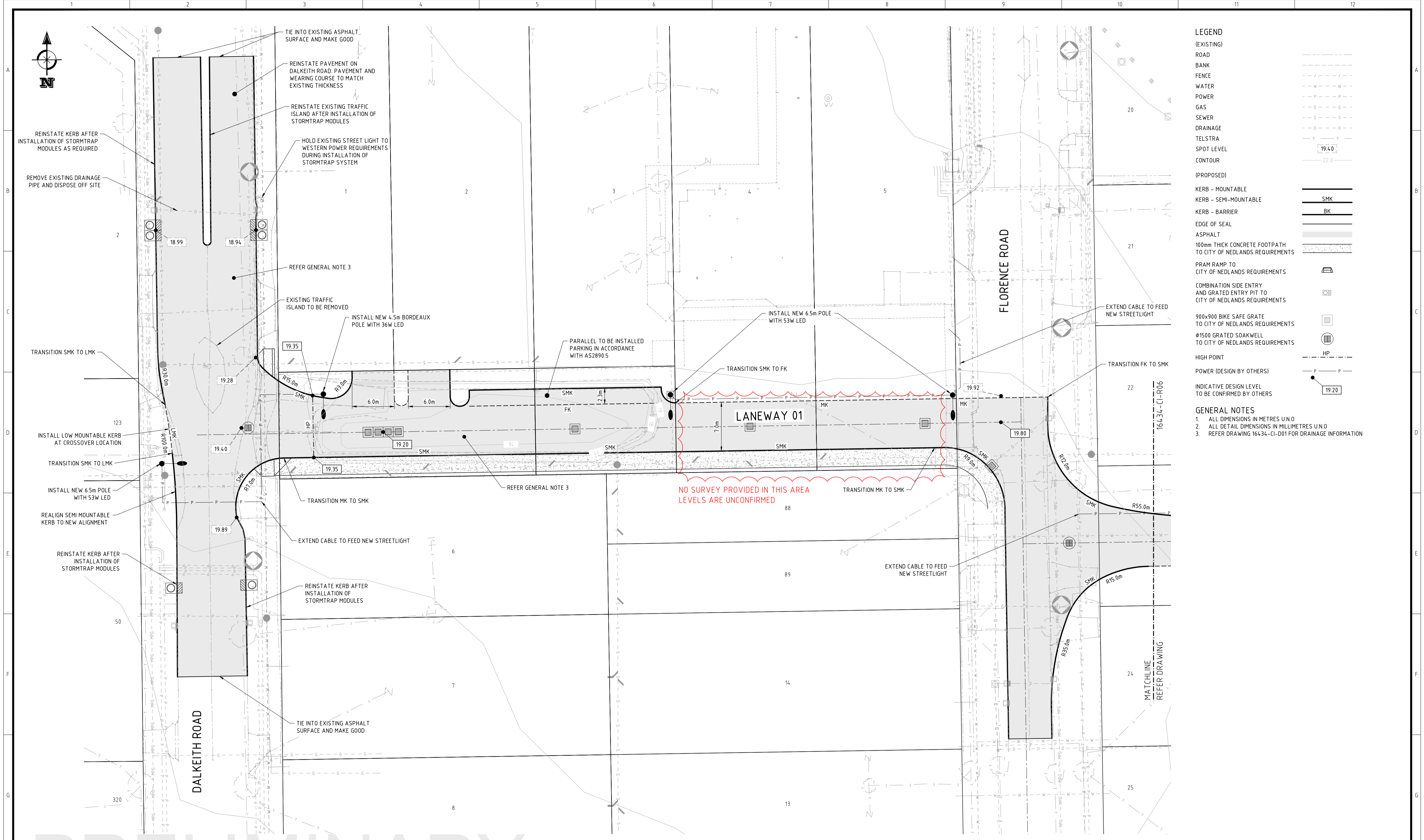


**DRAINAGE CATCHMENT PLAN**  
SCALE 1:4,000

PRELIMINARY



<p><b>REVISION</b></p> <table border="1"> <tr> <th>REVISION</th> <th>DESCRIPTION</th> <th>DESIGN</th> <th>DRAWN</th> <th>CHECKED</th> <th>DATE</th> </tr> <tr> <td>A</td> <td>INITIAL DRAWING</td> <td>RS</td> <td>GVD</td> <td>MF</td> <td>18/09/2020</td> </tr> </table>		REVISION	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE	A	INITIAL DRAWING	RS	GVD	MF	18/09/2020	<p><b>SURVEY METADATA</b></p> <p>HORIZONTAL : VERTICAL : DATE OF CAPTURE : WAPC REFERENCE :</p>		<p>COPYRIGHT OF ALL THIS DRAWING IS RESERVED BY THE CONSULTANT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING OR DRAWINGS RELATING TO THE PROJECT FOR ACCURATE COORDINATION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CHECKING ALL DIMENSIONS BEFORE PREPARATION OF WORKING DRAWINGS OR COMMENCEMENT OF WORK. THIS DRAWING IS THE PROPERTY OF THE CONSULTANT AND SHALL BE RETURNED UPON REQUEST.</p>		<p><b>McDowall Affleck</b> CONSULTING ENGINEERS   PROJECT MANAGERS <b>Responsive. Reliable. Results.</b></p>		<p>CLIENT : </p>		<p>PROJECT : <b>PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS</b></p>		<p>TITLE : <b>DRAINAGE CATCHMENT PLAN</b></p>		<p>SHEET SIZE : <b>A1</b></p>	
REVISION	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE																						
A	INITIAL DRAWING	RS	GVD	MF	18/09/2020																						
								<p>SCALE : 1:1000</p>		<p>DRAWING NUMBER : <b>16434-CI-D03</b></p>		<p>REVISION : <b>A</b></p>															



**LEGEND**

(EXISTING)

- ROAD
- BANK
- FENCE
- WATER
- POWER
- GAS
- SEWER
- DRAINAGE
- TELSTRA
- SPOT LEVEL
- CONTOUR

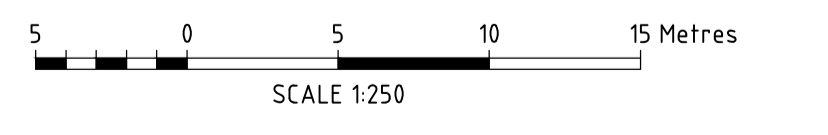
(PROPOSED)

- KERB - MOUNTABLE
- KERB - SEMI-MOUNTABLE
- KERB - BARRIER
- EDGE OF SEAL
- ASPHALT
- 100mm THICK CONCRETE FOOTPATH TO CITY OF NEDLANDS REQUIREMENTS
- PRAM RAMP TO CITY OF NEDLANDS REQUIREMENTS
- COMBINATION SIDE ENTRY AND GRATED ENTRY PIT TO CITY OF NEDLANDS REQUIREMENTS
- 900x900 BIKE SAFE GRATE TO CITY OF NEDLANDS REQUIREMENTS
- Ø1500 GRATED SOAKWELL TO CITY OF NEDLANDS REQUIREMENTS
- HIGH POINT
- POWER (DESIGN BY OTHERS)
- INDICATIVE DESIGN LEVEL TO BE CONFIRMED BY OTHERS

- GENERAL NOTES**
- ALL DIMENSIONS IN METRES U.N.O
  - ALL DETAIL DIMENSIONS IN MILLIMETRES U.N.O
  - REFER DRAWING 16434-CI-D01 FOR DRAINAGE INFORMATION

PRELIMINARY

**LANEWAY 01 LAYOUT PLAN**  
DRAINAGE PIPES AND STORAGE MODULES NOT SHOWN FOR CLARITY  
SCALE 1:250

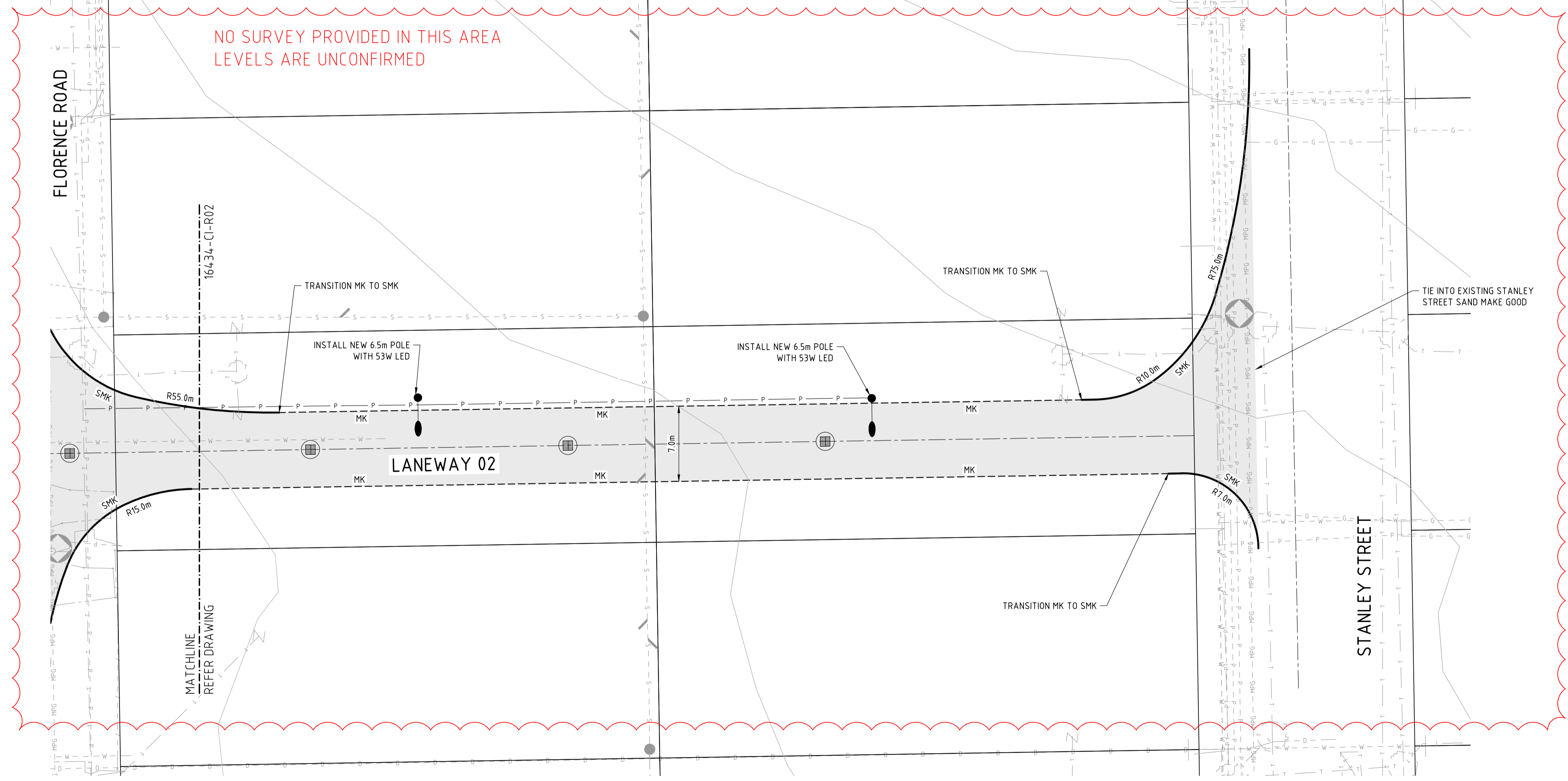


<p>REVISION</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DESIGN</th> <th>DRAWN</th> <th>CHECKED</th> <th>DATE</th> </tr> <tr> <td>1</td> <td>INITIAL DRAWING</td> <td>RS</td> <td>GVD</td> <td>MF</td> <td>18/09/2020</td> </tr> </table>		NO.	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE	1	INITIAL DRAWING	RS	GVD	MF	18/09/2020	<p><b>McDowall Affleck</b> CONSULTING ENGINEERS   PROJECT MANAGERS <b>Responsive. Reliable. Results.</b></p>	<p>CLIENT: <b>City of Nedlands</b></p>	<p>PROJECT: <b>PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS</b></p>	<p>TITLE: <b>LANEWAY 01 LAYOUT PLAN</b></p>	<p>SHEET SIZE: <b>A1</b></p>
NO.	DESCRIPTION	DESIGN	DRAWN	CHECKED	DATE													
1	INITIAL DRAWING	RS	GVD	MF	18/09/2020													
		<p>SCALE: AS SHOWN</p>		<p>DRAWING NUMBER: <b>16434-CI-R06</b></p>	<p>REVISION: <b>A</b></p>													



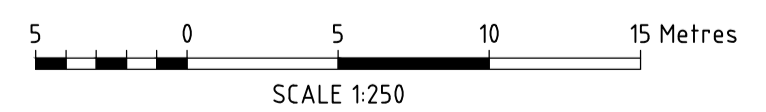
LEGEND	
<b>(EXISTING)</b>	
ROAD	---
BANK	- - - - -
FENCE	- / - / - / -
WATER	- W - W -
POWER	- P - P -
GAS	- G - G -
SEWER	- S - S -
DRAINAGE	- D - D -
TELSTRA	- T - T -
SPOT LEVEL	19.40
CONTOUR	22.0
<b>(PROPOSED)</b>	
KERB - MOUNTABLE	=====
KERB - SEMI-MOUNTABLE	===== SMK
KERB - BARRIER	===== BK
EDGE OF SEAL	=====
ASPHALT	=====
100mm THICK CONCRETE FOOTPATH TO CITY OF NEDLANDS REQUIREMENTS	=====
PRAM RAMP TO CITY OF NEDLANDS REQUIREMENTS	=====
COMBINATION SIDE ENTRY AND GRATED ENTRY PIT TO CITY OF NEDLANDS REQUIREMENTS	=====
900x900 BIKE SAFE GRATE TO CITY OF NEDLANDS REQUIREMENTS	=====
Ø1500 GRATED SOAKWELL TO CITY OF NEDLANDS REQUIREMENTS	=====
POWER (DESIGN BY OTHERS)	- P - P -

- GENERAL NOTES**
- ALL DIMENSIONS IN METRES U.N.O
  - ALL DETAIL DIMENSIONS IN MILLIMETRES U.N.O
  - REFER DRAWING 16434-CI-D01 FOR DRAINAGE INFORMATION

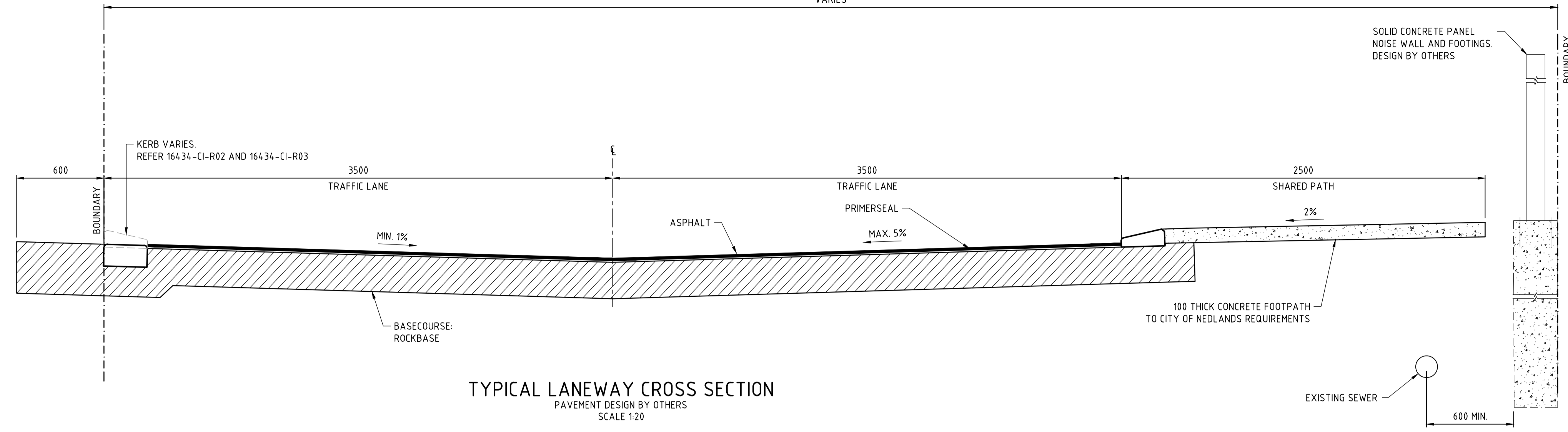


**PRELIMINARY**

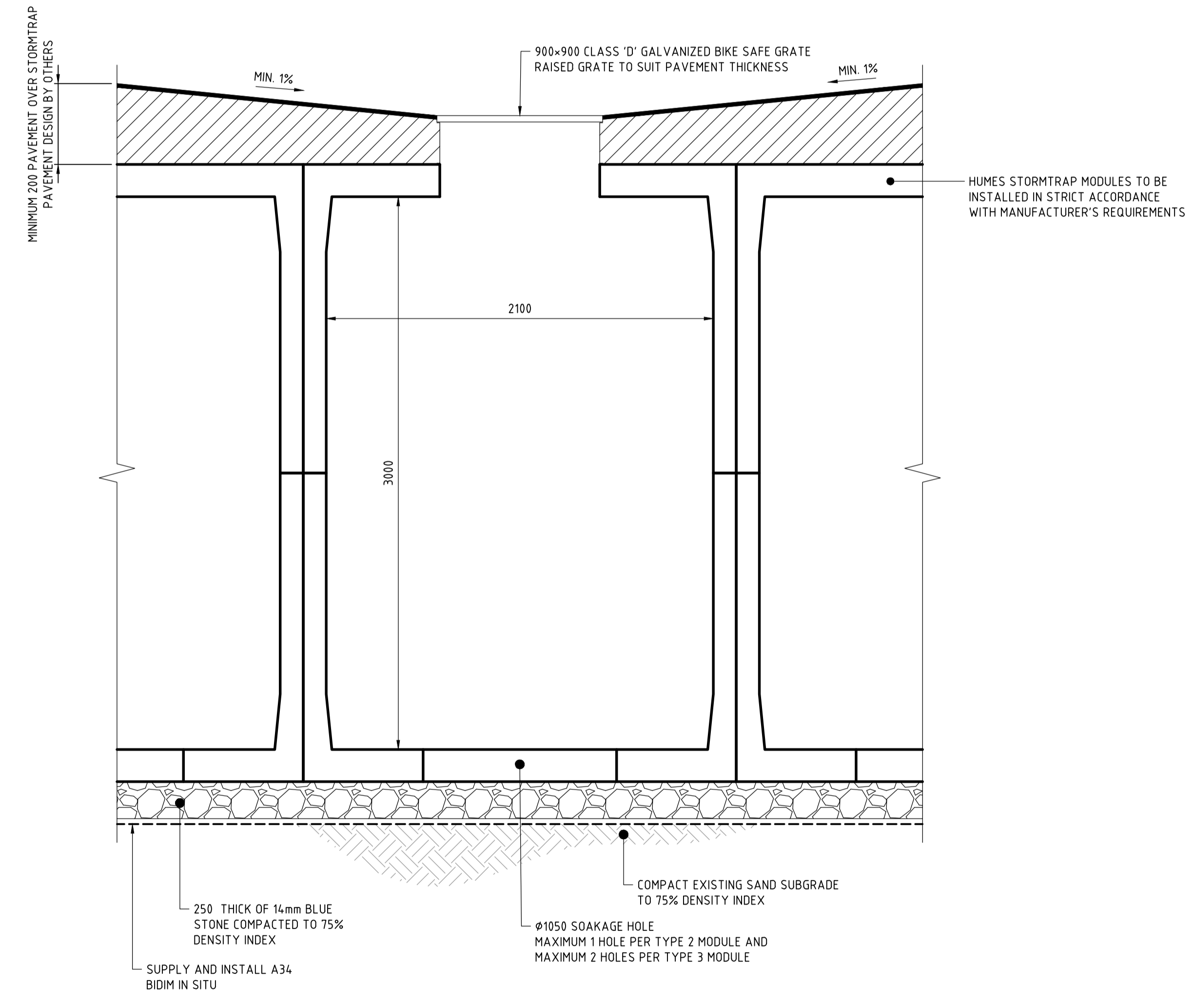
**LANEWAY 02 LAYOUT PLAN**  
 DRAINAGE PIPES AND STORAGE MODULES NOT SHOWN FOR CLARITY  
 SCALE 1:250



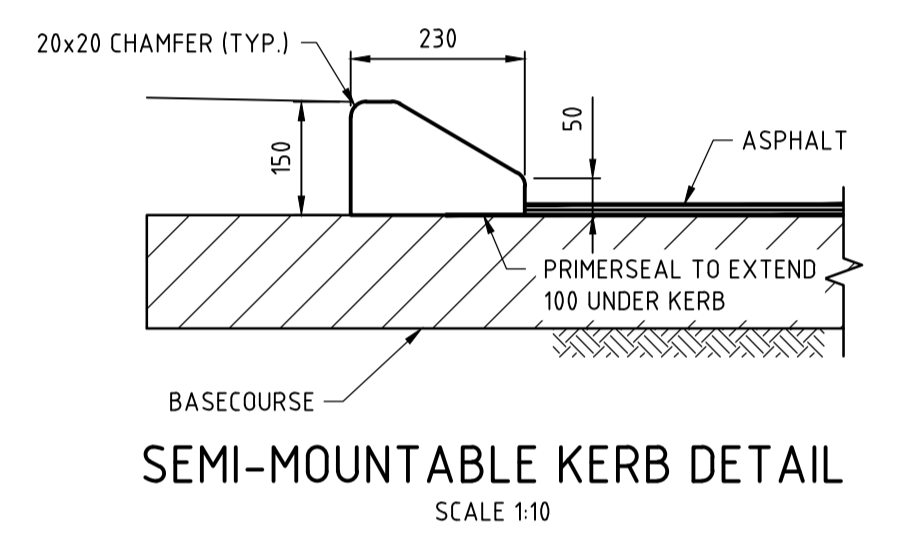
SURVEY METADATA HORIZONTAL : VERTICAL : DATE OF CAPTURE : WAPC REFERENCE :		COPYRIGHT OF ALL THIS DRAWING IS RESERVED BY THE CONSULTANT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING OR DRAWINGS RELATING TO THE PROJECT FOR ACCURATE COORDINATION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CHECKING ALL DIMENSIONS BEFORE PREPARATION OF WORKING DRAWINGS OR COMMENCEMENT OF WORK. THIS DRAWING IS THE PROPERTY OF THE CONSULTANT AND SHALL BE RETURNED UPON REQUEST.		CLIENT : 		PROJECT : PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS		TITLE : LANEWAY 02 LAYOUT PLAN		SHEET SIZE : A1	
REVISION A INITIAL DRAWING	DESCRIPTION	RS DESIGN	GVD DRAWN	MF CHECKED	18/09/2020 DATE	SCALE : AS SHOWN		DRAWING NUMBER : 16434-CI-R07		REVISION : A	



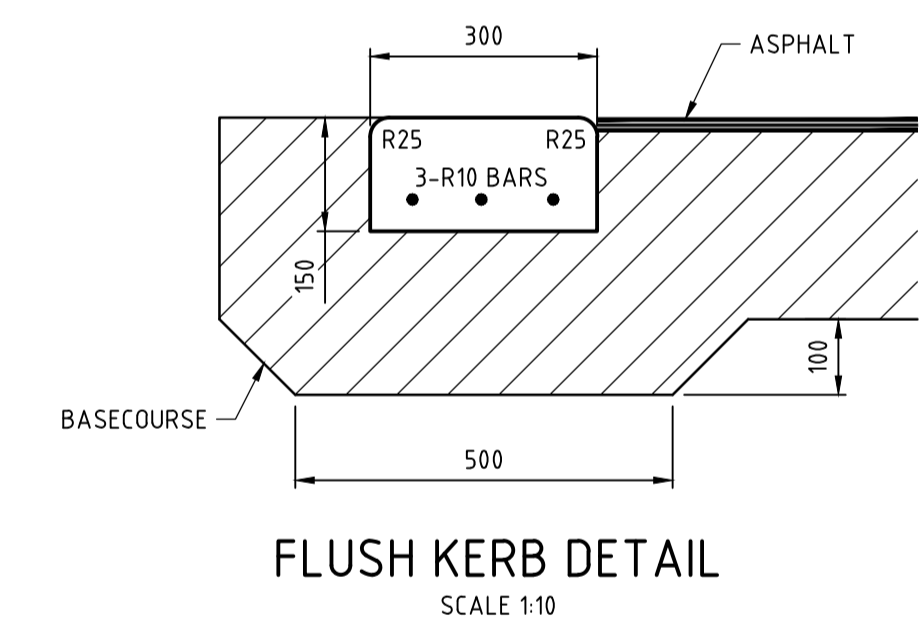
TYPICAL LANEWAY CROSS SECTION  
PAVEMENT DESIGN BY OTHERS  
SCALE 1:20



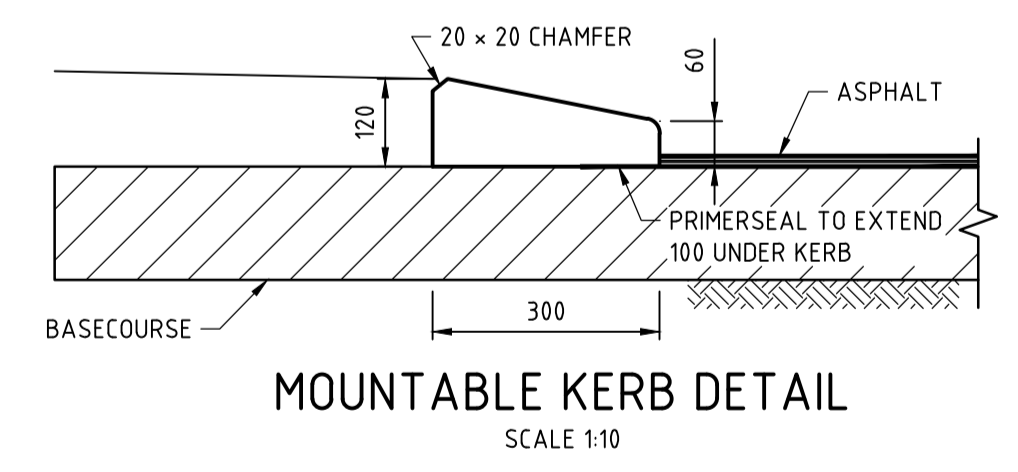
TYPICAL STORMTRAP UNDER PAVEMENT DETAIL  
SCALE 1:20



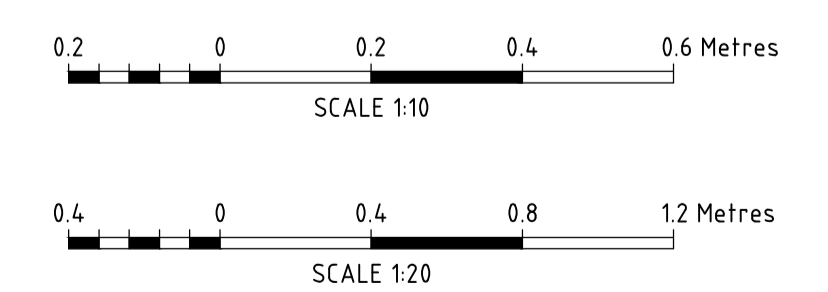
SEMI-MOUNTABLE KERB DETAIL  
SCALE 1:10



FLUSH KERB DETAIL  
SCALE 1:10



MOUNTABLE KERB DETAIL  
SCALE 1:10



PRELIMINARY

REVISION		DESCRIPTION		RS	GVD	MF	18/09/2020	SURVEY METADATA		HORIZONTAL : VERTICAL : DATE OF CAPTURE : WAPC REFERENCE :	COPYRIGHT OF ALL THIS DRAWING IS RESERVED BY THE CONSULTANT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING OR DRAWINGS RELATING TO THE PROJECT FOR ACCURATE COORDINATION OF SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CHECKING ALL DIMENSIONS BEFORE PREPARATION OF WORKING DRAWINGS OR COMMENCEMENT OF WORK. THIS DRAWING IS THE PROPERTY OF THE CONSULTANT AND SHALL BE RETURNED UPON REQUEST.	McDowall Affleck CONSULTING ENGINEERS   PROJECT MANAGERS Responsive. Reliable. Results.	CLIENT : City of Nedlands	PROJECT : PROPOSED LANEWAY DALKEITH ROAD TO STANLEY STREET NEDLANDS	TITLE : ROADS AND DRAINAGE DETAILS	SHEET SIZE : A1
A	INITIAL DRAWING			DESIGN	DRAWN	CHECKED	DATE	SCALE	DRAWING NUMBER							
1									SCALE	16434-CI-R08	A					

# Technical Memorandum

**Title** Florence Road Public Realm Preliminary Design  
**Florence Road Traffic Review**

<b>Client</b>	City of Nedlands	<b>Project No</b>	CW1113800
<b>Date</b>	9/09/2020	<b>Status</b>	Rev C
<b>Author</b>	Raymond Rachmat	<b>Discipline</b>	Traffic and Transport
<b>Reviewer</b>	Sam Laybutt	<b>Office</b>	Perth

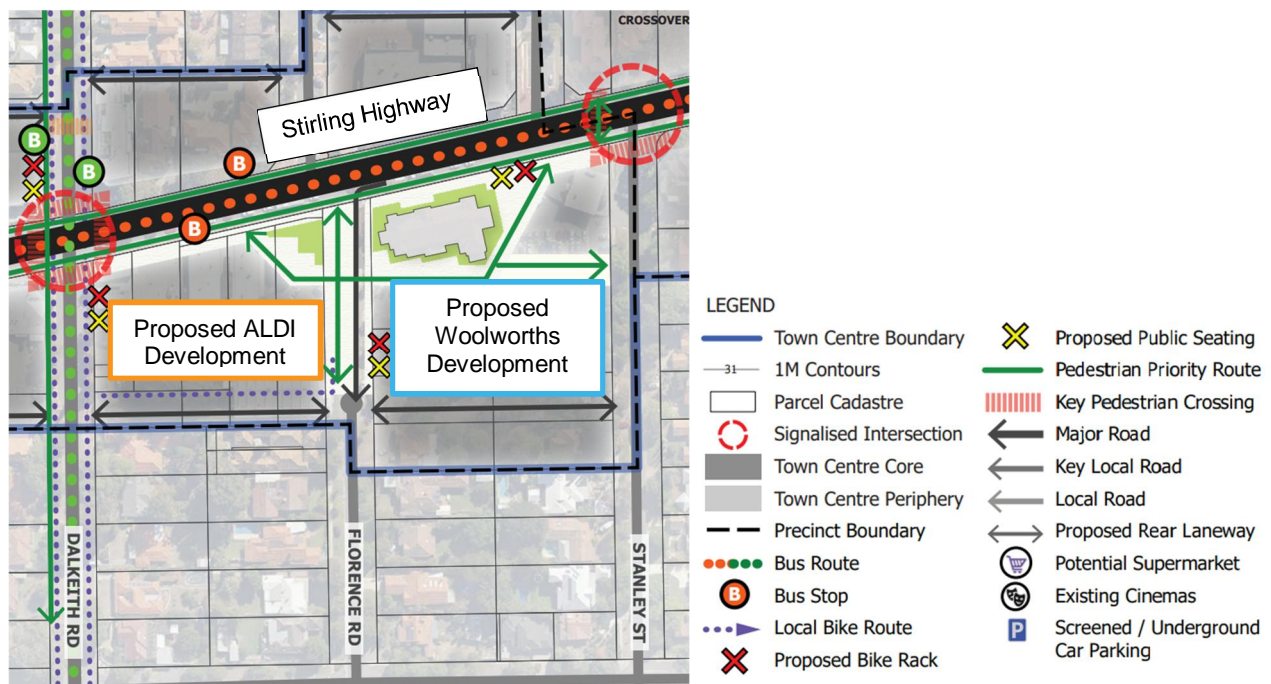
## 1 Introduction

Cardno has been engaged by the City of Nedlands (“the City”) to provide undertake traffic analysis to support the development of options in Florence Road pedestrian friendly environment / public realm as part of its Nedlands Town Centre Precinct Plan.

The scope of this Technical Note is to undertake a high-level traffic analysis for multiple road layout change scenarios, as well as the impact of the proposed ALDI and Woolworths developments. For each scenario, daily traffic volumes are estimated for each road segment to inform opportunities and constraints.

The study area is shown in **Figure 1-1**.

Figure 1-1 Study Area



## 2 Road Layout Scenarios

The modelled road layout scenarios are listed in **Table 2-1** below. The modelled scenarios represent a range of options being considered for Florence Road and associated roads.

Table 2-1 Road Layout Changes Scenarios

	Road Network Changes	Developments
Scenario 1	Existing road network	No Development
Scenario 2	<ul style="list-style-type: none"> <li>▪ Existing road network</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Dalkeith Road and Stanley Street added</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included as per the current plans</li> </ul>
Scenario 3	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Florence Road and Stanley Street added</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included as per the current plans</li> </ul>
Scenario 4	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Florence Road and Stanley Street added</li> <li>▪ Florence Road closure south of the future laneways</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included as per the current plans</li> </ul>
Scenario 5	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Florence Road and Stanley Street added</li> <li>▪ Florence Road closure south of the future laneways</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included</li> <li>▪ Woolworths Florence Road crossover left-out only</li> </ul>
Scenario 6	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Dalkeith Road and Stanley Street added</li> <li>▪ Florence Road closure south of the future laneways</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included</li> <li>▪ Woolworths Florence Road crossover removed</li> </ul>
Scenario 7	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Dalkeith Road and Stanley Street added</li> <li>▪ Florence Road southbound only south of the laneway</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included as per the current plans</li> </ul>
Scenario 8	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Florence Road and Stanley Street added</li> <li>▪ Florence Road northbound only south of the laneways</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included as per the current plans</li> </ul>





	Road Network Changes	Developments
Scenario 9	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Florence Road and Stanley Street added</li> <li>▪ Florence Road northbound only south of the laneways</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included</li> <li>▪ Woolworths Florence Road crossover removed</li> </ul>
Scenario 10	<ul style="list-style-type: none"> <li>▪ Florence Road southbound only between Stirling Highway and Woolworths crossover</li> <li>▪ Stirling Highway and Florence Road intersection modified to left turn and right in entry only</li> <li>▪ Laneway between Dalkeith Road and Florence Road added</li> <li>▪ Laneway between Florence Road and Stanley Street added</li> <li>▪ Florence Road northbound only south of the laneways</li> </ul>	<ul style="list-style-type: none"> <li>▪ Woolworth and ALDI included as per the current plans</li> </ul>

### 3 Traffic Analysis Results

The daily traffic flow comparison between the scenarios are presented in **Appendix A**. The summary of the analysis are as follows:

#### > Florence Road unmodified

1. Adding the Woolworths and ALDI (with laneways) without any changes to Florence Road would result in a traffic volume of up to 3500 vpd along Florence Road south of the laneways and 3000 vpd north of the Woolworths access. While this a significant increase from the existing volume of 1550 vpd, the expected 3000 vpd north of the Woolworths access is still within the desired maximum volume for an access road as per Liveable Neighbourhoods.

#### > Florence Road southbound only between Stirling Highway and laneways

1. With Florence Road being southbound only and no road closure, the daily traffic volume would approximately be up to 2500 vpd south of the laneways and 1700 vpd north of the laneways.

Stanley Street would have approximately 2600vpd south of the laneways and Dalkeith Road would have approximately 6700 vpd.

2. If Florence Road south of the laneway is only closed for northbound traffic only, the daily traffic volume would approximately be up to 1600 vpd south of the laneways and 1700 vpd north of the laneways. Therefore, half road closure would result in a reduction to daily traffic along Florence Road.

Stanley Street would have approximately 3200 vpd south of the laneways and Dalkeith Road would have approximately up to 7900vpd. While this slightly exceed the Liveable Neighbourhood desired maximum of 7000vpd, the road can still physically cater for this traffic volume.

3. If Florence Road is fully closed south of the proposed laneways, traffic along Florence Road will be reduced even further to 1450 vpd north of the laneways due to through traffic being diverted to Dalkeith Road and Stanley Road. South of the laneway Florence Road volume would be approximately 100 vpd and consist of only local traffic.

This would bring Stanley Road daily volumes up to 3800 vpd south of the laneways, which is slightly above the desired maximum volume for an access road as per Liveable Neighbourhood. While this exceed the threshold slightly, the road can still physically cater for this traffic volume.

4. The impact of modification or removal of Woolworths access on Florence Road is minimal and would not have an appreciable impact to the road network.

#### > Florence Road northbound only south of the laneways

1. Florence Road south of the laneways would have up to 900-1000 vpd south of the laneways as a result of the southbound restriction, which is lower than if fully movement or southbound only is allowed. North of the laneways, Florence Road would have up to 1450 vpd.

2. With Florence Road converted to northbound only south of the laneways, southbound background traffic and development traffic would divert to Stanley Street and Dalkeith Road. Stanley Street would have an approximate daily volume of 3800 vpd south of the laneway. While this exceeds the threshold for an access road slightly, the road can still physically cater for this traffic volume.

3. Dalkeith Road would have up to 7650 vpd south of the laneways. While this slightly exceed the Liveable Neighbourhood desired maximum of 7000vpd for a Neighbourhood Connector, the road can still physically cater for this traffic volume.

### > Laneways

1. Laneways at the rear of ALDI is expected to carry higher volumes between 1650 and 3600 vpd, depending on the road layout scenarios. The Woolworths laneway would have approximately 700 to 2200 vpd depending on the road layout scenarios. As a result, both laneways would need to be designed to an access road standard.

Overall, Florence Road being converted to southbound would support the proposal of turning Florence Road into pedestrian priority road / public realm. The impact to both Stanley Street and Dalkeith Road, while measurable, is unlikely to cause significant issue as the existing road form can be expected to cater for the expected daily volumes.

If Florence Road is converted to northbound only south of the laneways Florence Road traffic volume would be reduced, however the traffic would be diverted to Dalkeith Road and Stanley Road and increasing the traffic volume along these roads. Dalkeith Road is expected to still be able to cater for the increased volume, however the increased traffic to Stanley Road would result in the street to function as a Neighbourhood Connector instead as opposed to its current function as mainly a residential Access Road.

## 3.1 Preferred Scenario

At a workshop attended by the project team and City stakeholders on 25 August 2020, Scenario 9 was selected as the preferred scenario. This scenario incorporates the following features:

- > Florence Road southbound only between Stirling Highway and Woolworths crossover
- > Stirling Highway and Florence Road intersection modified to left turn entry only
- > Laneway between Dalkeith Road and Florence Road added
- > Laneway between Florence Road and Stanley Street added
- > Florence Road northbound only south of the laneways
- > Woolworths Florence Road crossover removed

## 4 Emergency and Service Vehicle Access

---

Emergency and service vehicles routes with the proposed conversion of Florence Road into pedestrian priority road, the addition of the laneways, possible closure or partial closure of Florence Road (south of the laneways), Woolworths, and ALDI developments are expected to be the as per the following:

### > **19m semi-trailer for Woolworths and ALDI deliveries**

Semi-trailers destined for either Woolworths and ALDI will first turn left into Stanley Street from Stirling Highway. The truck then turns into the laneways to reached either Woolworths or continue towards Florence Road to reach ALDI via the laneways at the rear of ALDI. Semi-trailers then will exit either sites via the laneways towards Dalkeith Road, where it would either head east or west along Stirling Highway.

### > **Waste trucks**

Waste trucks for Woolworths and ALDI will take the same route as 19m semi-trailers described above, with waste collection to occur internally via the laneways. These waste trucks are not required to enter via Florence Road.

The small City of Nedlands trucks are still expected to be permitted to enter Florence Road to collect waste from public bins along Florence Road.

If Florence Road is converted to northbound traffic only, south of the laneways, waste trucks servicing the residential area will be able to operate in a northbound direction only and then proceed either east or west along the laneways to continue on their route.

### > **Delivery vans / couriers**

Delivery vans and couriers would be still be able to enter Florence Road as any other light vehicles. With Florence Road converted to northbound only, these vehicles would exit via the laneway at the rear of ALDI and exit to Dalkeith.

### > **Emergency vehicles (ambulance and fire trucks)**

If Florence Road is converted to northbound traffic only, so the south of the laneways, unrestricted two-way emergency vehicle access will be retained via the one-way roadway.



## Appendix A – Estimated Traffic Volumes

---

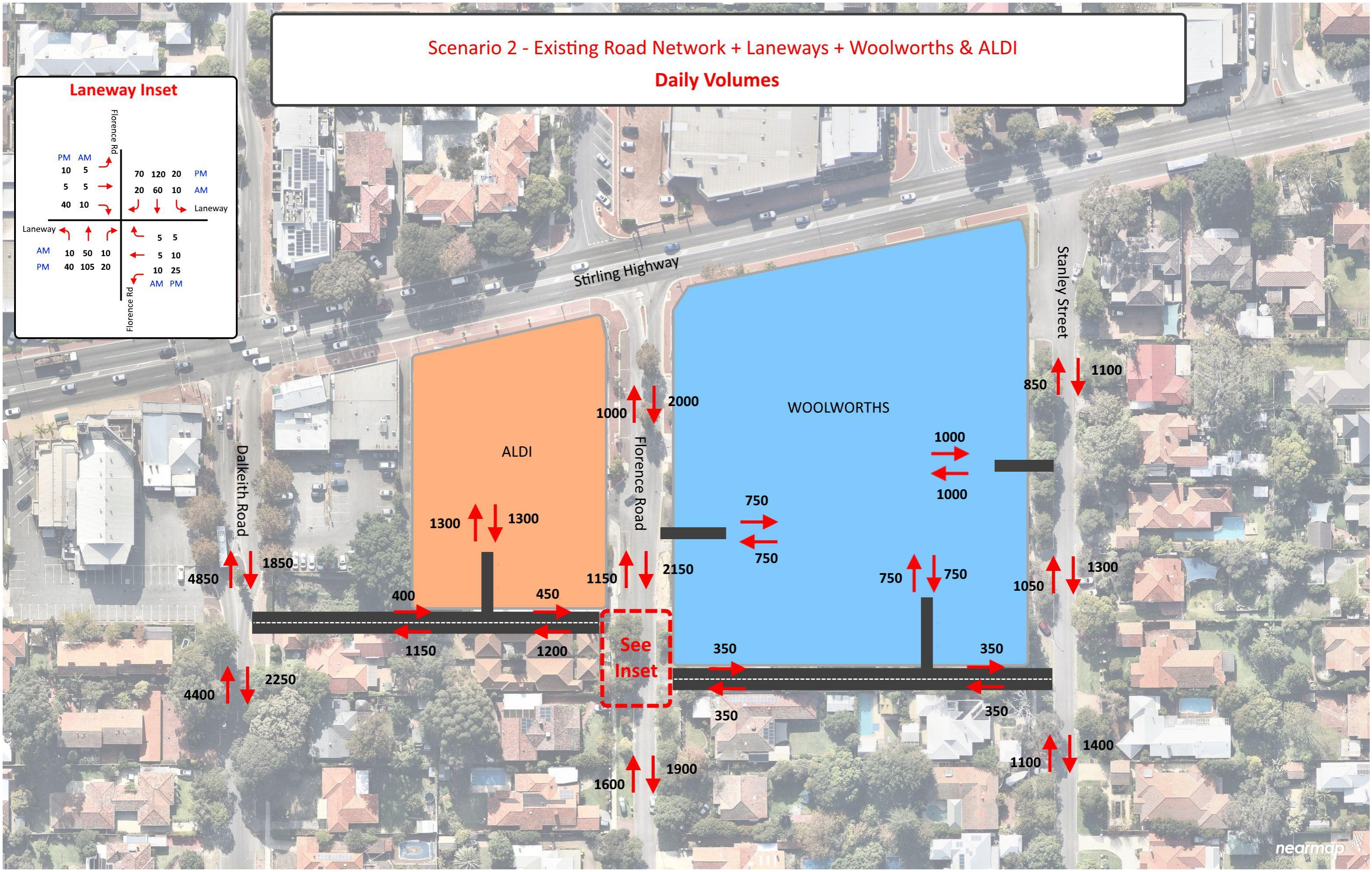
**Scenario 1 - Existing Condition Without Development**  
**Daily Volumes**



Scenario 2 - Existing Road Network + Laneways + Woolworths & ALDI  
Daily Volumes

Laneway Inset

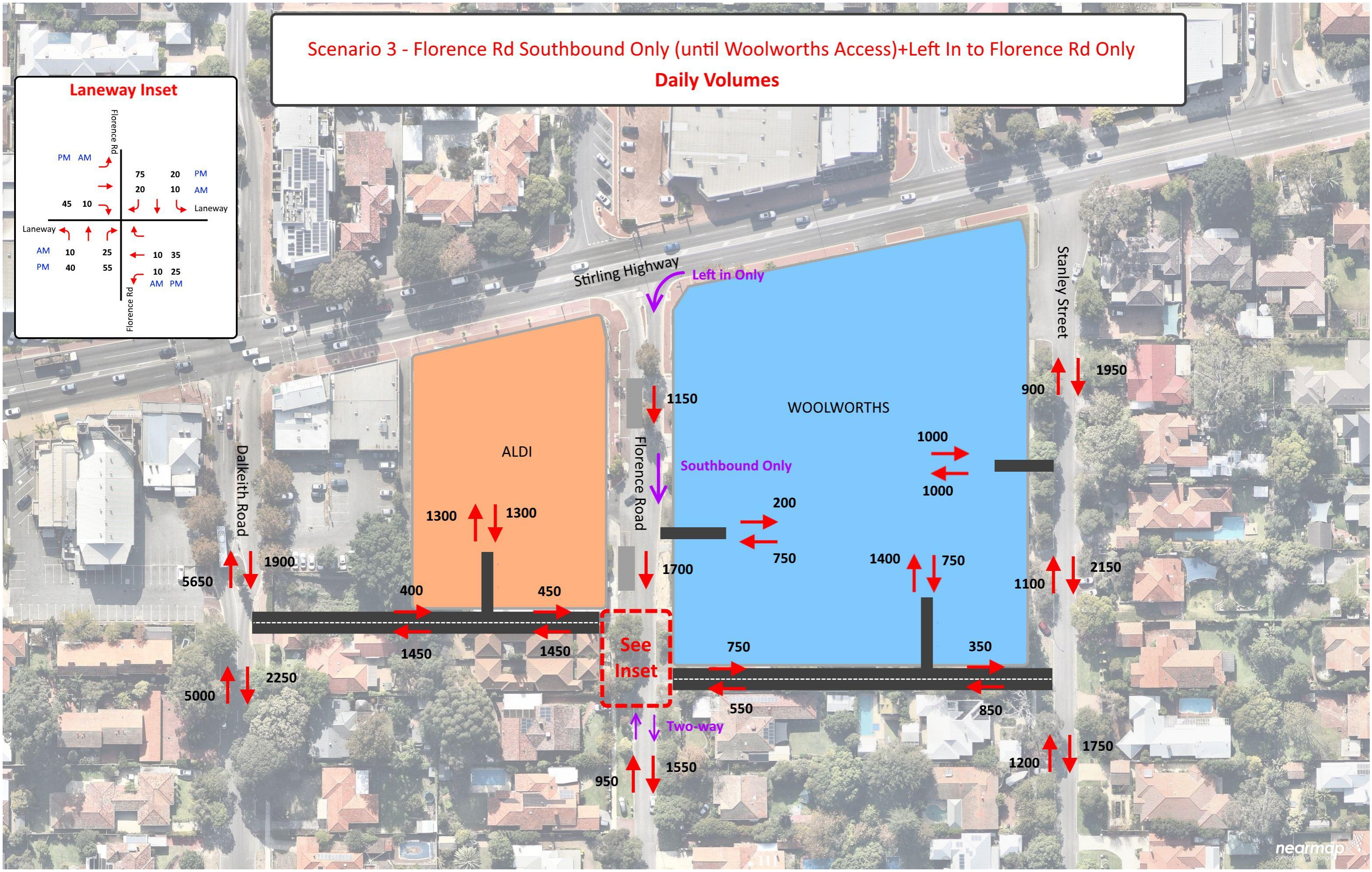
		Florence Rd			
PM	AM	↗			
10	5	↗	70	120	20
5	5	↗	20	60	10
40	10	↘			
			↘	↘	↘
					Laneway
Laneway		↖			
AM	10	↖	5	5	
PM	40	↖	5	10	
			↖	10	25
					AM
					PM
		Florence Rd			



**Scenario 3 - Florence Rd Southbound Only (until Woolworths Access)+Left In to Florence Rd Only**  
**Daily Volumes**

**Laneway Inset**

Florence Rd		Laneway	
PM	AM	75	20
45	10	20	10
Laneway		Florence Rd	
AM	PM	10	35
10	25	10	25
40	55	AM	PM



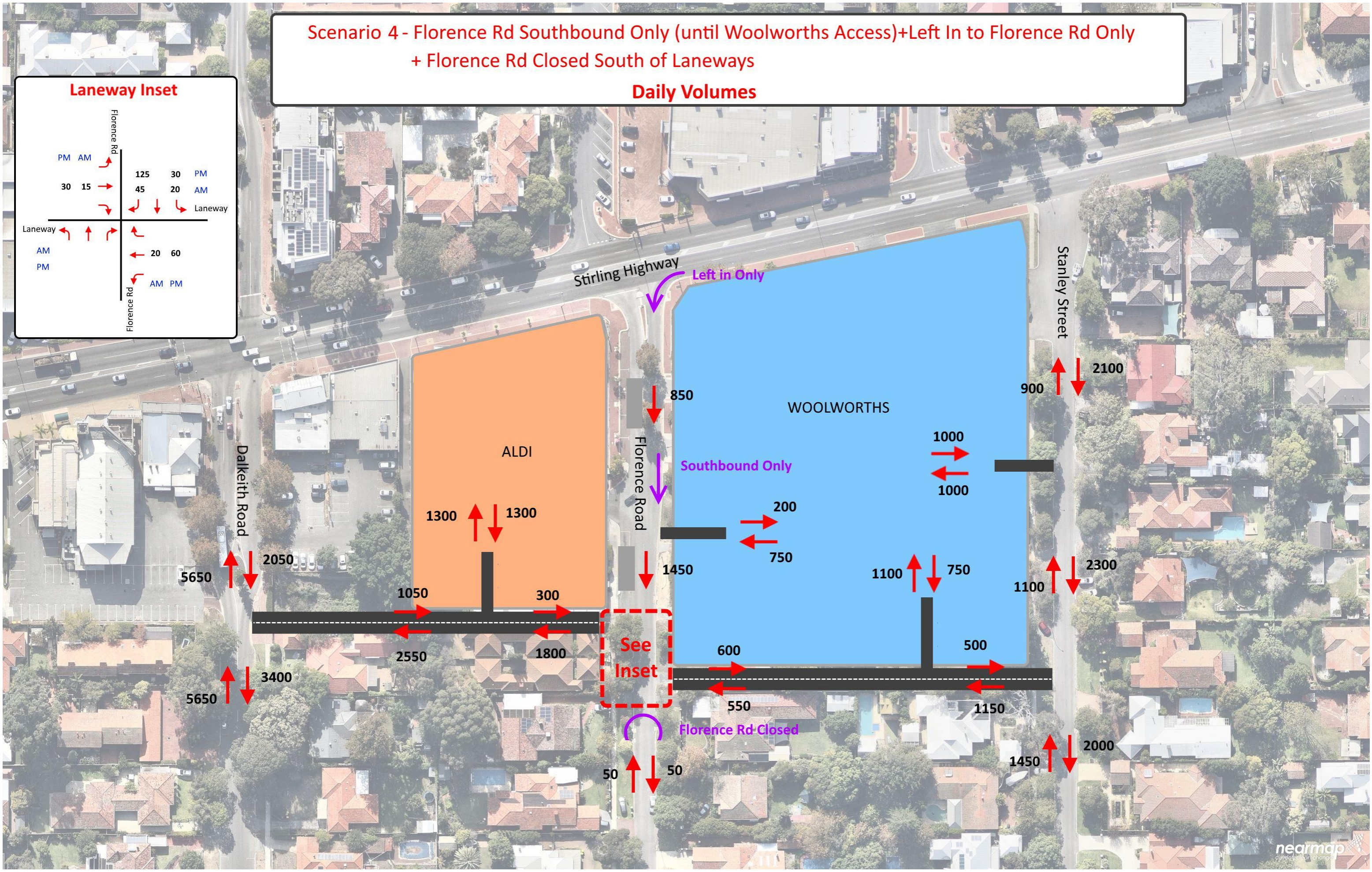


**Scenario 4 - Florence Rd Southbound Only (until Woolworths Access)+Left In to Florence Rd Only  
+ Florence Rd Closed South of Laneways**

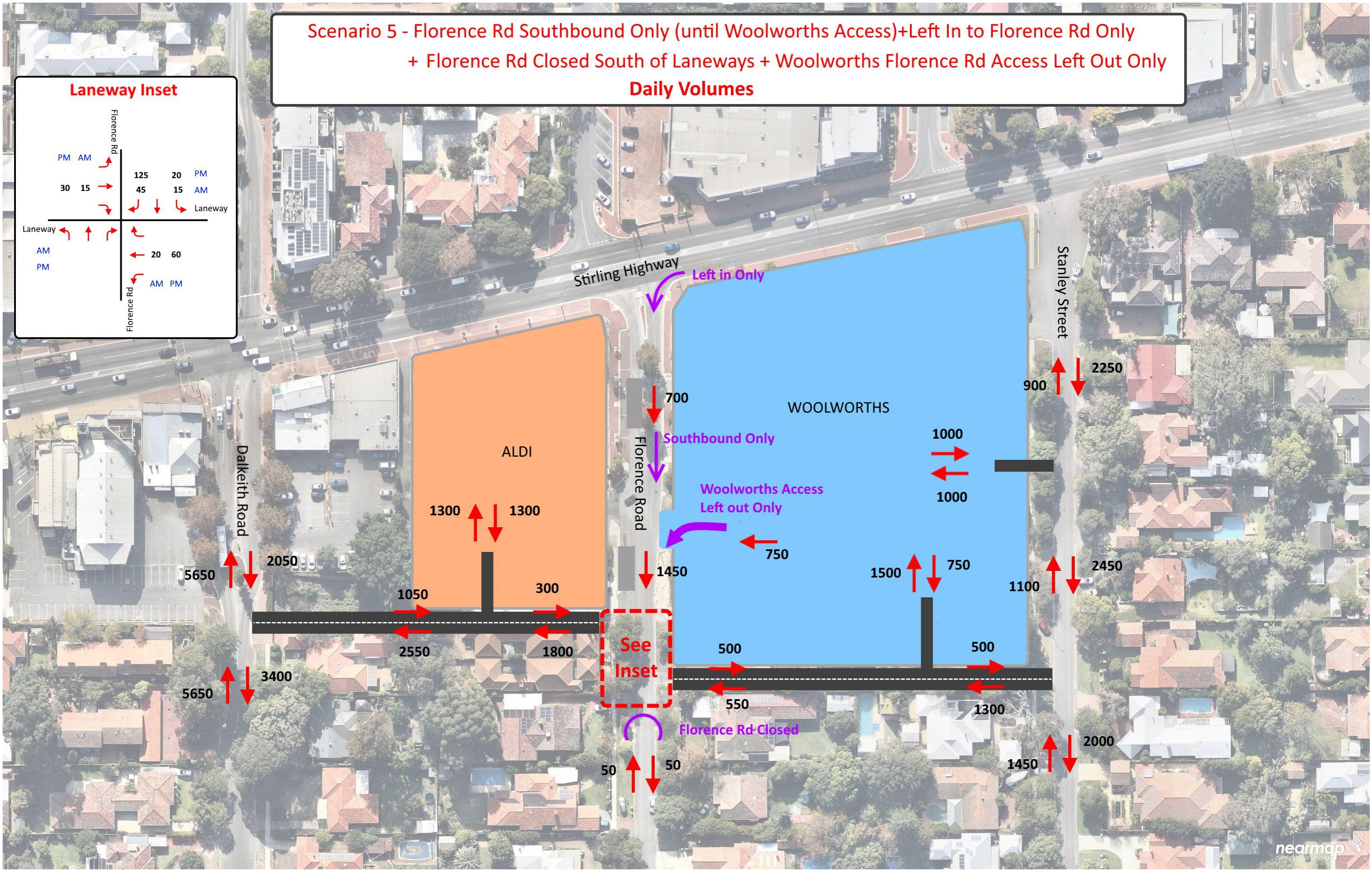
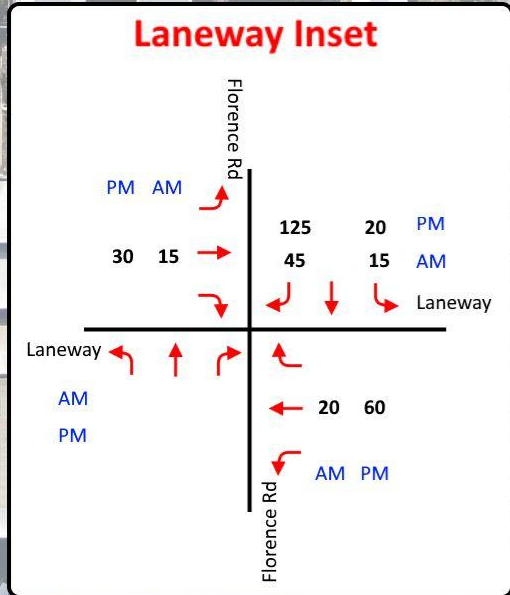
**Daily Volumes**

**Laneway Inset**

Florence Rd		Laneway	
PM	AM	125	30
30	15	45	20
Laneway		Florence Rd	
AM	PM	20	60
Laneway		Florence Rd	
AM	PM		



**Scenario 5 - Florence Rd Southbound Only (until Woolworths Access)+Left In to Florence Rd Only  
+ Florence Rd Closed South of Laneways + Woolworths Florence Rd Access Left Out Only**  
**Daily Volumes**

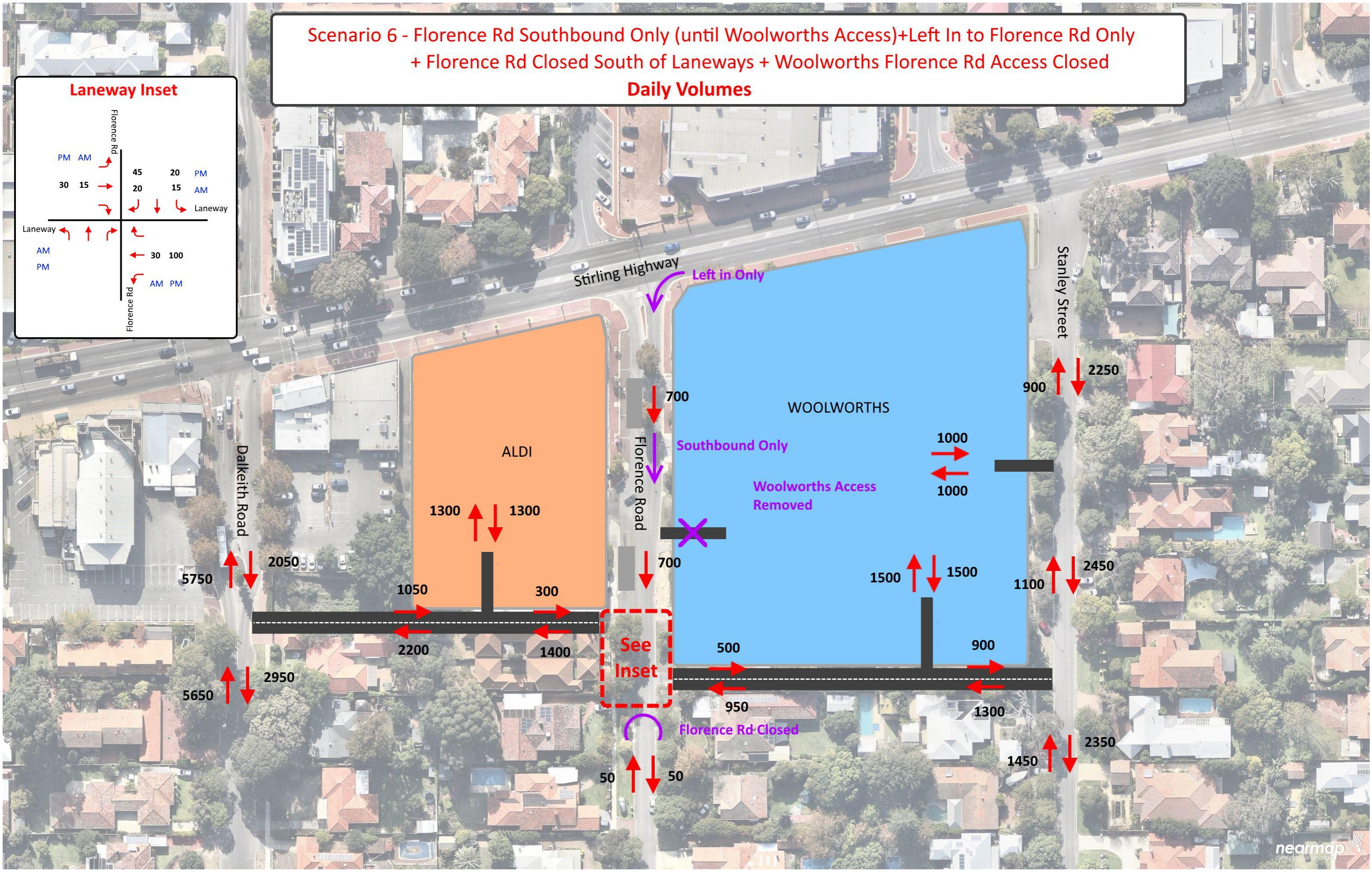
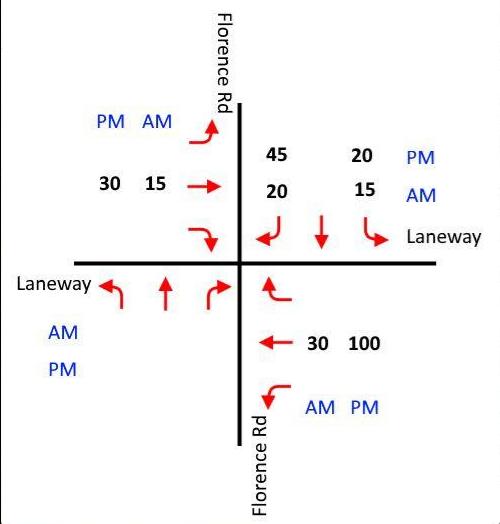


See Inset

**Scenario 6 - Florence Rd Southbound Only (until Woolworths Access)+Left In to Florence Rd Only  
+ Florence Rd Closed South of Laneways + Woolworths Florence Rd Access Closed**

**Daily Volumes**

**Laneway Inset**

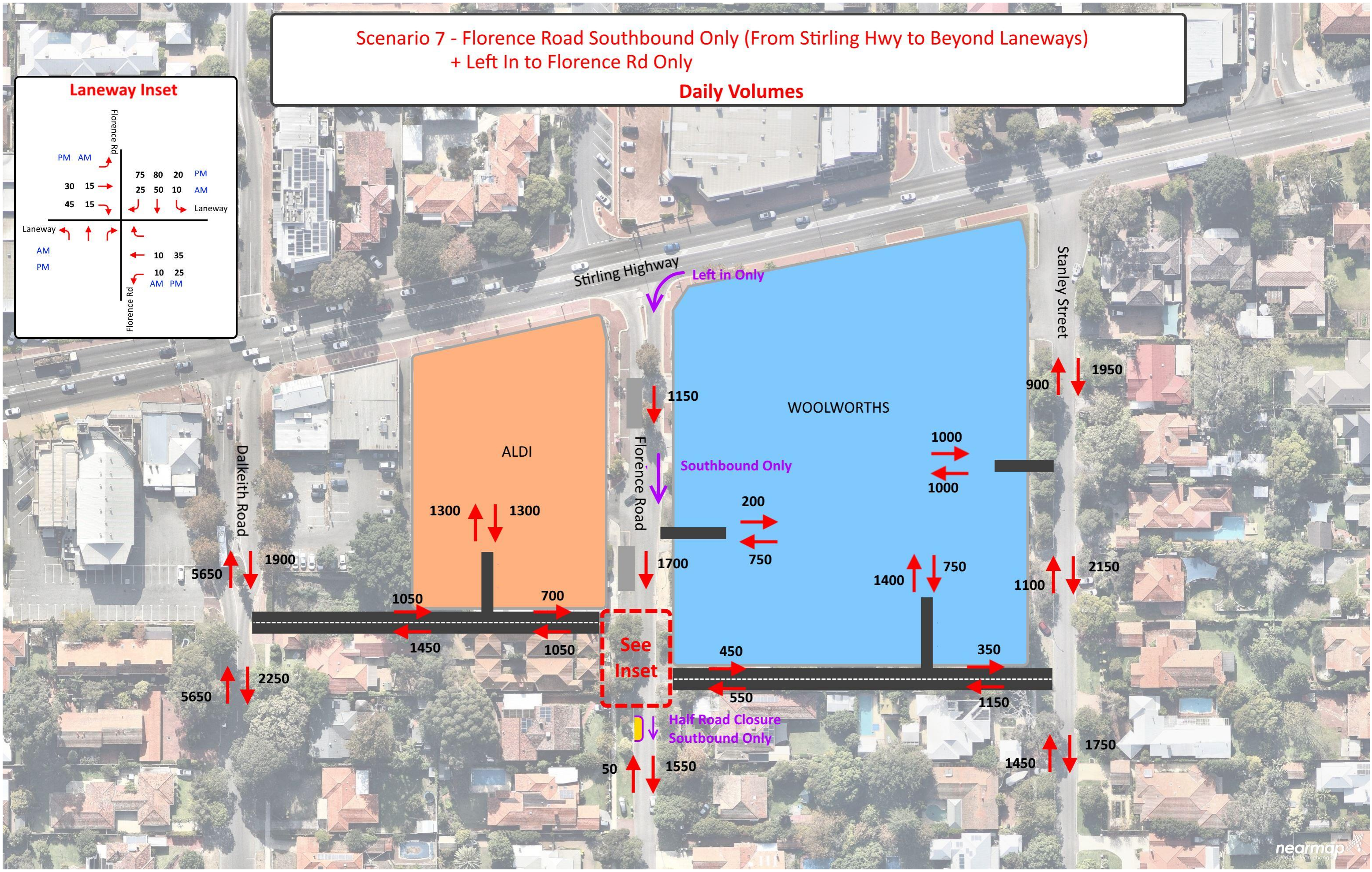


**Scenario 7 - Florence Road Southbound Only (From Stirling Hwy to Beyond Laneways)  
+ Left In to Florence Rd Only**

**Daily Volumes**

**Laneway Inset**

Florence Rd		Laneway	
PM	AM	75	80
30	15	25	50
45	15	10	25
Laneway		Florence Rd	
AM	PM	10	35
		10	25



See Inset

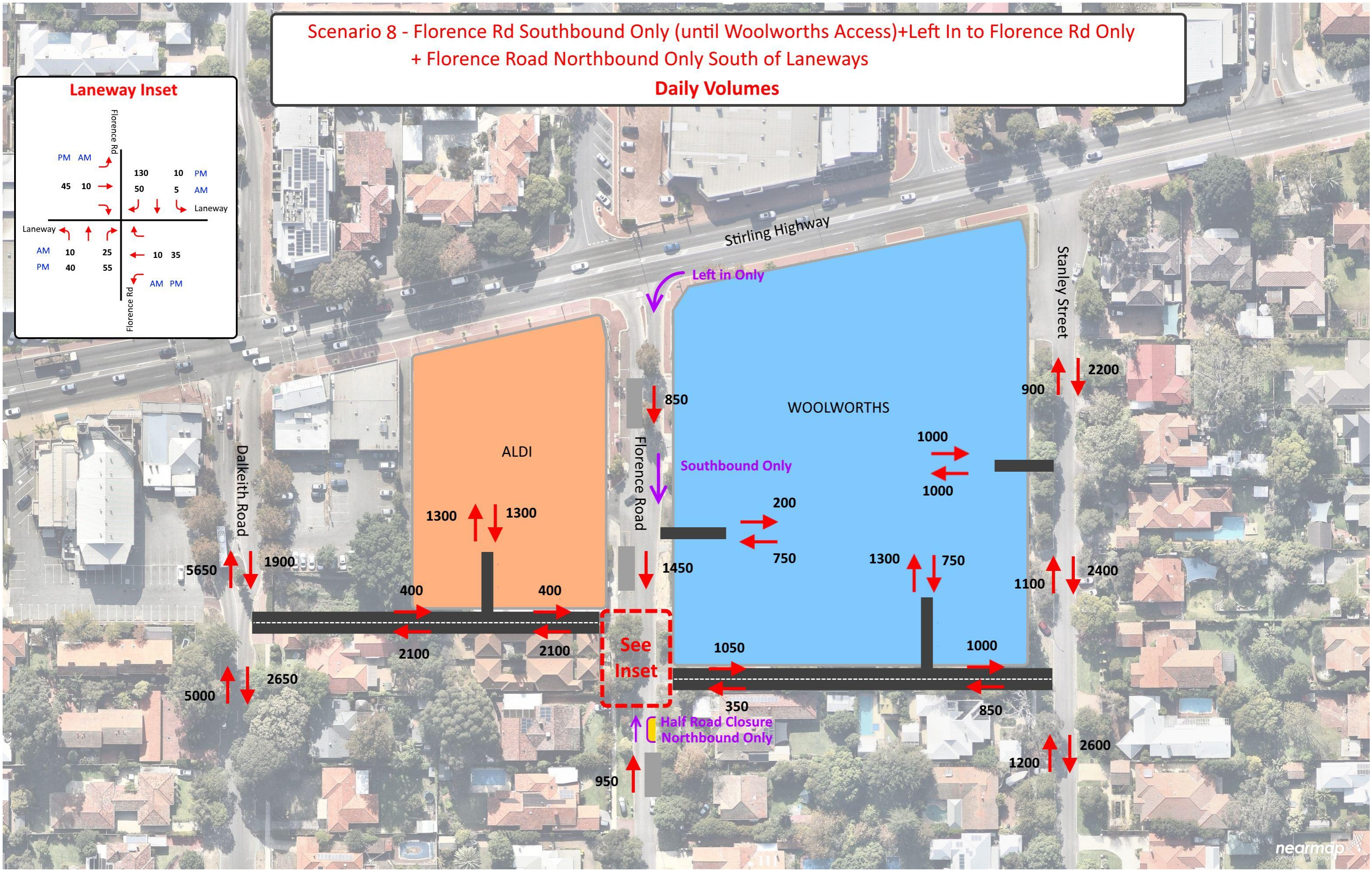
Half Road Closure Southbound Only

**Scenario 8 - Florence Rd Southbound Only (until Woolworths Access)+Left In to Florence Rd Only  
+ Florence Road Northbound Only South of Laneways**

**Daily Volumes**

**Laneway Inset**

Florence Rd		Laneway	
PM	AM	AM	PM
45	10	10	5
130	50	10	35
Florence Rd		Laneway	
AM	PM	AM	PM
10	40	25	55

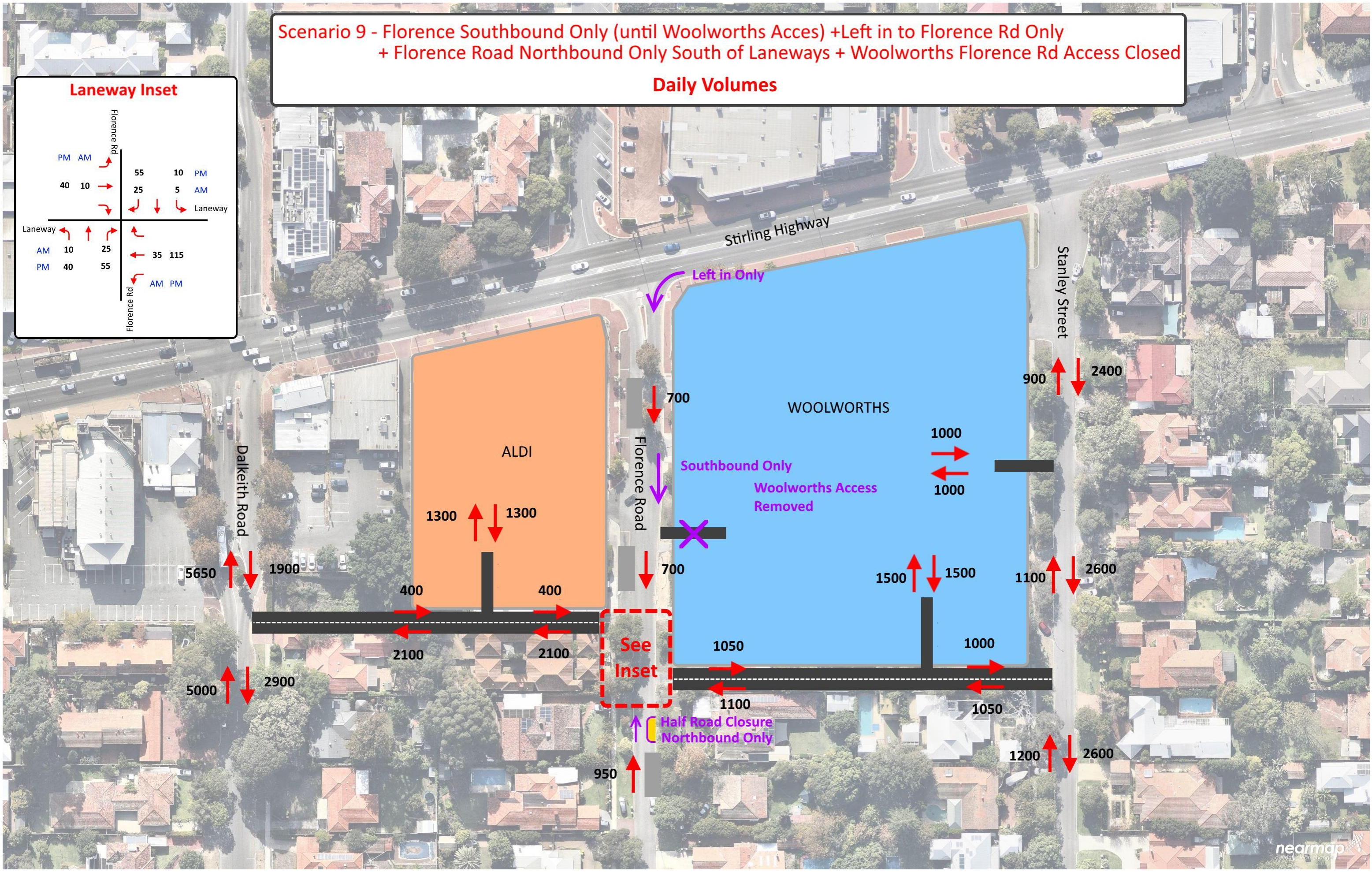


**Scenario 9 - Florence Southbound Only (until Woolworths Acces) +Left in to Florence Rd Only  
+ Florence Road Northbound Only South of Laneways + Woolworths Florence Rd Access Closed**

**Daily Volumes**

**Laneway Inset**

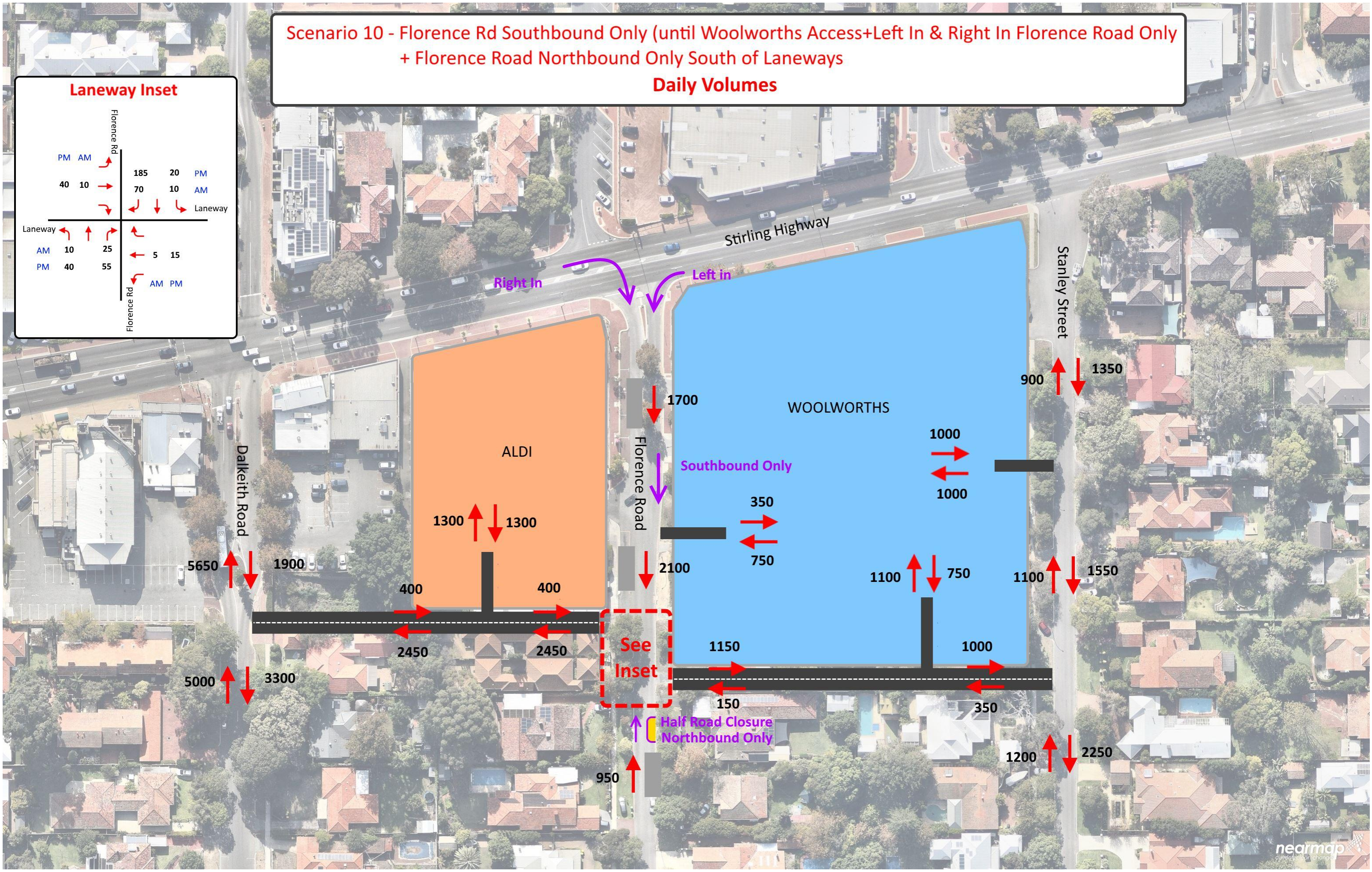
Florence Rd		Laneway	
PM	AM	55	10
40	10	25	5
Laneway		Florence Rd	
AM	10	25	35
PM	40	55	115
		AM PM	



**Scenario 10 - Florence Rd Southbound Only (until Woolworths Access+Left In & Right In Florence Road Only + Florence Road Northbound Only South of Laneways)**  
**Daily Volumes**

**Laneway Inset**

Florence Rd		Laneway	
PM	AM	PM	AM
40	10	185	20
		70	10
Laneway		Florence Rd	
AM	PM	AM	PM
10	40	5	15
25	55		



# Florence Road Town Centre Plaza Final Concept Report

21<sup>st</sup> September 2020



**Prepared for:**

City of Nedlands  
71 Stirling Hwy, Nedlands,  
Western Australia 6909

**Consultant Team:**

Civil: CARDNO  
Traffic: CARDNO  
Surveyor: CARDNO

©PLACE Laboratory

**Document Control**

NAME OF PROJECT	Florence Road Town Centre Plaza
DOCUMENT REFERENCE	C:\Place Laboratory\Intranet - Files\Projects\2059 Florence Road Plaza Urban Design PER
PROJECT NUMBER	2059
PROJECT TEAM	Walter Van Der Loo, Anna Chauvel, Lei Zhang, Gian Mario Tonossi

REVISION	DATE ISSUED	PREPARED BY	APPROVED BY	DATE APPROVED
-	21.09.20	WVL/LZ/GT	AC	21.09.20

# Urban Context

## PART 1: IMPLEMENTATION

# URBAN FORM

### Key elements of this project include:

- Partial closure of Florence Road to north-going traffic, developing a pedestrian-priority precinct between Stirling Highway in the north and the proposed east-west laneways to the south.
- Provide pedestrian linkages east-west across Florence Road within a low vehicle speed environment by narrowing the south flowing lane, slowing the speed limit, preventing loading vehicles, incorporating pedestrian style paving and ensuring limited distinction between vehicular and pedestrian spaces.
- Create east-west vehicular laneways to the south of the Precinct Plan providing an alternative access route for retail customers and loading vehicles into the approved Aldi and proposed Woolworths tenancies.
- East-west pedestrian connectivity should ensure activation around the southern side of the Captain Stirling Hotel, particularly ensuring that an east-west connection between Stirling Highway and Florence Road is maintained.
- Recognise and celebrate the existing tree at the intersection of Florence Road and Stirling Highway as a key landmark within the precinct and utilise it for shade and character within the square.
- Active frontages to face onto the square to encourage engagement and create a 'gathering place' for the community.
- Abundant landscaping, public art, bike racks and public seating within the town square.
- Ensure adequate sunlight provision and minimising overshadowing of key pedestrian areas.

IMAGE - CONCEPT FOR PEDESTRIAN FOCUSED FLORENCE ROAD



# Users Experience

## Potential activities associated with different user groups



Family diner / Diner

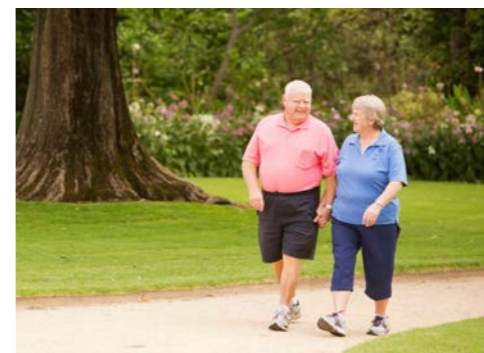
Arrive by car or walking  
Restaurant dining  
Children play



Relax in the street garden  
Takeaway coffee or desert  
Visit shops



Arrive by walking  
Relax in the street gardens  
People watching



Local residents walk around

Walk dog  
Buy coffee and take away food  
Children play



Buy a few thing from shops and supermarket



Bulk grocery shopper

Arrive by car  
Shop in supermarket and specialty shops  
Quick coffee and food



Quick check out

Arrive by car or walking  
Shop in supermarket and specialty shops  
Quick coffee and food  
Children play



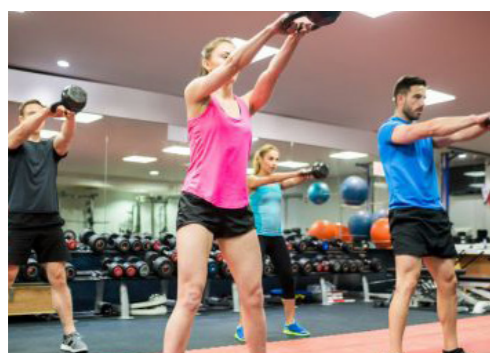
Cinema goer

Arrive by car or walking  
Re-movie of after-movie dining  
Visit shops  
Children play  
Relax in the street garden



Students

Arrive by car or walking  
Study in the cafe  
Takeaway food  
Quick check out at the supermarket and shops  
Relax in the street garden



Gym goer

Arrive by car or walking  
Buy coffee  
Catch up with gym friends  
Shop in supermarket and specialty shops



Office worker

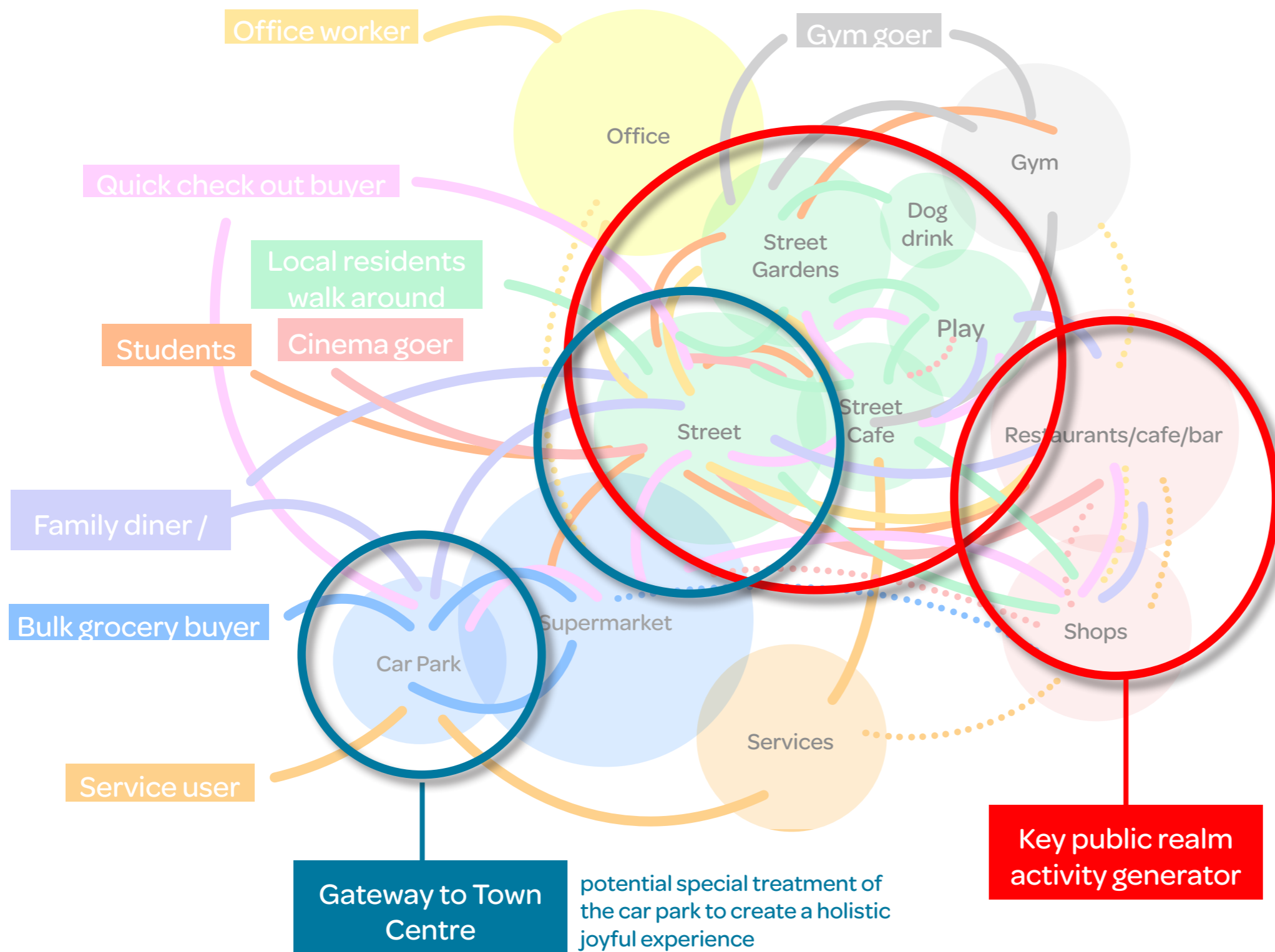
Arrive by car or walking  
Coffee breaks  
Eat lunch in the restaurants or cafes  
After work drink  
Relax in the street garden at lunch time  
Quick visit to the supermarket or shops



Service user

Arrive by car or walking  
Takeaway coffee before or after the appointment  
Quick visit to the supermarket or shops  
Takeaway food

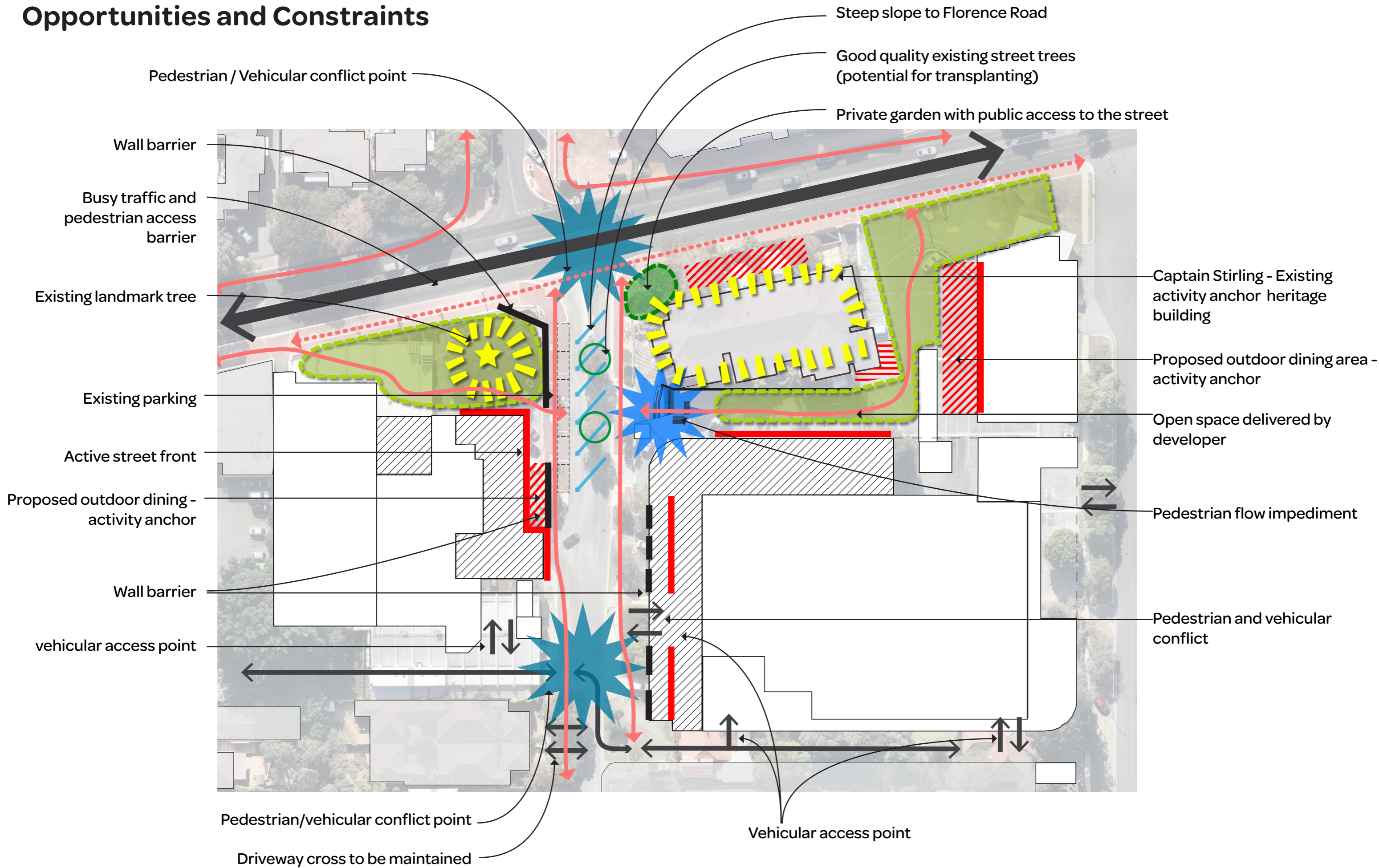
# Users Experience



The study of the user experiences indicates:

- A concentration of activity in the streetscape and plaza.
- Food and retail business are the key activities generators.
- The car park and streetscape are the gateways to the Town Heart and their design/ treatment needs to contribute to a holistic user experience.

# Opportunities and Constraints



## Florence Road Design Objectives

Maximise opportunities for people to linger in the public realm

- something for everyone to do
- make existing destinations more attractive
- create activity anchors

Enhance the links between public realm and retail destinations

- universal access
- safe and intuitive pedestrian crossing
- green streets
- create journey through a series of moments

Magnify the leafy-green local character

- street gardens
- more trees
- material selection conveys a garden feel

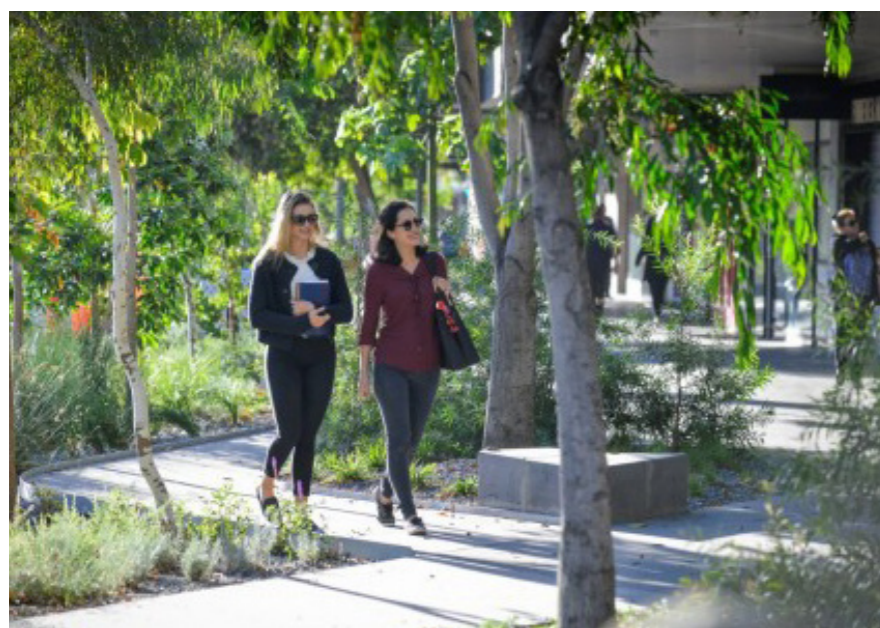
## Florence Road Design Themes

One of the key attributes of a successful town centre is that people have many reasons and opportunities to stop and stay, which eventually contributes to the retail success and a sense of community.

Below are three activities magnets that will bring more life to the town centre.

### Street Gardens

Leafy-green character.  
A sense of wonder in the street.



Leafy green is a recognised neighbourhood character and ranked high in the community aspiration. A green street should be a distinctive feature of town centre.

People tend to linger where the environment is infused with greenery. The street garden is a linear green space with seating and picnic settings. It is a space where people can wonder, sit, relax, socialise and watch the world goes by.

### Food

“If you want to see a place with activity, put out food.” William H. Whyte



Food is the most effective way to activate a space. It provides opportunities for people to linger, socialise, people watching and to be watched. People attract people. The presence of people in the public space is the first sign of a vibrant place.

The kiosk operator should be carefully selected as they will also have the role of place curator. The look and feel they convey through their product and service will create the vibe of the square. Their role should extend to place management including keeping the square clean, placing out tables and chairs for the public to use, and being a friendly and welcoming face.

### Playful Street

A child-friendly place is good for families

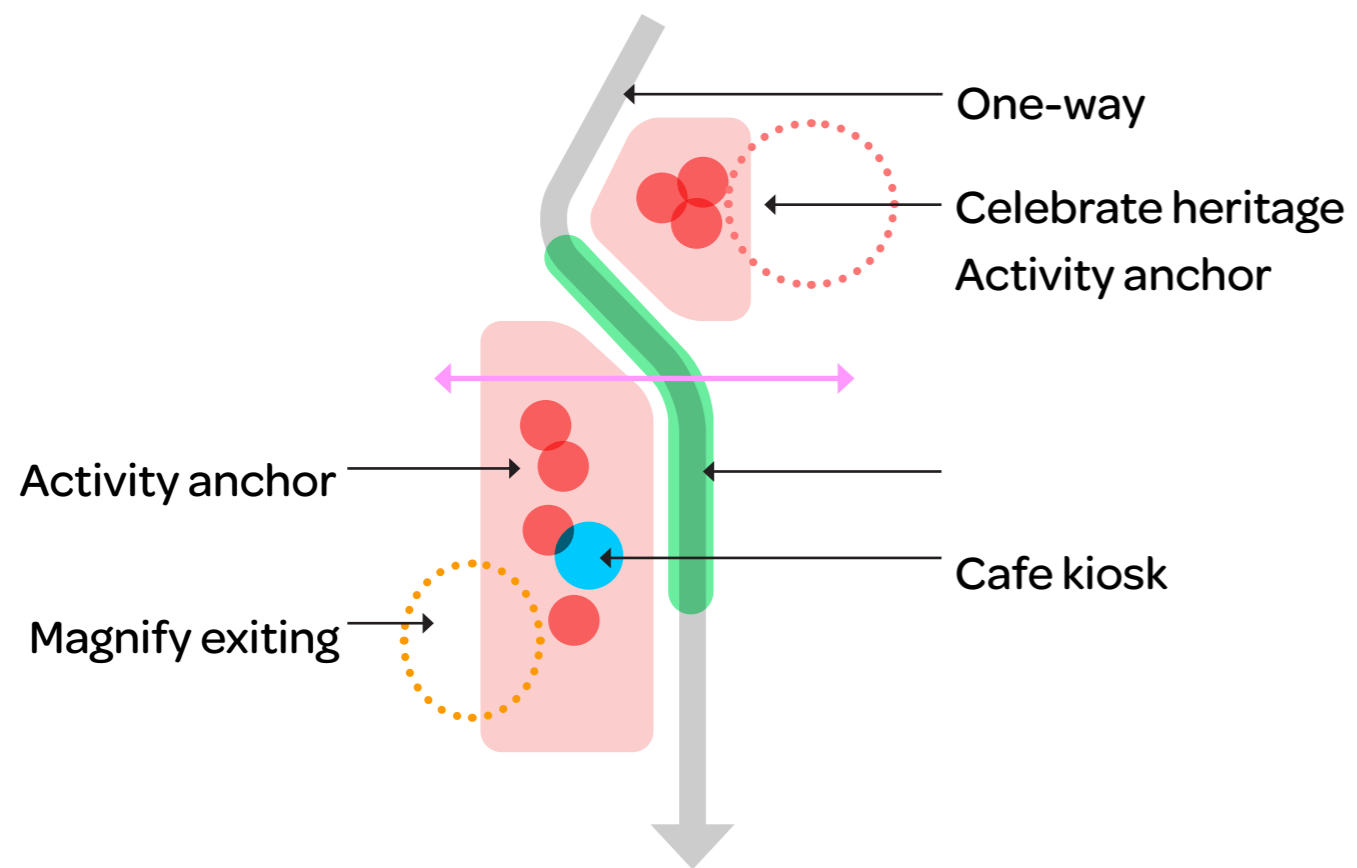


Play and food are partners in activation. An attractive family destination is always child-friendly, where children feel safe and have something to do. Play provides opportunities for both children and parents to take a break and relax, and significantly increase the lingering time.

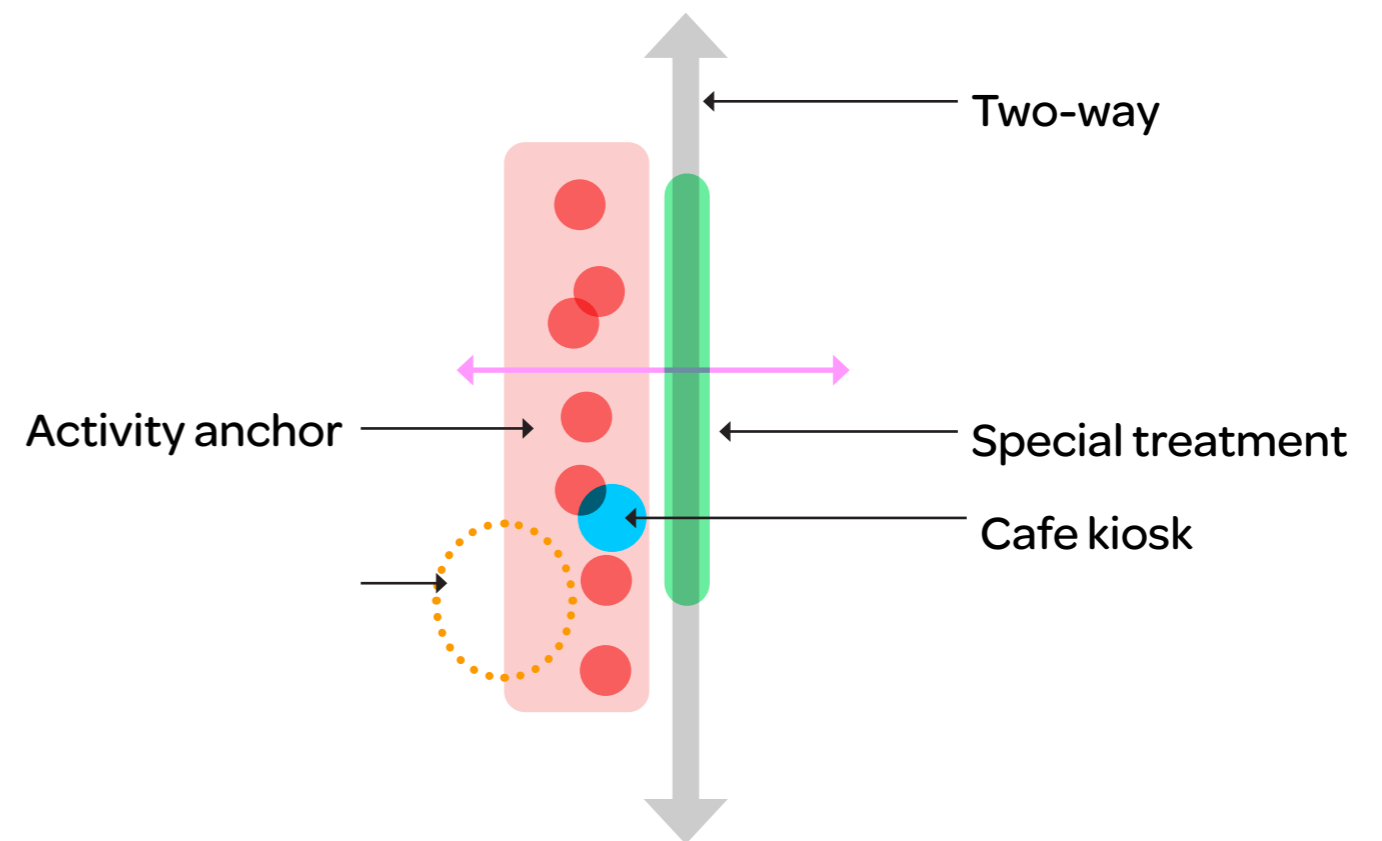
# Concept Options

## PREFERRED

### Option 1 - one way

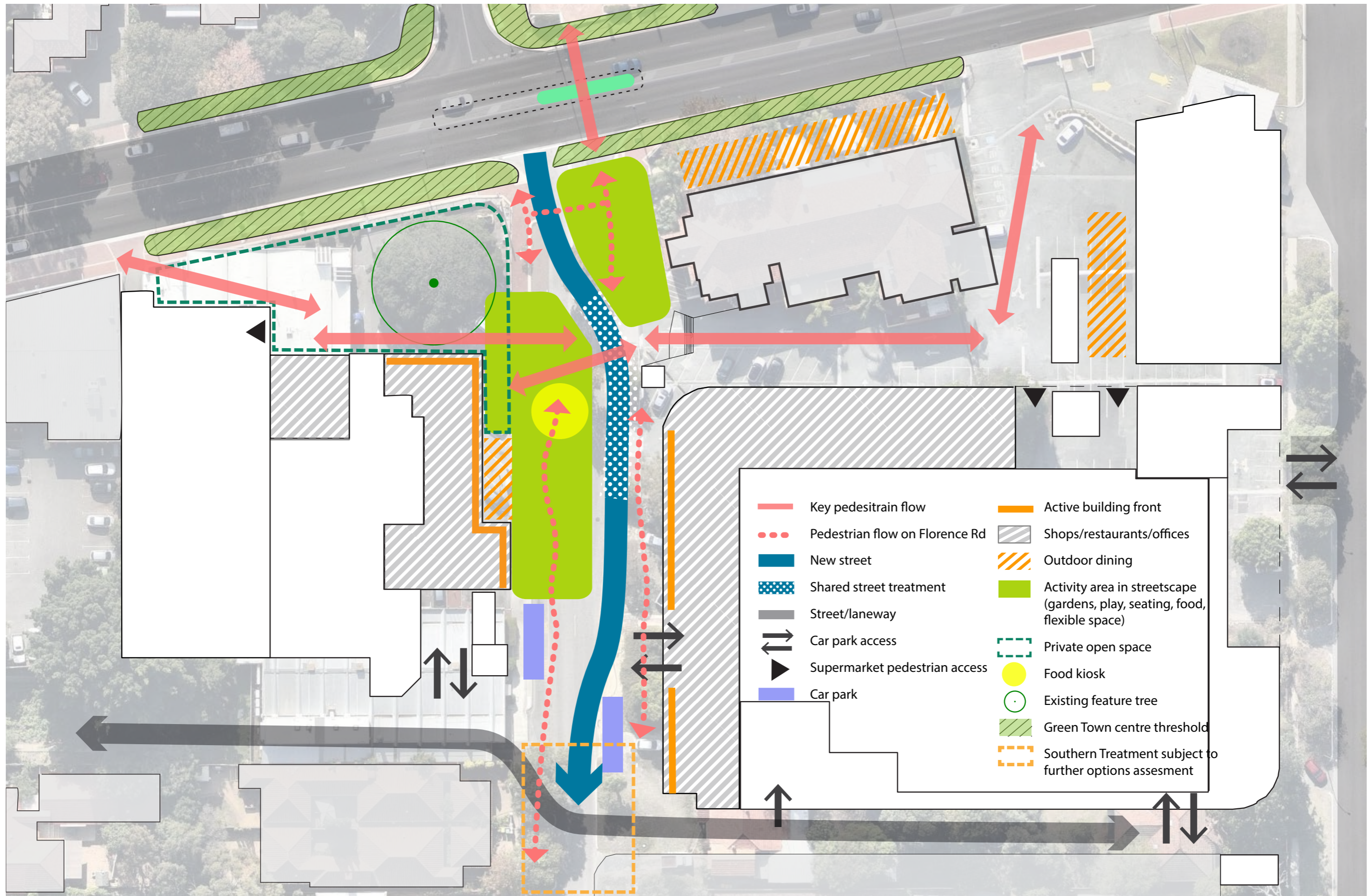


### Option 2 - two way

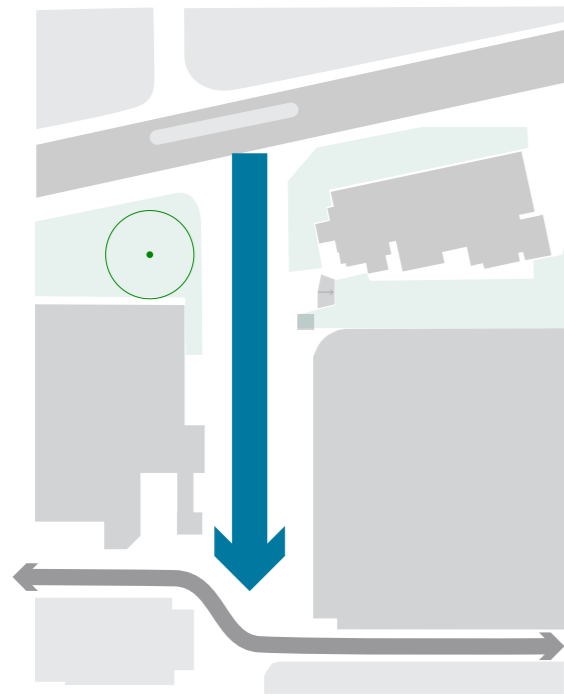




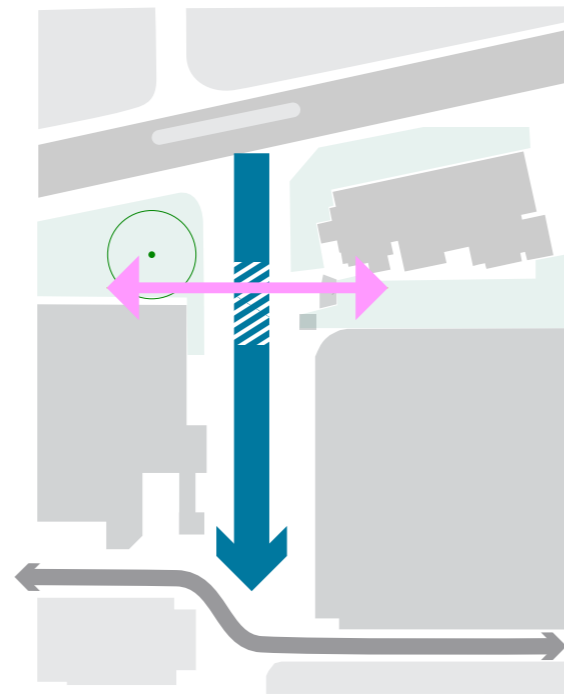
# Concept Option 1: One-way



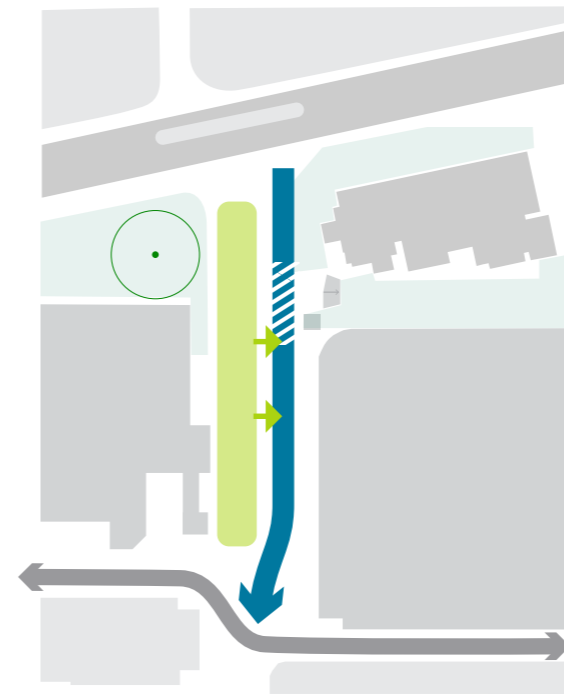
# Design Strategies



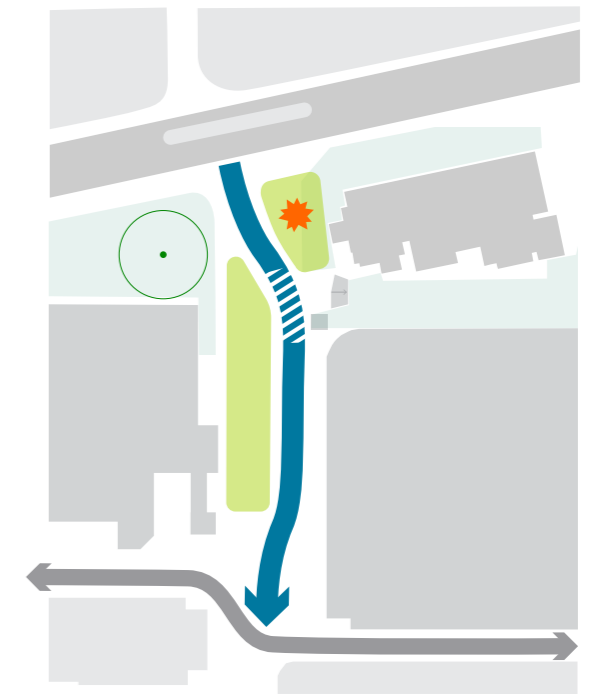
One way street



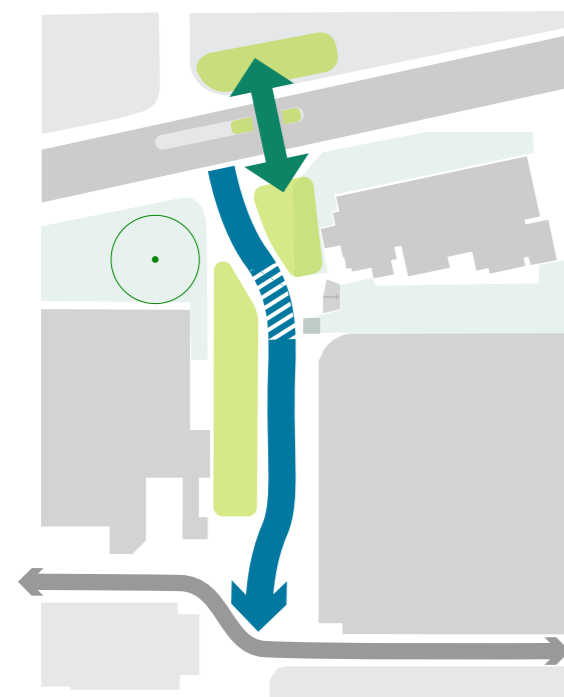
Ensure strong east-west pedestrian connection



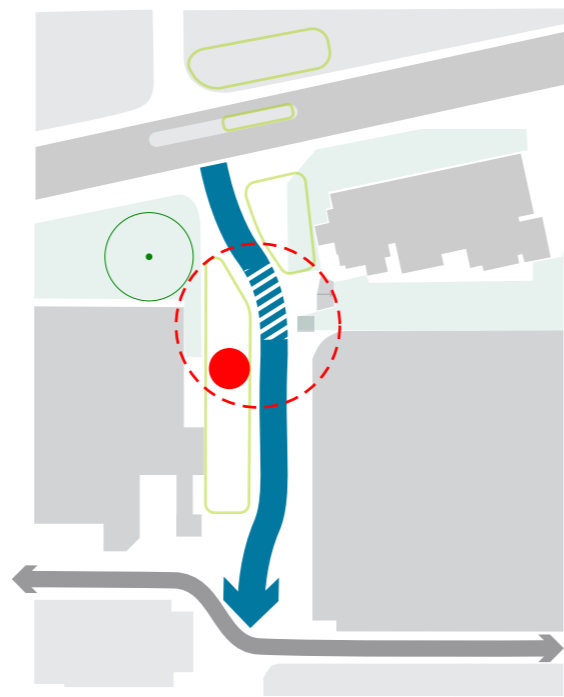
Enlarge green and programmable space



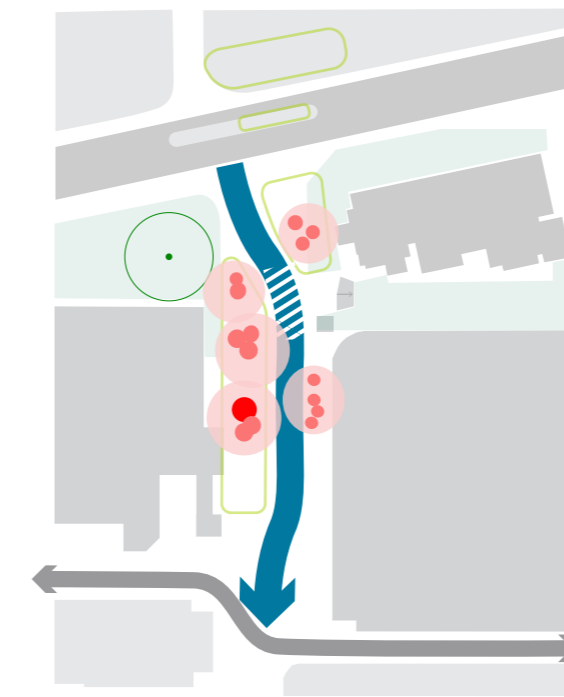
Celebrate heritage building space



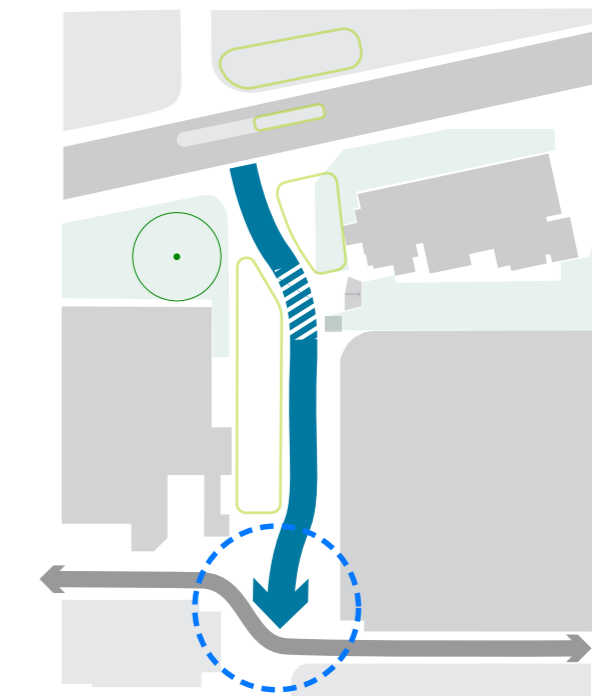
Extend the green connection across Stirling Highway



Create a heart that projecting a welcoming atmosphere and vibrancy



Create diverse uses in the streetscape, especially family and child friendly spaces



Minimise vehicle dominance at Southern gateway

# Concept Plan

Full Site

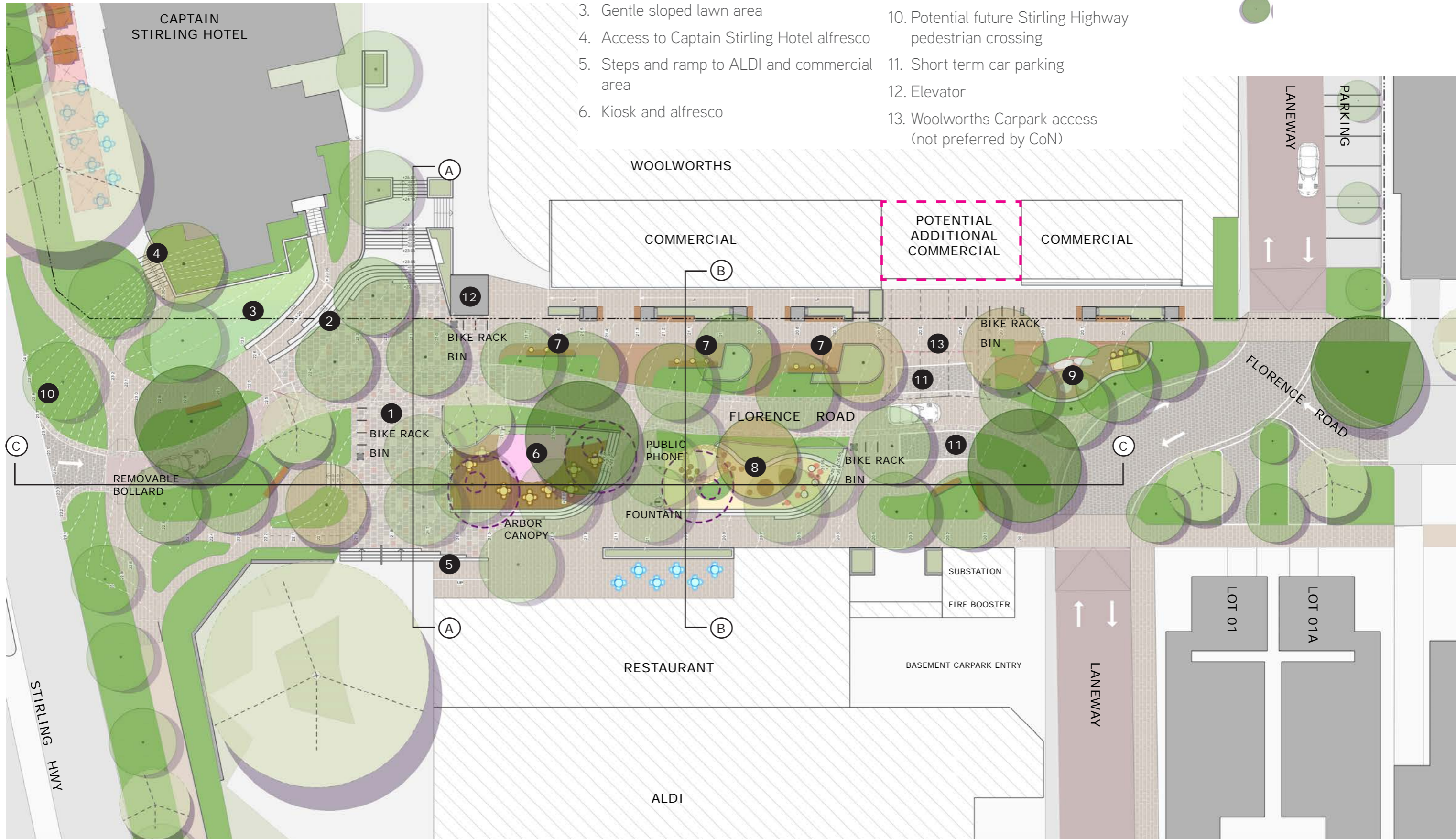
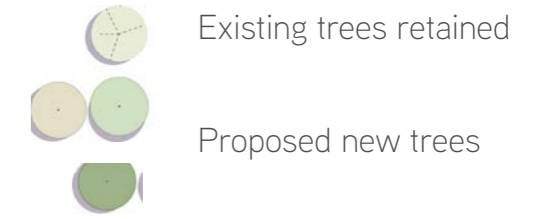


# Concept Plan

Plaza

## Legend

- 1. Florence Road Plaza - Flush surface
- 2. Steps and seating integrated with Woolworths development
- 3. Gentle sloped lawn area
- 4. Access to Captain Stirling Hotel alfresco
- 5. Steps and ramp to ALDI and commercial area
- 6. Kiosk and alfresco
- 7. Seating and outdoor workstation nodes
- 8. Play area
- 9. Community gathering node
- 10. Potential future Stirling Highway pedestrian crossing
- 11. Short term car parking
- 12. Elevator
- 13. Woolworths Carpark access (not preferred by CoN)

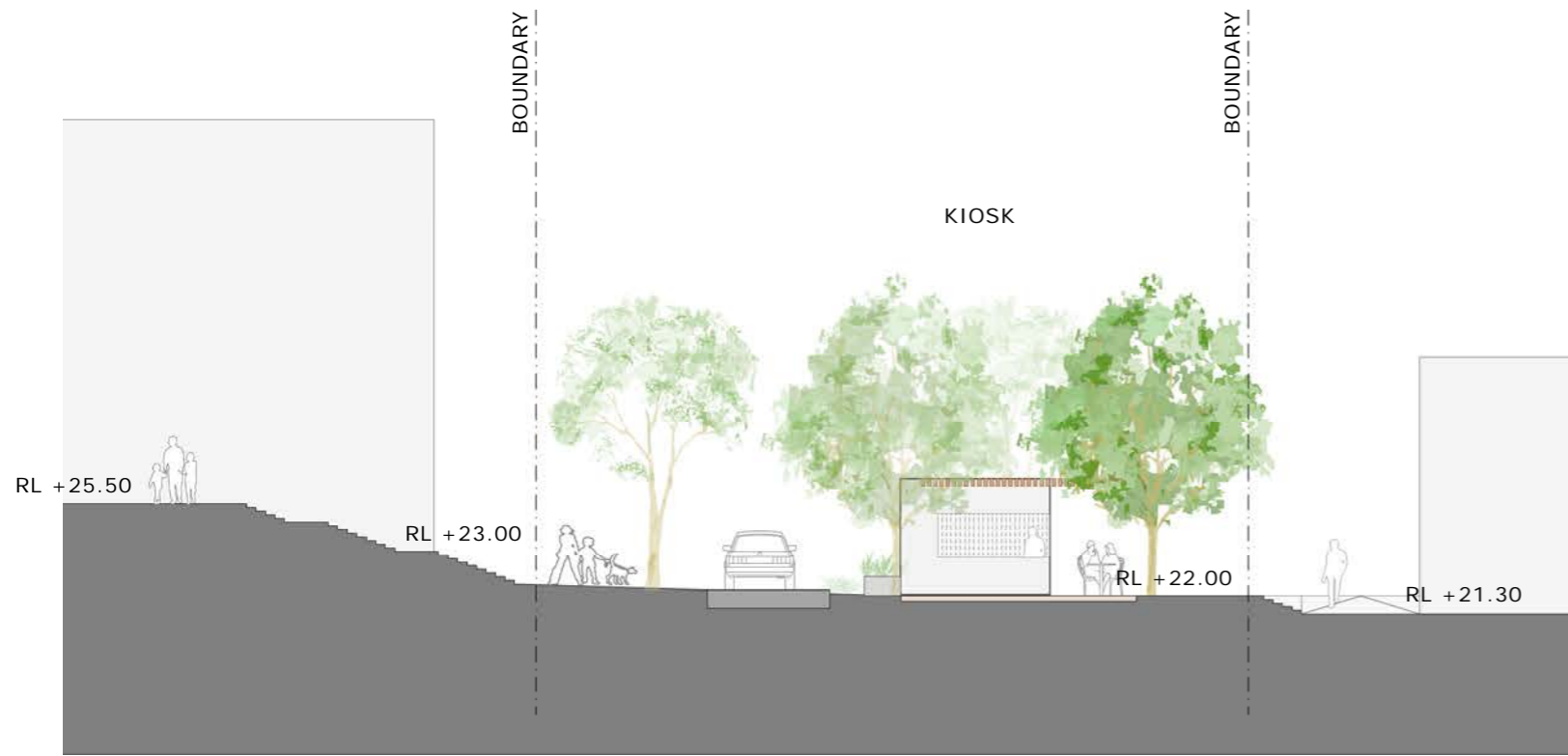


# Concept Plan

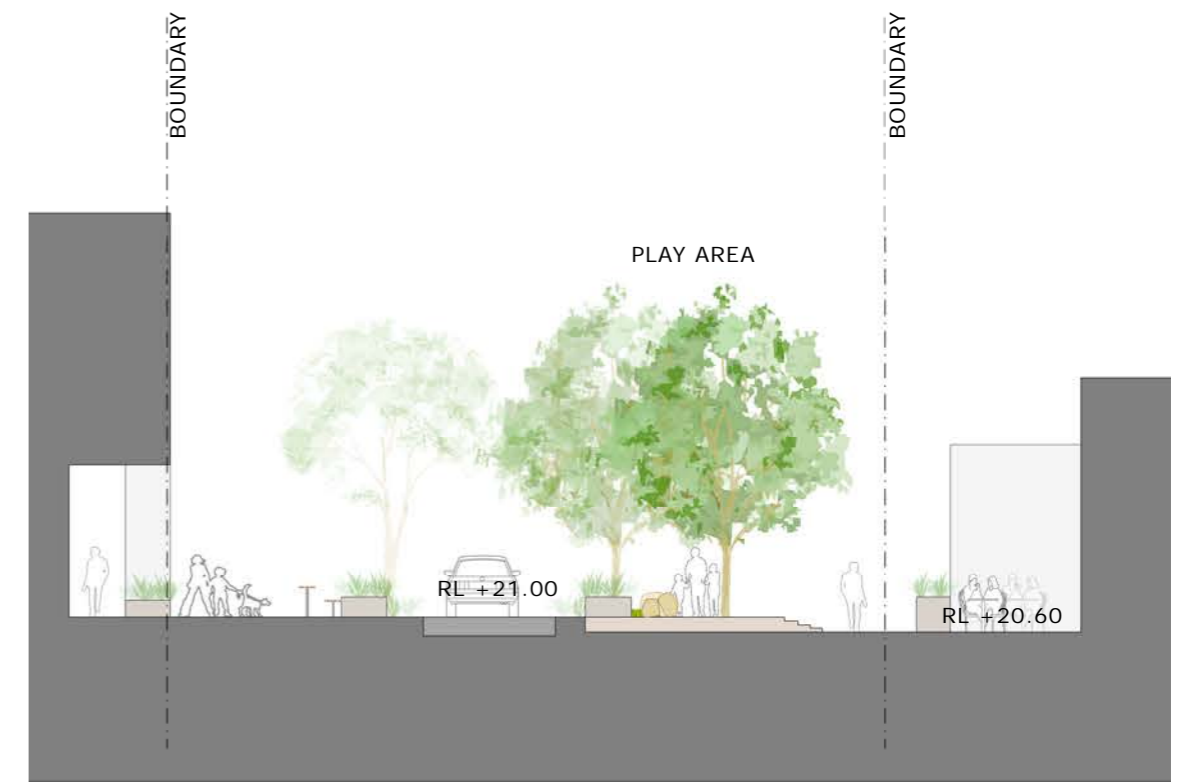
Vibe Imagery



# Sections



WOOLWORTHS  
SECTION A - PLAZA AND KIOSK



WOOLWORTHS  
SECTION B - PLAY AREA



STIRLING HIGHWAY  
SECTION C - LONGITUDINAL

# Microparks

A micro park is a small, human scale, intimate place of high amenity. It contains physical elements to support multiple passive recreation activities such as reading, eating, sitting, socialising. A micro park is designed to create usable public space in locations that have been identified as underutilised, under realised and/ or limited in the activities that are supported by the existing infrastructure. Micro park designs will provide visual cues regarding their intended use. Each micro park will need to be individually designed to cater to the uniqueness of the site and will feature seating, shade and high quality landscaping to create greater natural amenity within urban environments. A micro park may contain components such as interactive elements, access to wifi and power, lighting and be visually interesting and inviting to use.

## Why we need an alternative approach

Cities have abundant open space, however many of them are under-utilised or often out of easy reach by city workers and residents. Common responses from the public surveys undertaken by PLACE Laboratory in their research of Micro Parks include: “the space feels cold and hard”; “definitely needs more green”; “nowhere to sit”; and “nothing to do”. Micro parks benefit neighbourhoods by providing attractive, enjoyable family-friendly places to gather, and bringing opportunities to re-evaluate and re-imagine some of these public spaces, especially from their user’s perspective.

## Why use small intervention

Micro parks are a small scale intervention to activate under utilised public spaces. Small scale intervention brings immediate benefits to the community without excessive expenditure or a long approval process. Small interventions are also easy to adapt as community needs evolve, and better ideas come along. In comparison to large public projects, micro parks make experimentation possible in what is otherwise a highly regulated planning system, which is critical to deepening the understanding of the unique urban context of our suburbs and cities.

Such small interventions also change people’s perceptions and provoke thought about the city: streets are not just for circulation, but vibrant places; plazas can be extensions of the community buildings; parks can be outdoor lounges for everyone, and so on. The ultimate goal of using small interventions is to make a long-term improvement in the culture surrounding the development and use of public spaces.

An effective process capitalises on community knowledge, assets and inspiration, to create a public space that contributes to the local community. The heart of each project is about bringing everyone together: community members, businesses, community organizations and government; to share a common vision of a place, and to identify opportunities to activate and manage the public space through a collective effort.

### Evolution of a Micro Park



*A public space with limited relationship with the surrounding buildings and no public life.*

*A micro park is added to the space to welcome people to stop and stay.*

*A food van is parked in the space. The novelty of the food truck and additional food choices draws more people to the space.*



*A local musician comes down to busk. The relaxed and friendly atmosphere draws more people to the space. Adjoining businesses start to take notice.*

*As more people begin to visit the area the local traders start to respond by also placing tables and chairs in the space, putting on entertainment, and opening for longer hours.*

*The public space is now a destination. It is known for its good food and relaxed atmosphere. The local traders play a role in making sure the space is vibrant. The food truck has been a catalyst for change, and is no longer needed.*

## What we want to achieve & how we are going to achieve the objectives

The aim of a micro park is to provide a small usable outdoor public space for the enjoyment of local residents, nearby workers and visitors. Micro parks provide both physical and social benefits to the neighbourhood:

- They are an attractive and welcoming place to stop and stay.
- They facilitate informal community interactions and connections.
- They improve the physical appearance of a place.

Location and community will have a significant bearing on how these aims are achieved. However, there are some baseline objectives and design principles that underpin the micro park projects:



OBJECTIVES	DESIGN PRINCIPLES
<b>Promote play, relaxation and opportunity to connect with others.</b>	<ul style="list-style-type: none"> <li>• Create family friendly space for individuals and groups in a nice landscape setting.</li> <li>• Provide play opportunities for children and adults.</li> <li>• Introduce greens wherever possible.</li> </ul>
<b>Promote a place identity.</b>	<ul style="list-style-type: none"> <li>• Engage local communities and social groups to developed a shared vision for the project.</li> <li>• Integrate the stories of local communities in design and artworks, such as culture, history, demographic, etc.</li> </ul>
<b>Benefit local communities and stakeholders.</b>	<ul style="list-style-type: none"> <li>• Early engagement with local community and stakeholders to identify the needs in the neighbourhood.</li> <li>• Create design and management solutions to benefit both of the community members and business.</li> </ul>
<b>Promote community development during the project process.</b>	<ul style="list-style-type: none"> <li>• Build in community engagement process in the project.</li> <li>• Identify community champions to collaborate on the planning and design process, and long term management of the site.</li> </ul>
<b>Advocate experimentation of new ideas, materials and technology in public space.</b>	<ul style="list-style-type: none"> <li>• Promote the use of new technology and materials to benefit the public life and environment.</li> <li>• Take managed risks for the benefit of community and more vibrant public life.</li> <li>• Conduct a parallel research program with the project for better understanding of the public life and environment if possible.</li> </ul>
<b>Promote sustainability</b>	<ul style="list-style-type: none"> <li>• Choose robust and easy-to-maintain construction materials.</li> <li>• Use recycled, re-purposed and locally sourced materials if suitable.</li> <li>• Utilise solar power or alternative renewable power source if possible.</li> <li>• Provide facilities to support active travel.</li> <li>• Support pollinators via pollinator gardens where possible.</li> <li>• Implement public community strategy to raise public awareness of environmental issues and sustainable living.</li> </ul>



# Shared Streets

## Why are shared streets important?

“Streets comprise more than 80% of public space urban areas and are the public life of our places - our cities, towns and villages. They have a complex role including moving people through, to or within places, interfacing with land use and providing public space. They are where we conduct our civic lives and their quality and function needs to respond as such. The art of good street design is to understand these varying parameters, balance between them and respond to the unique qualities of place.

The dual function of streets as places for people and movement and how the prioritisation of transport movements, walking, cycling and social opportunity influences the function of streets and determines their character and identity. Streets are a key element of the public realm.

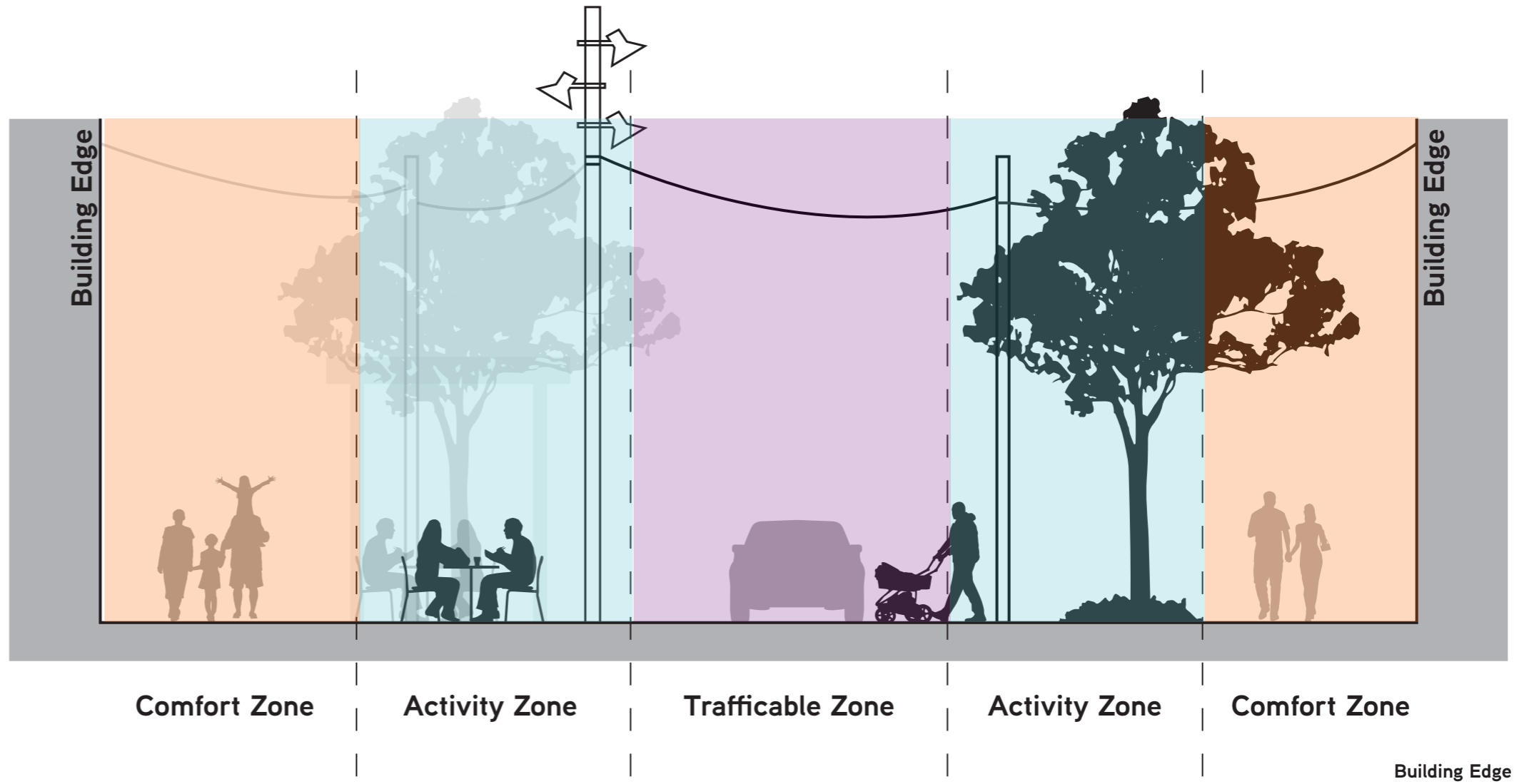
Good design of streets is crucial to our liveability within our cities, towns, neighbourhoods and villages. They have a multi-faceted role of allowing people the ability to move between places safely, to carry out business activity, socialise and linger. These activities should be able to be carried out in an environment which is functional, efficient, sustainable and overall pleasant.”  
*Government Architect New South Wales – Better Streets 2020*

## Measures of a successful shared street

- A friendly, social environment
- Lots of activity
- Much diversity
- Great comfort
- Supports trade
- Pedestrian priority
- No vehicle physical dominance
- Slow traffic speeds (max. 10-15km/hr)
- Good eye contact between drivers and pedestrians
- Safe environment
- Flexible use
- Care and courtesy shown by users
- Great connectivity/access



LESS SHARED DESIGN		→	MORE SHARED DESIGN	
Kerbs	low kerbs/ mountable kerbs		No kerbs	
Pedestrian Barriers			No pedestrian barriers	
Vehicles restricted to lane ways			Implied vehicle paths	
Poor quality and unwelcoming public space	A few places for people can rest and chat		Presence of cafes, markets, abundant seating, planting and public art	
Conventional road markings	Limited road markings		No road markings	
Traffic signals			No traffic signals	
Signal controlled intersections	Zebra crossing		Free crossing	
Full forward visibility			Limited forward visibility	



## Comfort Zone / Accessible Zone

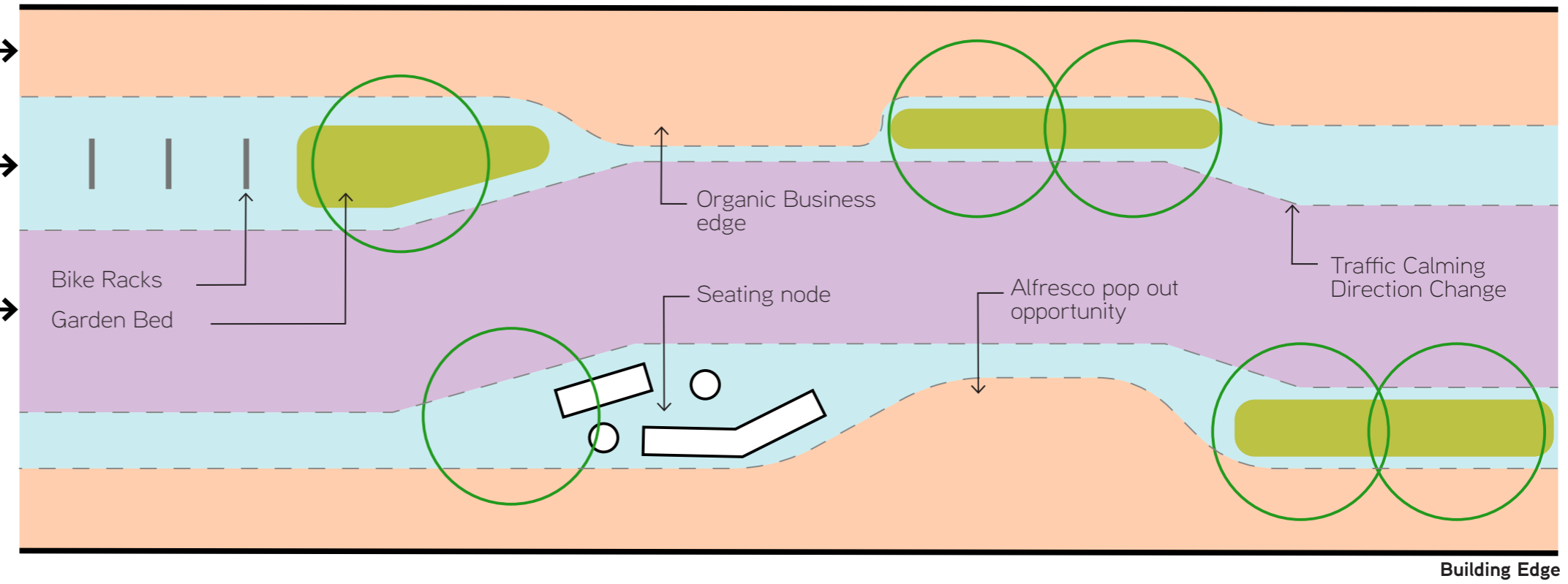
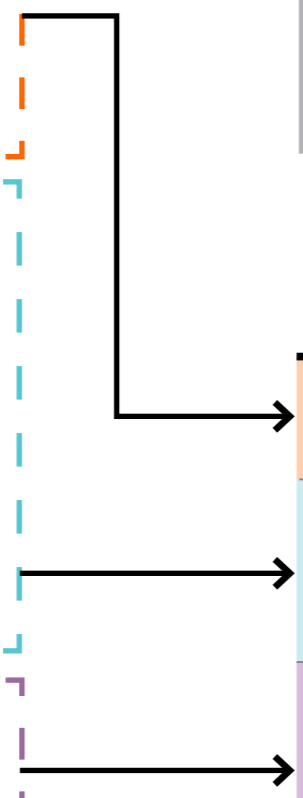
A typical pedestrian only zone, natural barriers such as furniture, planting, and visibility cues in the activity zone prevent vehicles from entering this zone without any traditional barricades. Pedestrians walk through and interact directly with buildings in this zone.

## Activity Zone

A shared zone where the bulk of street activities occur. Pedestrians merge out through fixed activities such as furniture nodes, outdoor alfresco dining opportunities, 'pop-up' events, planting and trees. Vehicles merge inwards through parking and drop off zones.

## Trafficable Zone

A shared zone with movement focus only. No fixed elements such as furniture. Pedestrians can still cross freely and at any point. Direction alterations, visual cues and materiality lead to forced slow vehicle movement resulting in a safer street.



# Florence Road Activation diagrams

## Occasional markets



- Market stall 3 x 3m
- Market stall 3 x 1.5m

## Food truck rumble



- Food truck 6 x 2.5m
- Food stall 3 x 3m

## Public events



- Temporary stage

# Investment levels

The level of investment in the public realm reflects the level of importance a location plays in supporting community life. Some areas are more important than others. Precincts of high importance, showcase the locality, are used more intensely by people, and generate community pride. These places should be a focus of investment in the public realm to reinforce their status as place of importance. However, investment levels need to be sustainable and mindful of the economic constraints of the authority responsible for the place. This includes consideration of whole-of-life costs.

Following are typical capital investment levels for enhancement of the public realm in town centres or similar locations. They are categorised as follows:

1. Premium Quality
2. High Quality
3. Moderate Quality

These investment levels are presented within the Western Australian context in considering the types of investment recently made in the public realm. Typical treatments for a basic quality have not been provided as we do not believe this level of treatment is appropriate for an urban town centre upgrade. The rates provided may be used as benchmark indicators and to assist budget planning of urban realm spaces.

Various factors will influence the indicative square meter rates. These include the ratio of hardscape to softscape, extent of special landscape features, site conditions and complexity of design. The indicative rates provided exclude demolition and site preparation works, utility services, drainage, structural footings, architectural features, preliminaries, professional fees, contingencies, and escalation.

## FLORENCE ROAD PLAZA

### PREMIUM QUALITY - \$600/M2 and higher

Typical treatments: Ground surface materials and finishes include natural stone (premium imported or local) or trafficable highly patterned and coloured exposed aggregate concrete. Complex pre-cast concrete, formed in situ concrete, metal or composite material construction landscape features (e.g. walls and landscape structures). Custom-designed furniture including high quality detailing. Integrated and customised lighting. Integrated public art. Water features. Bespoke play elements. Imported topsoils, high-density planting in larger container sizes. Largest advanced nursery tree stock and some transplant trees. Roll-on turf. Permanent irrigation to all areas.

Typical Examples: Elizabeth Quay – Perth, Railway Square – Midland, Mindeerup Piazza – South Perth, Yagan Square, Perth, Rockingham Foreshore.



### PREFERRED

### HIGH QUALITY - \$400/M2 to \$600/M2

Typical treatments: Ground surface materials and finishes include natural stone (basic imported), trafficable patterned and coloured exposed aggregate concrete and/or higher quality larger unit pavers. Simple construction hard landscape features (e.g. walls and landscape structures). High quality off-the-shelf furniture. Some feature lighting. Limited public art. Standard play elements. Extensive soil improvement, medium-density planting in medium container sizes. Large advanced nursery tree stock. Roll-on turf. Permanent irrigation to all areas.

Typical Examples: Cecil Avenue – Canning City Centre, Scarborough Beach, Town Plaza – Albany, Curtin Main Street – Bentley, Bay View Terrace - Claremont



### MODERATE QUALITY - \$300/M2 to \$400/M2

Typical treatments: Ground surface materials and finishes include simple small unit brick or concrete unity pavers with some red or black asphalt (potential for applied patterning system). Very limited basic hard landscape features (e.g. walls and landscape structures). Standard off-the-shelf furniture. Simple lighting. Limited basic play elements. Basic soil improvement, medium-density planting in smaller container sizes. Large advanced nursery tree stock. Stolon or seeded lawn. Permanent irrigation to all areas.

Typical Examples: Milldale Way/Library Forecourt - Mirrabooka, Scarborough Beach Road – North Perth and Mount Hawthorn, Cambridge Street – West Leederville, Newcastle Street - Leederville, Inglewood Town Centre.

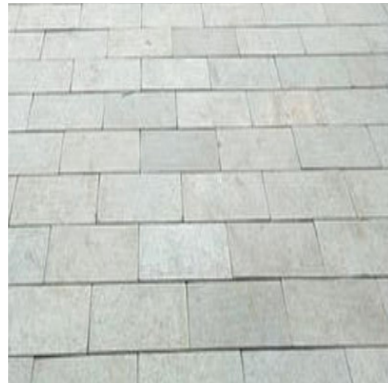


# Material Palette

## Paving



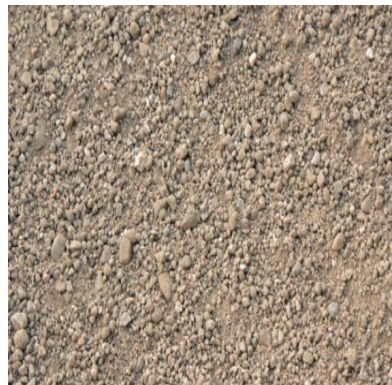
Red asphalt street



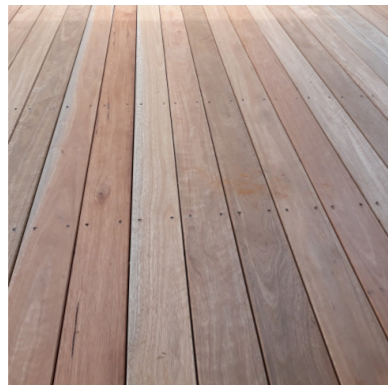
Pre cast concrete unit pavers 300x200



Small stone units

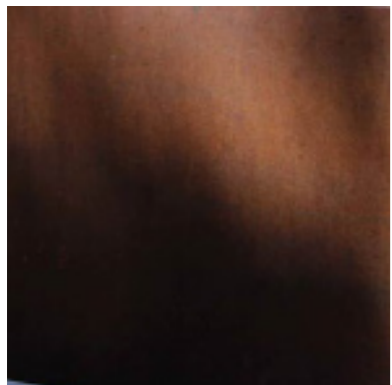


Stabilized gravel

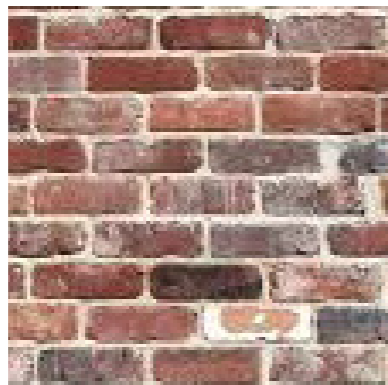


Timber decking

## Wall & Steps



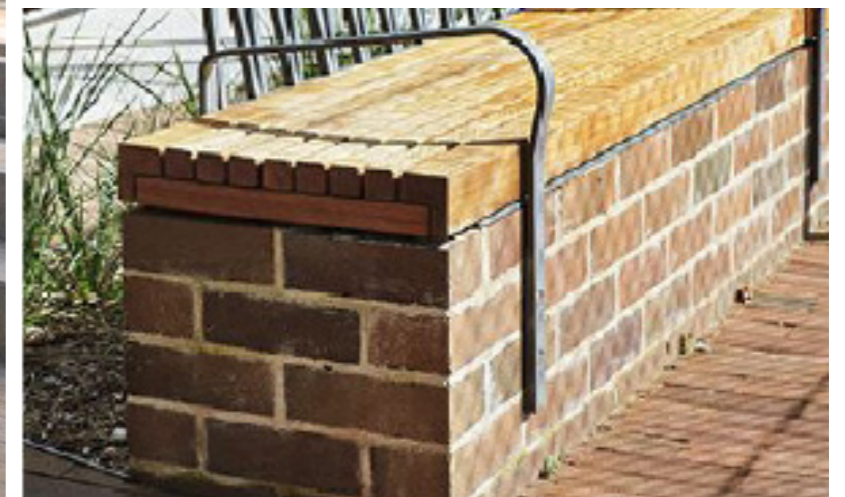
Metal planter



Face brick bench wall



Insitu concrete steps

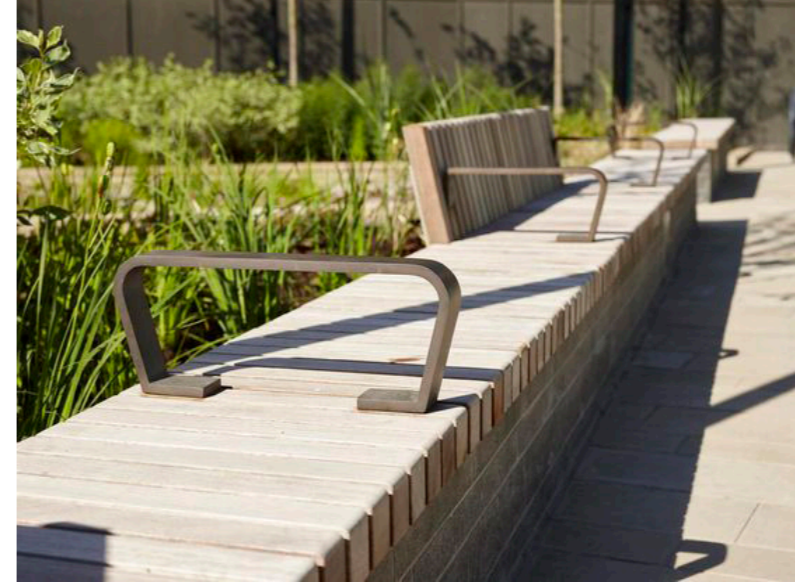


# Material Palette

## Fixed furniture



Timber benches and tables



Stainless steel bike racks



Drinking fountain and dog bowl



Bollards



Bin



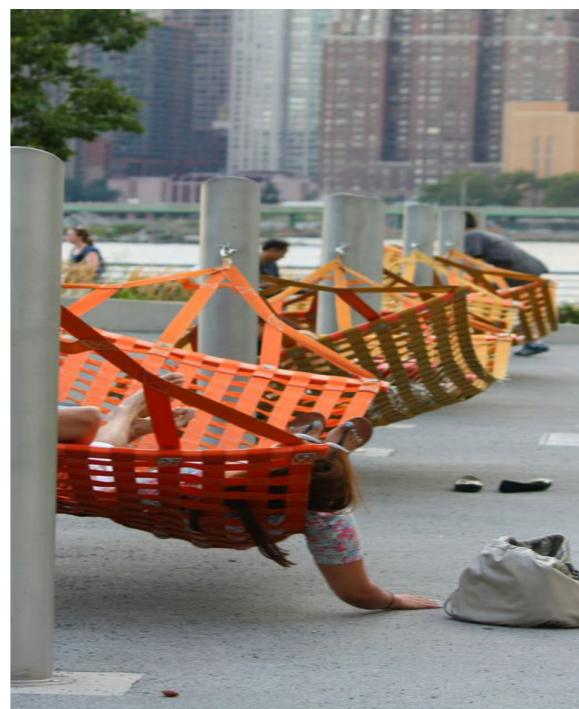
Picnic table

# Material Palette

## Structures



## Play



FLORENCE ROAD PLAZA

# Material Palette

## KIOSK

The kiosk is key to activating the public realm in Florence Road. It is a reliable anchor and focal point for social activity. While the alfresco café area will support the commercial activity of the kiosk, it must remain public in the true sense and support egalitarian use of the space. This will encourage greater use by all visitors.

The kiosk should have a sense of permanency and operate during regular business hours to provide confidence to visitors and customers. It will be well connected to the surrounding spaces such as the lawn, play space and working pods. The terraces, walls, seating, planting, trees, and shade canopies will all be coordinated to create high levels of amenity and integrate the kiosk into the public realm.



## PLACE CHAMPION - THE KIOSK MANAGER ROLE

While it is understood the Kiosk will be leased to a business to run and manage, the role (and the leasing agreement) needs to acknowledge that the Kiosk Manager will also be Place Manager and Champion of Florence Place.

- Having a Place Manager with an vested interest in the success of the space is key. Their role will involve:
- Good interpersonal skills with the ability to build relationships with the local community.
- Operational duties including placing and storing loose furniture each day and keeping the space clean
- Hands on awareness of day-to-day issues and ability to notify City of Nedlands quickly.
- Regular liaison with City of Nedlands Community Development to implement opportunities to engage with the community.
- Programming of the space including group activities (mothers group, book clubs, cycle groups), lunchtime music, evening activities.

## LOOSE FURNITURE STRATEGY

It is proposed the City trial the inclusion of loose furniture. Loose furniture adds another dimension to the public realm and provides a relaxed and casual atmosphere to a shared street. The benefits have been proven across many Australian examples where loose furniture is used to foster interactions within the community and stimulate business activity.

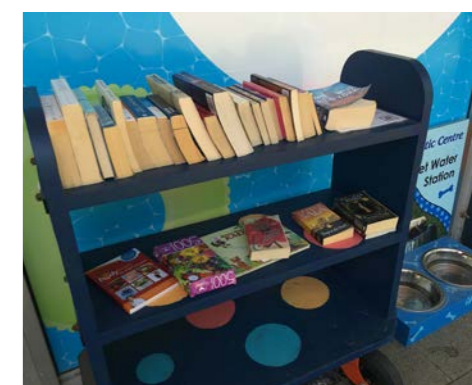
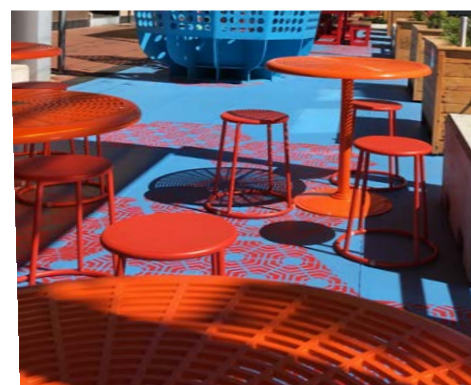
Types of loose and moveable furniture elements include:

- Bean Bags
- Café tables and chairs
- Ping pong table
- Cushions
- Sun lounges
- Lawn and deck chairs
- Picnic tables
- Stools
- Umbrellas
- Hammocks
- Community book library
- Games (giant Jenga, building blocks, chess, quoits, etc)
- Pot plants

Some of the key benefits identified from our experience of other projects include:

- Allows for supporting of events
- Encourages greater visitation and use
- Diversifies offering for people to linger longer
- Adaptable to number of patrons
- Allows useable space to be freed up when required
- Users can seek optimal location for sun/shade, exposure/shelter as preferred
- Adjustable to individuals or different group sizes
- Redefines spaces
- Variety of experiences maintains interest and encourages repeat visits

Our experience is that there is none or very little theft or damage. Methods can be employed to assist with operational management of assets.





# Material Palette

## Lighting



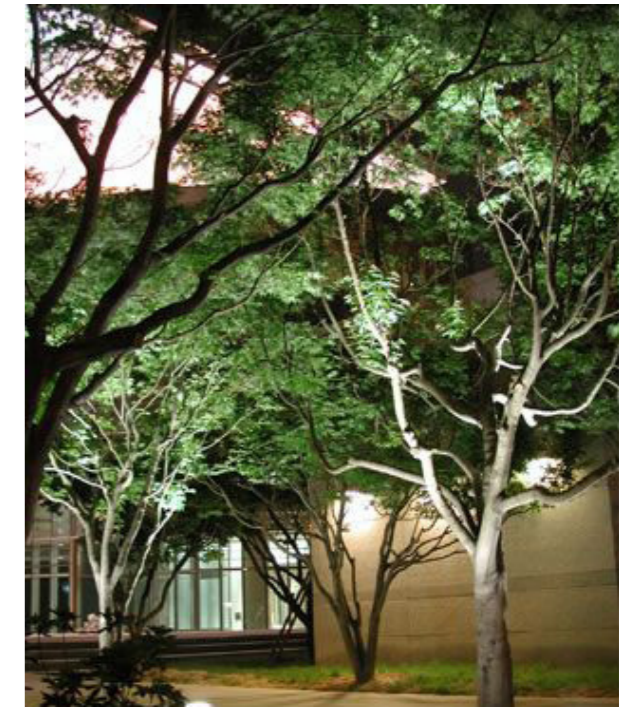
Wall projection  
"Optional"



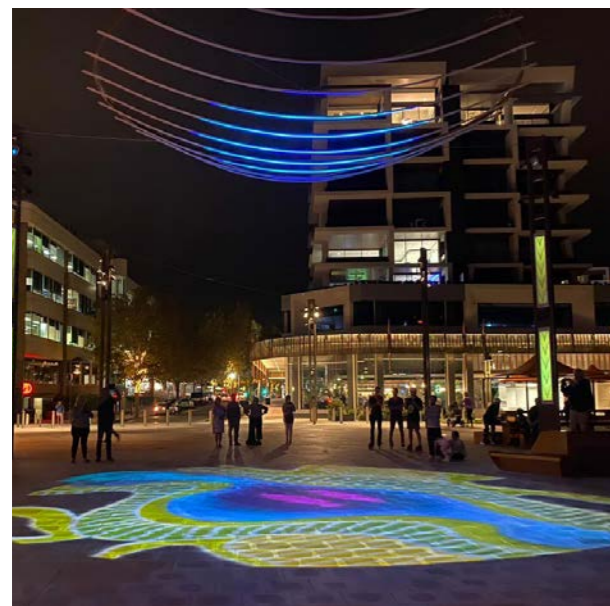
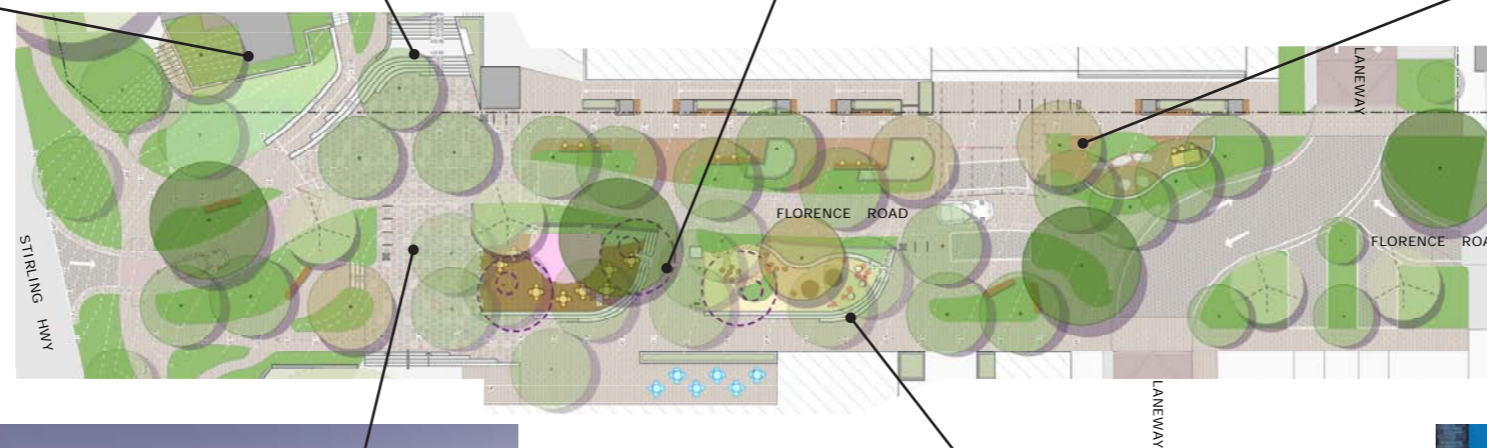
Integrated step lighting



Festoon lighting



Trees canopy lighting



Multi-media projection  
"Optional"

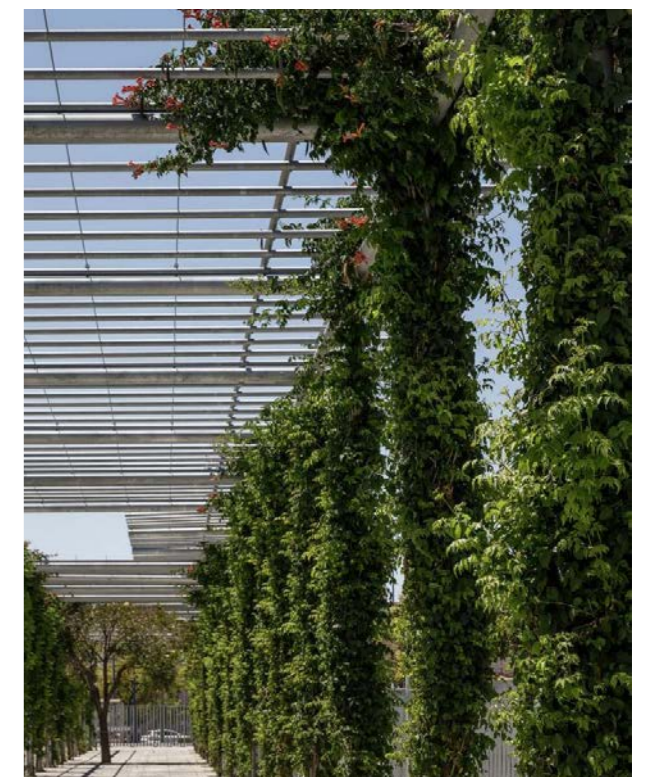
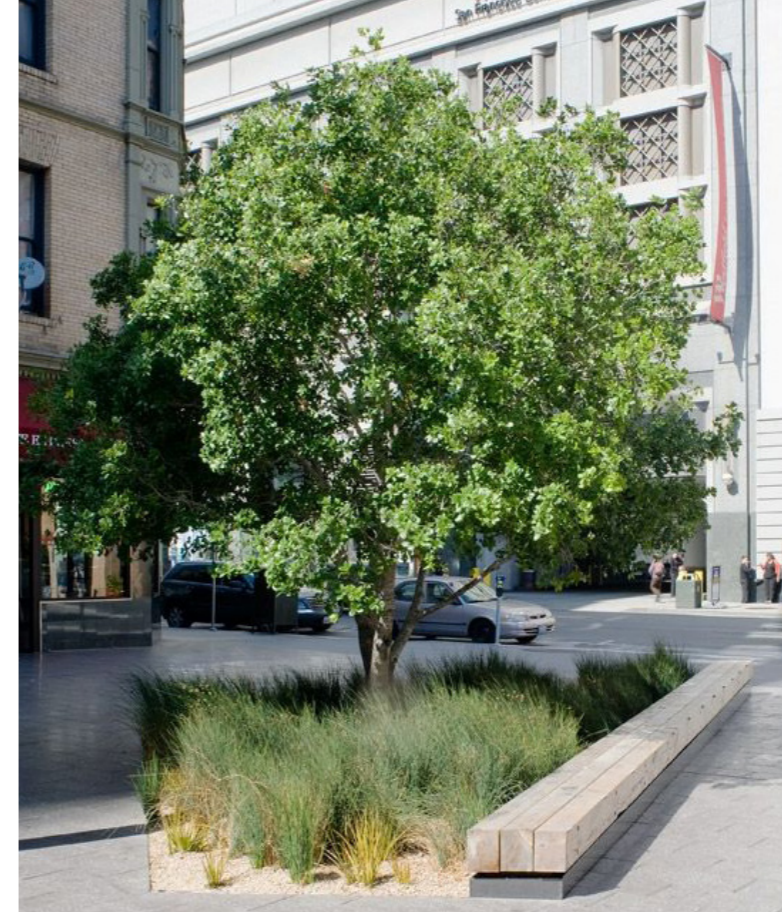


Simple projection  
"Optional"



Multi-direction pole top light

# Planting



FLORENCE ROAD PLAZA

# Concept visualisations



View of Florence Plaza, kiosk and stepping area

## FLORENCE ROAD PLAZA

# Concept visualisations



View of Florence Road and seating outdoor areas

## FLORENCE ROAD PLAZA

# Concept visualisations



View of Play area and Florence Road

## FLORENCE ROAD PLAZA

**7. Confidential Items**

**7.1 18 Doonan Road, Nedlands – X 5 Single Houses SAT Section 31**

Report circulated to Councillors prior to the meeting.

**Declaration of Closure**

There being no further business, the Presiding Member will declare the meeting closed.