



Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

Stockland Residential Communities

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Basis of Report

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Stockland Residential Communities (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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1.0 Introduction

SLR Consulting Australia Pty Ltd (**SLR**) has been commissioned by Stockland Residential Communities (**Stockland**) to provide traffic engineering and transport planning advice for the Yarrabilba master planned development area. The Yarrabilba master planned development is located within the extents of the Yarrabilba Priority Development Area (**PDA**), which is situated approximately 20km south of Logan Central and Springwood. When fully developed, it is anticipated that the ultimate Yarrabilba development will yield approximately 17,000 residential dwellings and approximately 45,000 residents.

The updated report herein supersedes the previous version (v1.0) of this report (dated 28 November 2025) as issued with the application. This updated report addresses particular matters raised in the Economic Development Queensland (EDQ) Information Request (IR) dated 13 January 2026.

The traffic and transport aspects of the overall Yarrabilba master plan have been extensively documented within several reports, which are referenced in **Section 1.1**. This report specifically addresses the traffic and transport aspects of the Yarrabilba Town Centre RAL 1. Relevant extracts from the proposed masterplan for the Yarrabilba Town Centre RAL 1 application is included at **Appendix A**.

1.1 Previous Reporting

The traffic and transport aspects of the entire Yarrabilba master plan development (and other relevant precincts) have been previously addressed within many documents, including the following:

- *Yarrabilba Master Plan Development Traffic Model and Intersection Analysis Data Compendium* (SLR, November 2019).
- *Movement Infrastructure Master Plan - Yarrabilba Master Plan Development (Revision 9 Version 2.0)* (SLR, 30 May 2025) – endorsed by EDQ on 03 June 2025. **Referred herein as the ‘Endorsed MIMP (2025)’.**

Where relevant, some elements of these reports have been used to inform the traffic assessment herein. In particular, it is intended that the traffic and transport aspects of the Town Centre are generally consistent with the Endorsed MIMP (2025).

For clarity, it is acknowledged that:

- Updated traffic modelling was undertaken in 2018, and the volumes from this are most representative of current Yarrabilba planning and have been used for all traffic design and assessment since 2018.
- The most recent traffic modelling (2018) is included in the Endorsed MIMP (2025) and represents the most recent traffic forecasts and assessment for Yarrabilba.
- In 2024, SLR developed an updated Town Centre-specific traffic model for the proposed Town Centre core at Yarrabilba, for the purposes of, informing Lendlease/Stockland road network and land use planning.
- In regard to the current Town Centre development proposal, SLR have made further updates to the Town Centre-specific traffic model, adopting the ‘aspirational’ development yield scenario enabling a conservative traffic impact assessment to be undertaken for Town Centre RAL 1.
- The detailed traffic analysis herein, utilising SIDRA Intersection software, adopts intersection movement volumes from the updated Town Centre-specific traffic model.



Importantly, the Town Centre-specific traffic model was undertaken as a completely separate task to the work that is currently underway to update the overall Yarrabilba traffic model. This is further discussed in **Section 1.2**.

Due to the significance of the Town Centre and the density of land uses proposed, Lendlease/Stockland commissioned SLR to build a Town Centre-specific mesoscopic traffic model in 2024 to inform the planning of road networks and land uses for the Town Centre core. Since then, this bespoke traffic model has been updated with the latest Town Centre yield information proposed for RAL 1, adopting Stockland's 'aspirational' yield scenario, ensuring intersection movement volumes produced by the model are conservative. The intersection capacity assessment documented herein is underpinned by these volumes, the latest yield breakdown and demographics from 2025. This analysis assesses the key intersections providing access to the Town Centre for the ultimate development scenario only. This is discussed in **Section 4.0** herein.

1.2 Traffic Model Update

The overall Yarrabilba road network and demographics were revised in 2018, which included reference to the initial traffic model (2015) and the previously Endorsed MIMP (2019). Whilst the demographics have been updated in various precincts, the demographics for the total Yarrabilba PDA are largely unchanged. It is recognised that whilst the traffic modelling undertaken in 2018 is still relevant and suitable for use, updated traffic modelling of the entire Yarrabilba transport network has commenced in 2025. This model update (for the entire Yarrabilba Development) will be completed in 2026.



2.0 Proposed Development

The proposed Town Centre RAL 1 (**RAL 1**) development is situated in the eastern part of the broader Town Centre area. Primary vehicular access for this precinct will be via the following key roads:

- Yarrabilba Drive (formerly Town Centre North-South Road), is a Sub Arterial road that connects to the wider road network and travels along the eastern boundary of the Town Centre. It currently serves as a key connection to the external transport network via Waterford-Tamborine Road to the north and will also serve as a future connection via Plunkett Road to the south-west as identified in the Endorsed MIMP (2025).
- Wentland Avenue (formerly Town Centre East-West Road), is a Sub Arterial road that connects to the wider road network and travels along the southern boundary of the Town Centre. It connects to Jimbillunga Drive (which will subsequently connect to Waterford-Tamborine Road) to the west, and will also serve as a future connection to the external transport network at Plunkett Road to the south-east, as identified in the Endorsed MIMP (2025).
- Jimbillunga Drive (formerly Town Centre East-West Road), is a Sub Arterial road that connects the Town Centre with the wider road network to the west, including Waterford-Tamborine Road. Ultimately, Jimbillunga Drive will facilitate primary vehicular access to/from the west and north-west.
- It is noted that Wentland Avenue and Jimbilunga Drive (between Yarrabilba Drive and Waterford-Tamborine Road) are currently under construction and are expected to be completed / open to traffic in late-2026/ early-2027, prior to opening of uses within the Town Centre RAL1.

The proposed yield of RAL 1 represents five (5) super lots comprising Stage 1 of the Town Centre core. The Town Centre RAL 1 is illustrated on **Figure 1**, in the context of the proposed staging and overall Yarrabilba Development Area.



Legend

- Subject Site (Town Centre RAL 1)
- Key Road Network

Based on information provided by Stockland and RPS, and as detailed within the precinct layout plan, the proposed yields included for RAL 1 are summarised in **Table 1**.

Table 1 RAL 1 Key Land Uses and Yields (Aspirational)

Lot Number	Land Use	Proposed Yield	
1	Retail	40,000	m ² GFA
	Childcare	1,000	m ² GFA
	Other Retail	3,190	m ² GFA
	Food & Beverage	800	m ² GFA
	Allied Health	1,700	m ² GFA
	Commercial Office	10,420	m ² GFA
2	Library	1,500	m ² GFA
	District Art Gallery	600	m ² GFA
	Community Centre	900	m ² GFA
	Commercial Office:	2,900	m ² GFA
	Food & Beverage	800	m ² GFA
	Other Retail	600	m ² GFA
	Gym/Wellness	500	m ² GFA
	Allied Health	750	m ² GFA
	Senior Living	4,000	m ² GFA
	Residential	248	Dwellings
3	Education (Private School)	10,000	m ² GFA
	Education (Tafe Urban Campus)	7,600	m ² GFA
	Commercial Office	8,590	m ² GFA
	Food & Beverage	500	m ² GFA
	Childcare	1,000	m ² GFA
	Other Retail	650	m ² GFA
4	Public Health	7,000	m ² GFA
	Allied Health	2,950	m ² GFA
	Private Hospital	5,200	m ² GFA
5	Commercial	16,600	m ² GFA
Total	Non-Residential	129,750	m ² GFA
	Residential	248	Dwellings



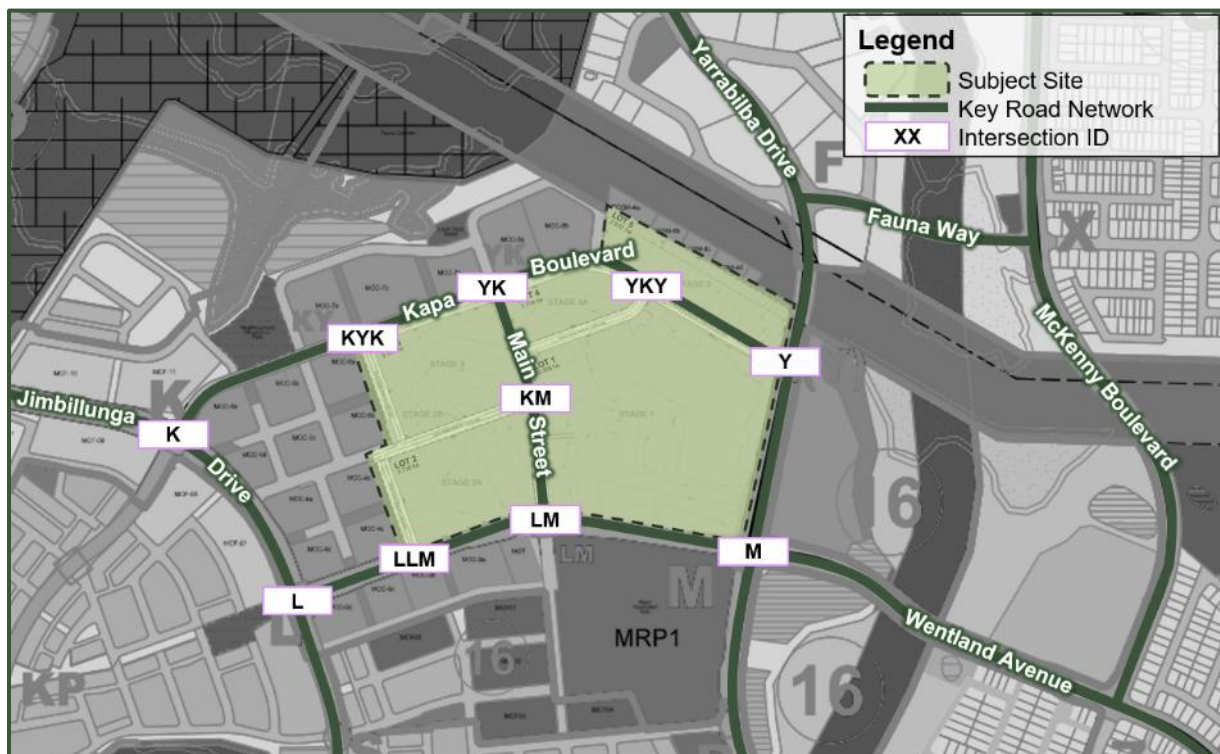
The Plan of Development (POD) boundary is illustrated on **Figure 2**, with relevant extracts from the RAL 1 master plan (by RPS) provided at **Appendix A**. Note that **Figure 2** also includes Intersection ID labels, used for references throughout this report. Additional road reference points for the entire Yarrabilba development are provided on plans (from the Endorsed MIMP) included at **Appendix C**.

Given the mixed-use nature of RAL 1, the detailed breakdown of yields for the residential and non-residential uses are provided at **Appendix B**.

It is relevant to note that the subject application and the traffic / transport assessment herein does not consider the individual details or specific requirements of each potential land use within Lots 1 – 4 (eg. shopping centre, private school, health facilities). The details of if / where / when any such uses would occur is not certain at this stage. Nonetheless, the traffic generation of the potential uses (see **Table 1**) has been considered within the traffic model and intersection assessment herein.

In addition, the specific details of driveways (ingress and egress), car parking, pedestrian access, cycle facilities and service vehicle requirements for each of the potential uses is not addressed herein. Those details would be the subject of future applications for individual uses within each of Lots 1 – 4, and would be addressed within future assessments for those applications.

Figure 2 Town Centre RAL 1 POD



2.1 Interim Road Network

It is recognised that the road (and transport) network for Yarrabilba is being delivered progressively as each Precinct is developed. For that reason, the road (and transport) network that will be in place in the early stages of the Town Centre development will be an interim form. The following key elements are noted:

- Yarrabilba Drive (connecting to Waterford-Tamborine Road) is the first (currently the only) road connection between Yarrabilba and the external road network.
- The second road connection between Yarrabilba and the external road network is currently being constructed along Wentland Avenue and Jimbillunga Drive (previously referred to as the Town Centre East West Road). It is anticipated that this will connect to Waterford-Tamborine Road in late-2026 / early-2027.
- The above second road connection is a 4-lane median divided roadway providing substantial capacity to accommodate vehicles, public transport (buses) and active transport (cyclists and pedestrians) generated by Yarrabilba, including the Town Centre RAL 1.
- The above second road connection is expected to be in place prior to the opening of the first uses within the Town Centre RAL 1 development.
- Timing for the road connection of Wongawallan Drive with Jimbillunga Drive is uncertain but is anticipated to be in place within the next 2 - 3 years (eg. early 2028).
- Timing for the road connection of Garragull Drive with Jimbillunga Drive is uncertain but is anticipated to be in place within the next 2 - 3 years (eg. early 2028).

It is noted that if the road connections at Wongawallan Drive and Garragull Drive occur after the opening of the RAL 1 development, the operation of the Yarrabilba road (and transport) network is not expected to be compromised. It is recognised that when the development of Town Centre RAL 1 opens, it is expected to only have vehicle access to the external road network via the following key routes:

- North – Yarrabilba Drive to Waterford-Tamborine Road, and
- West – Jimbillunga Drive and Mibinba Drive to Waterford-Tamborine Road.

Whilst detailed traffic analysis of this interim road network has not been undertaken, it is considered that the progressive development of the road (and transport) network will be appropriate to accommodate the extent of traffic generated by the Town Centre RAL 1, recognising that full traffic demands will not occur for a number of years after initial opening.

2.2 Ultimate Road Network

It is recognised that in the ultimate horizon, RAL 1 (and the entire Town Centre) will have vehicle access to the external road network via the following key routes (and other routes):

- South / West – Yarrabilba Drive, Jimbillunga Drive, Mibinba Drive to Waterford-Tamborine Road,
- North / West – Jimbillunga Drive or Yarrabilba Drive to Waterford-Tamborine Road, and
- East – Wentland Avenue to Plunkett Road.

The road and transport network described herein, is consistent with the Endorsed MIMP (2025). The intersection assessment herein (see **Section 4.0**) considers the ultimate scenario only, as above, and the assessed road network is provided at **Appendix C** for reference.



3.0 Design Review

3.1 External Access

The Town Centre does not include any major road connections that differ from the overall road network connections identified in the Endorsed MIMP (2025), nor does it propose any changes to these roads. Notwithstanding the latter, it is recognised that interim road network arrangements for RAL 1 will exclude some components of these major road connections. As such, the design review undertaken as a part of this traffic assessment focuses on the geometric suitability of the internal road network (lower-order streets) and adjoining road connections specific to the RAL 1 application.

The 'internal road network (lower-order streets)' considered herein generally considers the road network on the boundary of Lots 1 -4, and not those streets within Lots 1 -4. The latter, would addressed as part of future applications for individual uses within each of Lots 1 – 4.

For completeness, the location of RAL 1 has been illustrated on **Figure 2** with respect to the wider road alignments and intersection locations. The access locations for the Town Centre to the major road network can be seen in **Figure 3**.

Figure 3 Town Centre RAL 1 External Road Connections



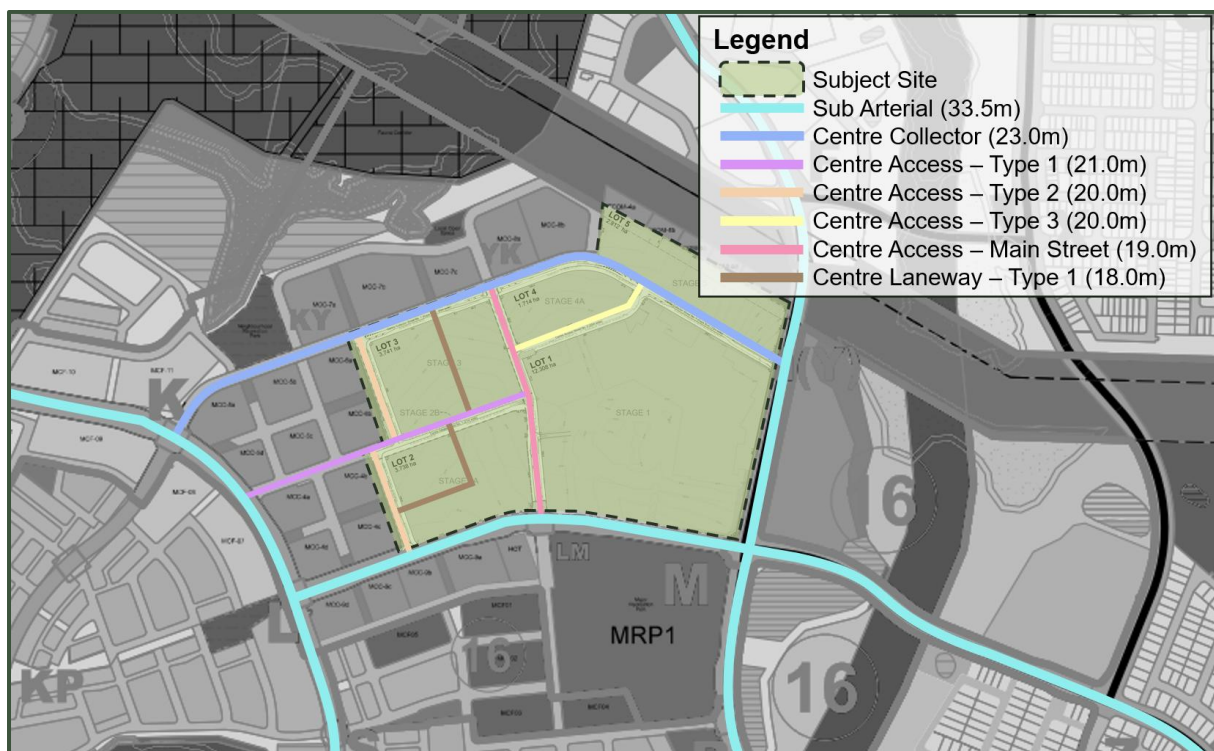
3.2 Internal Road Network

The internal roads (and their respective typical road reserve widths) proposed as part of the RAL 1 development will comprise the following:

- Sub Arterial (33.5m) – Yarrabilba Drive and Wentland Avenue,
- Centre Collector – Kapa Boulevard:
 - Bus Route – 7.5m wide pavement plus indented parking (23.0m), and
 - Widened at Bus Stop - 7.5m wide pavement plus indented bus bays (24.2m).
- Centre Access:
 - Type 1 – 6m wide pavement plus indented parking (21.0m),
 - Type 2 - 6m wide pavement plus indented parking (20.0m),
 - Type 3 - 7m wide pavement plus indented parking (20.0m); and
 - Main Street - 6m wide pavement plus indented parking (19.0m).
- Centre Laneway:
 - Type 1 - 6m wide pavement plus indented parking (18.0m), and
 - Type 2 - 7m wide pavement (11.0m).

The allocation of the above road cross sections to the Town Centre road network can be seen in **Figure 4**. It should be noted that the proposed locations for the centre laneway cross sections will be informed by future applications. The road reference points for the Yarrabilba Development are provided at **Appendix C**. The cross sections for the roads within RAL 1 are shown in the Functional Plans prepared by MPN (see **Appendix D**) and the RAL 1 Masterplan prepared by RPS (see **Appendix A**) in conjunction with the project team.

Figure 4 Proposed Road Network Layout and Hierarchy



The cross sections for each road type have been developed by the project team with traffic input from SLR and were based on the design principles outlined within the Endorsed MIMP (2025). These cross sections are generally consistent with those designed/constructed previously in Yarrabilba and are underpinned by the typical cross sections detailed within the Endorsed MIMP (2025). Where appropriate, these cross sections adopt elements consistent with the EDQ “*Street and movement network PDA guideline no. 06*”.

As most of the cross sections are unique to the Town Centre Precinct, it is important to note that the cross sections proposed for RAL 1 (see **Appendix A** and **Appendix D**) have some differences from those cross sections (which primarily reflect the residential precincts) included in the Endorsed MIMP (2025). These differences are not considered significant, and the relevant/appropriate transport functions for all roads are retained/achieved by the proposed cross sections. Therefore, the variations to the cross sections are acceptable for RAL 1.

The Centre Access – Type 3 has particularly been developed to include a wider road pavement (7.0m) to accommodate service vehicles accessing the future Shopping Centre development within Lot 1.

It is noted that the functional design (by MPN) for Kapa Boulevard west of Yarrabilba Drive includes a centre median opposite the eastern end of Lot 1. That centre median has been designed to include an opening adjacent to the potential driveway at the eastern end of Lot 1. That median opening is an interim arrangement, which is expected to be closed once Kapa Boulevard is fully constructed between Yarrabilba Drive (Intersection Y) and Jimbilunga Drive (Intersection K). The interim median opening is an important part of ensuring that large service vehicles for Lot 1 (future Shopping Centre development) are able to exit the Town Centre RAL 1 precinct without needing to use Main Street. This is important in an urban design context, because the Main Street has not been designed to accommodate Articulated Vehicles (AVs) and the design intent is to protect the amenity (and pedestrian safety) within the Main Street precinct and shared zone. Details of the latter will be addressed as part of the future application for a shopping centre on Lot 1.

3.3 Active Transport Provisions

The key elements of the walk and cycle network proposed in RAL 1 are consistent with the connections and elements within the Endorsed MIMP (2025). It is recognised that some active transport links, as proposed in the Town Centre, are additional to those identified in the Endorsed MIMP (2025).

Key elements of the active transport network relative to RAL 1 have been reproduced below for ease of reference, as identified within the Endorsed MIMP (2025):

- Primary / Principal Cycle Route along Yarrabilba Drive.
- Primary Cycle Route along Wentland Avenue.
- Local Cycle Route along Main Street between intersections LM and YK.
- Local Cycle Route along Kapa Boulevard between intersections K and Y.
- Local Cycle Route from intersection YK, traversing the power easement and connecting on the northern side with intersection F, adjacent to Fauna Way.



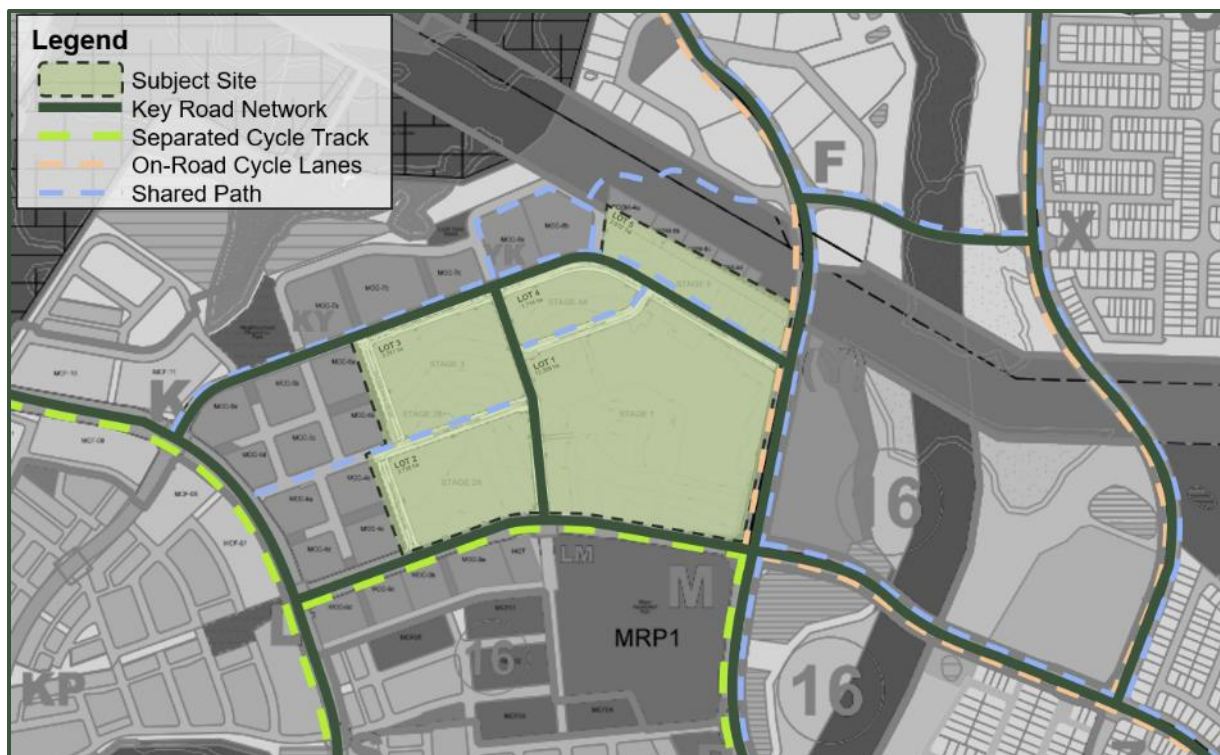
Within RAL 1, the following specific active transport infrastructure is proposed:

- Yarrabilba Drive (Primary / Principal Cycle Route) currently includes a Shared Path along the eastern verge + Pedestrian Footpath along the western verge and on-road cycle lanes in both directions, north of intersection M.
- Yarrabilba Drive (Primary / Principal Cycle Route) will include a Two-Way Cycle Track and pedestrian footpath along the western verge + Shared Path along the eastern verge, south of intersection M.
- Wentland Avenue (Primary Cycle Route) currently includes a Pedestrian Footpath along the southern verge + Shared Path along the northern verge and on-road cycle lanes in both directions, east of intersection M.
- Wentland Avenue (Primary Cycle Route) will include a Two-Way Cycle Track and pedestrian footpath along the southern verge + Shared Path along the northern verge, west of intersection M.
- Kapa Boulevard will include a Shared Path along the northern verge + minimum 3.0m Pedestrian Footpath along the southern verge.
- All other Centre Access Streets will provide minimum 3.0m Footpaths on both sides.

The proposed active transport paths are compliant with, or exceed, those identified in the Endorsed MIMP (2025).

The location of the Separated Cycle Tracks, On-Road Cycle Lanes and Shared Paths can be seen in **Figure 5**.

Figure 5 Proposed Active Transport Provisions



3.4 Public Transport Provisions

In accordance with the public transport strategy outlined in the Movement IMP, the Yarrabilba Master Plan aims to provide public transport connections within a 500m walking distance of residents within precinct developments.

As identified in **Figure 6**, several bus routes and bus stops (indicative locations only) are proposed within the subject site. Bus routes and bus stops are proposed along both Sub Arterials (Yarrabilba Drive and Wentland Avenue) and the Centre Collector (Kapa Boulevard). The 500m walking distance assessment has been undertaken, adopting a 400m circle radius measured around each proposed bus stop pair. This assessment is depicted at **Figure 6**.

Figure 6 Proposed Public Transport Provisions

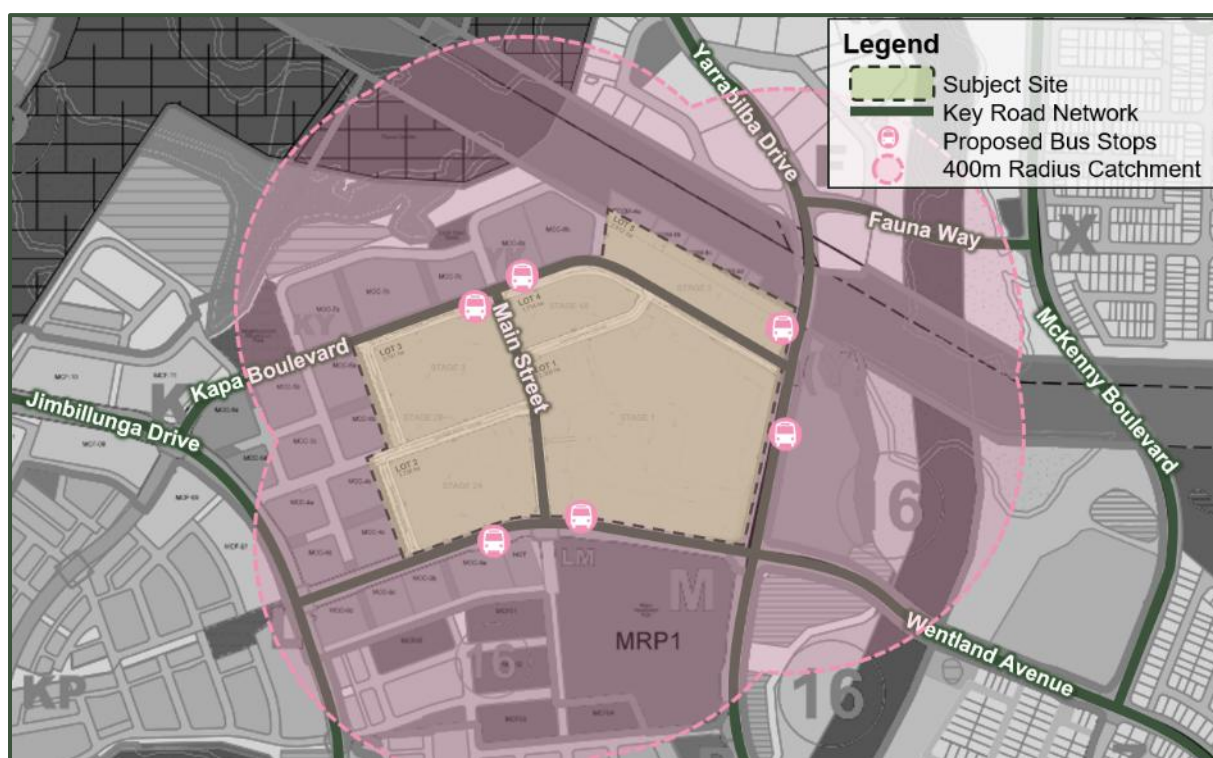


Figure 6 identifies that all lots in RAL 1 will be within 500m walking distance of a proposed bus stop.

It is recognised that bus services may not be implemented by TransLink on the identified routes (this is to be negotiated by contract with the bus operator, Stockland and TransLink); however, the relevant roads have been designed to enable such bus routes to occur. The proposed bus stops will be constructed as indented bays in accordance with TransLink's Public Transport Infrastructure Manual (**PTIM**).

On this basis, the public transport stops proposed within RAL 1 and the wider Town Centre will adequately service the catchment and comply with those identified in the Endorsed MIMP (2025).

It is relevant to note that eastbound bus stop on Wentland Avenue is currently proposed (as approved by Transink) on the eastern side of the Main Street / Wentland Avenue intersection (LM). This location provides good access for the Town Centre precinct (including the future Shopping Centre, Library and Cultural facilities) via Main Street and to the southern side of Wentland Avenue (Major Recreation Park) via signalised pedestrian crosswalks at the Main Street / Wentland Avenue intersection (LM).



4.0 Traffic Analysis

4.1 Development Scenarios

As identified in **Section 1.2**, the detailed traffic analysis undertaken herein has been informed by a Town Centre-specific mesoscopic traffic model, including land uses and yields consistent with Stockland's latest planning.

The analysis documented herein is underpinned by development traffic volumes reflecting an 'aspirational' yield scenario, and assesses the ultimate scenario only. This assumes the full development of the wider Yarrabilba Masterplan, with a completed external road network consistent with the Movement IMP.

The road network map for the ultimate scenario is provided at **Appendix C**.

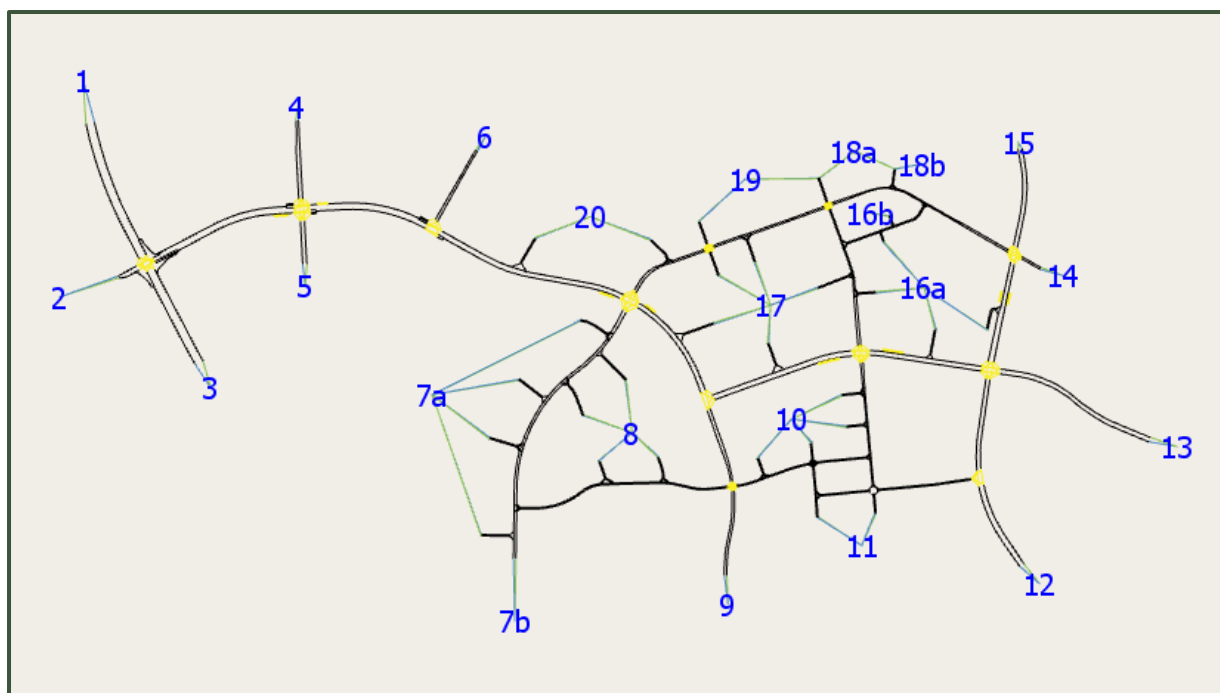
4.2 Road Network Traffic Volumes

For the purposes of the analysis, the traffic volumes were obtained from the Town Centre-specific traffic modelling undertaken in 2024 and updated in 2025 / 2026. This modelling was undertaken in the Aimsun Next software package using version 22.0.2.

To inform the analysis, the development plans at **Appendix A**, and 'aspirational' development yields at **Appendix B**, were used to update the traffic model from 2024 to 2025 / 2026 yield scenarios. The assessed model layout, extents and centroid configuration are shown on **Figure 7**.

The model extent predominantly focuses on Wentland Avenue and Jimbillunga Drive, formerly Town Centre East West (TCEW) Road, extending west to Waterford-Tamborine Road and East to Yarrabilba Drive. This was done by creating a subnetwork from the original 2018 Metis model. The subnetwork area includes the various centroids located in the town centre core and frame, in addition to the links feeding into the town centre and the TCEW Road.

Figure 7 Yarrabilba Town Centre Aimsun Model (2025)



To facilitate the mesoscopic model assigning traffic to the Town Centre road network, indicative locations for lot access have been adopted. It is important to note, that as part of subsequent development applications specific to each individual lot, these indicative locations may change.

Furthermore, each road within the Town Centre core is envisaged to carry out a specific function. Where the traffic model has assigned traffic to the road network that is inconsistent with this intended function, small adjustments have been made to ensure traffic is distributed through the network appropriately, before being applied to SIDRA. As an example, the traffic model's route choice decisions particularly favoured Centre Access Streets in some cases. As the assigned traffic volumes were incompatible with the intended function, traffic volumes were adjusted by slightly increasing traffic volumes along Kapa Boulevard, which has been designed to function as a Centre Collector Street.

More specifically, the following adjustments to the traffic model were made to better align the expected traffic volumes with the intended function of the road network for RAL1:

- For Centroid 17, where Aimsun model outputs produced volumes that were uncharacteristically low (contrary to expectations and the intended function and design of the proposed road network), SLR has increased individual turning volumes to a minimum of 20 vehicles per hour to account for potential localised discrepancies in traffic distributions not captured by the model.
- To ensure the intersection analysis undertaken herein is conservative, no turning movement volumes were reduced when making these adjustments.

The adjustments to the model and/or model volumes have been made to ensure that all subsequent intersection analysis herein is conservative.

The modelling assessed the ultimate development scenario only (nominally a 2043 design year) for the following peak periods, consistent with the previous Metis modelling:

- Weekday AM peak period: 7 – 9AM (2-hour model with 30-minute warm-up/warm down and 1-hour peak period).
- Weekday PM peak period: 4 – 6PM (2-hour model with 30-minute warm-up/warm down and 1-hour peak period).

The signalised intersections were modelled in SIDRA Intersection 9.1 using the 1-hour peak period volumes to identify the performance characteristics and establish appropriate signal phase times.

The traffic volumes for the ultimate scenario 1-hour peak periods, extracted from the Aimsun Model and applied to the SIDRA modelling, for the intersection assessment herein, are provided at **Appendix E**.

4.3 Study Intersections

The following analysis considers the 10 key intersections that provide access for and are adjacent to RAL 1. The intersection locations, along with their ultimate forms, are identified in **Figure 8** and **Table 2**.



Figure 8 Study Intersections

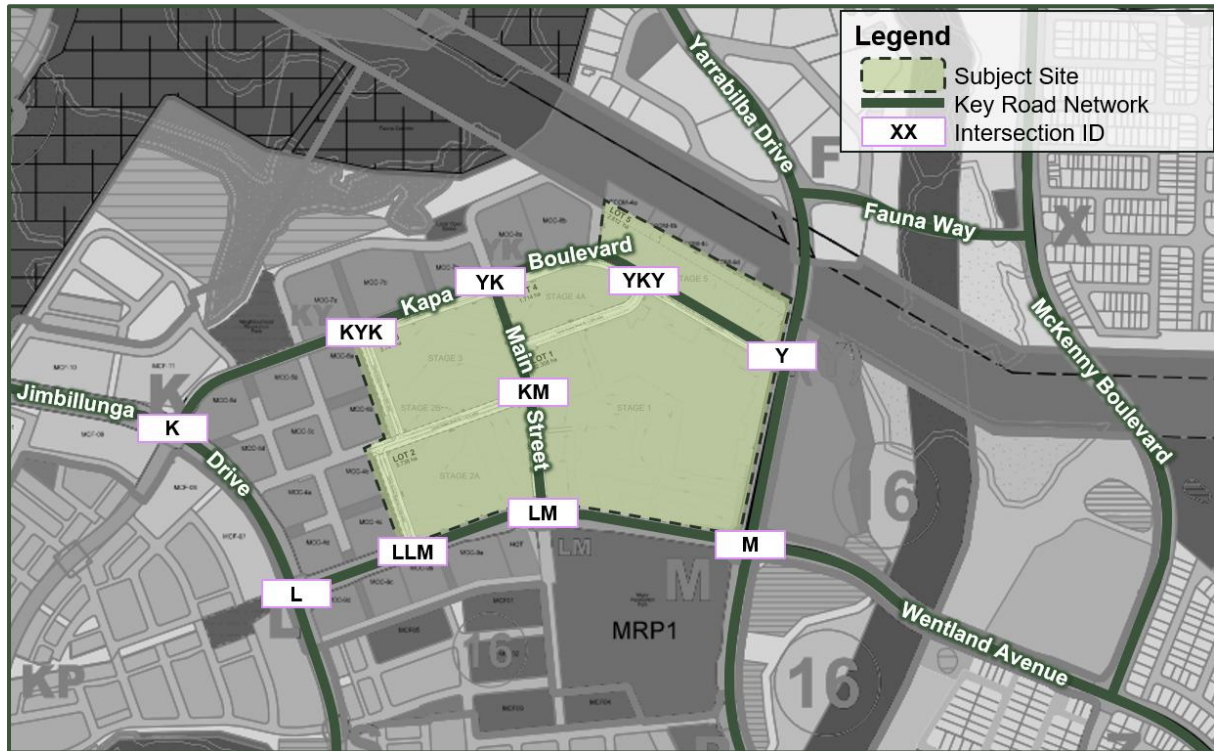


Table 2 Intersection Form

ID	Ultimate Form
Intersections K, L, LM, M, Y, and YK.	
Intersections LLM ¹ , KM, KYK, and YKY.	

¹ Left-In Left-Out (LILO) Priority Controlled Intersection

It is important to note, that intersections K, L, LM and M have been designed and are currently under construction as part of the overall Town Centre East West Road (now referred to as Jimbillunga Drive and Wentland Avenue) works package. Nevertheless, a reassessment of these intersections has been undertaken to confirm / ensure the latest Town Centre development-generated traffic volumes can be accommodated.

4.4 Intersection Assessment

The key roads and the midblock lane capacity requirements are summarised in **Table 3**.



Table 3 Ultimate Lane Capacity Requirements

Road Name	Link Location	Proposed Traffic Lanes
Jimbillunga Drive	West of K	4 Lanes
	K – L	
	South of L	
Wentland Avenue	L – LLM	
	LLM – LM	
	LM – M	
	East of M	
Yarrabilba Drive	North of Y	
	Y – M	
	South of M	

The performance of all key intersections has been assessed in SIDRA Intersection 9.1 to establish the operational performance of the proposed layouts. This analysis has considered and adopted the approved layout, signal phasing arrangements and coordination for the Town Centre East West road network, with particular emphasis on intersections K, L, LM, and M. The proposed layouts assessed in SIDRA are shown in and provided at **Appendix F**.

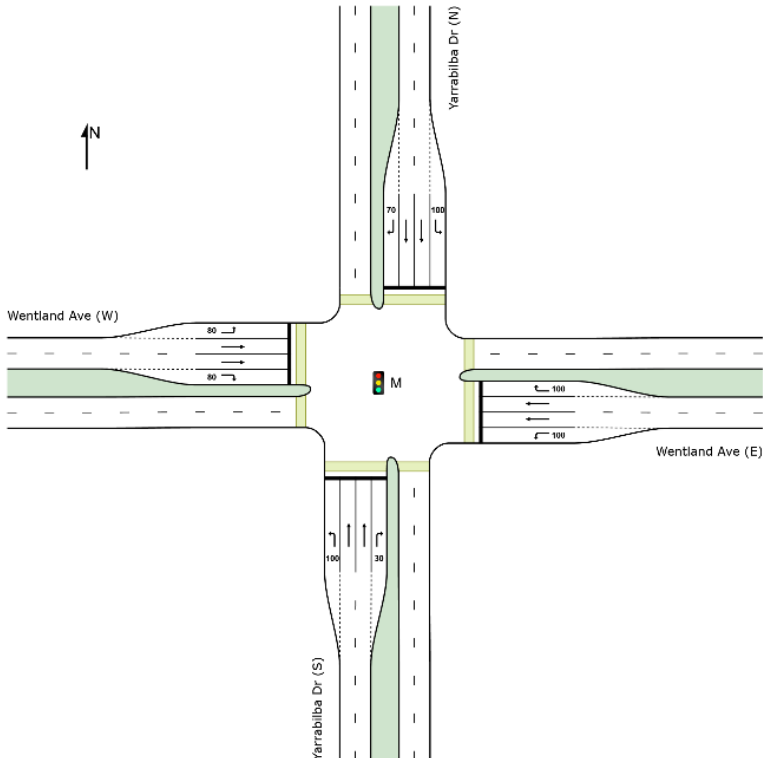
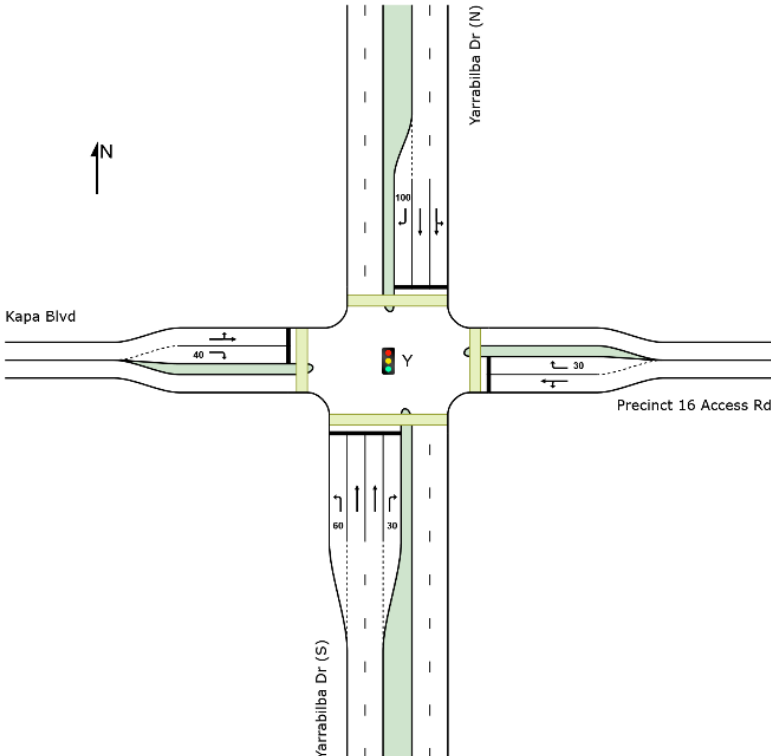
Table 4 RAL1 Proposed Intersection Layouts

ID	Intersection Layout
K	The diagram illustrates the proposed layout for Intersection K. It shows a four-way intersection where Jimbillunga Drive (W) and Jimbillunga Drive (E) meet Kapa Blvd (N) and Kapa Blvd (S). The layout includes lane markings, traffic signals, and speed limits (70, 110, 100). A north arrow is also present.

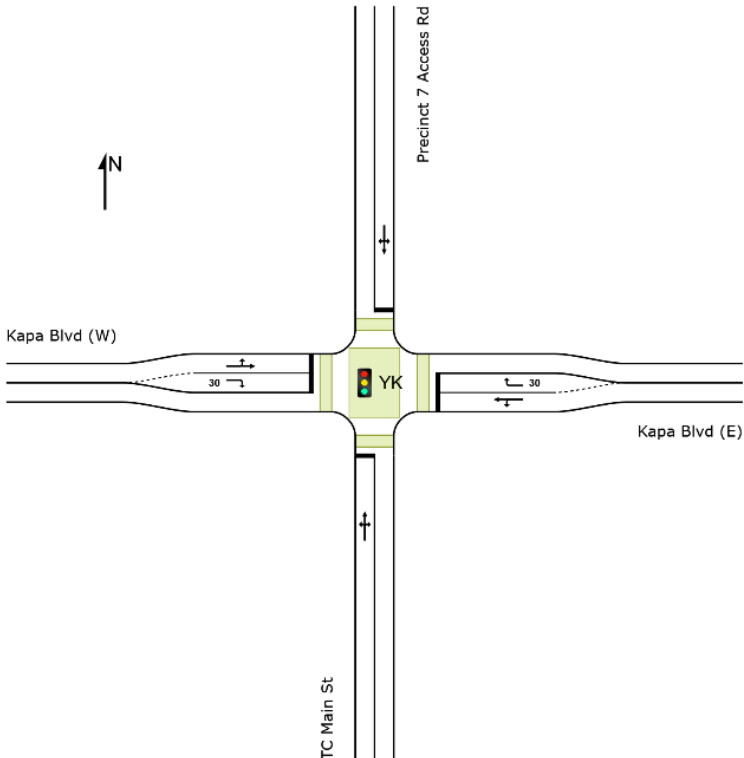
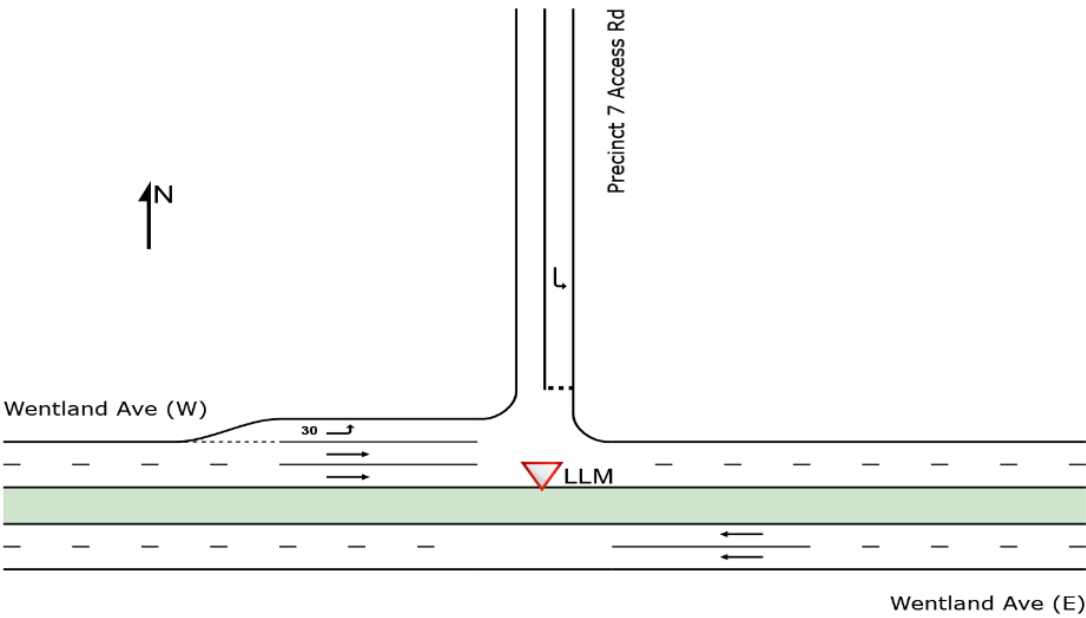


ID	Intersection Layout
L	Diagram L shows a T-junction intersection. Jimbillunga Dr (S) approaches from the south and terminates at Jimbillunga Dr (N). Wentland Ave runs horizontally across the junction. A traffic light is located at the intersection. Speed limits are marked: 80 km/h for northbound traffic on Jimbillunga Dr (N), 70 km/h for southbound traffic on Jimbillunga Dr (S), and 65 km/h for eastbound traffic on Wentland Ave. A north arrow points towards the top of the diagram.
LM	Diagram LM shows a four-way intersection. Wentland Ave (W) and Wentland Ave (E) run horizontally, while Town Centre Main St and Precinct 7 Access Rd run vertically. A traffic light is located at the intersection. Speed limits are marked: 60 km/h for westbound traffic on Wentland Ave (W), 65 km/h for eastbound traffic on Wentland Ave (E), 100 km/h for northbound traffic on Town Centre Main St, and 30 km/h for southbound traffic on Precinct 7 Access Rd. A north arrow points towards the top of the diagram.

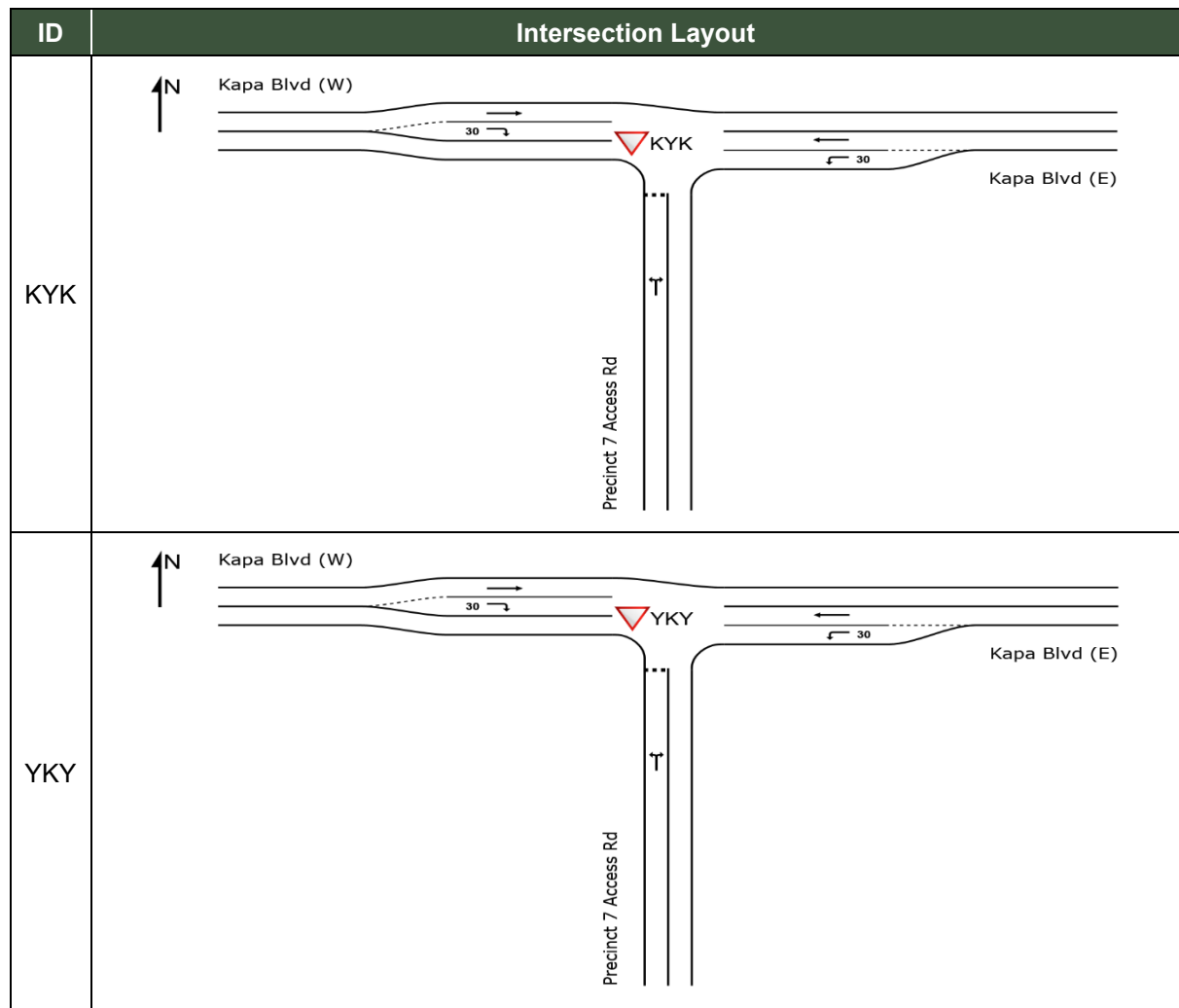


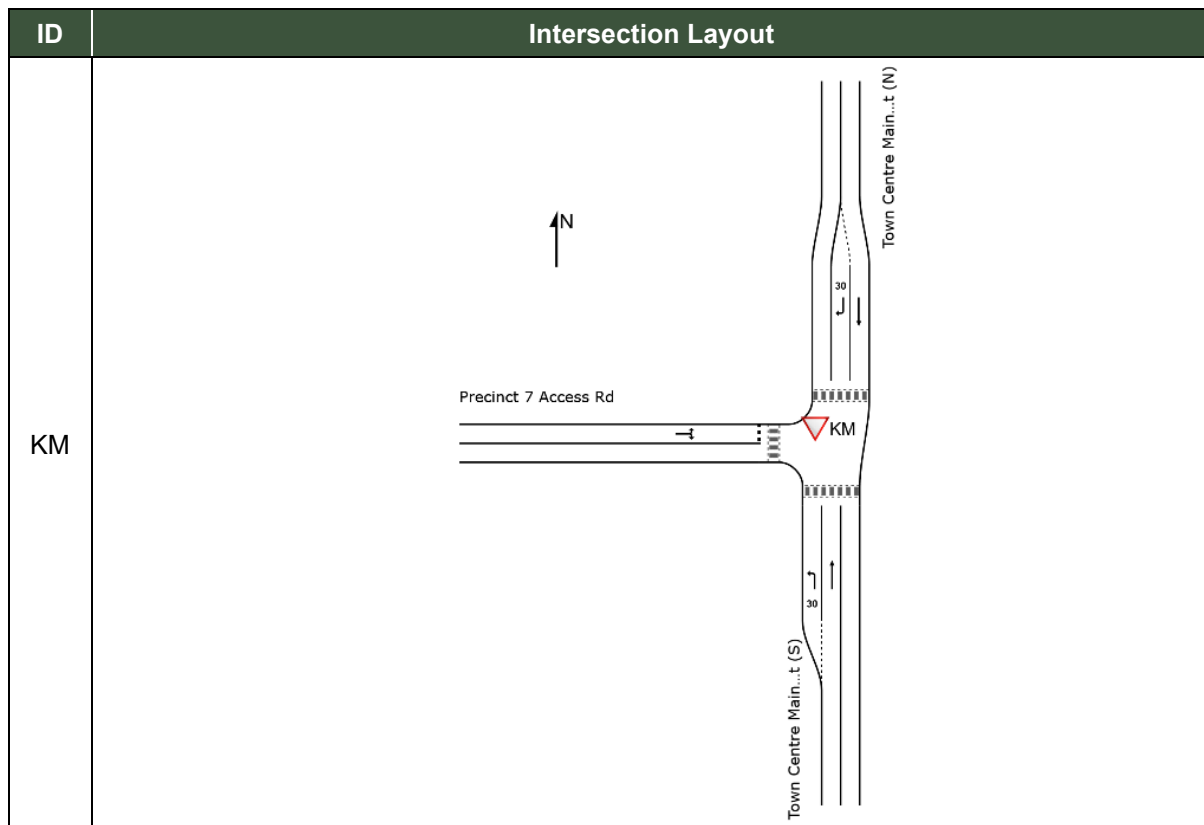
ID	Intersection Layout
M	 Wentland Ave (W) Yarrabilba Dr (S) Yarrabilba Dr (N) Wentland Ave (E) North Arrow Traffic Signal: M
Y	 Kapa Blvd Yarrabilba Dr (S) Yarrabilba Dr (N) Precinct 16 Access Rd North Arrow Traffic Signal: Y



ID	Intersection Layout
YK	 The diagram shows a four-way intersection. Kapa Blvd (W) runs horizontally to the left, and Kapa Blvd (E) runs horizontally to the right. Precinct 7 Access Rd runs vertically upwards, and TC Main St runs vertically downwards. A traffic light is located at the intersection, with a yellow 'YK' label next to it. A north arrow points upwards. Speed limits of 30 are indicated on Kapa Blvd (W) and Kapa Blvd (E).
LLM	 The diagram shows a T-junction intersection. Wentland Ave (W) runs horizontally to the left, and Wentland Ave (E) runs horizontally to the right. Precinct 7 Access Rd runs vertically upwards. A red triangle symbol is located at the intersection, with a red 'LLM' label next to it. A north arrow points upwards. Speed limits of 30 are indicated on Wentland Ave (W) and Wentland Ave (E).







Note that the analysis for intersection KM (see layout diagram from SIDRA above) includes pedestrian crossings to reflect conservative analysis. It is recognised that this intersection will be a shared zone and formal pedestrian crossings will not be marked.

The analysis results for the ultimate scenario are summarised in **Table 5**, with the detailed outputs (including intersection layout plans and movement summaries) provided at **Appendix F**.



Table 5 Summary of Ultimate Intersection Results

ID	Control Type	AM Peak			PM Peak		
		DoS	Delay (s) ¹	95th%ile Queue (m)	DoS	Delay (s) ¹	95th%ile Queue (m)
K	Signalised	0.69	56	142	0.68	51	173
L		0.43	38	95	0.44	33	123
LM		0.60	45	163	0.73	60	133
M		0.83	50	126	0.75	58	149
Y		0.56	40	103	0.70	56	151
YK		0.31	22	37	0.35	23	41
LLM	Priority Controlled (T-junction LILO)	0.19	1	3	0.23	2	5
KYK	Priority Controlled (T-junction)	0.12	1	2	0.13	1	3
YKY		0.11	3	2	0.29	4	10
KM		0.12	3	3	0.21	3	6

¹ Average delay recorded for Signalised intersections and Maximum Delay recorded for Priority Controlled intersections.

The results reported in **Table 5** confirm that the performance of all intersections identified as part of RAL 1 in the ultimate scenario is within the adopted maximum operating parameters for signalised (maximum DoS 0.90), and unsignalised (maximum DoS 0.80) intersections.

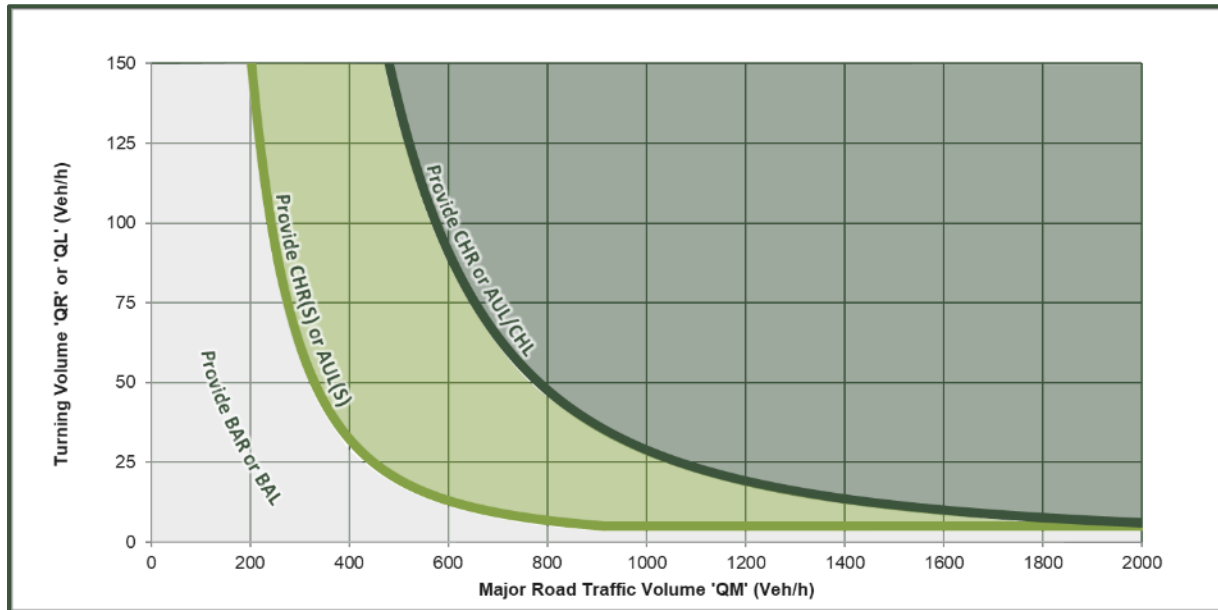
4.5 Turn Warrant Assessment

A turn warrant assessment has been conducted to confirm the appropriate turn treatment type required at the proposed priority controlled (unsignalised) intersections (LLM, KYK, YKY, and KM).

The turn warrant assessment has been undertaken in accordance with research summarised in *Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (2023) (AGRD4A)*. To assist the reader's interpretation of the assessment, a pictorial description of the various urban turn treatments that may be considered based on the design speed (**V**) is provided in **Figure 9** and **Table 6**.



Figure 9 Turn Treatment Types and Volume Criteria ($V \leq 70\text{km/h}$)



Source: AGTM4A-21

Table 6 Urban Turn Treatment Types

Acronym	Right Turn Treatment	Left Turn Treatment
BAR or BAL	 BAR (Basic Right Turn)	 BAL (Basic Left Turn)
CHR(S) or AUL(S)	 CHR(S) (Channelised Right Turn (Short))	 AUL(S) (Auxiliary Left Turn (Short))
CHR or AUL or CHL	 CHR (Channelised Right Turn)	 AUL (Auxiliary Left Turn)
		 CHL (Channelised Left Turn)



The results of the Turn Warrant Assessment are summarised in **Table 7** with the detailed output from the assessments included at **Appendix G**.

Table 7 Turn Warrant Assessment Summary

Intersection	Minimum Turn Treatment Required
LLM ¹	AUL(S)
KYK	BAR/BAL
YKY	CHR(S)/BAL
KM	CHR/AUL(S)

¹ Left-In Left-Out (**LILO**) Priority Controlled Intersection

The results indicate that at a minimum, an AUL(S) turn treatment will be required at intersections KM and LLM, and a BAL turn treatment will be required at intersections KYK and YKY. For auxiliary right turn lanes, a BAR turn treatment will be required at intersection YKY, a CHR(s) turn treatment will be required at intersection YKY, and a CHR turn treatment will be required at intersection KM.

For intersection KYK and YKY, given the intended function and context of the major road (Kapa Boulevard), it is recommended that AUL(S) and CHR(S) turn treatments are provided, rather than BAL and BAR turn treatments, to reduce the risk of rear-end type incidents. Although a lower type turn treatment would meet the requirements of the turn warrant assessment, it is acknowledged that the proposed turn treatments will improve the operation, capacity and safety for vehicles along Kapa Boulevard and better align with the intended function of the road and local context of the wider development.

For intersection KM, given the intent to function as a regulated Shared Zone intersection (characterised by low vehicle speeds, a pedestrian priority provided, and textured pavement as a traffic calming measure), it is considered appropriate for the intersection layout to consist of no formal (line marked) turn lanes. This is further validated, as the traffic volumes assigned to Intersection KM are inflated due to the assumptions adopted herein ensuring a conservative assessment. As a Shared Zone, this would also be effective in discouraging the use of this intersection by vehicles. This approach aligns with the intended urban design and social amenity outcomes as expressed within the Endorsed MIMP (2025) for the Town Centre, and supports a safer, pedestrian-friendly streetscape.

4.6 Intersection Form

The functional drawings for RAL 1 have been prepared by MPN and provide sufficient road reserve allocation accommodating the necessary road and intersection configurations. These drawings are provided at **Appendix D**.



5.0 Summary

The following summarises the key conclusions in respect of the traffic and transport aspects of the Town Centre RAL 1, and considers the need for consistency with the Movement Infrastructure Master Plan (**MIMP**):

- **Road Hierarchy** – The network of roads within and adjacent to the Town Centre is generally consistent with the road hierarchy identified in the Endorsed MIMP (2025). The proposed network of roads is appropriate for the proposed RAL 1 development, the future Town Centre development, and the overall Yarrabilba development.
- **Key Intersections** – The design form of key intersections within the Town Centre, providing connections to/from each sub-precinct, is appropriate to accommodate the anticipated traffic volumes. Adequate allowance has been made in these intersection forms to facilitate the needs of the ultimate Yarrabilba development.
- **Local Street Network** – The local street network has been designed to achieve good street design principles, particularly related to local traffic speeds and active transport needs.
- **Cross Sections** – The proposed cross sections in RAL 1, whilst differing in some aspects, are generally consistent with the Endorsed MIMP (2025). The transport functions of the MIMP are achieved by the proposed cross sections.
- **Active Transport** – The active transport provisions achieve outcomes consistent with the active transport network identified in the Endorsed MIMP (2025), and these are appropriate to satisfy the needs of RAL 1 in conjunction with the surrounding development of Yarrabilba.
- **Public Transport** – The layout and design of streets within RAL 1 makes the appropriate provision for public transport (bus services) and potential bus stops. This is consistent with what is identified in the Endorsed MIMP (2025).
- On the basis of the above, the traffic and transport aspects of Town Centre RAL 1 are consistent, and therefore considered compliant, with the Endorsed MIMP (2025).



6.0 RPEQ Certification

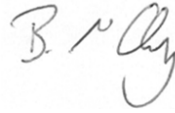
This traffic assessment and report have been prepared under the direction of a Registered Professional Engineer of Queensland (**RPEQ**) and Senior Road Safety Auditor (as accredited by TMR) who is experienced in traffic engineering, transport planning and road safety. The report is endorsed by this RPEQ accordingly.

Sincerely,

SLR Consulting Australia Pty Ltd

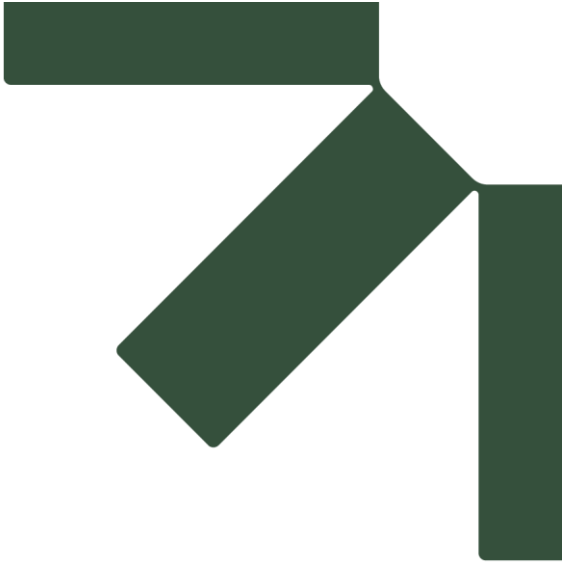


Brendyn Rheinberger, RPEQ #17962
Principal



Brett McClurg, RPEQ #7628
Technical Director





Appendix A Development Plans

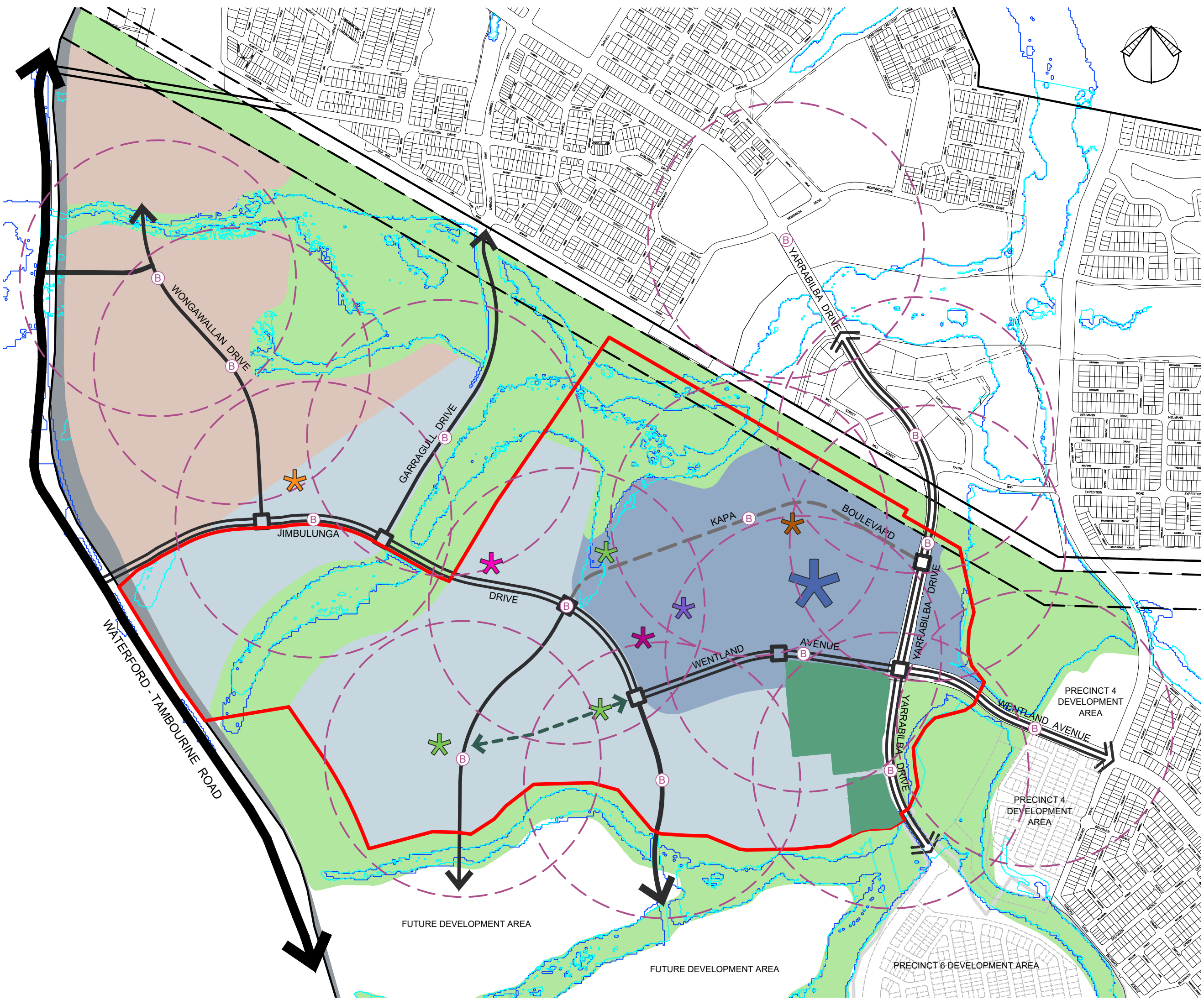
Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00025

27 March 2026



YARRABILBA

TOWN CENTRE & SURROUNDS

CONTEXT PLAN

PLAN REF: AU8248 – 28
REV NO: D
DATE: 25 March 2026
CLIENT: Stockland
DRAWN BY: SE
CHECKED BY: CC
Note:
All Constraints, Boundaries and Areas are approximate only, and are subject to survey and Council approval.
Source Information:
Site boundaries: Registered Survey Plans

- ### Legend
- CPAS Boundary
 - Electricity Easement
 - Waterford Tambourine Rd
 - Sub-regional Shopping Centre
 - Major Centre Core
 - Major Centre Frame
 - Industry & Business
 - Open Space
 - Major Recreation Park
 - Honour Walk
 - Sub Arterial (4 Lane)
 - Sub Arterial (2 Lane)
 - Collector Network
 - Centre Collector (Subject to Design Development)
 - Primary Intersections
 - Indicative Bus Stop Location
 - 400m Bus Stop Catchment
 - Neighbourhood Recreation Park
 - 100 Year Flood Line
 - 20 Year Flood Line
 - Indicative Community Health Centre Facility Location*
 - Potential Health Facility Investigation (Subject to discussions with Qld Health &/or Private Health Provider)
 - Indicative District Community Centre Location^
 - Indicative Major Civic Centre/ Hub#
 - Potential Community Facility Investigation (Integrating the Major Civic Centre/ Hub and District Community Centre - subject to discussions with LCC)

Note:
*: Minimum land area in the relevant IA is 3.2ha. Location and outcome is subject to negotiation between Stockland and Queensland Health.
^: Minimum land area in the relevant IA is 1.0ha and outcome is subject to negotiation between Stockland and Logan City Council.
#: Minimum land area in the relevant IA is 1.5ha and outcome is subject to negotiation between Stockland and Logan City Council.

4.1 MASTERPLAN

The Stage 1 masterplan sets a framework for delivering the centre core in stages: defining the principal movement network, a series of super blocks sized to support development outcomes and a range of built form outcomes.

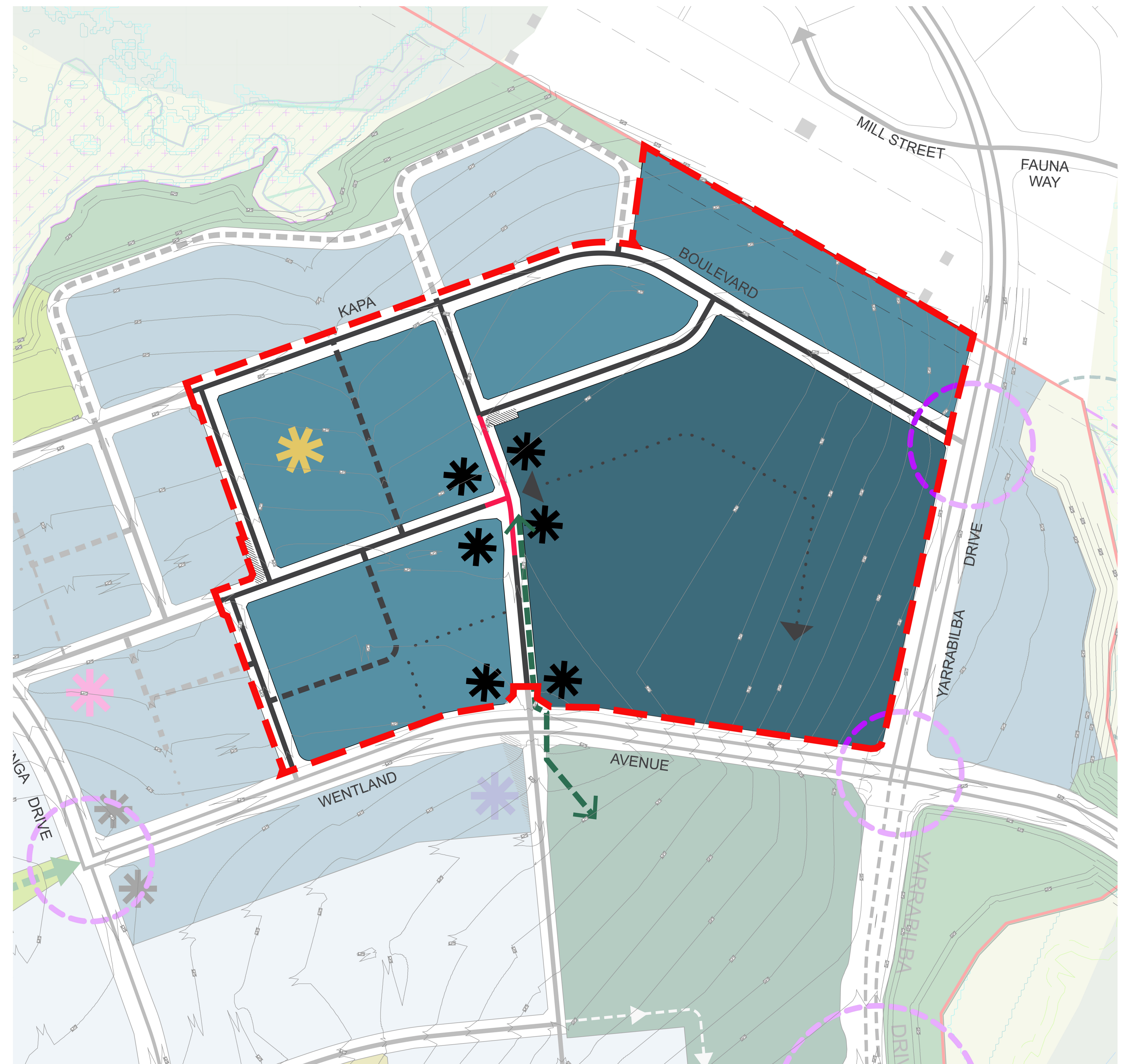
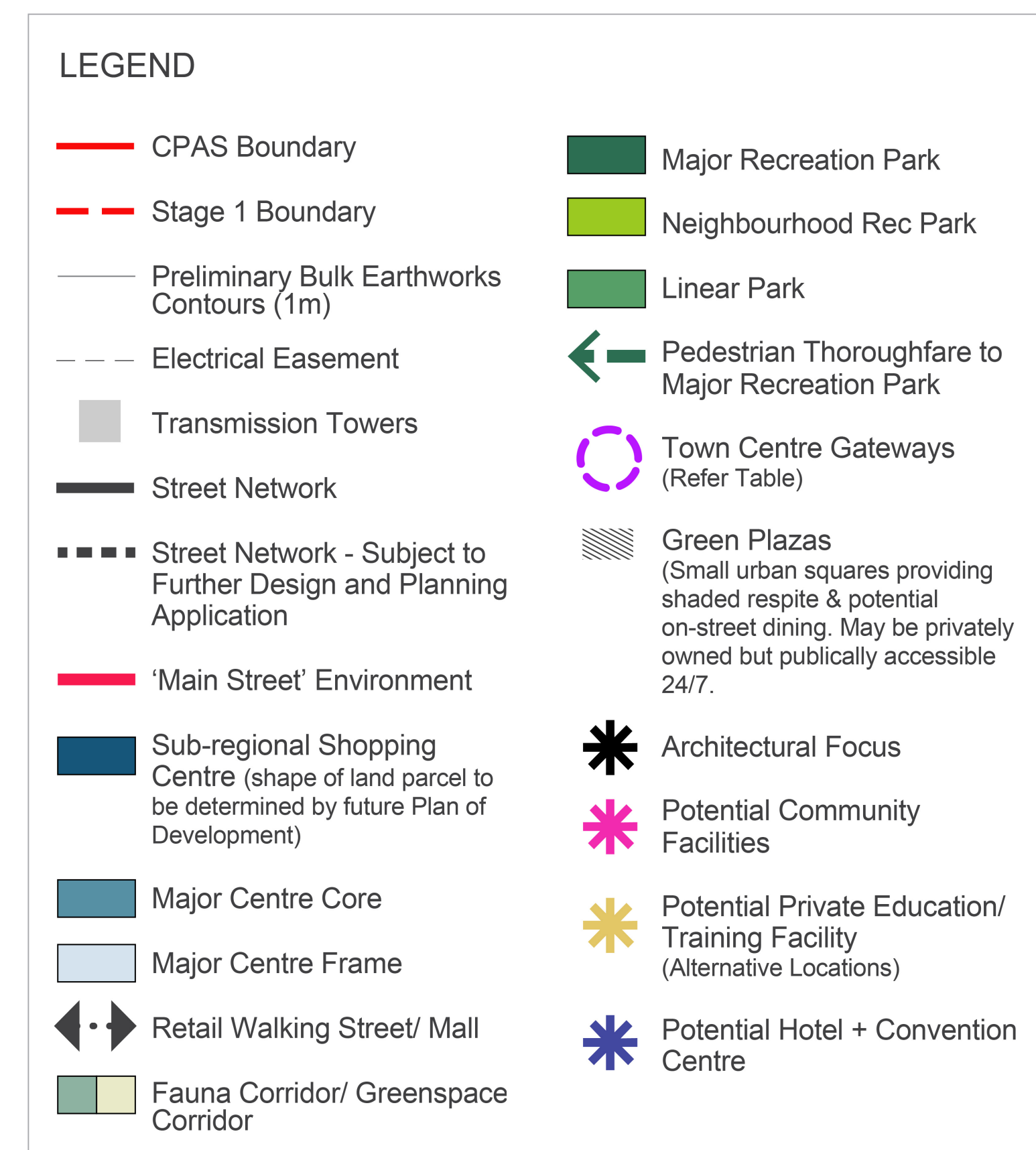
It indicates how further staged subdivision development of those blocks can deliver the centre vision and provide a range of development opportunities and flexibility in land use outcomes. It translates the high level intentions of the CPAS approval into a deliverable outcome.

The masterplan is supported by a series of framework maps addressing:

- Street Network
- Active Movement
- Transit
- Connection to surrounding open space
- Definition of private/public realm interfaces and high level expectations of adjoining development.

Architectural foci: denotes a prominent street corner where built form must:

- address the corner and frame the street
- include glazing and/or pedestrian entrance/s to the corner, and
- have a higher level of architectural detailing and building height (greater than the equivalent of one storey in height).



4.2 STREET NETWORK

The street network provides further definition to the permeable street grid indicated in the CPAS approval and its supporting masterplan and is comprised of:

- a northern collector street (Kapa Boulevard) running parallel to Wentland Avenue and serving as the principal access route to the northern parts of the centre and the loading areas of the shopping centre. As an alternative to intersections along Wentland, Jimbilunga and Yarrabilba Drives it further distributes traffic flow. This street is now a local bus route (a potential school bus route) with bus stops close to the northern end of Main Street.
- a north-south main street from Wentland to Kapa Boulevard in three parts: north and southern gateways that transition in scale and activation to a central pedestrian focussed core where it intersection with a central walking spine.
- a central walking spine and destination street (vehicle street and pedestrian boulevard) that extends the retail walk and civic space though the centre providing a business address for a wider range of secondary retail, commercial uses and anchored by the performing art centre (west) and library, art gallery and community centre (east). This street has a wider southern verge to allow large tree canopy to be achieved and has green plaza nodes providing shaded respite and informal seating and overlooking opportunities. Accordingly, driveway crossovers to on site carparking is avoided to rescue pedestrian conflict. On-street parallel parking bays support business addressing the street.
- centre access streets running north-south connect these streets and provide for access to sites and carparking. These run gently down hill allowing built form floor plates to sit near to level with the east-west streets and the central part of main street and from built form to step down hill along these secondary north south streets and so allow some depth in floor plate.

- the network is completed by future laneways and mid block pedestrian connects to break down super block lengths and ensure pedestrian permeability and for which access points have been identified and tested. The smallest level of street with allow pedestrian access, limited on-street parking and service vehicle access to the rear of future development sites.

The network preserves key elements of the wider masterplan including:

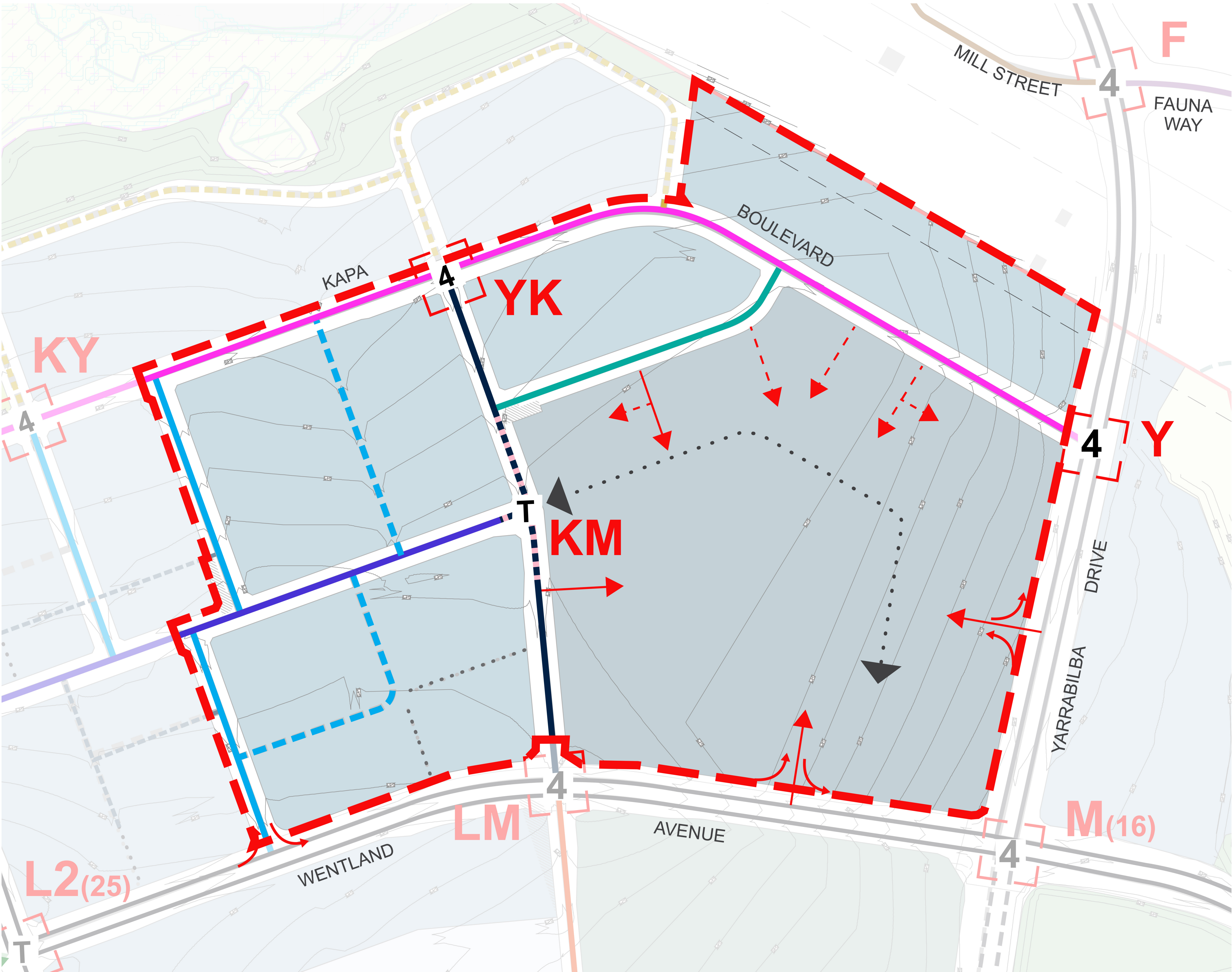
- the honour walk and Anzac Day march through the western neighbourhoods of the centre frame via linear parkland and the wider southern verge of Wentland Avenue to an ANZAC cenotaph in the Major Recreation Park
- the separated cycleway along the southern side of Wentland Avenue and western side of Jimbilunga Drive
- the 3m shared path along the northern side of Kapa Boulevard bringing cyclists to the shared street environment of the minor centre streets
- The shared low speed environment of centre streets seeking a 30km/hour speed limit that allows safe informal crossing for pedestrians and cyclists to share both the pavement and verges with pedestrians reinforcing slow safe travel.

Images:



LEGEND

- CPAS Boundary
- Stage 1 Boundary
- Preliminary Bulk Earthworks Contours (1m)
- Electrical Easement
- Transmission Towers
- Fauna Corridor
- Major Recreation Park
- Neighbourhood Rec Park
- Local Recreation Park
- Linear Park
- Honour Walk (Linear Park)
- Green Connection
(Shared path in street reserve or linear open space. Ultimate form to be determined in future Plan of Development for this area)
- One Way Access to Major Recreation Park Carparking
- Waterford-Tamborine Road
- Sub Arterial 4 Lane (Yarrabilba Drive)
- Sub Arterial 4 Lane (Yarrabilba Drive Extension)
- Sub Arterial 4 Lane
- Sub Arterial 2 Lane
- Major Collector
- Centre Collector
- Centre Access - Main Street
(Potential Shared Zone through Town Square)
- Centre Access - Type 1
- Centre Access - Type 2
- Centre Access - Type 2
(Subject to Further Design and Planning Application)
- Centre Access - Type 3
- Centre Lane
- Residential Collector
- Residential Collector (Esplanade)
- Indicative Local Access
- Pedestrian Connection (Indicative)
- Retail Walking Street/ Mall
- Signalised (4 way)
- Signalised (T Junction)
- Left In Left Out Only
- Retail Core Carpark Access
- Retail Core Loading/ Staff Access



4.3 ACTIVE MOVEMENT

LEGEND

CPAS Boundary

Preliminary Bulk Earthworks Contours (1m)

Electrical Easement

Transmission Towers

Fauna Corridor/
Greenspace Corridor

Major Recreation Park

Neighbourhood Rec Park

Local Recreation Park

Linear Park

Honour Walk (Linear Park)

Green Connection
(Shared path in street reserve or
linear open space. Ultimate form
to be determined in future Plan of
Development for this area)

Existing School

Potential School

Pedestrian Thoroughfare

Retail Walking Street/ Mall

Shared Environment

Linear Park
ANZAC Honour Walk

2 Way Dedicated Cycle
(3.0m Wide)

Shared Path
(3.0m Wide)

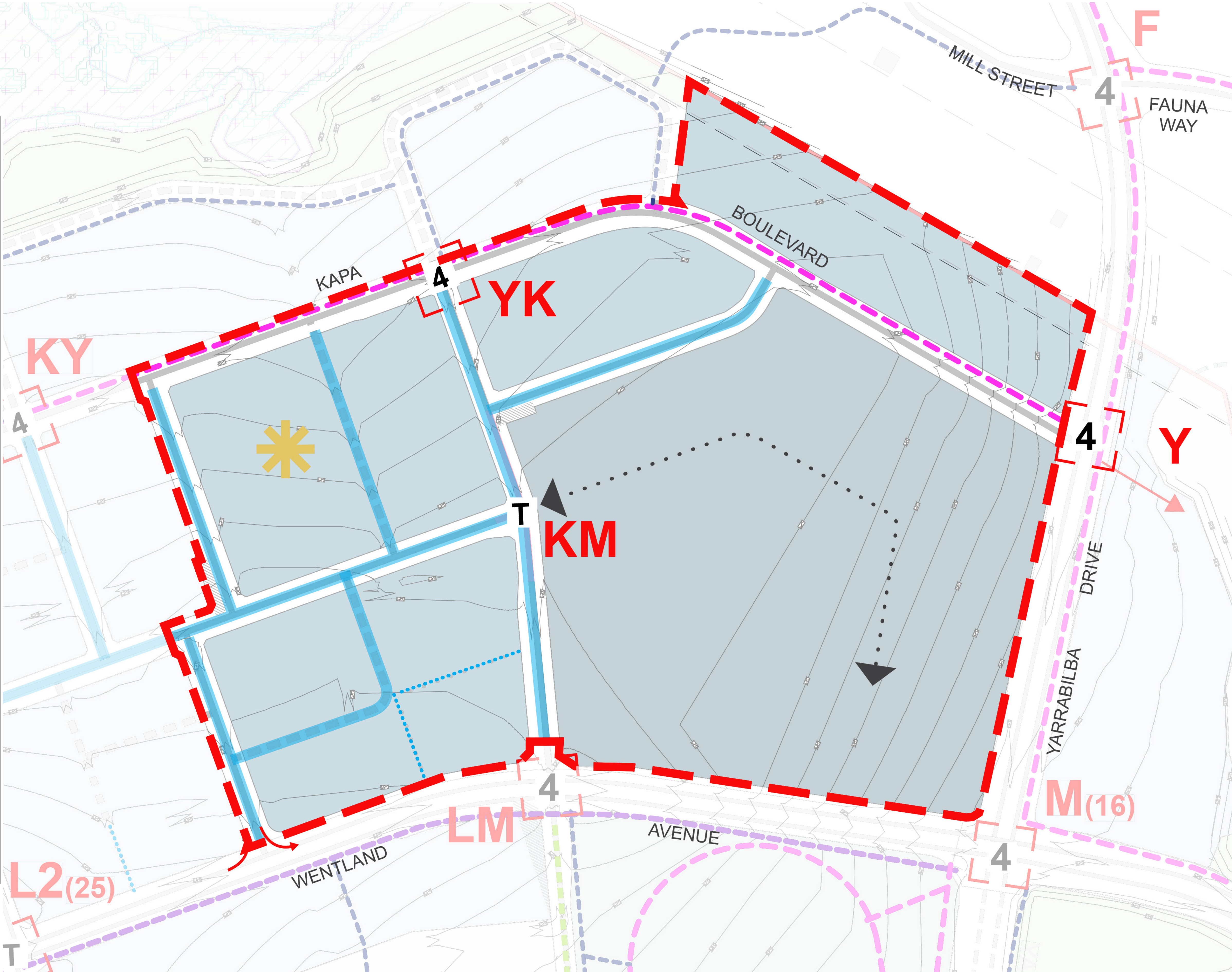
Shared Path
(2.5m Wide)

Signalised (4 way)

Signalised (T Junction)

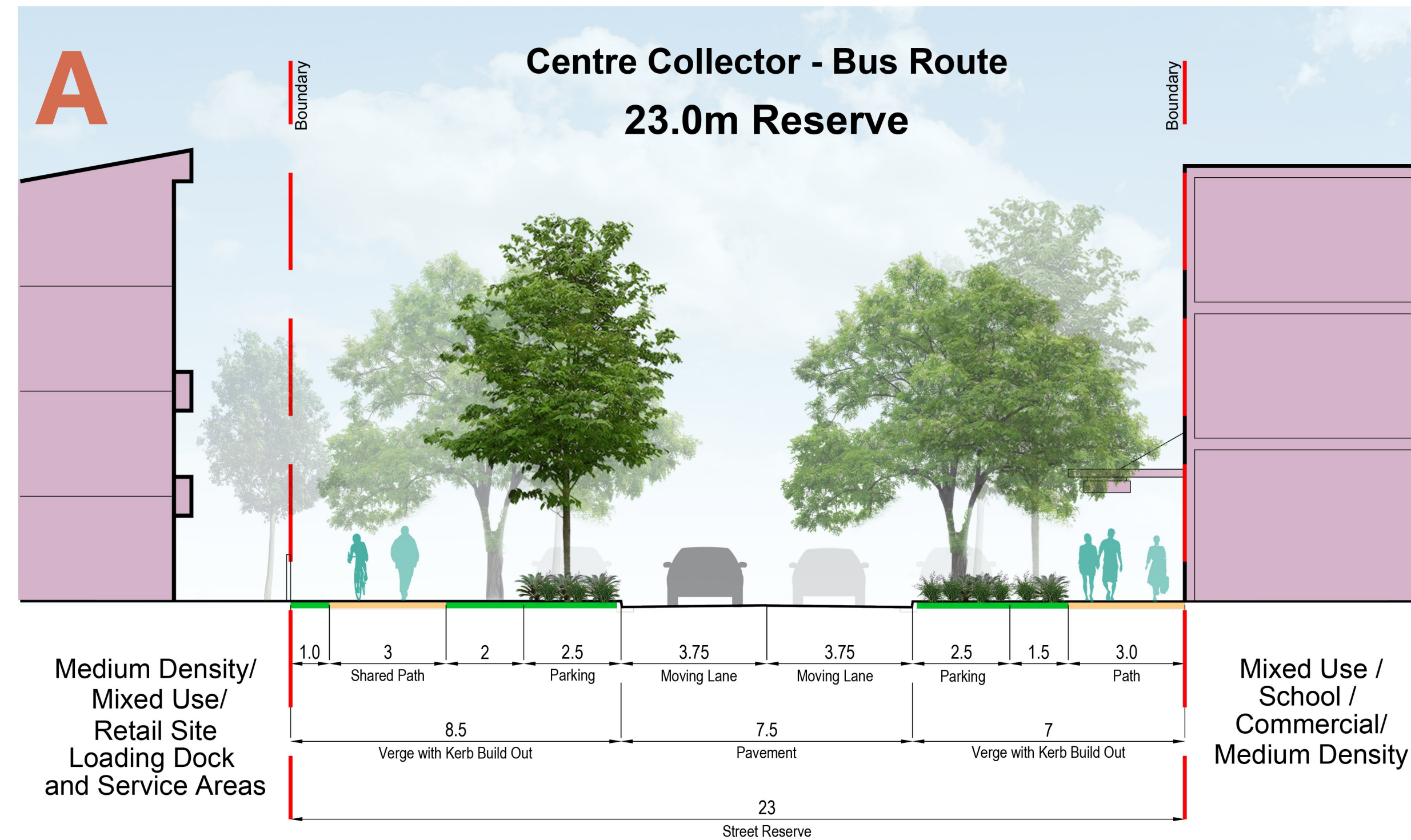
Left In Left Out Only

Location and number of shared paths shown on plan is indicative and subject to further concept design and development applications. CPAS Active Movement Network will identify only the major connections.

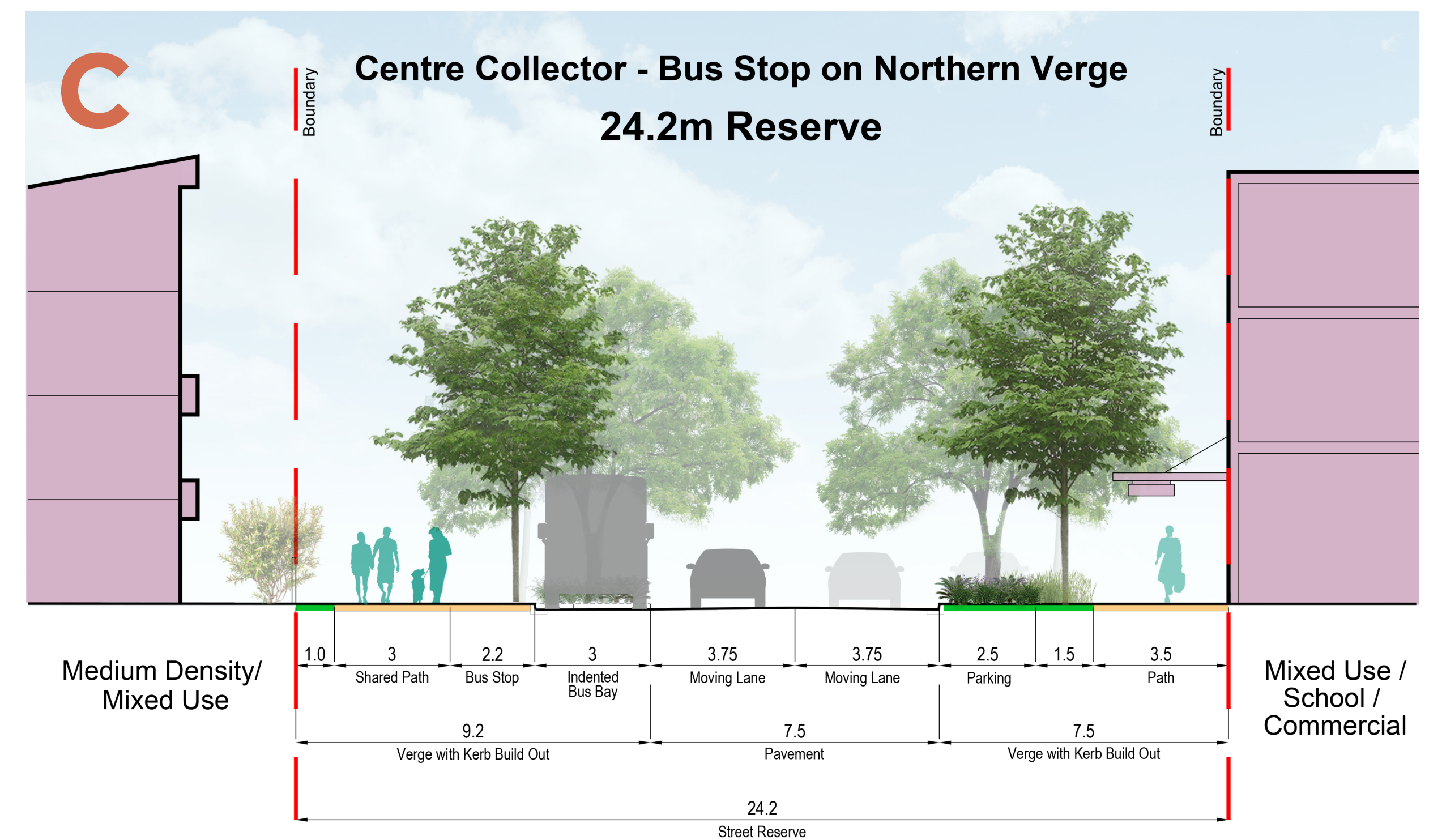
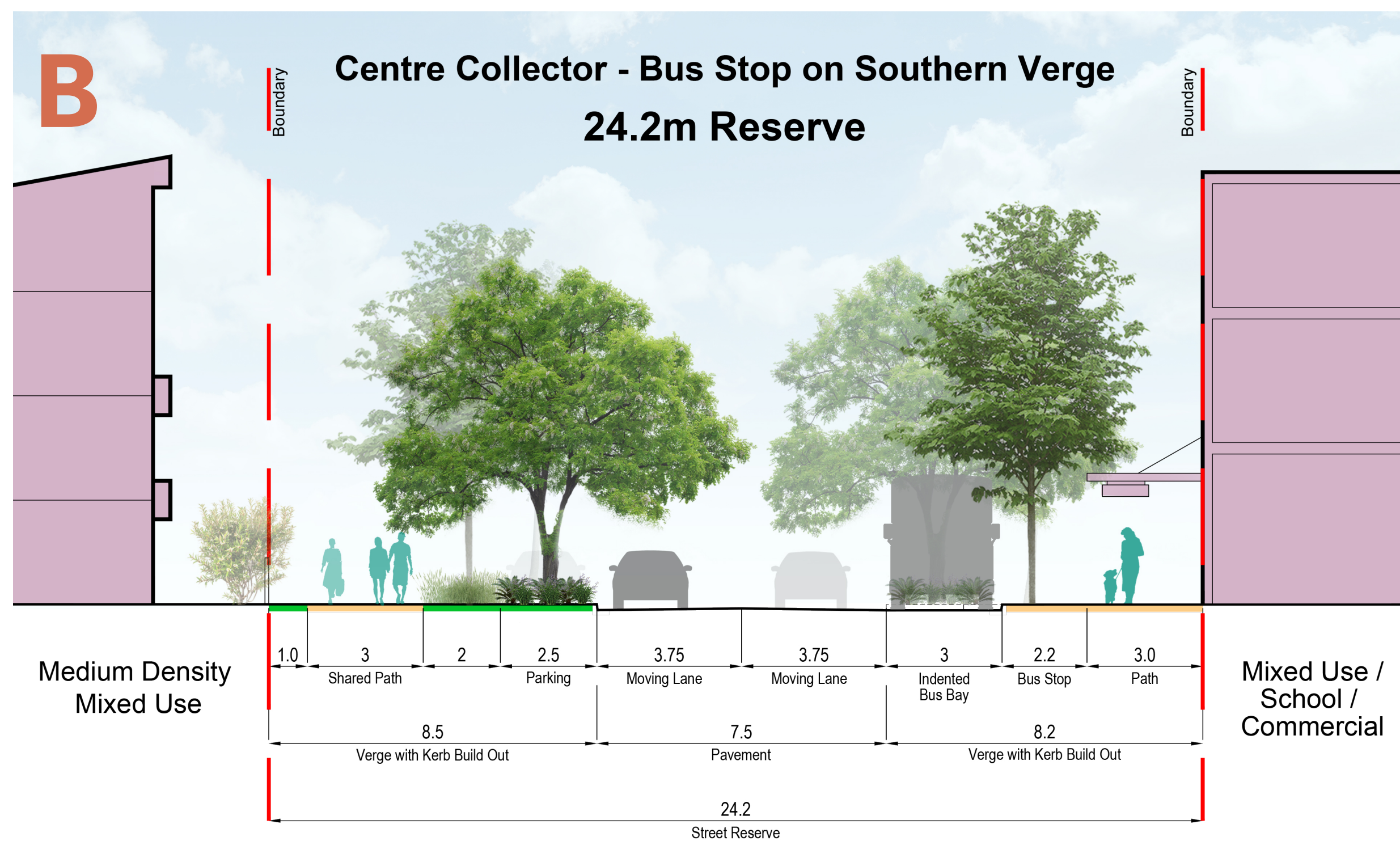
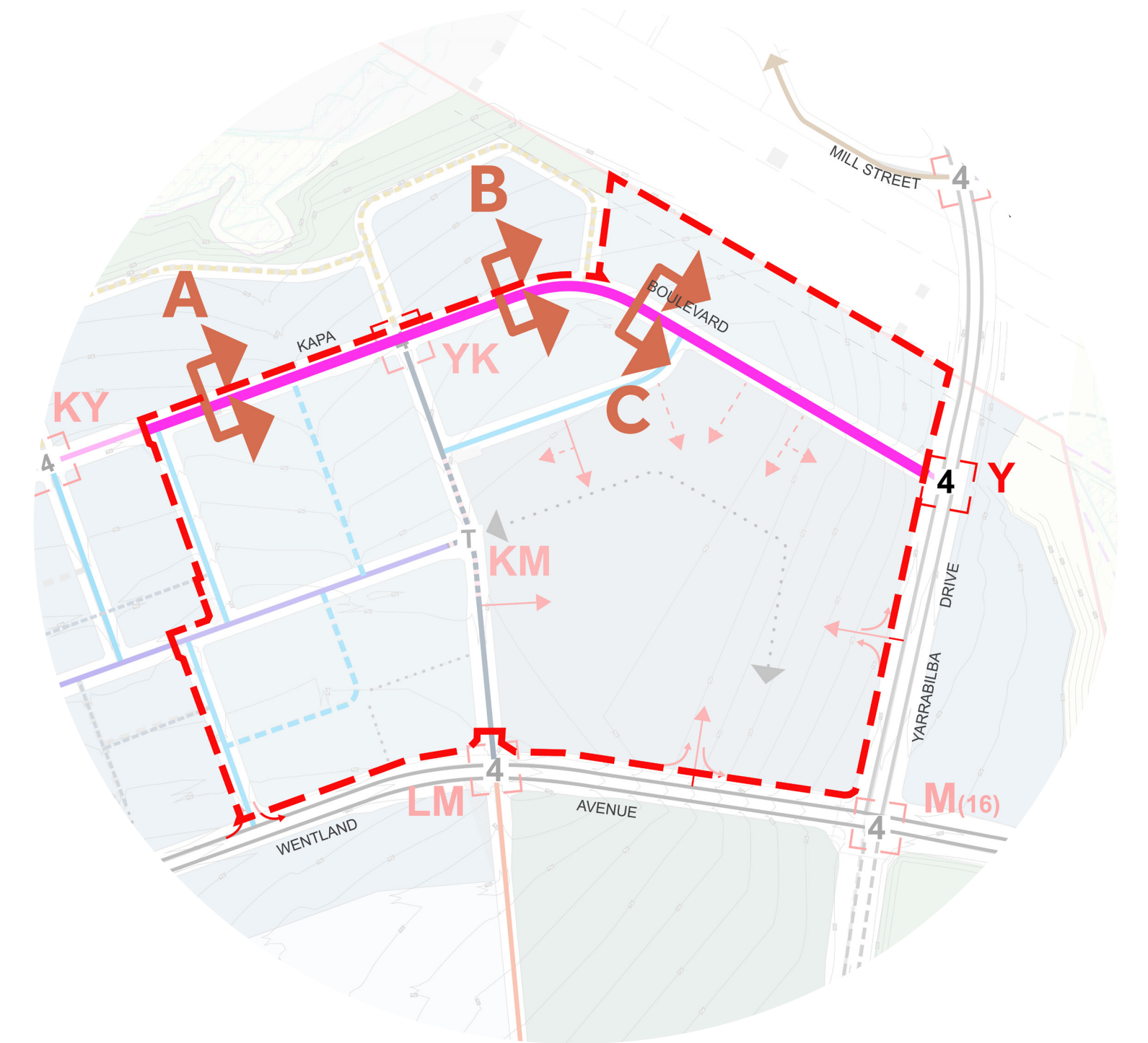


4.4 STREET TYPES

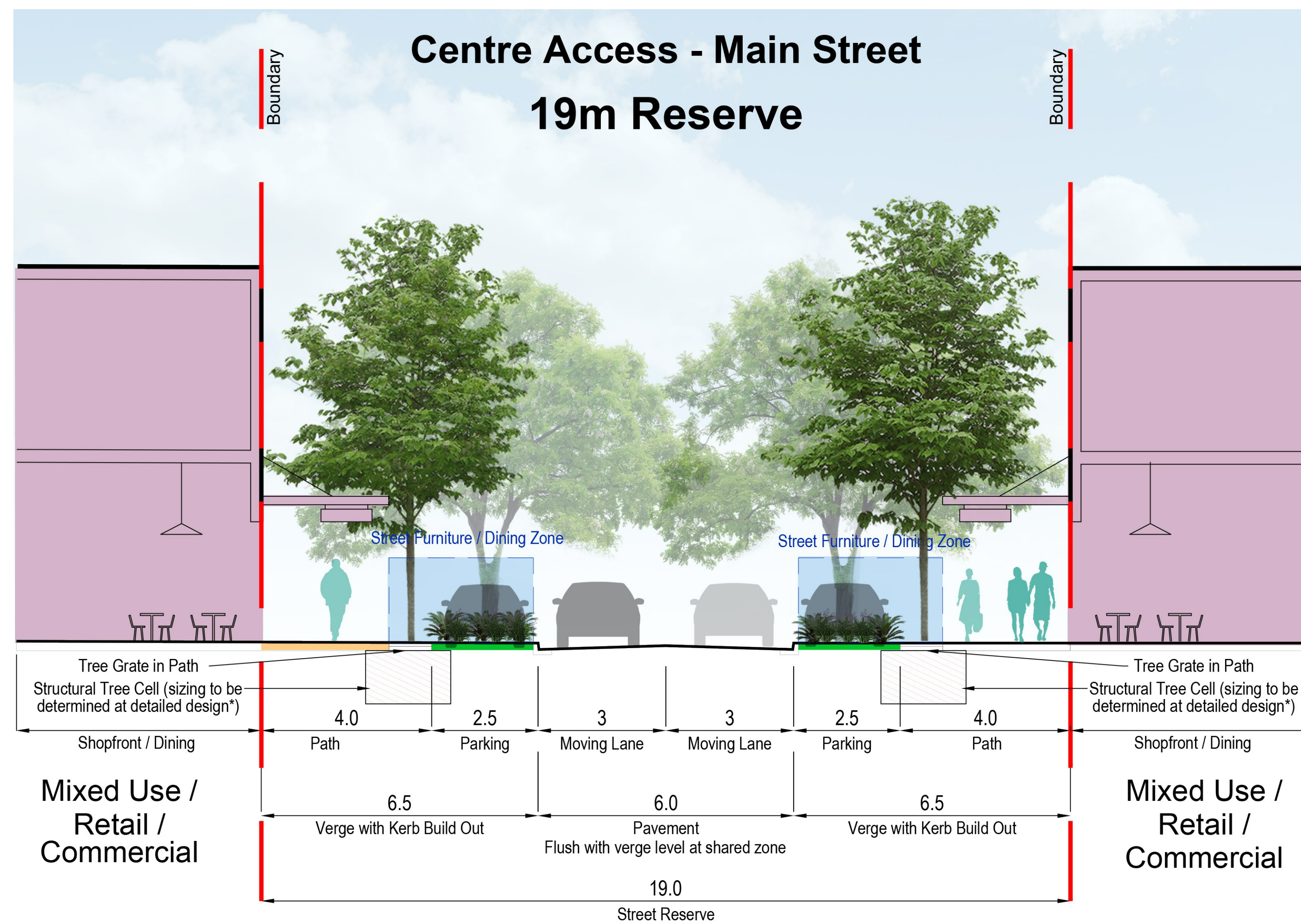
CENTRE COLLECTOR (KAPA BOULEVARD)



Note: some frontages of the shopping centre site will need to have loading areas accessed from and adjoining to this street type - refer frontage typologies in Section 4.

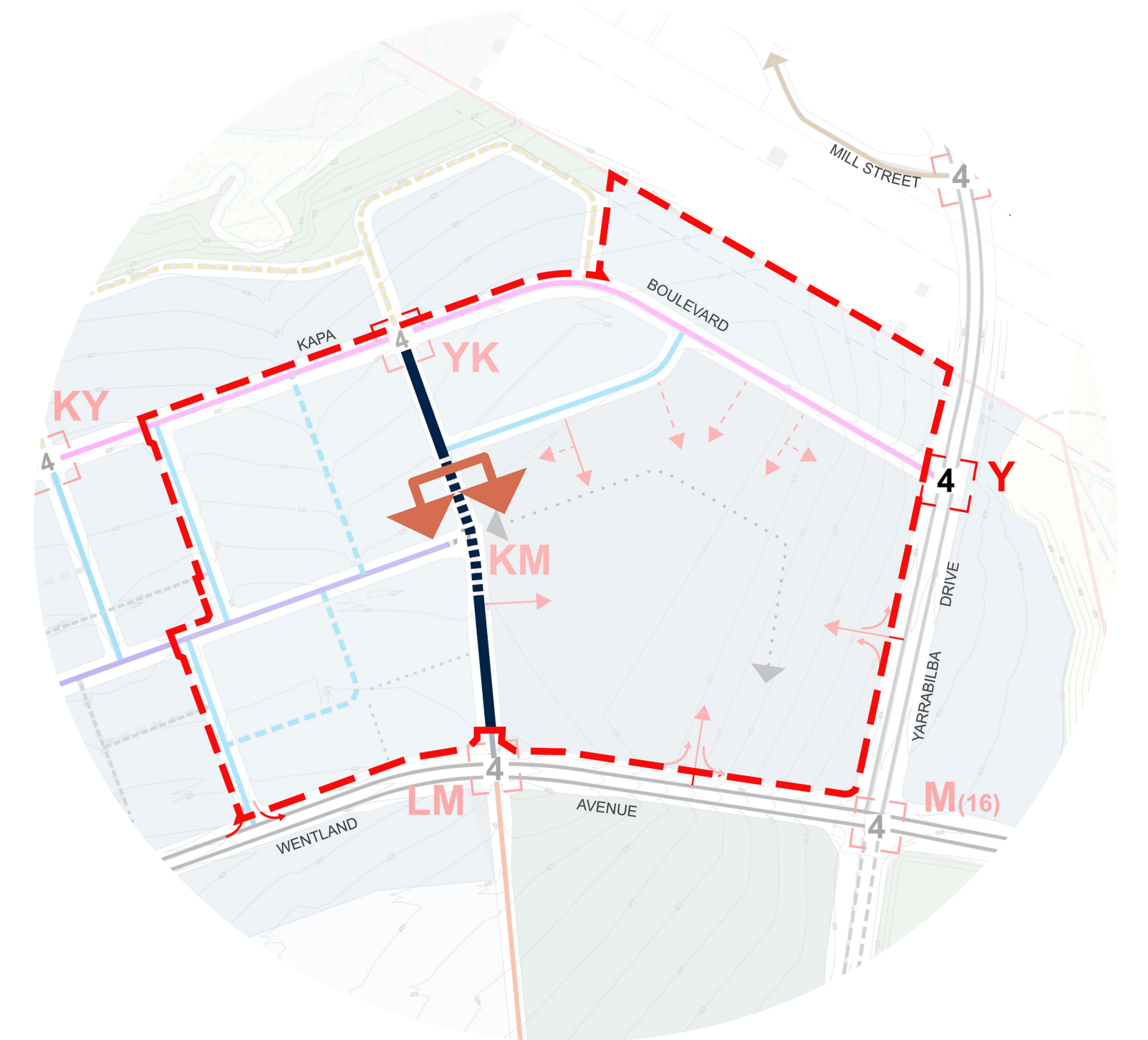


MAIN STREET

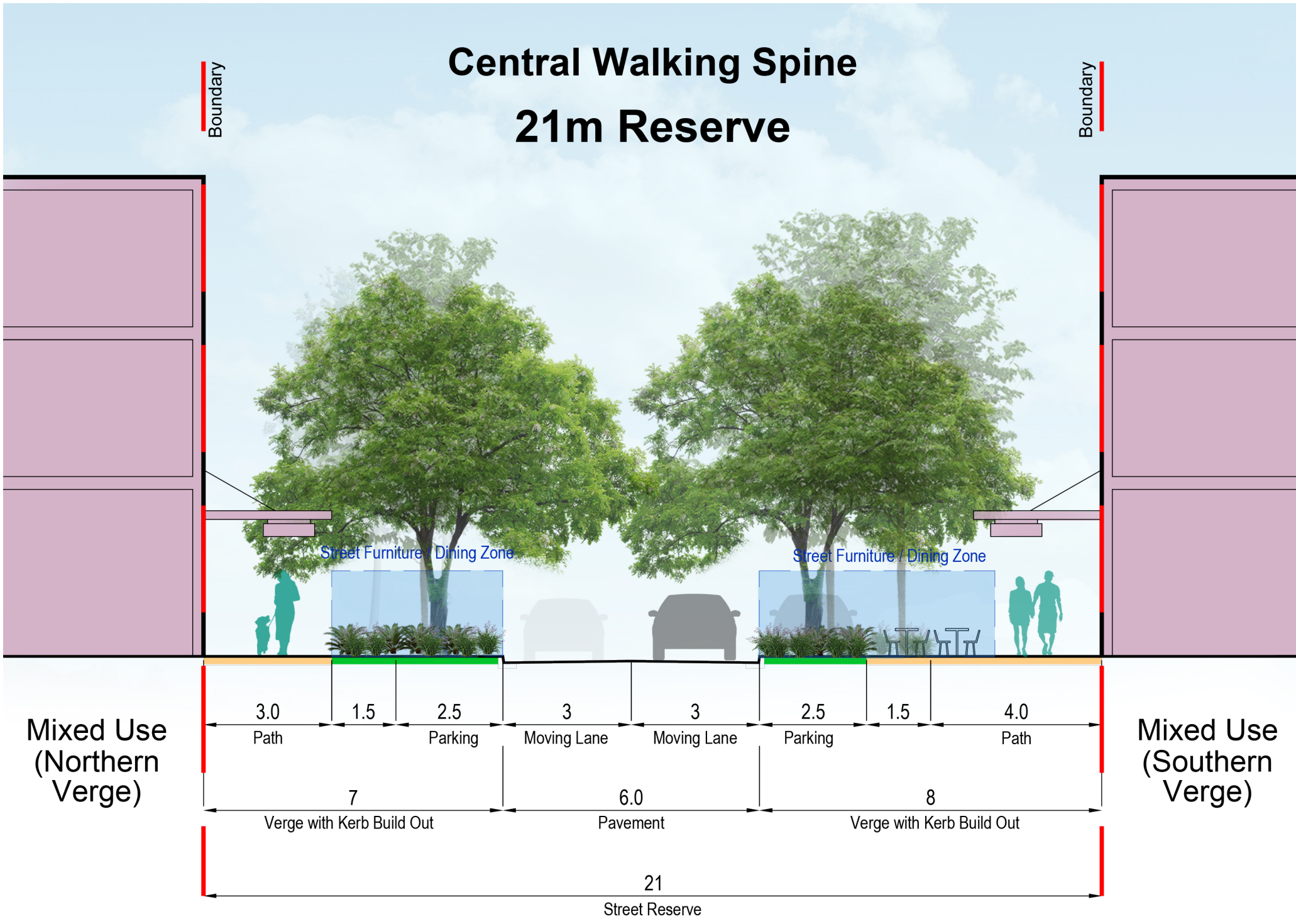


Note: * min. 1.5m wide

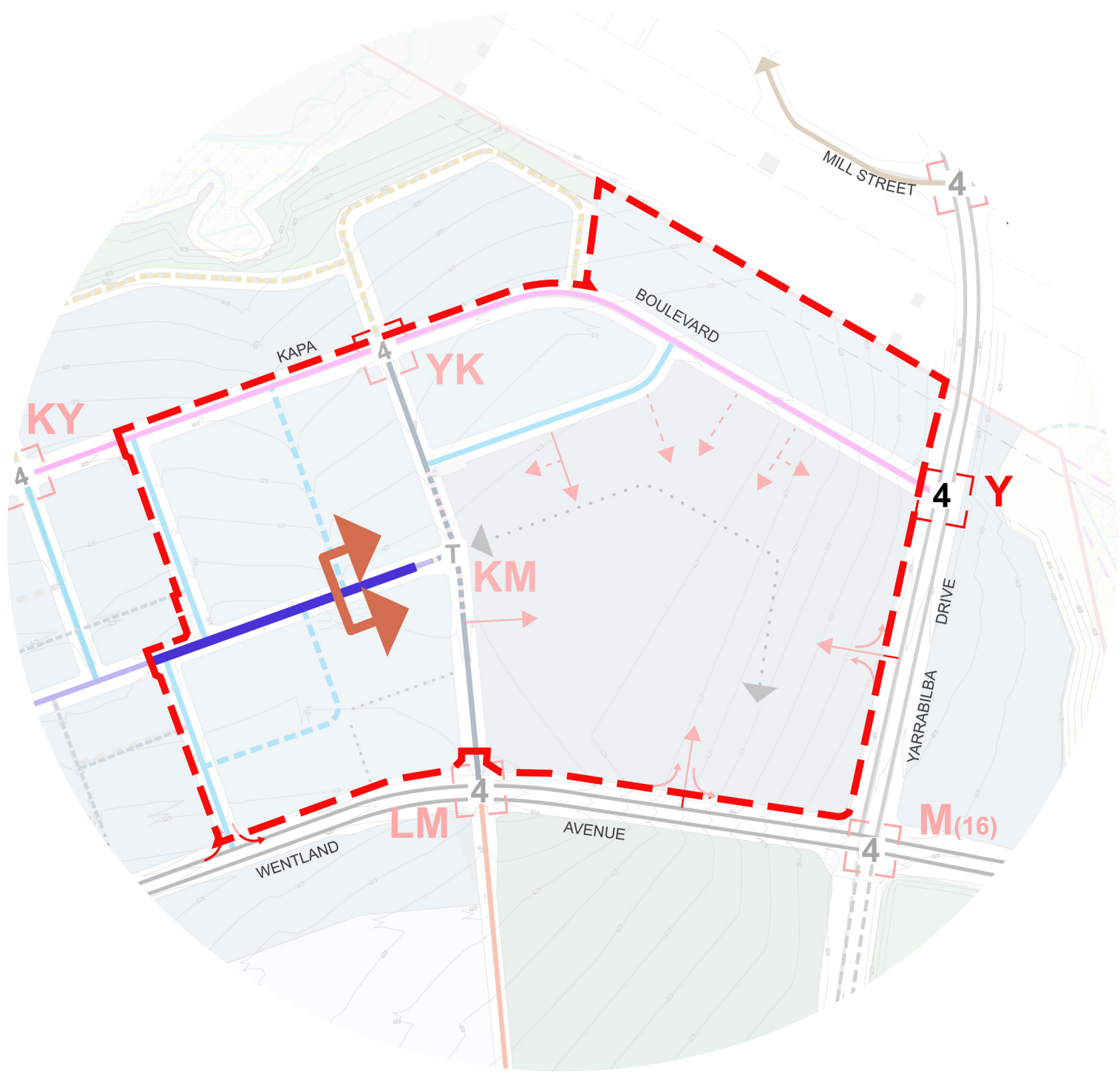
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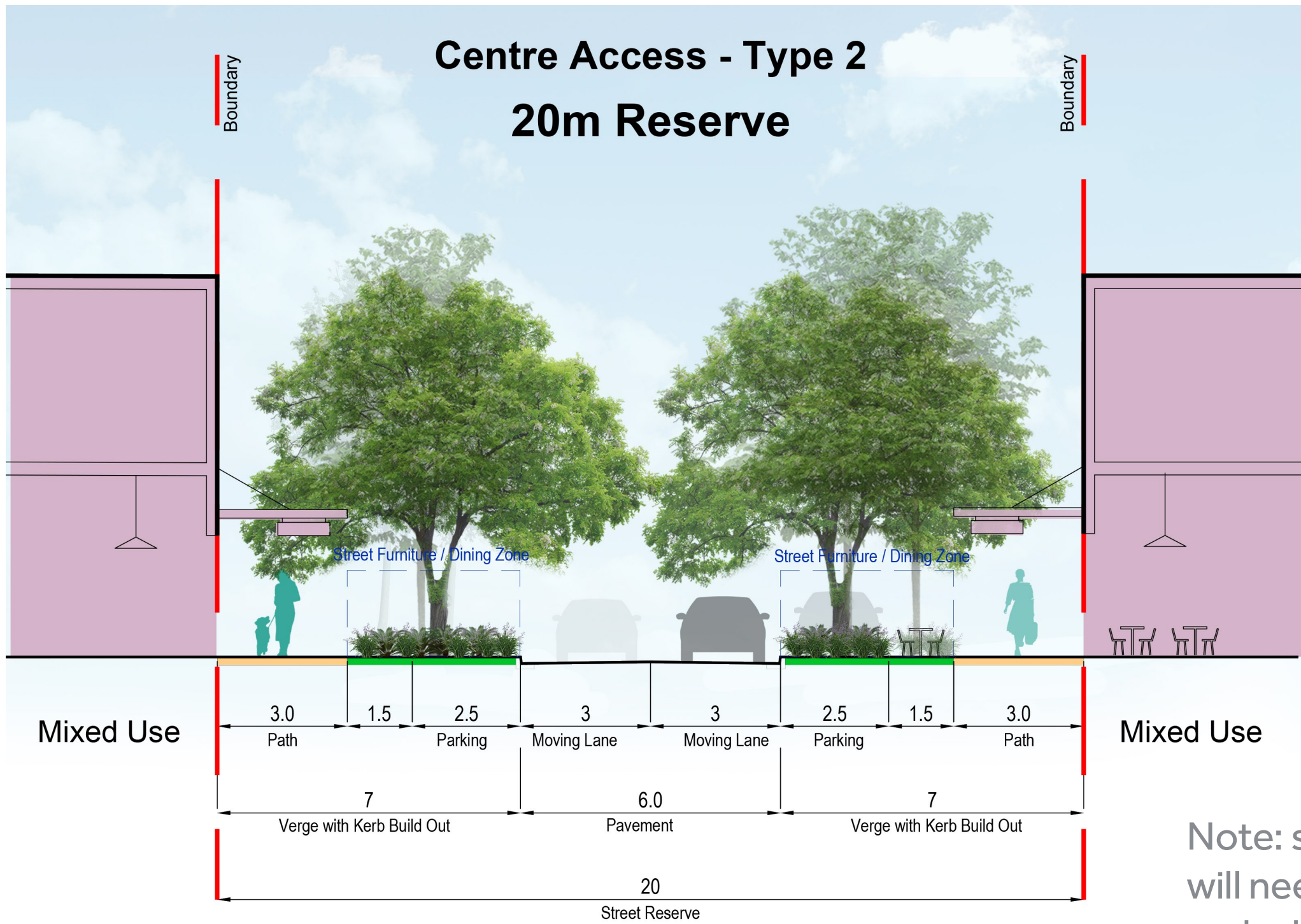
CENTRAL WALKING SPINE



Plan Symbol: 



CENTRE ACCESS - TYPE 2

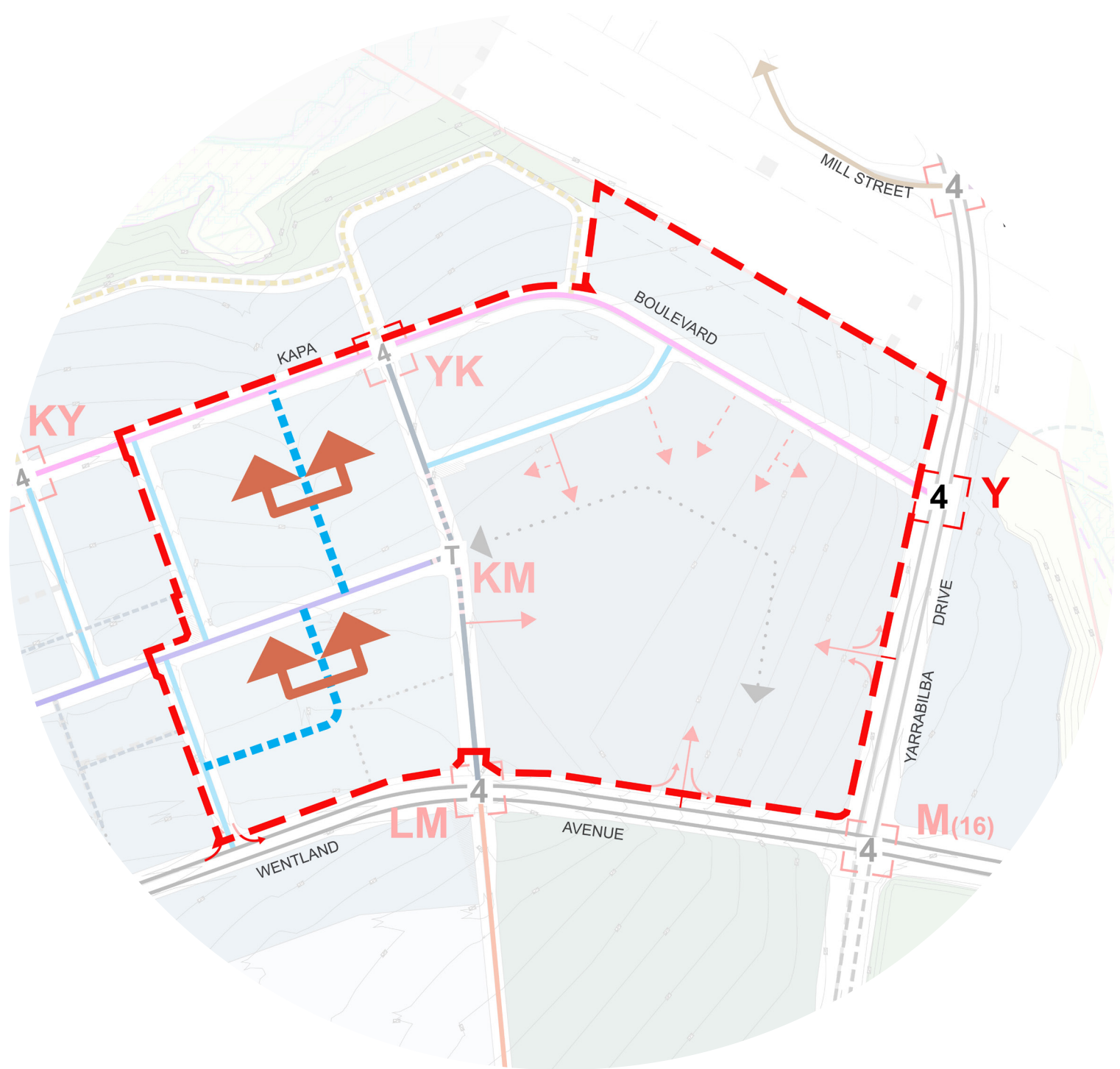
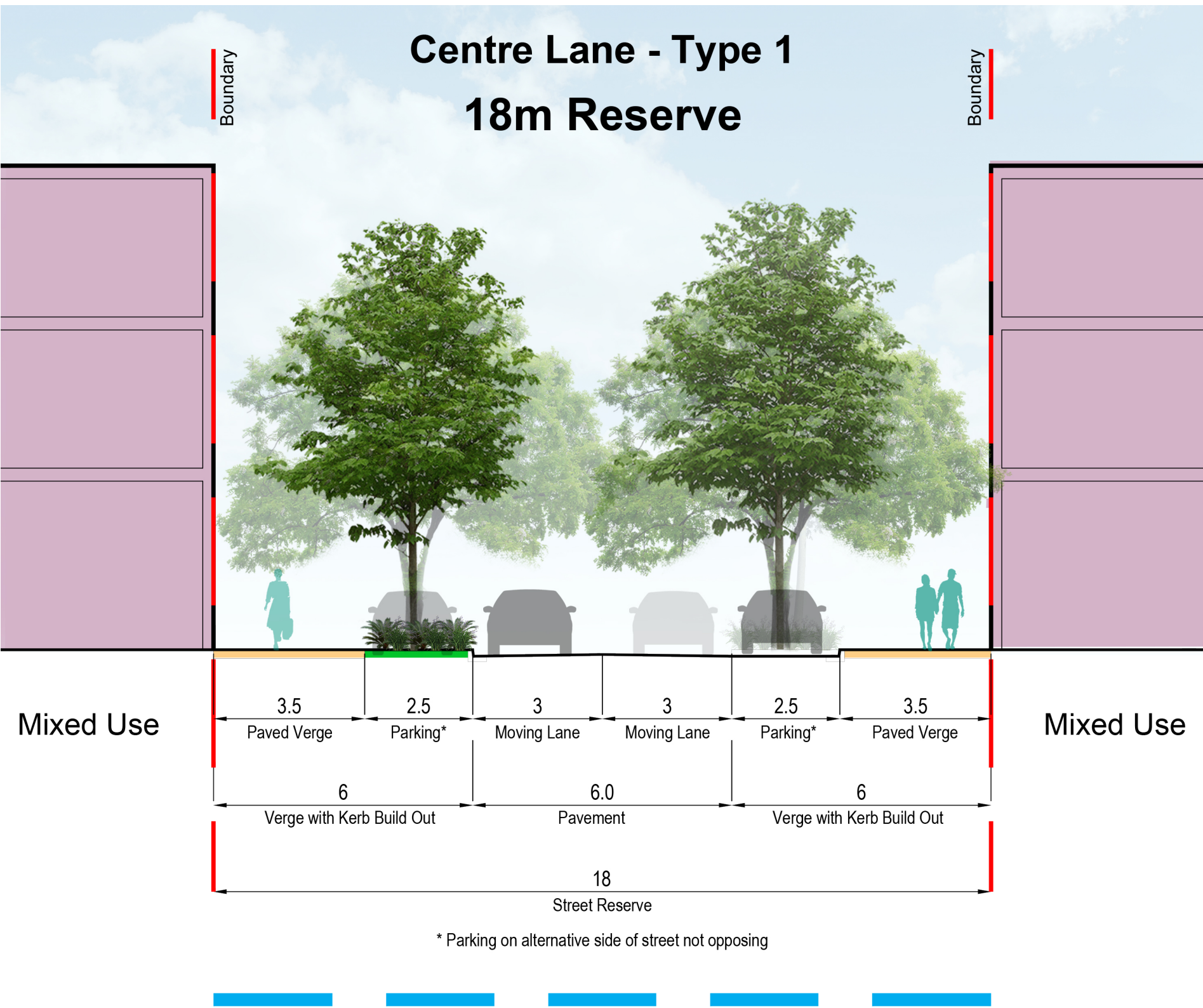


Plan Symbol: 

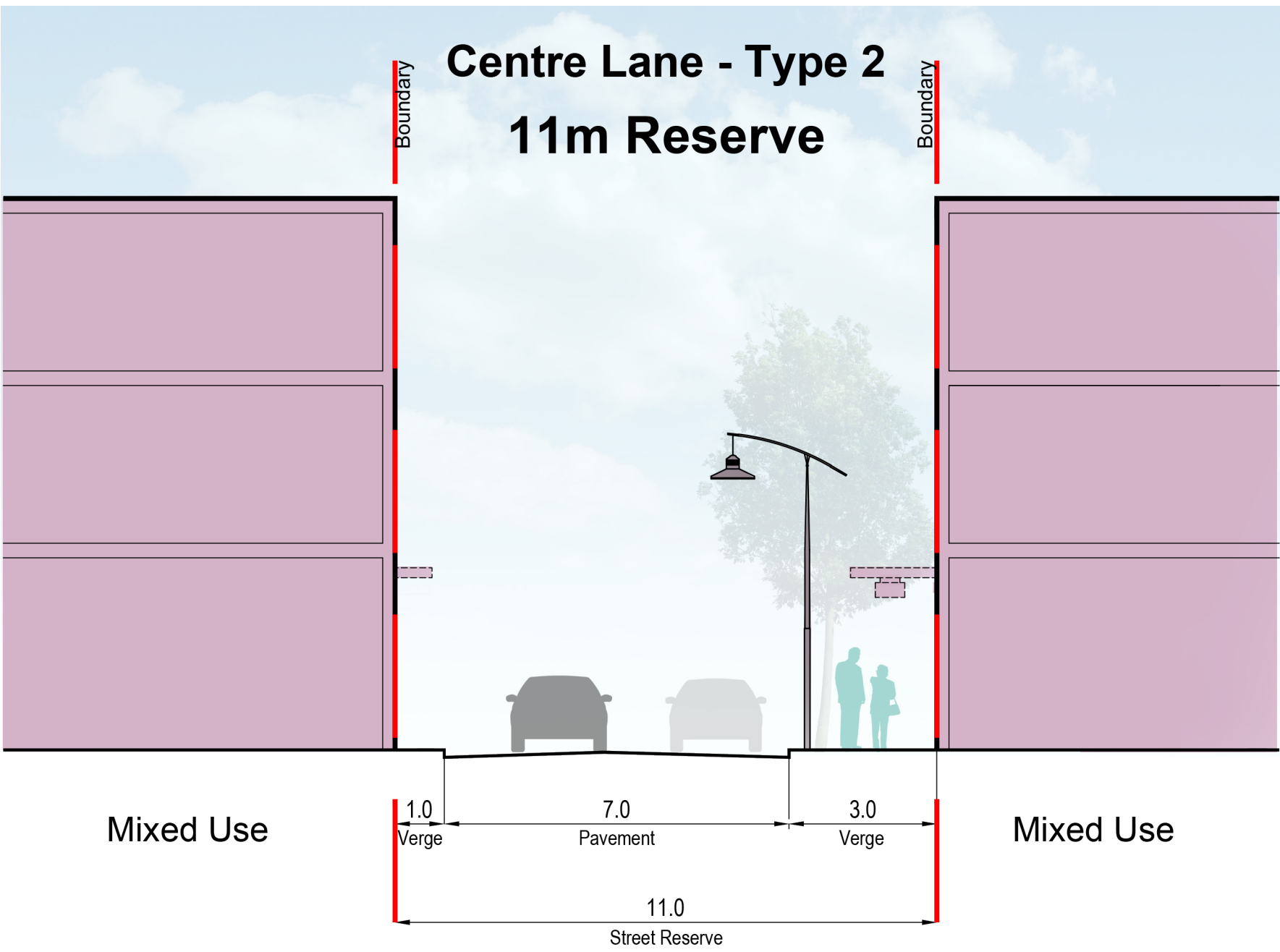
Note: some frontages of the shopping centre site will need to have loading areas accessed from and adjoining to this street type - refer frontage typologies in Section 4.



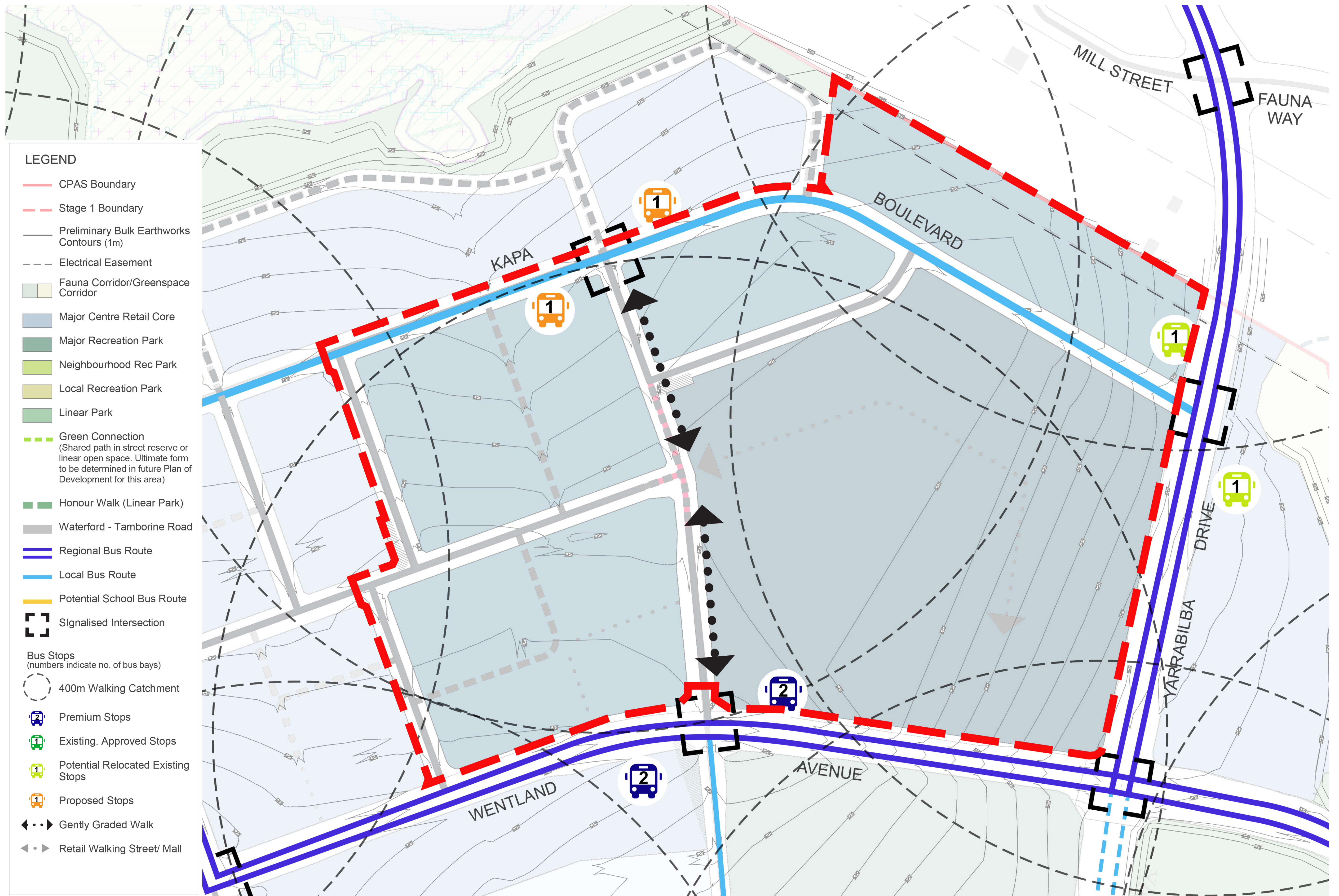
CENTRE LANEWAY TYPE 1 (FUTURE APPLICATIONS)



CENTRE LANEWAY TYPE 2 (FUTURE APPLICATIONS)



4.5 TRANSIT



4.6 LOADING & SERVICING

INTENT: Loading and servicing access and associated loading docks have been consolidated around the northern and eastern perimeter of the retail site.

This shortens the access route these vehicles take, limiting their incursion into the centre street grid.

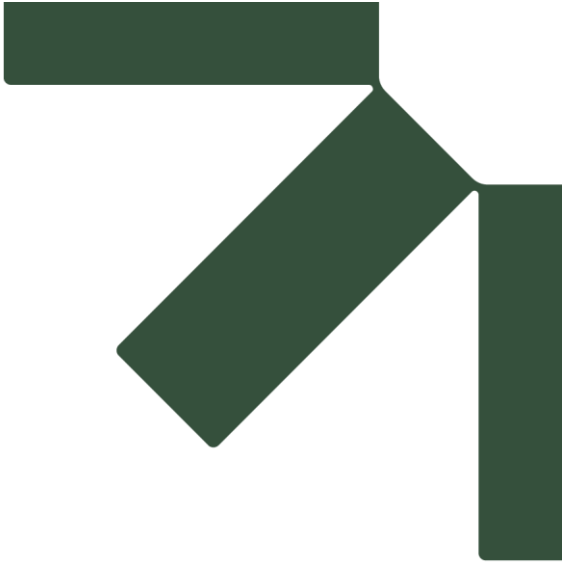
The approach achieves separation of customer and service vehicle movement in the retail core and reduces the size of vehicles in the centre streets to those needed for smaller land uses: coach, refuse collection and pantec or smaller sized delivery vehicles.

In turn this helps facilitates the slow, shared street environments of the centre core.

LEGEND

- CPAS Boundary
- Stage 1 Boundary
- Preliminary Bulk Earthworks Contours (1m)
- Electrical Easement
- Transmission Towers
- Waterford - Tamborine Road
- Street Network
- Street Network - Subject to Further Design and Planning Application
- 'Main Street' Environment
- Retail Walking Street/ Mall
- Fauna Corridor
- Sub-regional Shopping Centre
- Major Centre Core
- Major Centre Frame
- Service Vehicle Access
- Loading Dock Access





Appendix B RAL 1 Detailed Land Use and Yield breakdown.

Yarrabilba, Town Centre RAL1

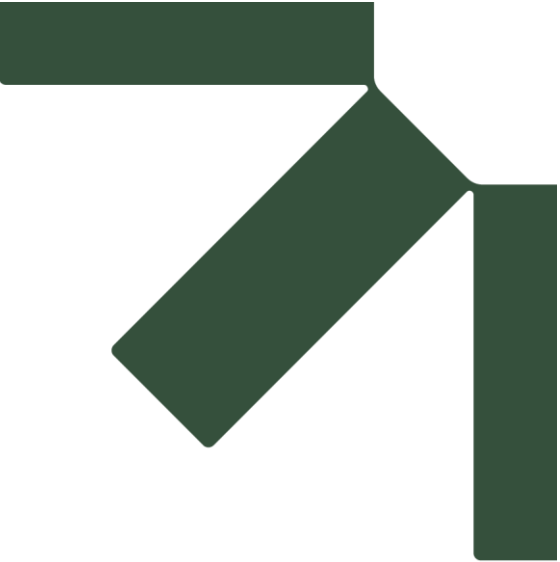
Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00025

27 March 2026

Translation Table			
Stage 1 Lot No.	Use	GFA	Dwellings
Lot 1	Retail	40,000 m ²	
	Childcare	1,000 m ²	
	Other Retail	3,190 m ²	
	F&B	800 m ²	
	Allied Health	1,700 m ²	
	Commercial Office	10,420 m ²	
<i>subtotal lot 1</i>		<i>57,110 m²</i>	
Lot 2	Library	1,500 m ²	248
	District Art Gallery	600 m ²	
	Community Centre	900 m ²	
	Commercial Office:	2,900 m ²	
	F&B	800 m ²	
	Other Retail	600 m ²	
	Gym/Wellness	500 m ²	
	Allied Health (private)	750 m ²	
	Senior Living (res counted in next column)	4,000 m ²	
<i>subtotal lot2:</i>		<i>12,550 m²</i>	
Lot 3	Education (Private School)	10,000 m ²	
	Education (Tafe urban campus)	7,600 m ²	
	Commercial Office	8,590 m ²	
	F&B	500 m ²	
	Child Care	1,000 m ²	
	Other Retail	650 m ²	
<i>subtotal lot 3</i>		<i>28,340 m²</i>	
Lot 4	Public Health	7,000 m ²	
	Allied Health (private)	2,950 m ²	
	Private Hospital	5,200 m ²	
<i>subtotal lot 4</i>		<i>15,150 m²</i>	
Lot 5	Commercial	16,600 m ²	
<i>subtotal lot 5</i>		<i>16,600 m²</i>	
Total		129,750 m²	



Appendix C Yarrabilba Road Network Plan

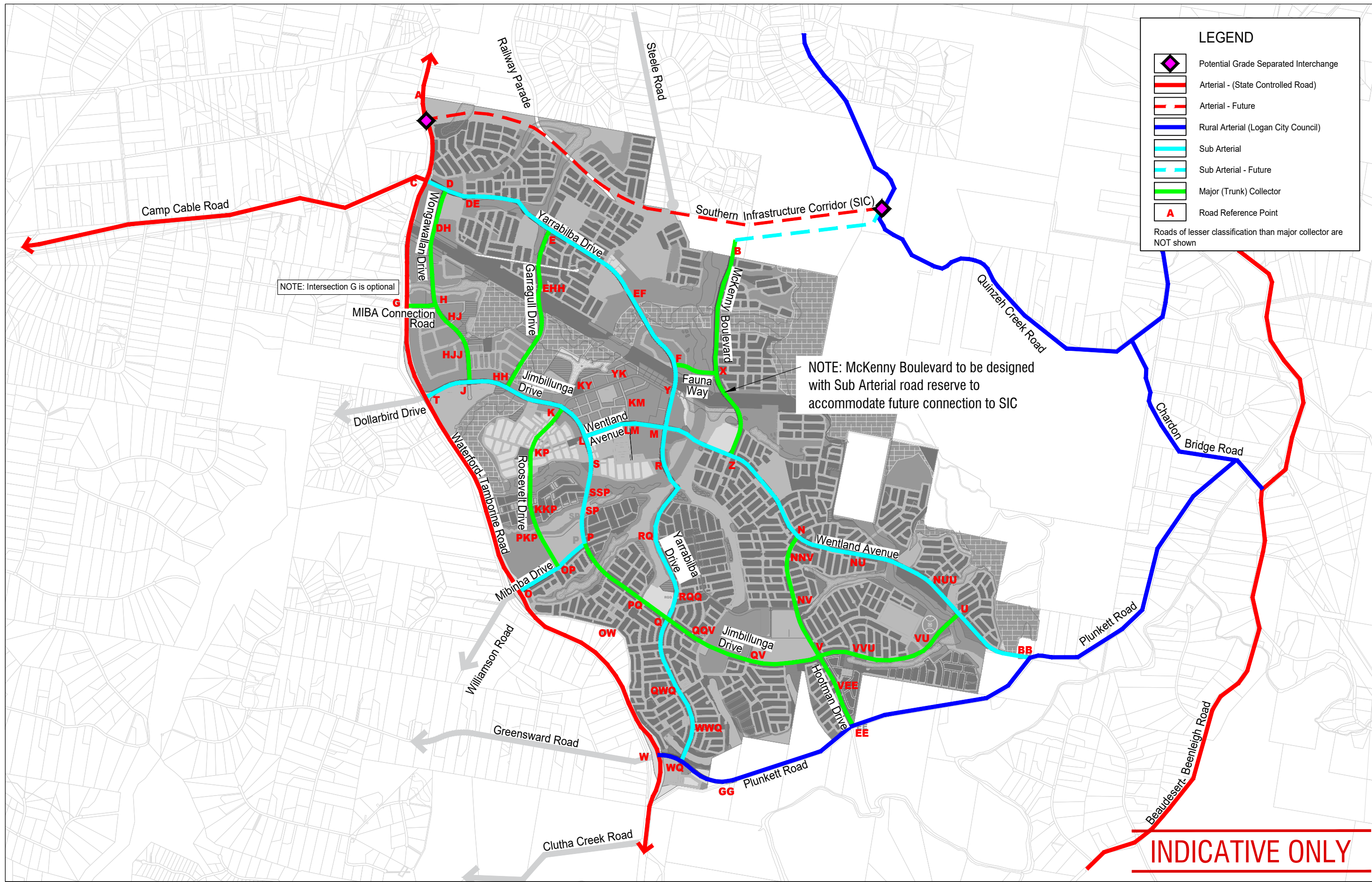
Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00025

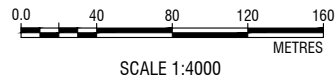
27 March 2026



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Project No:	620.11743.00101
Date:	14/04/2025
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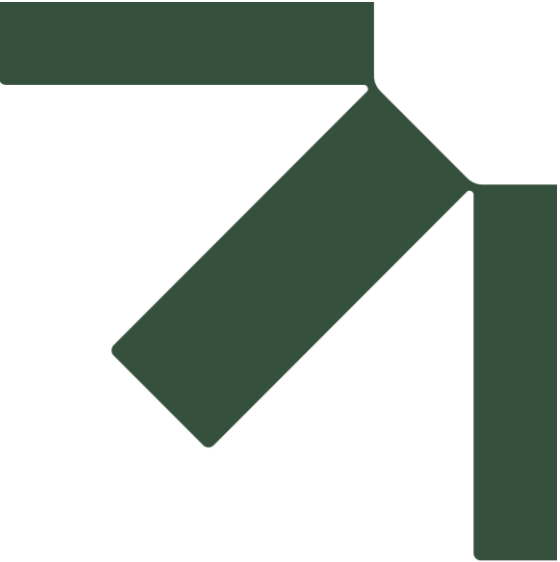


Stockland Residential Communities

Yarrabilba Masterplan

**Functional Road Hierarchy
and Road Reference Points**

FIGURE 508



Appendix D Functional Plans

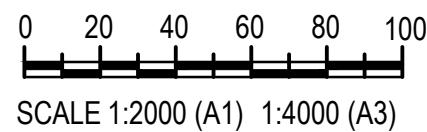
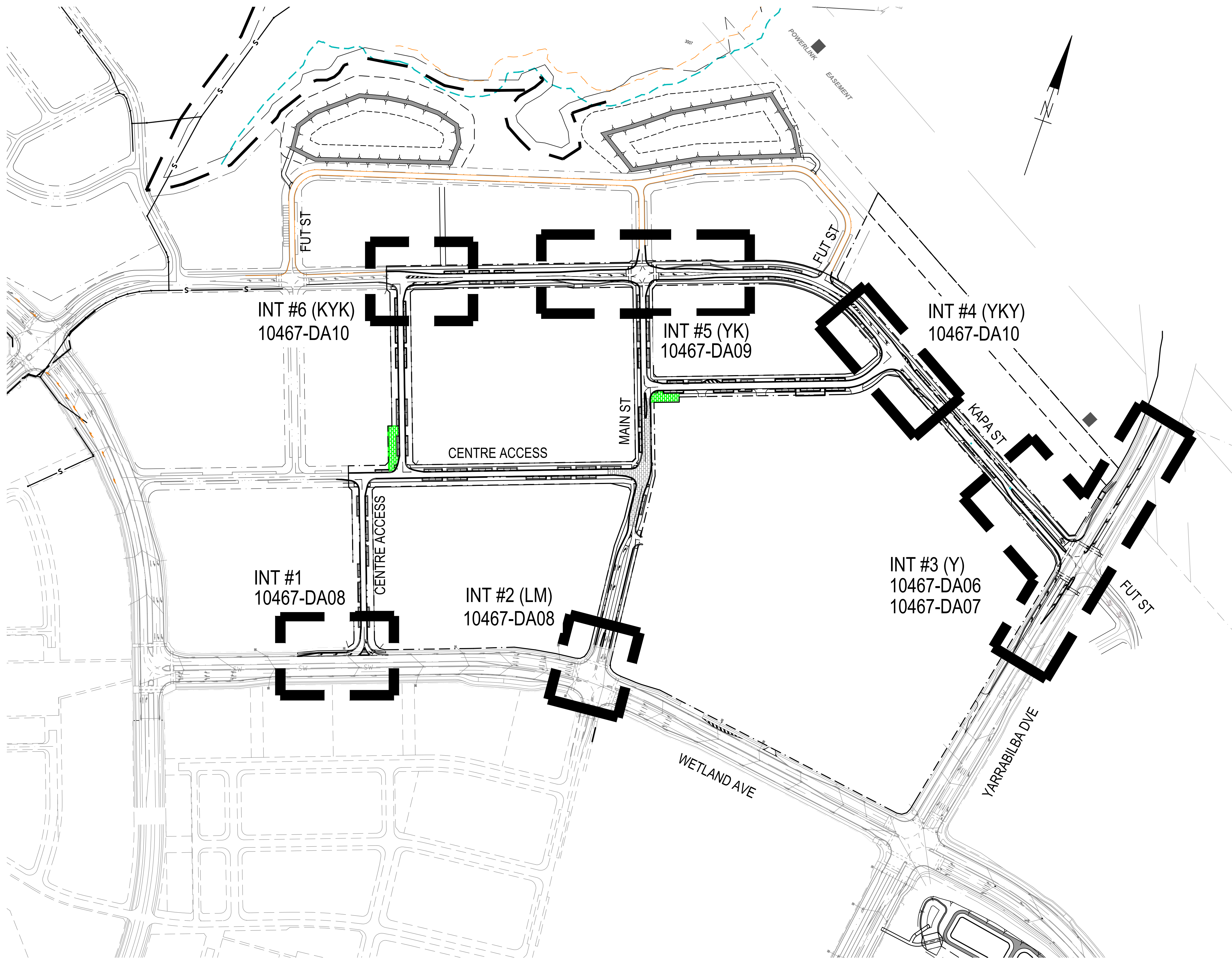
Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00025

27 March 2026



NOT FOR CONSTRUCTION

D	17.03.26	FOR APPROVAL	KC	LS
C	02.03.26	FOR APPROVAL	DG	LS
B	26.11.25	FOR APPROVAL	DG	LS
A	14.11.25	PRELIMINARY	DG	LS
ISSUE	DATE	AMENDMENT	BY	APP

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Kings Row Office Park,
42 McDougall Street, Milton, QLD, 4064

CLIENT: Stockland

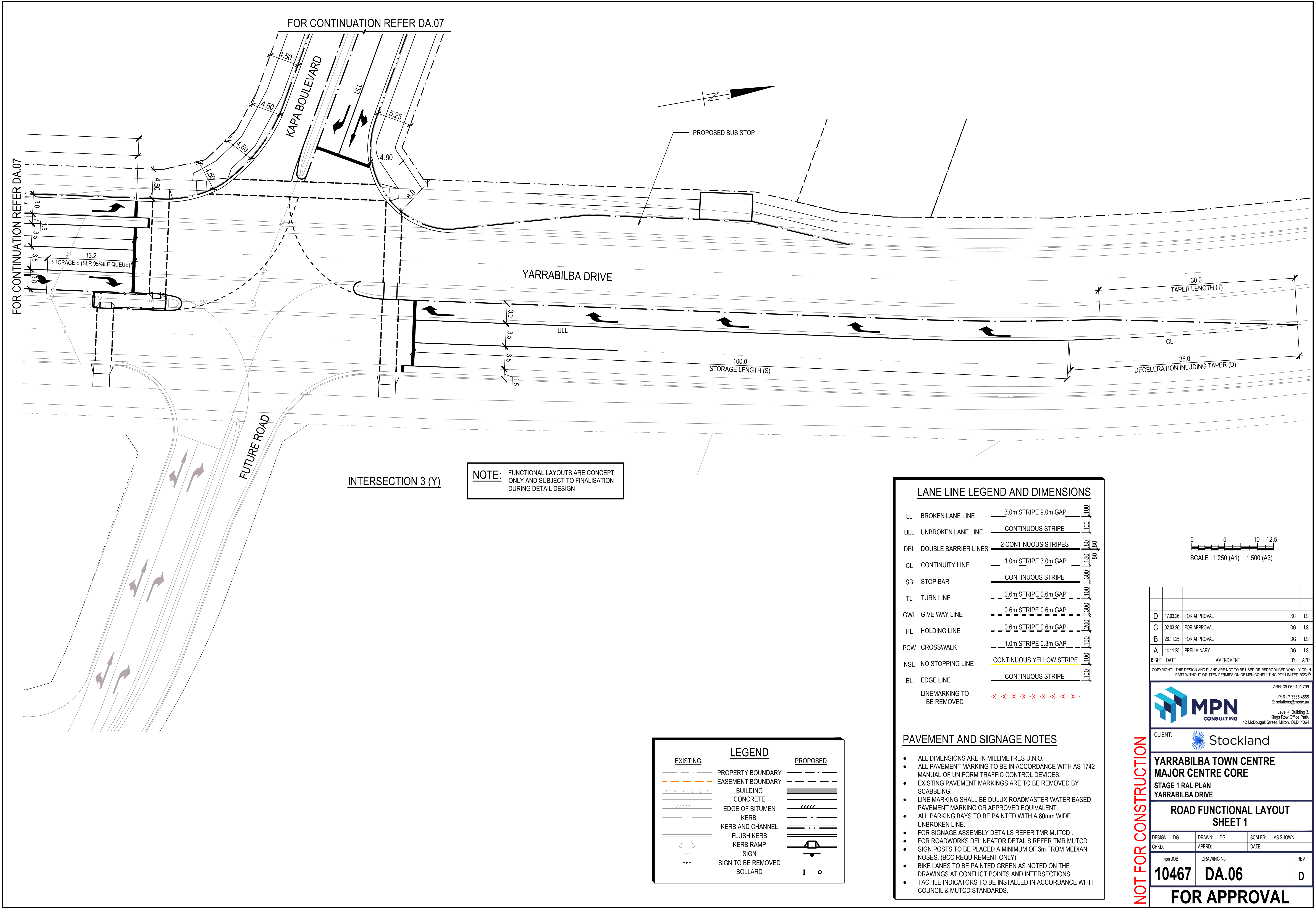
**YARRABILBA TOWN CENTRE
MAJOR CENTRE CORE
STAGE 1 RAL PLAN
YARRABILBA DRIVE**

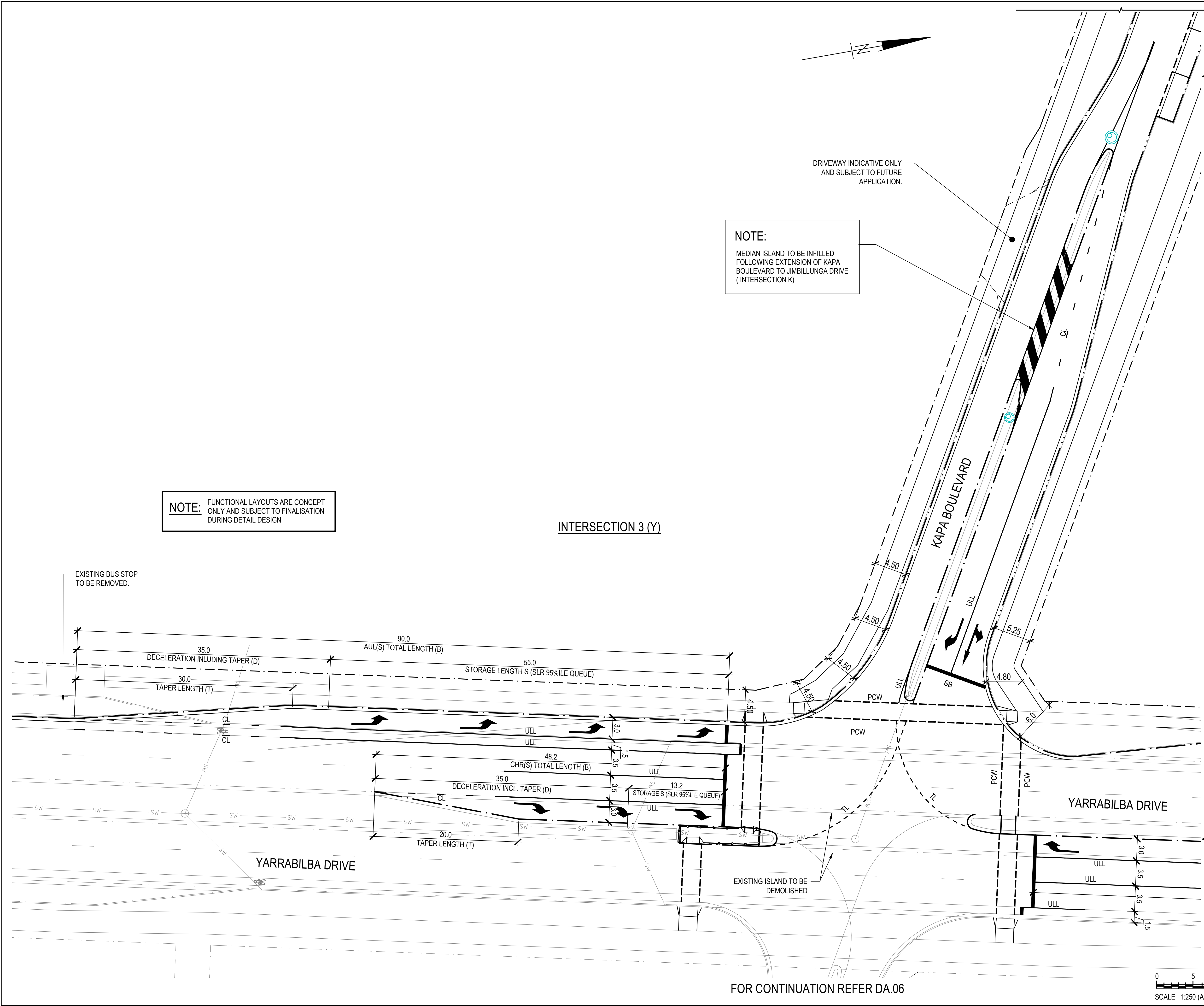
**ROAD FUNCTIONAL LAYOUT
INDEX SHEET**

DESIGN: DG	DRAWN: DG	SCALES: AS SHOWN
CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
10467	DA.05	D

FOR APPROVAL





LANE LINE LEGEND AND DIMENSIONS		
LL	BROKEN LANE LINE	3.0m STRIPE 9.0m GAP 100
ULL	UNBROKEN LANE LINE	CONTINUOUS STRIPE 100
DBL	DOUBLE BARRIER LINES	2 CONTINUOUS STRIPES 80 80
CL	CONTINUITY LINE	1.0m STRIPE 3.0m GAP 150
SB	STOP BAR	CONTINUOUS STRIPE 300
TL	TURN LINE	0.6m STRIPE 0.6m GAP 100
GWL	GIVE WAY LINE	0.6m STRIPE 0.6m GAP 300
HL	HOLDING LINE	0.6m STRIPE 0.6m GAP 200
PCW	CROSSWALK	1.0m STRIPE 0.3m GAP 150
NSL	NO STOPPING LINE	CONTINUOUS YELLOW STRIPE 100
EL	EDGE LINE	CONTINUOUS STRIPE 100
LINEMARKING TO BE REMOVED		- X - X - X - X - X - X - X - X -

PAVEMENT AND SIGNAGE NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES U.N.O.
- ALL PAVEMENT MARKING TO BE IN ACCORDANCE WITH AS 1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- EXISTING PAVEMENT MARKINGS ARE TO BE REMOVED BY SCABBLING.
- LINE MARKING SHALL BE DULUX ROADMASTER WATER BASED PAVEMENT MARKING OR APPROVED EQUIVALENT.
- ALL PARKING BAYS TO BE PAINTED WITH A 80mm WIDE UNBROKEN LINE.
- FOR SIGNAGE ASSEMBLY DETAILS REFER TMR MUTCD .
- FOR ROADWORKS DELINEATOR DETAILS REFER TMR MUTCD.
- SIGN POSTS TO BE PLACED A MINIMUM OF 3m FROM MEDIAN NOSES. (BCC REQUIREMENT ONLY).
- BIKE LANES TO BE PAINTED GREEN AS NOTED ON THE DRAWINGS AT CONFLICT POINTS AND INTERSECTIONS.
- TACTILE INDICATORS TO BE INSTALLED IN ACCORDANCE WITH COUNCIL & MUTCD STANDARDS.

LEGEND		
EXISTING		PROPOSED
	PROPERTY BOUNDARY	
	EASEMENT BOUNDARY	
	BUILDING	
	CONCRETE	
	EDGE OF BITUMEN	
	KERB	
	KERB AND CHANNEL	
	FLUSH KERB	
	KERB RAMP	
	SIGN	
	SIGN TO BE REMOVED	
	BOLLARD	

D	17.03.26	FOR APPROVAL	KC	LS
C	02.03.26	FOR APPROVAL	DG	LS
B	26.11.25	FOR APPROVAL	DG	LS
A	14.11.25	PRELIMINARY	DG	LS
ISSUE DATE		AMENDMENT	BY APP	

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CLIENT: Stockland

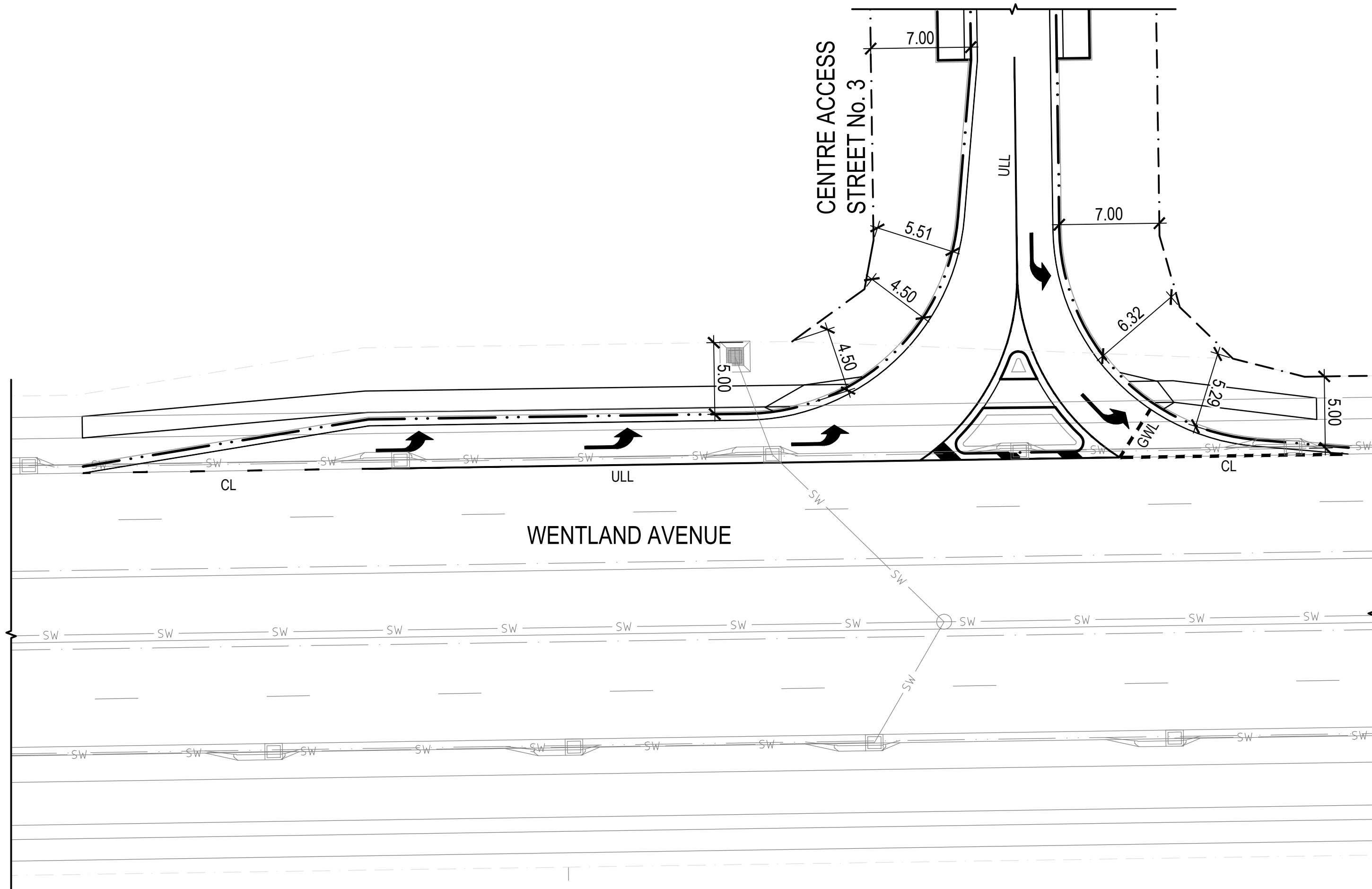
**YARRABILBA TOWN CENTRE
MAJOR CENTRE CORE
STAGE 1 RAL PLAN
YARRABILBA DRIVE**

**ROAD FUNCTIONAL LAYOUT
SHEET 2**

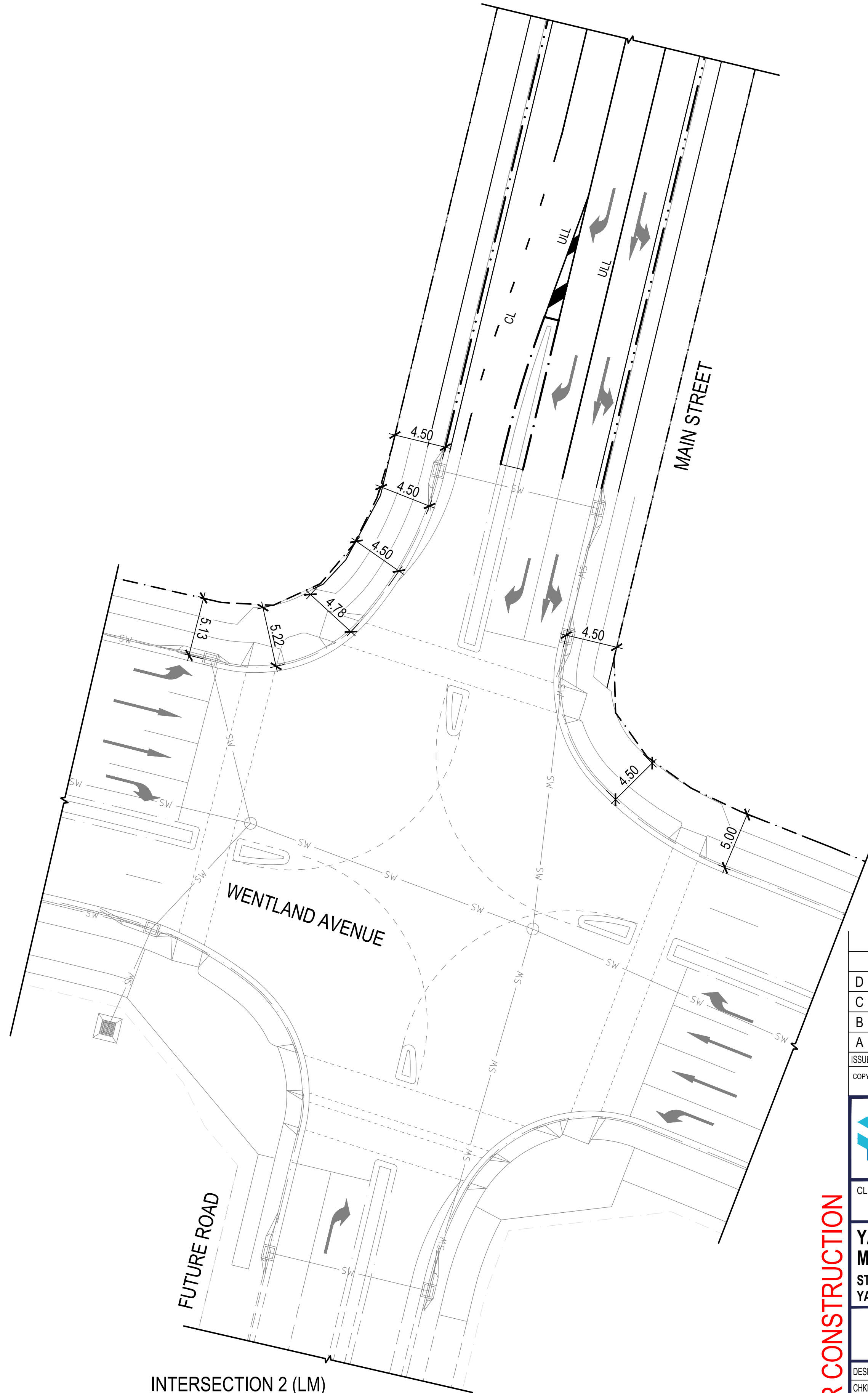
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CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
10467	DA.07	D

FOR APPROVAL



INTERSECTION 1



INTERSECTION 2 (LM)

LANE LINE LEGEND AND DIMENSIONS

LL	BROKEN LANE LINE	3.0m STRIPE 9.0m GAP	100
ULL	UNBROKEN LANE LINE	CONTINUOUS STRIPE	100
DBL	DOUBLE BARRIER LINES	2 CONTINUOUS STRIPES	80
CL	CONTINUITY LINE	1.0m STRIPE 3.0m GAP	150
SB	STOP BAR	CONTINUOUS STRIPE	300
TL	TURN LINE	0.6m STRIPE 0.6m GAP	100
GWL	GIVE WAY LINE	0.6m STRIPE 0.6m GAP	300
PCW	CROSSWALK	1.0m STRIPE 0.3m GAP	150
NSL	NO STOPPING LINE	CONTINUOUS YELLOW STRIPE	100
EL	EDGE LINE	CONTINUOUS STRIPE	100

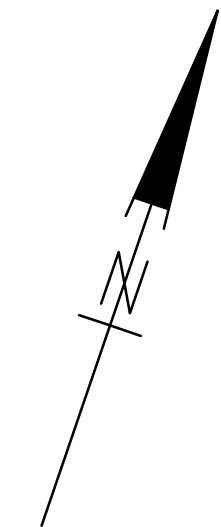
ALL LANE LINE WIDTHS IN MILLIMETRES

PAVEMENT AND SIGNAGE NOTES

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NOTE: FUNCTIONAL LAYOUTS ARE CONCEPT ONLY AND SUBJECT TO FINALISATION DURING DETAIL DESIGN

EXISTING	LEGEND	PROPOSED
	PROPERTY BOUNDARY	
	EASEMENT BOUNDARY	
	BUILDING CONCRETE	
	EDGE OF BITUMEN	
	KERB	
	KERB AND CHANNEL	
	FLUSH KERB	
	KERB RAMP	
	SIGN	
	SIGN TO BE REMOVED BOLLARD	



0 5 10 12.5
SCALE 1:250 (A1) 1:500 (A3)

D	17.03.26	FOR APPROVAL	KC	LS
C	02.03.26	FOR APPROVAL	DG	LS
B	26.11.25	FOR APPROVAL	DG	LS
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ISSUE	DATE	AMENDMENT	BY	APP

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CLIENT: Stockland

**YARRABILBA TOWN CENTRE
MAJOR CENTRE CORE**
STAGE 1 RAL PLAN
YARRABILBA DRIVE

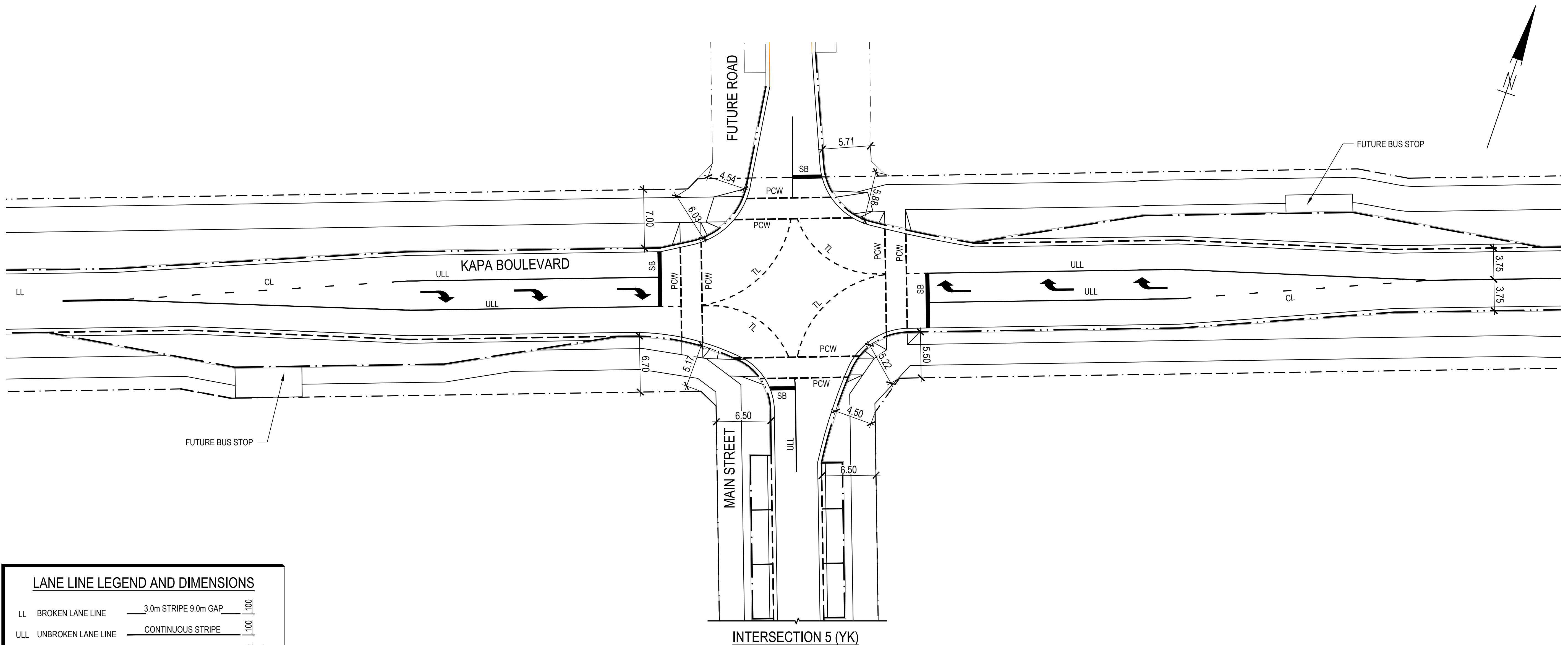
ROAD FUNCTIONAL LAYOUT SHEET 3

DESIGN:	DRAWING	SOURCES:	AS SHOWN
CHKD:	APPRD:	DATE:	

mpn JOB	DRAWING No.	REV
10467	DA.08	D

FOR APPROVAL

NOT FOR CONSTRUCTION



LANE LINE LEGEND AND DIMENSIONS

LL	BROKEN LANE LINE	3.0m STRIPE 9.0m GAP	100
ULL	UNBROKEN LANE LINE	CONTINUOUS STRIPE	100
DBL	DOUBLE BARRIER LINES	2 CONTINUOUS STRIPES	80
CL	CONTINUITY LINE	1.0m STRIPE 3.0m GAP	150
SB	STOP BAR	CONTINUOUS STRIPE	300
TL	TURN LINE	0.6m STRIPE 0.6m GAP	100
GWL	GIVE WAY LINE	0.6m STRIPE 0.6m GAP	300
PCW	CROSSWALK	1.0m STRIPE 0.3m GAP	150
NSL	NO STOPPING LINE	CONTINUOUS YELLOW STRIPE	100
EL	EDGE LINE	CONTINUOUS STRIPE	100

ALL LANE LINE WIDTHS IN MILLIMETRES

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NOTE: FUNCTIONAL LAYOUTS ARE CONCEPT ONLY AND SUBJECT TO FINALISATION DURING DETAIL DESIGN

EXISTING	LEGEND	PROPOSED
	PROPERTY BOUNDARY	
	EASEMENT BOUNDARY	
	BUILDING	
	CONCRETE	
	EDGE OF BITUMEN	
	KERB	
	KERB AND CHANNEL	
	FLUSH KERB	
	KERB RAMP	
	SIGN	
	SIGN TO BE REMOVED BOLLARD	

0 5 10 12.5
SCALE 1:250 (A1) 1:500 (A3)

D	17.03.26	FOR APPROVAL	KC	LS
C	02.03.26	FOR APPROVAL	DG	LS
B	26.11.25	FOR APPROVAL	DG	LS
A	14.11.25	PRELIMINARY	DG	LS
ISSUE	DATE	AMENDMENT	BY	APP

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CLIENT: Stockland

**YARRABILBA TOWN CENTRE
MAJOR CENTRE CORE**
STAGE 1 RAL PLAN
YARRABILBA DRIVE

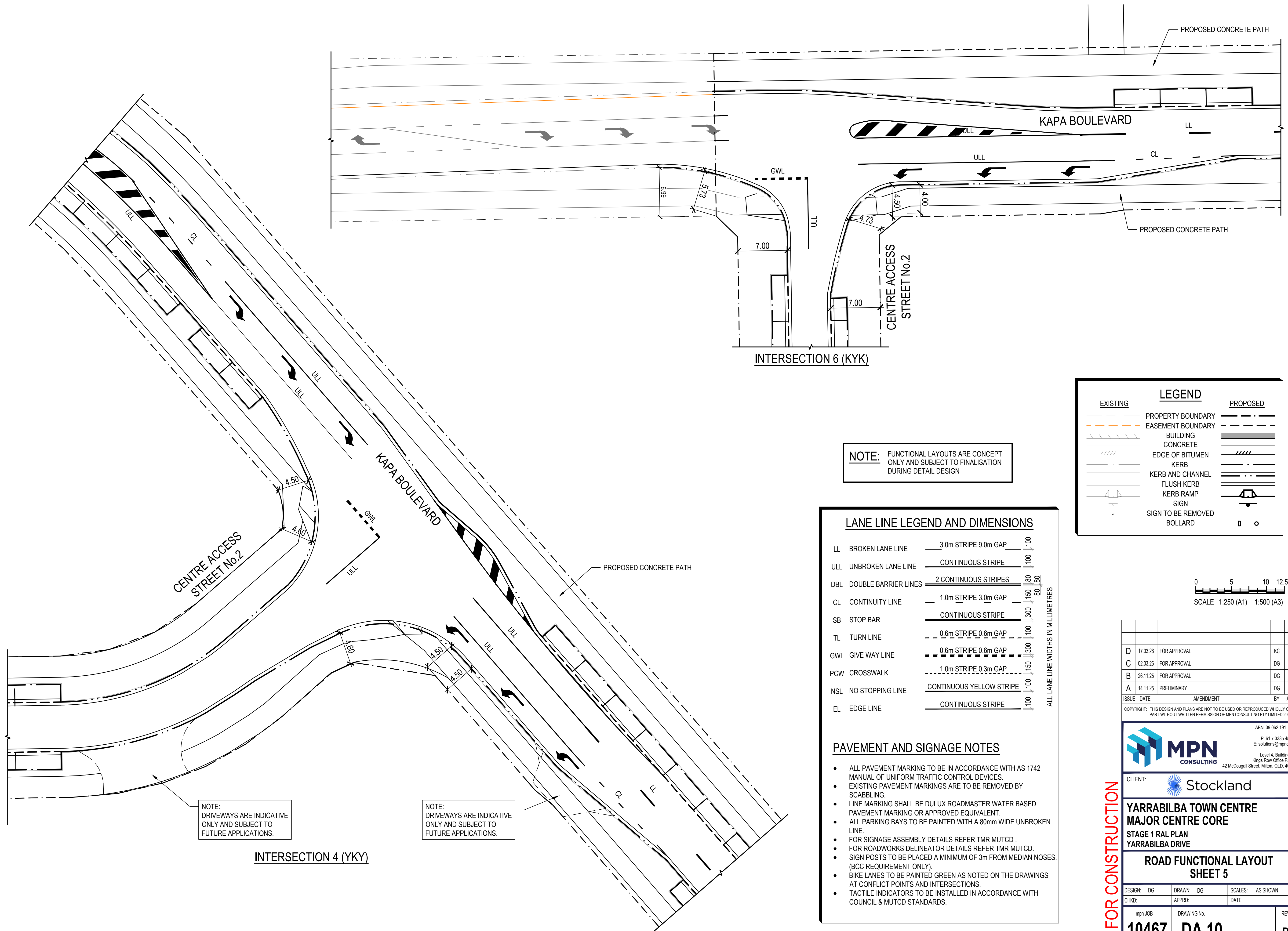
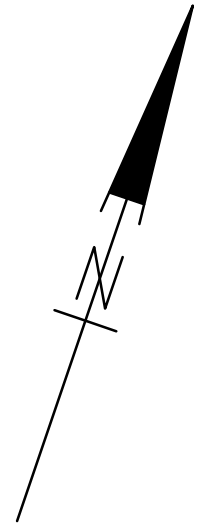
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CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
10467	DA.09	D

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NOTE: FUNCTIONAL LAYOUTS ARE CONCEPT ONLY AND SUBJECT TO FINALISATION DURING DETAIL DESIGN

LANE LINE LEGEND AND DIMENSIONS

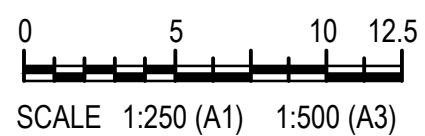
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ULL	UNBROKEN LANE LINE	CONTINUOUS STRIPE	100
DBL	DOUBLE BARRIER LINES	2 CONTINUOUS STRIPES	80 80
CL	CONTINUITY LINE	1.0m STRIPE 3.0m GAP	150
SB	STOP BAR	CONTINUOUS STRIPE	300
TL	TURN LINE	0.6m STRIPE 0.6m GAP	100
GWL	GIVE WAY LINE	0.6m STRIPE 0.6m GAP	300
PCW	CROSSWALK	1.0m STRIPE 0.3m GAP	150
NSL	NO STOPPING LINE	CONTINUOUS YELLOW STRIPE	100
EL	EDGE LINE	CONTINUOUS STRIPE	100

ALL LANE LINE WIDTHS IN MILLIMETRES

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LEGEND	
EXISTING	PROPOSED
	PROPERTY BOUNDARY
	EASEMENT BOUNDARY
	BUILDING
	CONCRETE
	EDGE OF BITUMEN
	KERB
	KERB AND CHANNEL
	FLUSH KERB
	KERB RAMP
	SIGN
	SIGN TO BE REMOVED
	BOLLARD



ISSUE	DATE	AMENDMENT	BY	APP
D	17.03.26	FOR APPROVAL	KC	LS
C	02.03.26	FOR APPROVAL	DG	LS
B	26.11.25	FOR APPROVAL	DG	LS
A	14.11.25	PRELIMINARY	DG	LS

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CLIENT: Stockland

**YARRABILBA TOWN CENTRE
MAJOR CENTRE CORE
STAGE 1 RAL PLAN
YARRABILBA DRIVE**

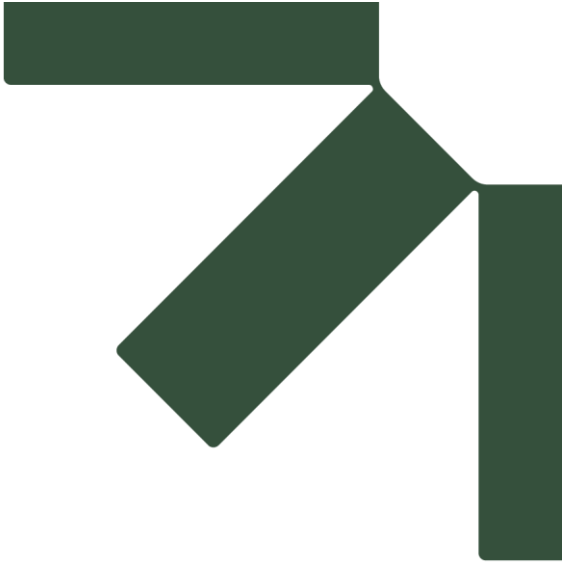
**ROAD FUNCTIONAL LAYOUT
SHEET 5**

DESIGN: DG	DRAWN: DG	SCALES: AS SHOWN
CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
10467	DA.10	D

FOR APPROVAL

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Appendix E Traffic Volume Diagrams

Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

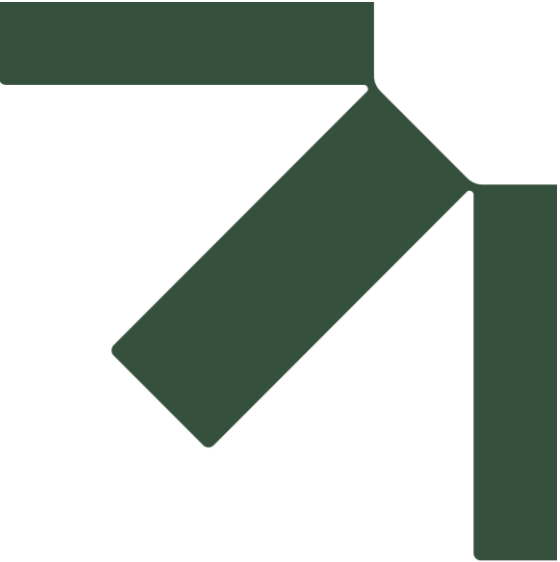
Stockland Residential Communities

SLR Project No.: 620.V11743.00025

27 March 2026

Movement	App	MVMT	Turn/Path ID	Morning Peak Hour	Evening Peak Hour
				Volume	Volume
Int K - E LT	E	LT	11658	153	126
Int K - E RT	E	RT	11690	14	13
Int K - E TH	E	TH	11691	301	760
Int K - N LT	N	LT	11692	21	13
Int K - N RT	N	RT	11694	310	231
Int K - N TH	N	TH	11693	86	47
Int K - S LT	S	LT	11695	147	217
Int K - S RT	S	RT	11697	193	142
Int K - S TH	S	TH	11696	14	68
Int K - W LT	W	LT	11698	36	133
Int K - W RT	W	RT	11699	175	112
Int K - W TH	W	TH	11700	473	360
Intersection K				1,923	2,221
Int L - E LT	E	LT	11701	234	103
Int L - E RT	E	RT	11702	416	735
Int L - N LT	N	LT	11703	518	440
Int L - N TH	N	TH	11704	212	64
Int L - S RT	S	RT	11705	91	133
Int L - S TH	S	TH	11706	51	163
Intersection L				1,522	1,638
Int LM - E LT	E	LT	11708	72	41
Int LM - E RT	E	RT	11720	47	279
Int LM - E TH	E	TH	11721	407	517
Int LM - N LT	N	LT	11722	48	20
Int LM - N RT	N	RT	11723	230	262
Int LM - N TH	N	TH	11724	48	80
Int LM - S LT	S	LT	11725	16	61
Int LM - S RT	S	RT	11726	41	45
Int LM - S TH	S	TH	11727	51	92
Int LM - W LT	W	LT	11728	136	123
Int LM - W RT	W	RT	11729	9	20
Int LM - W TH	W	TH	11730	743	475
Intersection LM				1,848	2,016
Int Y - E LT	E	LT	11731	11	23
Int Y - E RT	E	RT	11732	0	5
Int Y - E TH	E	TH	11733	3	12
Int Y - N LT	N	LT	11734	6	1
Int Y - N RT	N	RT	11735	250	310
Int Y - N TH	N	TH	11736	695	271
Int Y - S LT	S	LT	11737	31	93
Int Y - S RT	S	RT	11738	31	10
Int Y - S TH	S	TH	11739	509	680
Int Y - W LT	W	LT	11740	51	184
Int Y - W RT	W	RT	11741	64	42
Int Y - W TH	W	TH	11742	12	5
Intersection Y				1,661	1,636
Int M - E LT	E	LT	11743	63	26
Int M - E RT	E	RT	11744	153	206
Int M - E TH	E	TH	11745	237	388
Int M - N LT	N	LT	11746	81	37
Int M - N RT	N	RT	11747	262	195
Int M - N TH	N	TH	11748	428	107
Int M - S LT	S	LT	11749	28	258
Int M - S RT	S	RT	11750	14	56
Int M - S TH	S	TH	11751	194	568

Movement	App	MVMT	Turn/Path ID	Volume	Volume
Int M - W LT	W	LT	11752	284	140
Int M - W RT	W	RT	11753	211	162
Int M - W TH	W	TH	11754	308	126
Intersection M				2,262	2,269
Int YK - E LT	E	LT	11809	12	9
Int YK - E RT	E	RT	11810	7	4
Int YK - E TH	E	TH	11811	185	189
Int YK - N LT	N	LT	11812	4	11
Int YK - N RT	N	RT	11813	4	10
Int YK - N TH	N	TH	11814	6	18
Int YK - S LT	S	LT	11815	28	48
Int YK - S RT	S	RT	11816	7	12
Int YK - S TH	S	TH	11817	3	5
Int YK - W LT	W	LT	11818	0	1
Int YK - W RT	W	RT	11819	9	36
Int YK - W TH	W	TH	11820	28	206
Intersection YK				293	550
Int LLM - W LT	W	LT	11997	15	40
Int LLM - W TH	W	TH	11998	594	529
Int LLM - N LT	N	LT	11999	294	89
Int LLM - E TH	E	TH	12000	650	838
Int LLM				1,553	1,497
Int YKY - E LT	E	LT	12015	195	258
Int YKY - E TH	E	TH	12016	70	118
Int YKY - S RT	S	RT	12017	11	73
Int YKY - S LT	S	LT	12018	30	185
Int YKY - W RT	W	RT	12019	66	50
Int YKY - W TH	W	TH	12020	71	131
Int YKY				443	815
Int F - E TH	E	TH	12021	113	166
Int F - E RT	E	RT	12022	69	162
Int F - N RT	N	RT	12023	91	37
Int F - N LT	N	LT	12024	134	76
Int F - W TH	W	TH	12025	10	138
Int F - W LT	W	LT	12026	29	90
Int F				446	668
Int KYK - S LT	S	LT	12027	33	30
Int KYK - S RT	S	RT	12028	20	46
Int KYK - E LT	E	LT	12029	0	3
Int KYK - E TH	E	TH	12030	216	243
Int KYK - W RT	W	RT	12031	20	20
Int KYK - W TH	W	TH	12032	36	197
Int KYK				289	521
Int KM - W LT	W	LT	12039	22	74
Int KM - W RT	W	RT	12040	50	66
Int KM - S LT	S	LT	12041	100	299
Int KM - S TH	S	TH	12042	78	191
Int KM - N TH	N	TH	12043	138	107
Int KM - N RT	N	RT	12044	140	171
Int KM				528	908



Appendix F Detailed SIDRA Outputs – Ultimate Scenario

Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00025

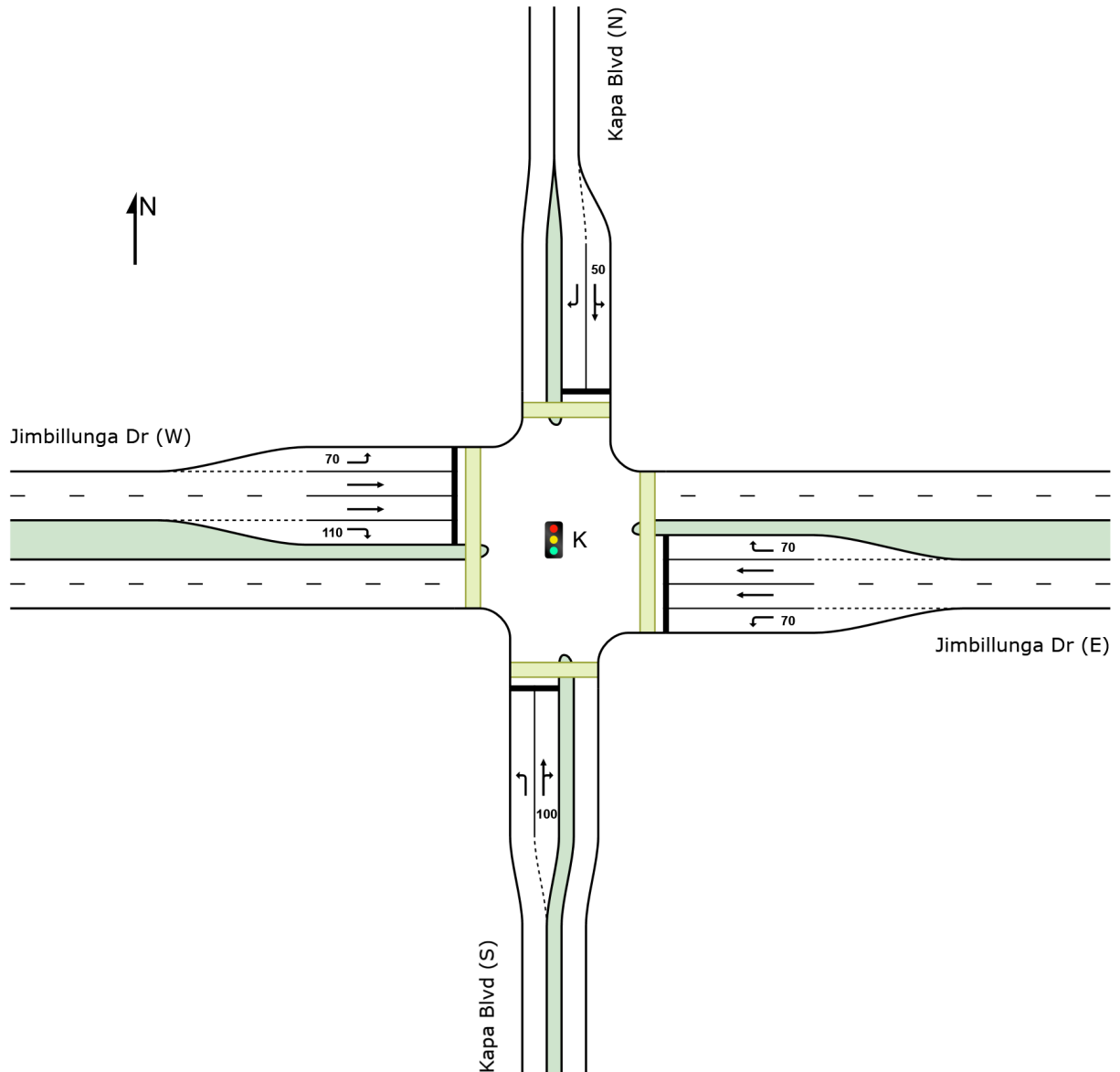
27 March 2026

SITE LAYOUT

 Site: K [K - Ult AM - Jimbillunga Drive / Kapa Boulevard (Site Folder: Ultimate)]

Intersection: Jimbillunga Drive / Kapa Boulevard
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Organisation: SLR CONSULTING AUSTRALIA | Licence: NETWORK / 1PC | Created: Tuesday, 27 January 2026 12:11:14 PM

Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

 Site: K [K - Ult AM - Jimbillunga Drive / Kapa Boulevard (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Kapa Boulevard

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh]	[Dist] m				km/h
South: Kapa Blvd (S)															
1	L2	All MCs	155	3.0	155	3.0	0.248	40.7	LOS D	7.5	53.9	0.76	0.77	0.76	35.6
2	T1	All MCs	15	3.0	15	3.0	* 0.619	56.3	LOS E	13.8	98.9	0.97	0.83	0.97	25.4
3	R2	All MCs	203	3.0	203	3.0	0.619	61.9	LOS E	13.8	98.9	0.97	0.83	0.97	26.5
Approach			372	3.0	372	3.0	0.619	52.9	LOS D	13.8	98.9	0.88	0.80	0.88	30.1
East: Jimbillunga Dr (E)															
4	L2	All MCs	161	3.0	161	3.0	0.296	26.4	LOS C	4.6	33.2	0.81	0.77	0.81	37.9
5	T1	All MCs	316	3.0	316	3.0	0.429	53.8	LOS D	9.6	68.7	0.93	0.76	0.93	29.6
6	R2	All MCs	14	3.0	14	3.0	0.052	60.4	LOS E	0.8	6.0	0.89	0.69	0.89	21.0
Approach			492	3.0	492	3.0	0.429	45.0	LOS D	9.6	68.7	0.89	0.76	0.89	31.6
North: Kapa Blvd (N)															
7	L2	All MCs	23	3.0	23	3.0	0.212	38.9	LOS D	5.4	38.7	0.80	0.70	0.80	26.2
8	T1	All MCs	90	3.0	90	3.0	0.212	62.9	LOS E	5.4	38.7	0.80	0.70	0.80	31.2
9	R2	All MCs	327	3.0	327	3.0	* 0.691	69.2	LOS E	19.7	141.8	0.95	0.85	0.95	27.8
Approach			439	3.0	439	3.0	0.691	66.4	LOS E	19.7	141.8	0.91	0.81	0.91	24.3
West: Jimbillunga Dr (W)															
10	L2	All MCs	38	3.0	38	3.0	0.043	25.4	LOS C	1.3	9.5	0.55	0.68	0.55	37.4
11	T1	All MCs	498	3.0	498	3.0	* 0.675	56.9	LOS E	15.9	114.4	0.98	0.83	0.98	28.8
12	R2	All MCs	184	3.0	184	3.0	* 0.674	67.8	LOS E	12.2	87.5	1.00	0.83	1.02	28.5
Approach			720	3.0	720	3.0	0.675	58.0	LOS E	15.9	114.4	0.96	0.82	0.97	29.0
All Vehicles			2024	3.0	2024	3.0	0.691	55.7	LOS E	19.7	141.8	0.92	0.80	0.92	28.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped]	[Dist] m			sec	m	m/sec
South: Kapa Blvd (S)												
P1	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

East: Jimbillunga Dr (E)												
P2	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Kapa Blvd (N)												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
West: Jimbillunga Dr (W)												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All		200	211	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
Pedestrians												

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 Site: K [K - Ult AM - Jimbillunga Drive / Kapa Boulevard (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Kapa Boulevard

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int K

Input Phase Sequence: A, D, E, F*, F1*, F2*

Output Phase Sequence: A, D, E, F*

Reference Phase: Phase A

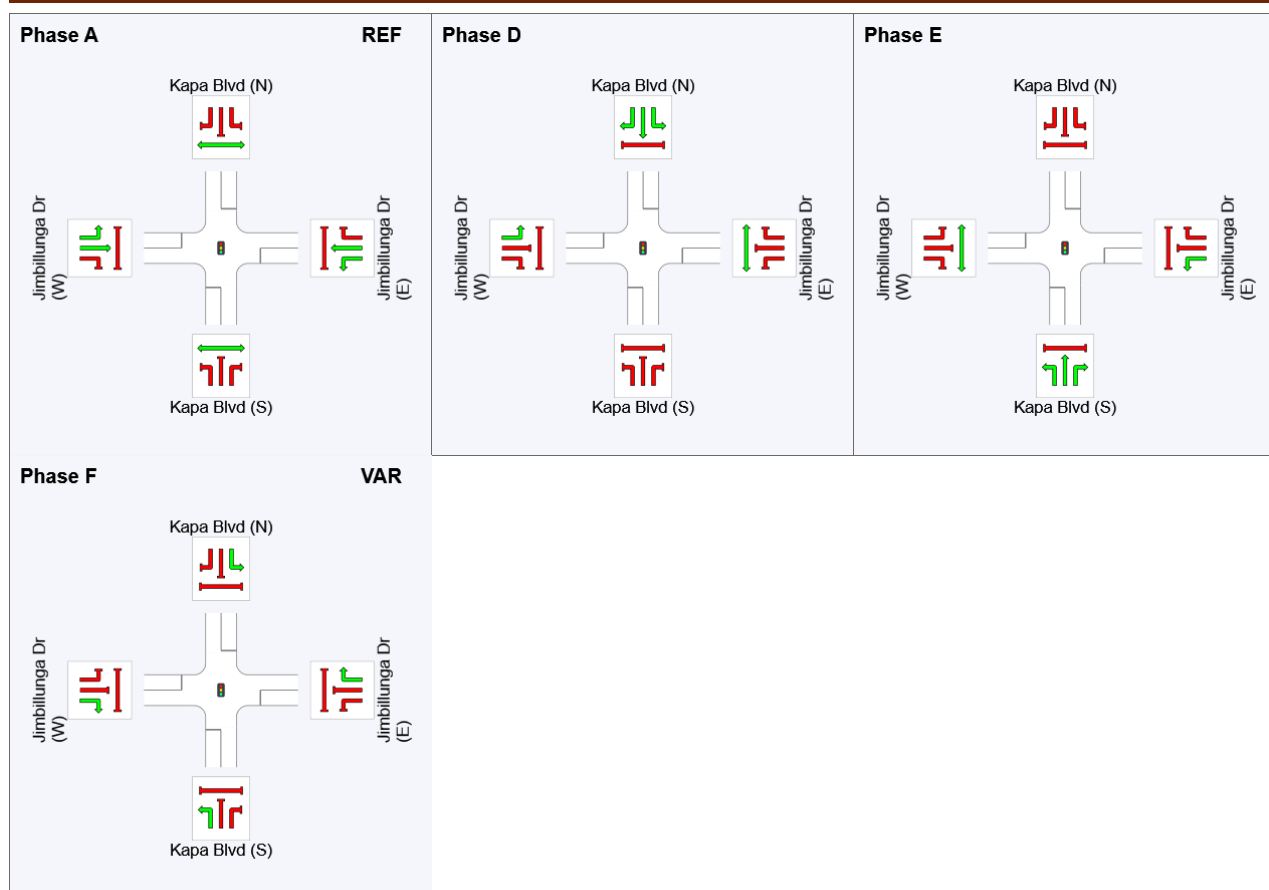
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	33	80	113
Green Time (sec)	27	41	27	21
Phase Time (sec)	33	47	33	27
Phase Split	24%	34%	24%	19%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

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MOVEMENT SUMMARY

 Site: K [K - Ult PM - Jimbillunga Drive / Kapa Boulevard (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Kapa Boulevard

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Kapa Blvd (S)															
1	L2	All MCs	228	3.0	228	3.0	0.428	48.5	LOS D	12.5	90.0	0.86	0.81	0.86	33.2
2	T1	All MCs	72	3.0	72	3.0	* 0.620	56.3	LOS E	14.0	100.4	0.97	0.82	0.97	25.8
3	R2	All MCs	149	3.0	149	3.0	0.620	61.9	LOS E	14.0	100.4	0.97	0.82	0.97	26.8
Approach			449	3.0	449	3.0	0.620	54.2	LOS D	14.0	100.4	0.91	0.81	0.91	29.9
East: Jimbillunga Dr (E)															
4	L2	All MCs	132	3.0	132	3.0	0.167	27.8	LOS C	2.9	20.6	0.64	0.73	0.64	42.1
5	T1	All MCs	800	3.0	800	3.0	* 0.666	53.8	LOS D	24.2	173.4	0.92	0.80	0.92	32.9
6	R2	All MCs	14	3.0	14	3.0	0.075	79.9	LOS E	0.9	6.2	0.94	0.69	0.94	19.5
Approach			946	3.0	946	3.0	0.666	50.5	LOS D	24.2	173.4	0.88	0.79	0.88	30.3
North: Kapa Blvd (N)															
7	L2	All MCs	13	3.0	13	3.0	0.169	38.5	LOS D	3.1	22.0	0.87	0.71	0.87	24.9
8	T1	All MCs	49	3.0	49	3.0	0.169	60.2	LOS E	3.1	22.0	0.87	0.71	0.87	29.9
9	R2	All MCs	243	3.0	243	3.0	* 0.678	71.3	LOS E	15.5	110.9	0.98	0.84	0.98	25.7
Approach			305	3.0	305	3.0	0.678	68.1	LOS E	15.5	110.9	0.96	0.81	0.96	24.0
West: Jimbillunga Dr (W)															
10	L2	All MCs	140	3.0	140	3.0	0.144	22.7	LOS C	4.7	33.7	0.53	0.71	0.53	38.8
11	T1	All MCs	379	3.0	379	3.0	0.302	37.3	LOS D	9.5	68.5	0.79	0.66	0.79	35.1
12	R2	All MCs	118	3.0	118	3.0	* 0.650	73.7	LOS E	8.1	58.1	1.00	0.82	1.04	27.3
Approach			637	3.0	637	3.0	0.650	40.8	LOS D	9.5	68.5	0.77	0.70	0.78	33.6
All Vehicles			2338	3.0	2338	3.0	0.678	50.9	LOS D	24.2	173.4	0.87	0.77	0.87	30.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Kapa Blvd (S)												
P1	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

East: Jimbillunga Dr (E)												
P2	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Kapa Blvd (N)												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
West: Jimbillunga Dr (W)												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All		200	211	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
Pedestrians												

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 Site: K [K - Ult PM - Jimbillunga Drive / Kapa Boulevard (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Kapa Boulevard

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int K

Input Phase Sequence: A, D, E, F*, F1*, F2*

Output Phase Sequence: A, D, E, F*

Reference Phase: Phase A

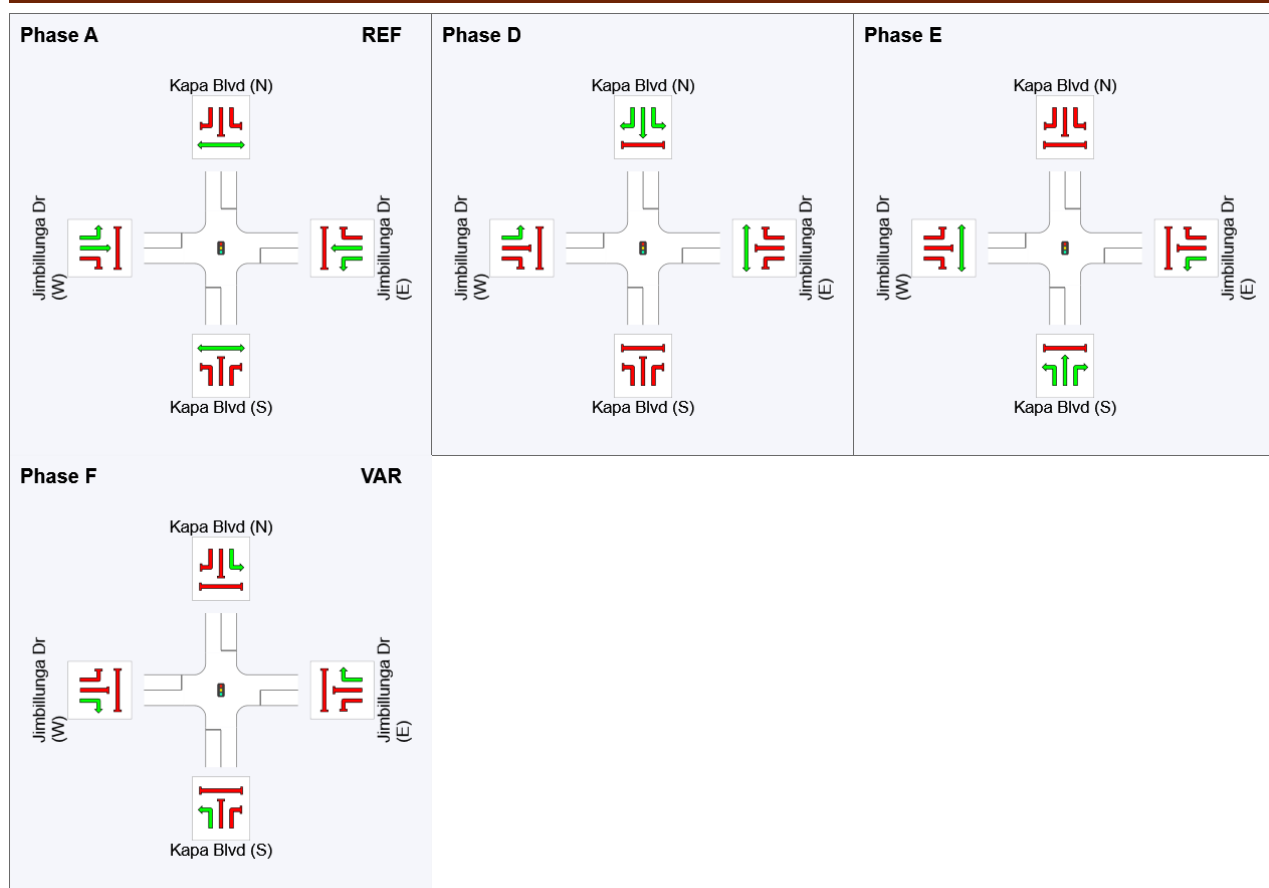
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	52	87	120
Green Time (sec)	46	29	27	14
Phase Time (sec)	52	35	33	20
Phase Split	37%	25%	24%	14%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

 Site: L [L - Ult AM - Jimbillunga Drive / Wentland Avenue (Site Folder: Ultimate)]

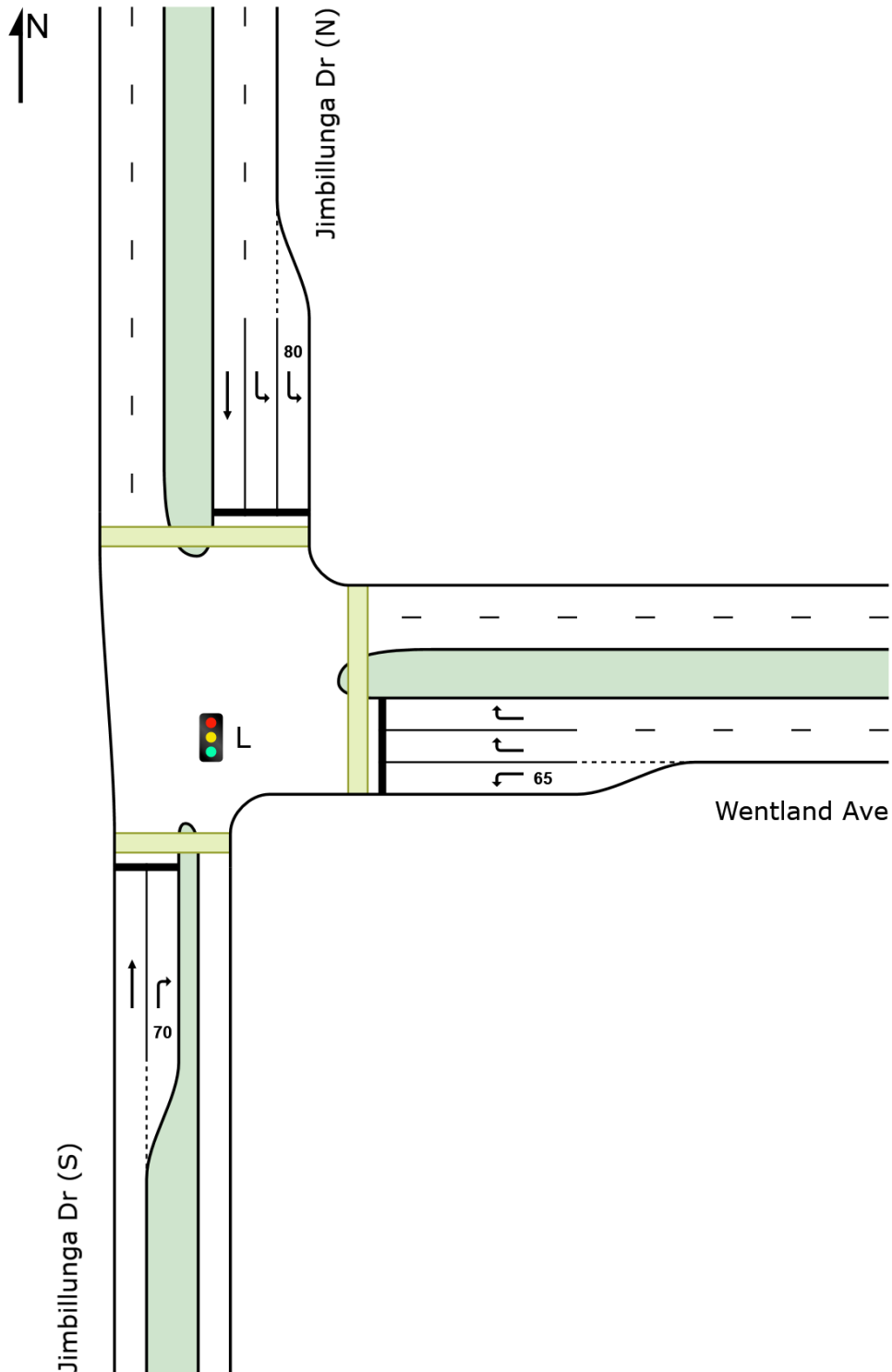
Intersection: Jimbillunga Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

 Site: L [L - Ult AM - Jimbillunga Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
			veh/h		veh/h		v/c	sec							
South: Jimbillunga Dr (S)															
5	T1	All MCs	53	3.0	53	3.0	0.103	40.6	LOS D	2.7	19.3	0.78	0.60	0.78	27.2
6	R2	All MCs	96	3.0	96	3.0	0.167	42.6	LOS D	4.7	33.5	0.76	0.74	0.76	21.6
Approach			149	3.0	149	3.0	0.167	41.9	LOS D	4.7	33.5	0.77	0.69	0.77	23.6
East: Wentland Ave															
7	L2	All MCs	246	3.0	246	3.0	* 0.431	46.3	LOS D	13.2	95.1	0.84	0.81	0.84	20.2
9	R2	All MCs	438	3.0	438	3.0	0.421	49.2	LOS D	12.1	86.9	0.86	0.80	0.86	23.0
Approach			684	3.0	684	3.0	0.431	48.1	LOS D	13.2	95.1	0.86	0.80	0.86	22.0
North: Jimbillunga Dr (N)															
10	L2	All MCs	545	3.0	545	3.0	* 0.292	20.4	LOS C	8.7	62.8	0.61	0.74	0.61	34.4
11	T1	All MCs	223	3.0	223	3.0	* 0.430	45.1	LOS D	12.5	90.0	0.88	0.74	0.88	25.6
Approach			769	3.0	769	3.0	0.430	27.6	LOS C	12.5	90.0	0.69	0.74	0.69	31.1
All Vehicles			1602	3.0	1602	3.0	0.431	37.7	LOS D	13.2	95.1	0.77	0.76	0.77	26.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped]	[Dist] m			sec	m	m/sec
South: Jimbillunga Dr (S)												
P2	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
East: Wentland Ave												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Jimbillunga Dr (N)												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All Pedestrians		150	158	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

PHASING SUMMARY

 Site: L [L - Ult AM - Jimbillunga Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int L

Input Phase Sequence: A, B*, B1*, C

Output Phase Sequence: A, B*, C

Reference Phase: Phase A

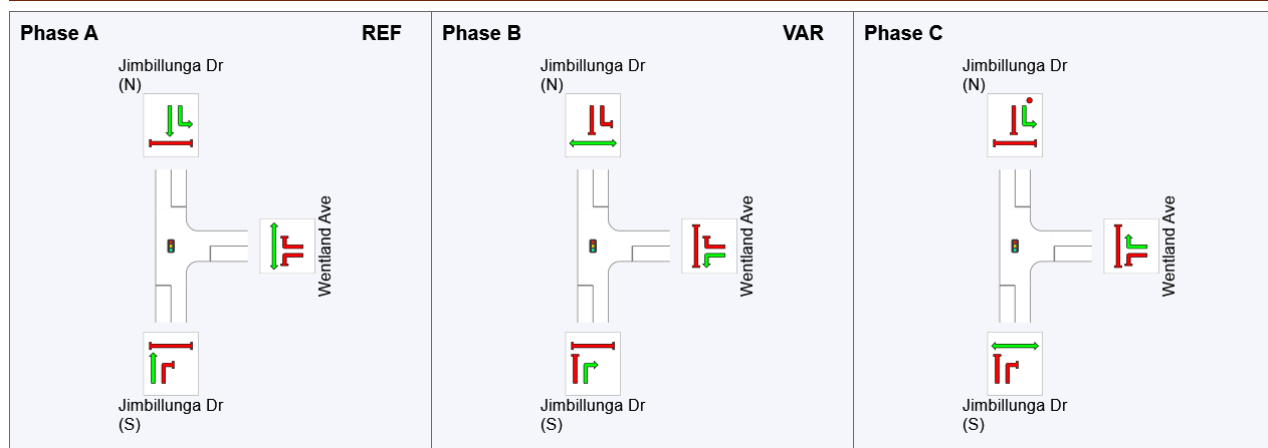
(* Variable Phase)

Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	44	94
Green Time (sec)	38	44	40
Phase Time (sec)	44	50	46
Phase Split	31%	36%	33%
Phase Frequency (%)	100.0	100.0	100.0

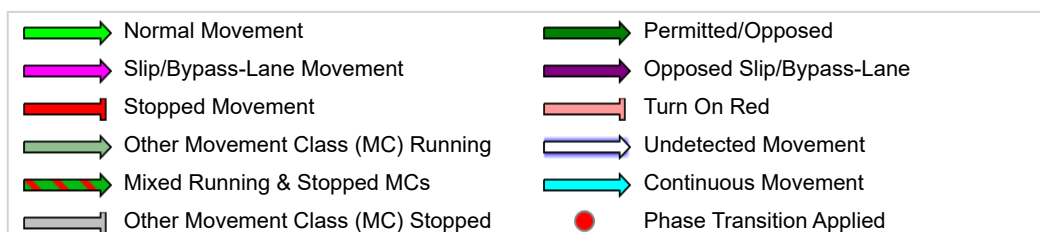
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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MOVEMENT SUMMARY

 Site: L [L - Ult PM - Jimbillunga Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m					
			veh/h		veh/h		v/c	sec							km/h	
South: Jimbillunga Dr (S)																
5	T1	All MCs	172	3.0	172	3.0	* 0.434	52.2	LOS D	10.3	73.7	0.92	0.76	0.92	23.5	
6	R2	All MCs	140	3.0	140	3.0	* 0.432	61.3	LOS E	8.6	61.8	0.94	0.80	0.94	17.0	
Approach			312	3.0	312	3.0	0.434	56.3	LOS E	10.3	73.7	0.93	0.77	0.93	20.5	
East: Wentland Ave																
7	L2	All MCs	108	3.0	108	3.0	0.334	61.7	LOS E	6.5	46.8	0.92	0.78	0.92	17.0	
9	R2	All MCs	773	3.0	773	3.0	* 0.442	31.4	LOS C	17.1	123.1	0.70	0.78	0.70	29.5	
Approach			882	3.0	882	3.0	0.442	35.1	LOS D	17.1	123.1	0.73	0.78	0.73	27.2	
North: Jimbillunga Dr (N)																
10	L2	All MCs	463	3.0	463	3.0	0.196	12.1	LOS B	4.7	33.7	0.43	0.69	0.43	40.5	
11	T1	All MCs	68	3.0	68	3.0	0.171	48.9	LOS D	3.8	27.2	0.86	0.67	0.86	24.4	
Approach			531	3.0	531	3.0	0.196	16.8	LOS B	4.7	33.7	0.48	0.69	0.48	37.2	
All Vehicles			1725	3.0	1725	3.0	0.442	33.3	LOS C	17.1	123.1	0.69	0.75	0.69	27.9	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped]	[Dist] m			sec	m	m/sec
South: Jimbillunga Dr (S)												
P2	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
East: Wentland Ave												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Jimbillunga Dr (N)												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All Pedestrians		150	158	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town
Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

PHASING SUMMARY

 Site: L [L - Ult PM - Jimbillunga Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int L

Input Phase Sequence: A, B*, B1*, C

Output Phase Sequence: A, B*, C

Reference Phase: Phase A

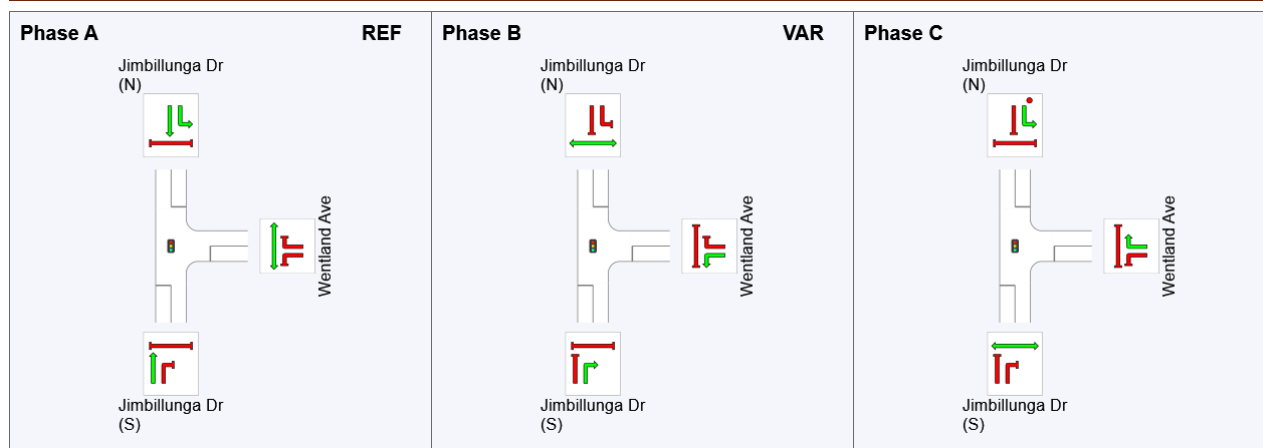
(* Variable Phase)

Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	35	66
Green Time (sec)	29	25	68
Phase Time (sec)	35	31	74
Phase Split	25%	22%	53%
Phase Frequency (%)	100.0	100.0	100.0

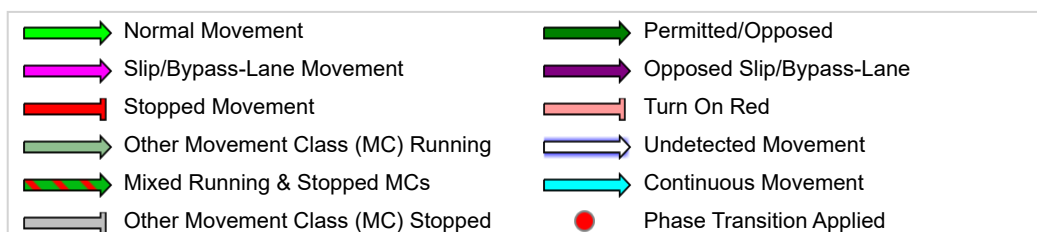
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

SITE LAYOUT

 **Site: LM [LM - Ult AM - Wentland Avenue / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]**

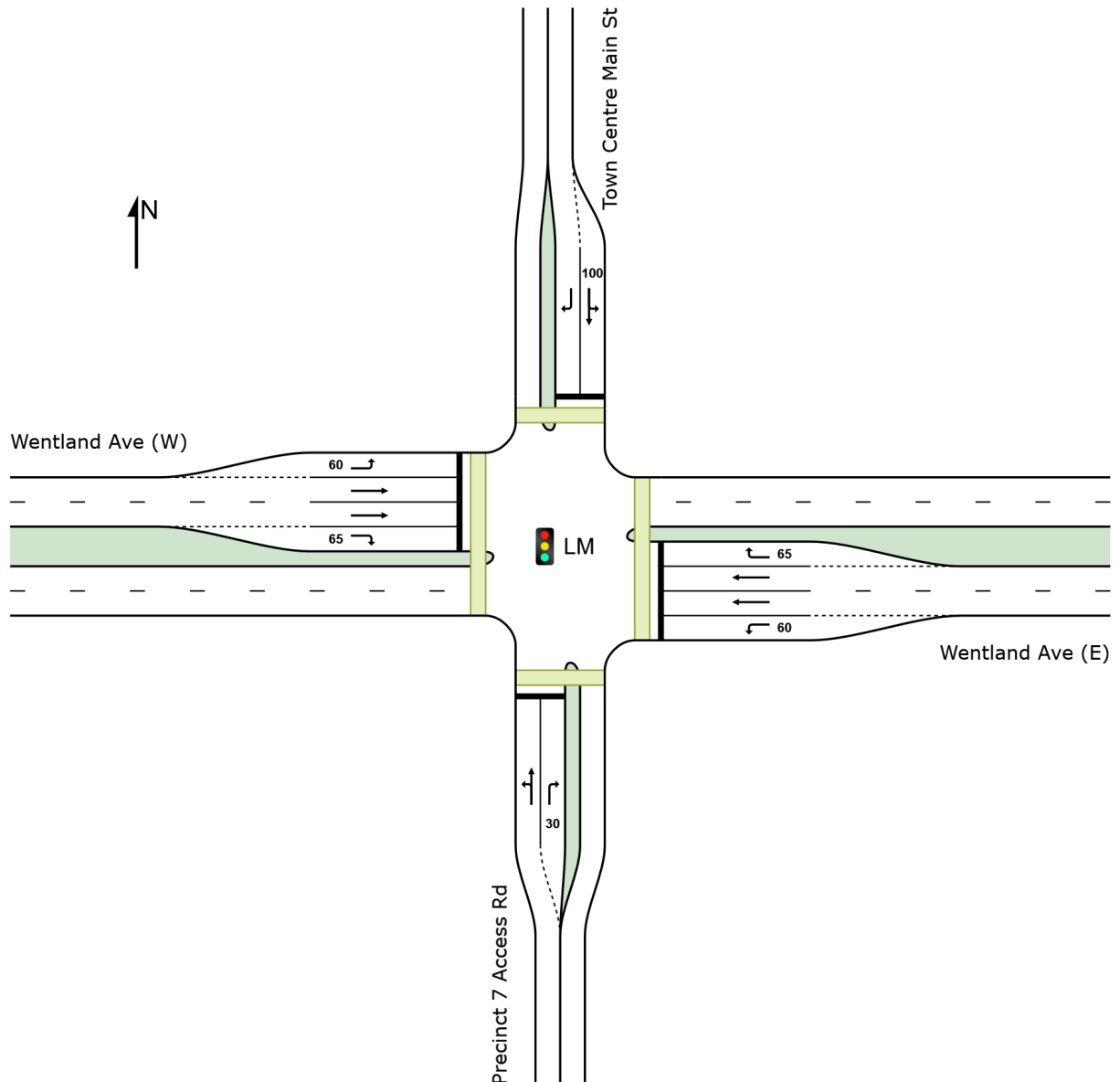
Intersection: Wentland Avenue / Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

 Site: LM [LM - Ult AM - Wentland Avenue / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Wentland Avenue / Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh]	[Dist] m				km/h
South: Precinct 7 Access Rd															
1	L2	All MCs	17	3.0	17	3.0	0.250	53.8	LOS D	4.3	30.9	0.92	0.73	0.92	14.2
2	T1	All MCs	54	3.0	54	3.0	* 0.250	58.8	LOS E	4.3	30.9	0.92	0.73	0.92	14.7
3	R2	All MCs	43	3.0	43	3.0	0.143	59.7	LOS E	2.5	18.0	0.89	0.73	0.89	18.0
Approach			114	3.0	114	3.0	0.250	58.4	LOS E	4.3	30.9	0.91	0.73	0.91	16.0
East: Wentland Ave (E)															
4	L2	All MCs	75	3.0	75	3.0	0.094	17.9	LOS B	1.7	11.9	0.61	0.70	0.61	33.6
5	T1	All MCs	428	3.0	428	3.0	0.307	33.8	LOS C	10.3	74.1	0.76	0.64	0.76	28.9
6	R2	All MCs	50	3.0	50	3.0	0.348	73.9	LOS E	3.3	24.0	0.99	0.75	0.99	17.6
Approach			553	3.0	553	3.0	0.348	35.3	LOS D	10.3	74.1	0.76	0.66	0.76	27.7
North: Town Centre Main St															
7	L2	All MCs	50	3.0	50	3.0	* 0.266	26.4	LOS C	4.1	29.5	0.88	0.73	0.88	27.9
8	T1	All MCs	51	3.0	51	3.0	0.266	41.3	LOS D	4.1	29.5	0.88	0.73	0.88	21.3
9	R2	All MCs	242	3.0	242	3.0	* 0.601	58.6	LOS E	14.9	107.3	0.95	0.83	0.95	17.0
Approach			343	3.0	343	3.0	0.601	51.3	LOS D	14.9	107.3	0.93	0.80	0.93	18.8
West: Wentland Ave (W)															
10	L2	All MCs	143	3.0	143	3.0	0.135	28.7	LOS C	4.3	30.8	0.48	0.70	0.48	31.0
11	T1	All MCs	782	3.0	782	3.0	* 0.597	48.8	LOS D	22.7	163.1	0.87	0.76	0.87	27.0
12	R2	All MCs	9	3.0	9	3.0	0.065	82.4	LOS F	0.6	4.3	0.95	0.67	0.95	12.0
Approach			935	3.0	935	3.0	0.597	46.1	LOS D	22.7	163.1	0.81	0.75	0.81	23.6
All Vehicles			1945	3.0	1945	3.0	0.601	44.6	LOS D	22.7	163.1	0.82	0.73	0.82	23.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Precinct 7 Access Rd												
P1	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

East: Wentland Ave (E)												
P2	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Town Centre Main St												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
West: Wentland Ave (W)												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All		200	211	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
Pedestrians												

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 **Site: LM [LM - Ult AM - Wentland Avenue / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Wentland Avenue / Town Centre Main Street / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int LM

Input Phase Sequence: A, D, E, F*, F1*, F2*

Output Phase Sequence: A, D, E, F*

Reference Phase: Phase A

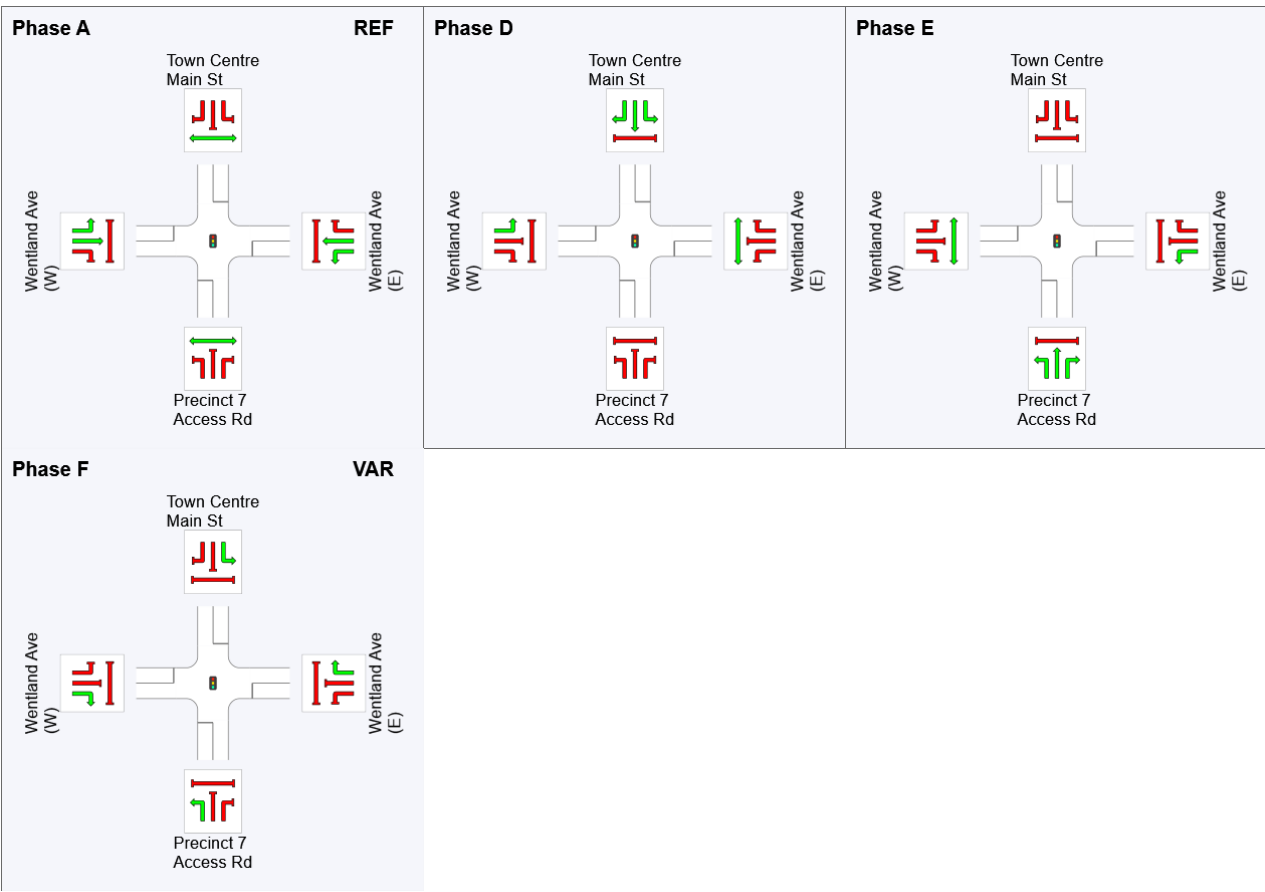
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	57	94	123
Green Time (sec)	51	31	23	11
Phase Time (sec)	57	37	29	17
Phase Split	41%	26%	21%	12%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

MOVEMENT SUMMARY

 Site: LM [LM - Ult PM - Wentland Avenue / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Wentland Avenue / Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh]	[Dist] m				km/h
South: Precinct 7 Access Rd															
1	L2	All MCs	65	3.0	65	3.0	0.632	58.5	LOS E	10.5	75.4	0.99	0.81	0.99	13.3
2	T1	All MCs	97	3.0	97	3.0	* 0.632	91.6	LOS F	10.5	75.4	0.99	0.81	0.99	13.8
3	R2	All MCs	47	3.0	47	3.0	0.157	75.5	LOS E	2.8	19.8	0.89	0.74	0.89	17.9
Approach			208	3.0	208	3.0	0.632	77.7	LOS E	10.5	75.4	0.97	0.79	0.97	12.3
East: Wentland Ave (E)															
4	L2	All MCs	43	3.0	43	3.0	0.082	34.7	LOS C	1.3	9.2	0.76	0.71	0.76	28.5
5	T1	All MCs	544	3.0	544	3.0	* 0.718	63.7	LOS E	17.9	128.7	0.99	0.85	1.01	21.4
6	R2	All MCs	294	3.0	294	3.0	* 0.714	63.2	LOS E	18.5	132.8	0.97	0.85	0.98	20.6
Approach			881	3.0	881	3.0	0.718	62.2	LOS E	18.5	132.8	0.97	0.84	0.99	19.9
North: Town Centre Main St															
7	L2	All MCs	21	3.0	21	3.0	0.286	21.6	LOS C	5.7	41.0	0.89	0.75	0.89	22.6
8	T1	All MCs	84	3.0	84	3.0	0.286	57.5	LOS E	5.7	41.0	0.89	0.75	0.89	16.3
9	R2	All MCs	276	3.0	276	3.0	* 0.733	63.1	LOS E	18.1	129.6	0.99	0.86	1.03	16.1
Approach			381	3.0	381	3.0	0.733	59.5	LOS E	18.1	129.6	0.97	0.83	0.99	16.5
West: Wentland Ave (W)															
10	L2	All MCs	130	3.0	130	3.0	0.172	34.9	LOS C	5.5	39.4	0.67	0.74	0.67	23.9
11	T1	All MCs	500	3.0	500	3.0	0.642	56.0	LOS E	16.0	114.8	0.97	0.82	0.97	21.9
12	R2	All MCs	21	3.0	21	3.0	0.047	47.9	LOS D	1.1	7.9	0.79	0.70	0.79	16.1
Approach			651	3.0	651	3.0	0.642	51.5	LOS D	16.0	114.8	0.90	0.80	0.90	21.7
All Vehicles			2122	3.0	2122	3.0	0.733	59.9	LOS E	18.5	132.8	0.95	0.82	0.96	19.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Precinct 7 Access Rd												
P1	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

East: Wentland Ave (E)												
P2	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Town Centre Main St												
P3	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
West: Wentland Ave (W)												
P4	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All		200	211	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
Pedestrians												

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 **Site: LM [LM - Ult PM - Wentland Avenue / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Wentland Avenue / Town Centre Main Street / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int LM

Input Phase Sequence: A, D, E, F*, F1*, F2*

Output Phase Sequence: A, D, E, F*

Reference Phase: Phase A

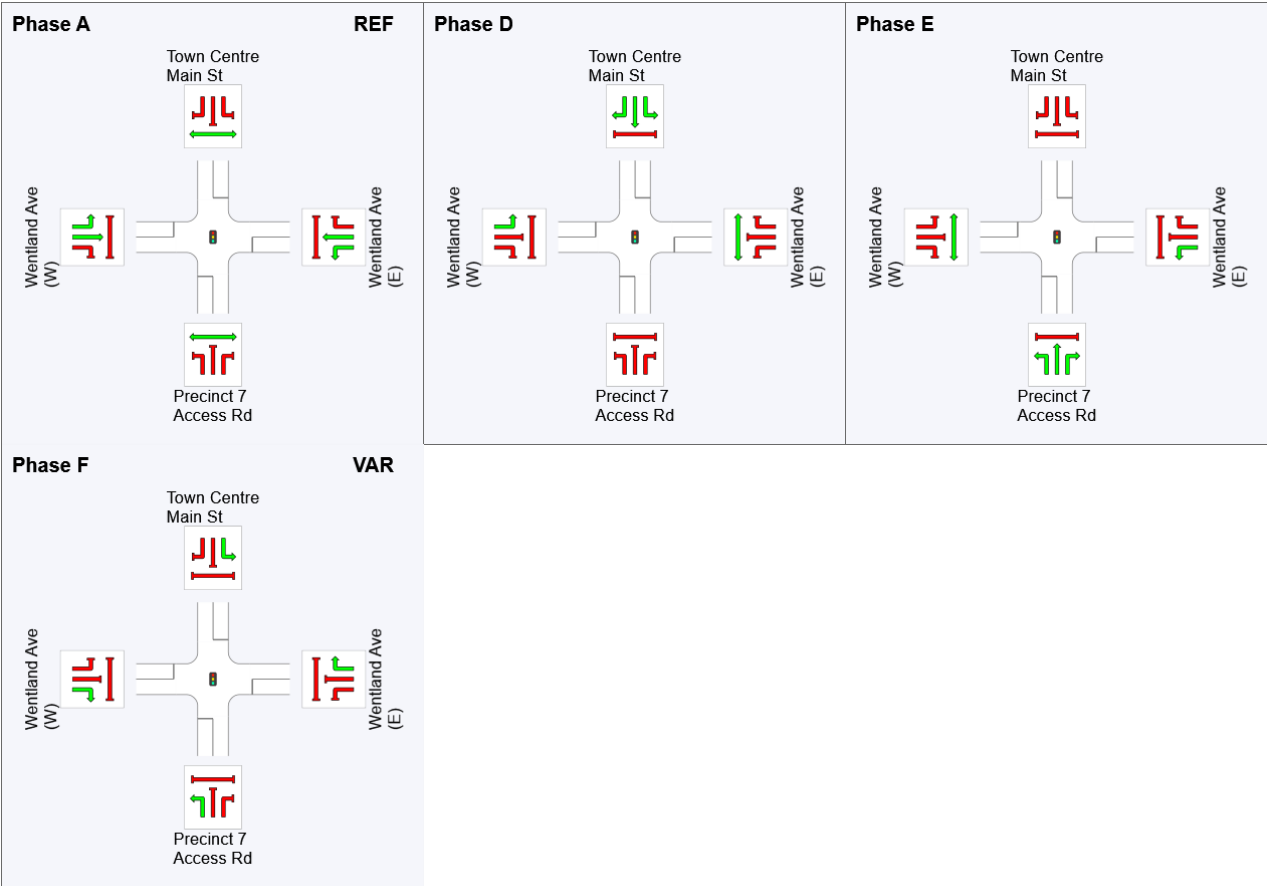
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	35	70	99
Green Time (sec)	29	29	23	35
Phase Time (sec)	35	35	29	41
Phase Split	25%	25%	21%	29%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

 Site: Y [Y - Ult AM - Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access (Site Folder: Ultimate)]

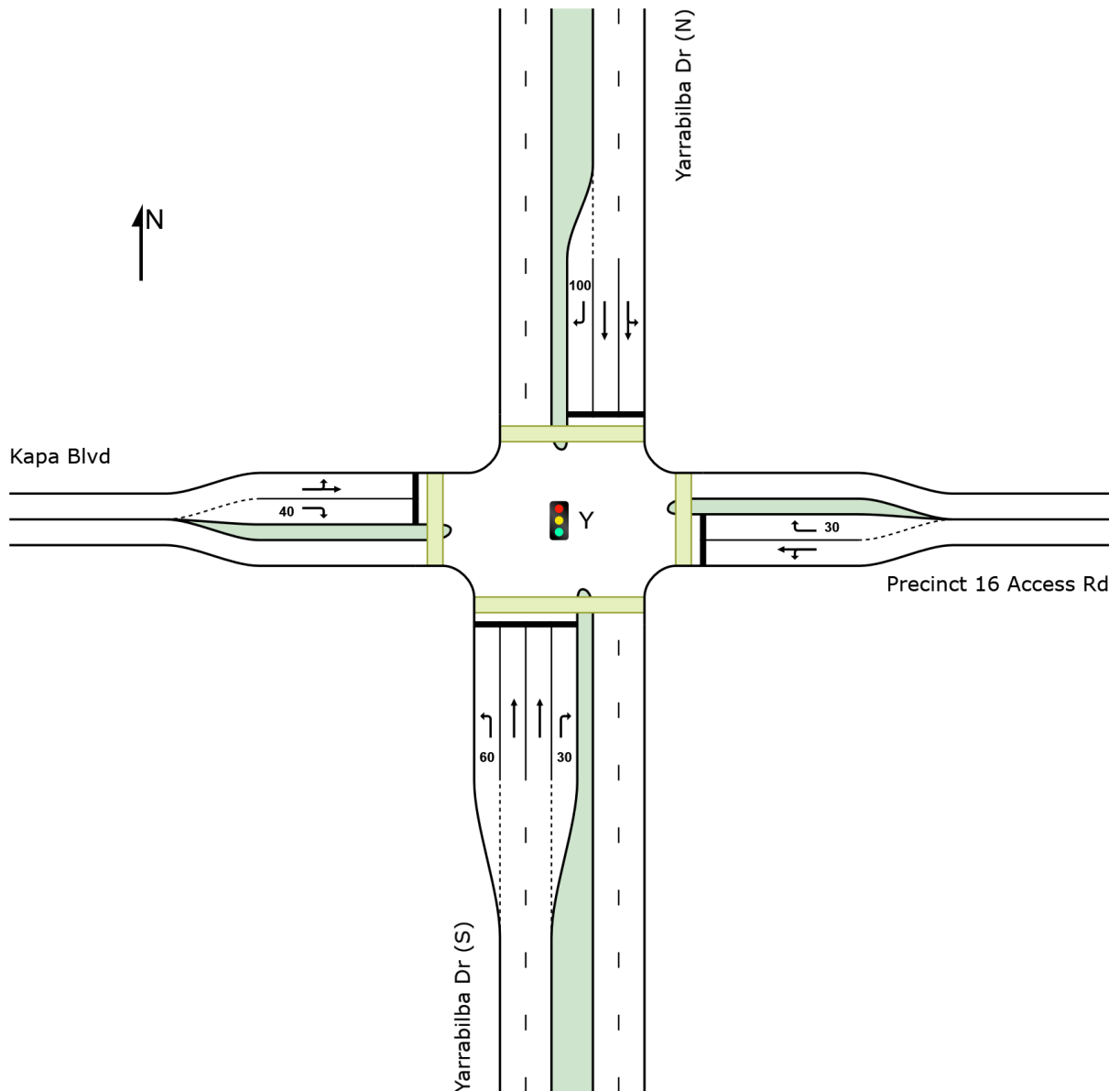
Intersection: Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

Site: Y [Y - Ult AM - Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access (Site Folder: Ultimate)]

Intersection: Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- * Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist]		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Yarrabilba Dr (S)												
P1	Full	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
East: Precinct 16 Access Rd												

P2 Full	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
North: Yarrabilba Dr (N)											
P3 Full	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
West: Kapa Blvd											
P4 Full	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
All Pedestrians	200	211	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 Site: Y [Y - Ult AM - Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E
Reference Phase: Phase B

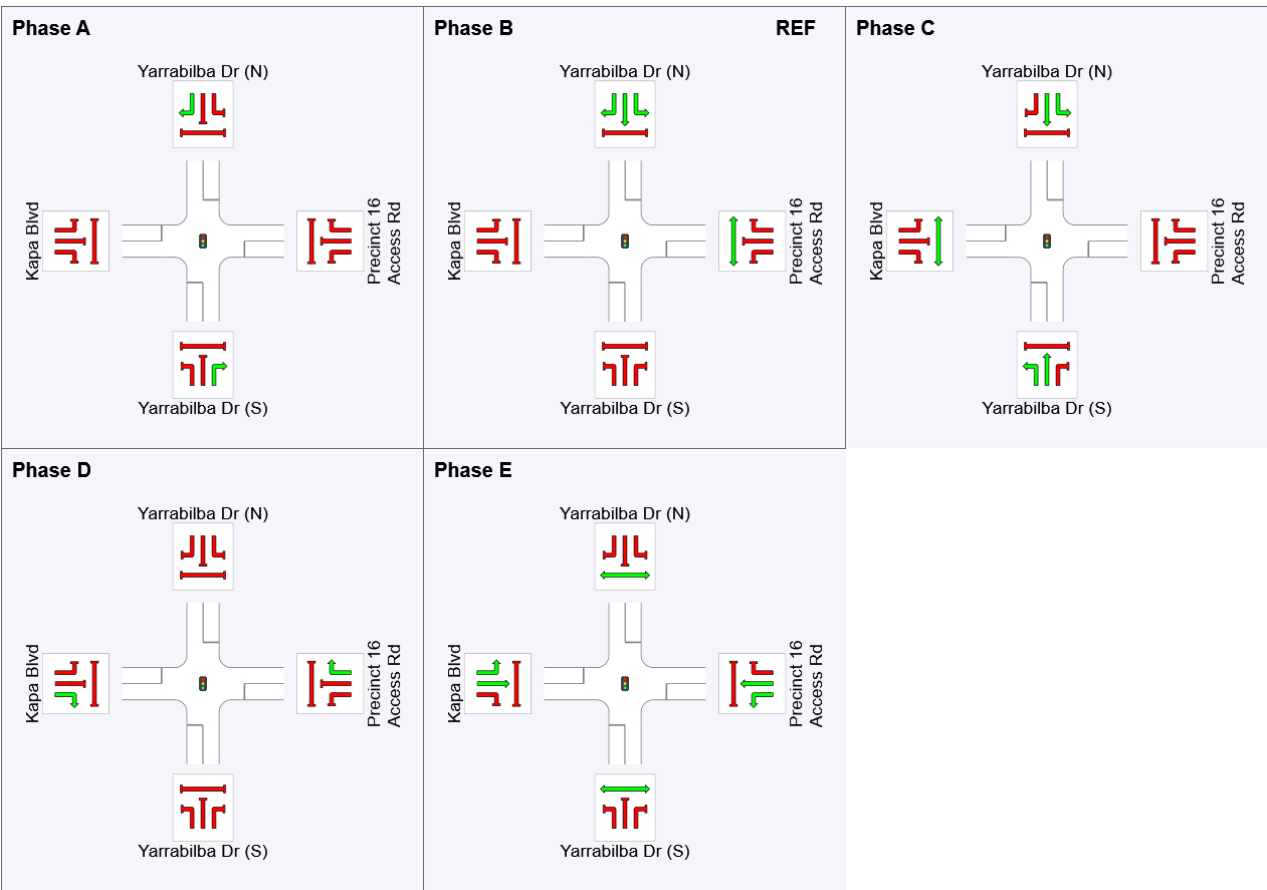
Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	108	0	25	61	75
Green Time (sec)	6	19	31	8	27
Phase Time (sec)	12	24	37	14	33
Phase Split	10%	20%	31%	12%	28%
Phase Frequency (%)	100.0	81.4 ³	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

Site: Y [Y - Ult PM - Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access (Site Folder: Ultimate)]

Intersection: Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- * Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist]		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		ped	m			sec	m	m/sec
South: Yarrabilba Dr (S)												
P1	Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
East: Precinct 16 Access Rd												

P2 Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Yarrabilba Dr (N)											
P3 Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
West: Kapa Blvd											
P4 Full	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All Pedestrians	200	211	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 Site: Y [Y - Ult PM - Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Yarrabilba Drive / Kapa Boulevard / Precinct 16 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Four-Phase Leading Right Turns

Input Phase Sequence: A, B, C, D, E

Output Phase Sequence: A, B, C, D, E

Reference Phase: Phase B

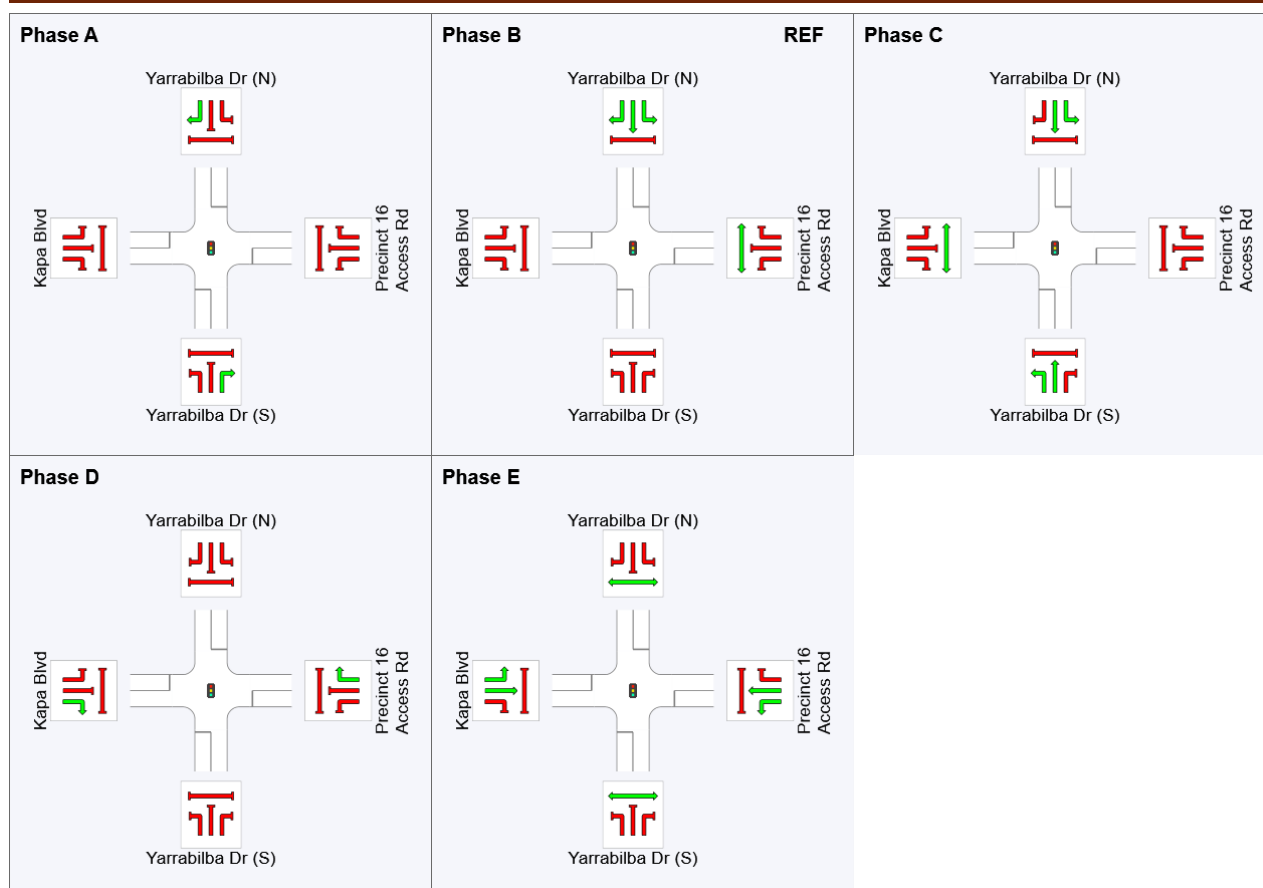
Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	123	0	26	76	88
Green Time (sec)	11	20	45	6	29
Phase Time (sec)	17	25	51	12	35
Phase Split	12%	18%	36%	9%	25%
Phase Frequency (%)	100.0	86.1 ³	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

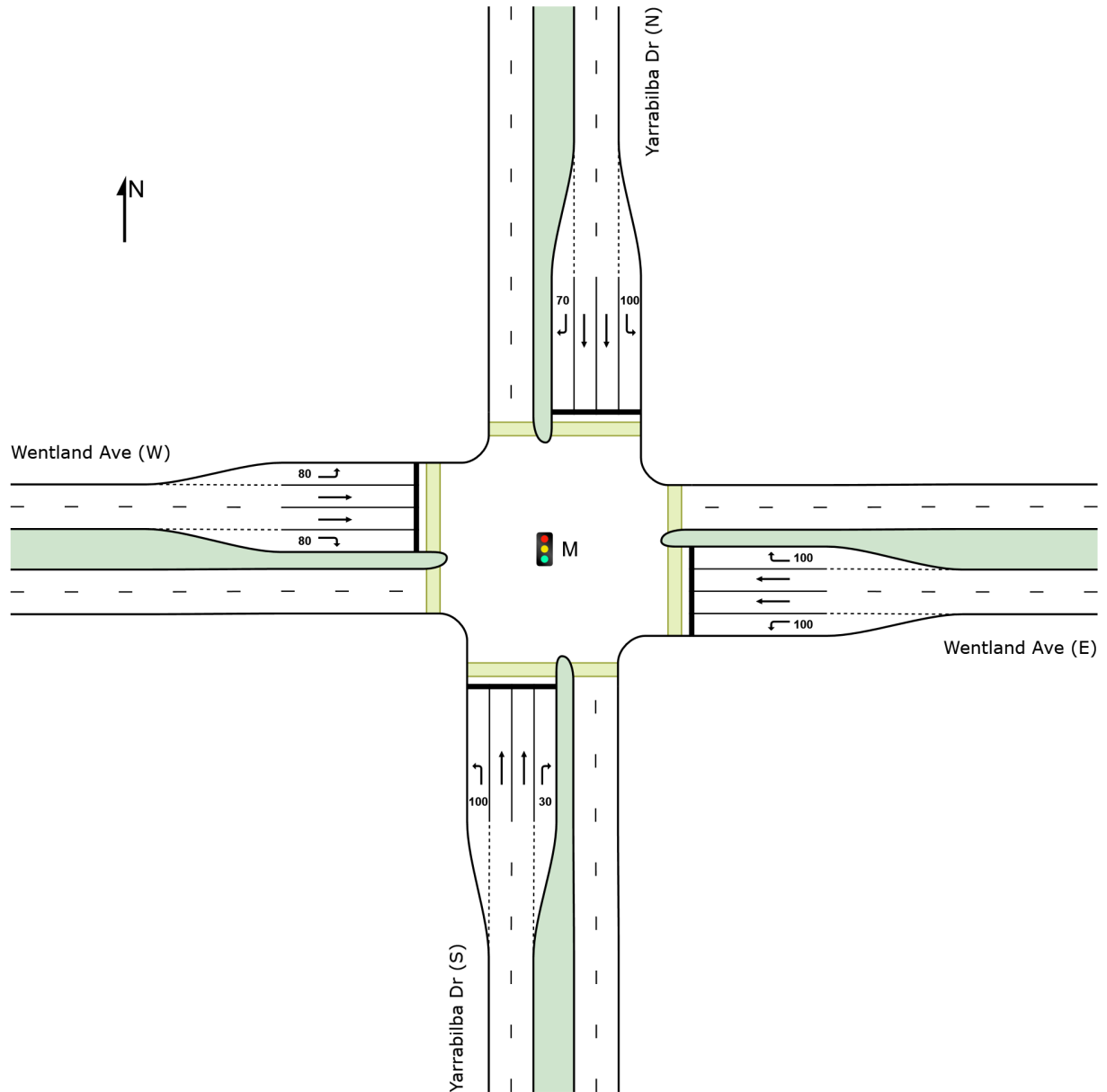
	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

 Site: M [M - Ult AM - Yarrabilba Drive / Wentland Avenue (Site Folder: Ultimate)]

Intersection: Yarrabilba Drive / Wentland Avenue
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

 Site: M [M - Ult AM - Yarrabilba Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Yarrabilba Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh]	[Dist m]				
			veh/h		veh/h		v/c	sec							km/h
South: Yarrabilba Dr (S)															
1	L2	All MCs	30	3.0	30	3.0	0.140	57.9	LOS E	1.6	11.4	0.93	0.72	0.93	22.2
2	T1	All MCs	205	3.0	205	3.0	* 0.459	54.9	LOS D	5.8	41.4	0.98	0.77	0.98	23.2
3	R2	All MCs	14	3.0	14	3.0	0.067	57.2	LOS E	0.8	5.4	0.92	0.69	0.92	28.3
Approach			249	3.0	249	3.0	0.459	55.4	LOS E	5.8	41.4	0.97	0.76	0.97	23.4
East: Wentland Ave (E)															
4	L2	All MCs	66	3.0	66	3.0	0.337	60.6	LOS E	3.7	26.7	0.97	0.76	0.97	27.1
5	T1	All MCs	250	3.0	250	3.0	0.224	34.5	LOS C	5.5	39.6	0.80	0.65	0.80	37.3
6	R2	All MCs	161	3.0	161	3.0	* 0.819	68.9	LOS E	10.2	73.0	1.00	0.94	1.22	26.0
Approach			477	3.0	477	3.0	0.819	49.8	LOS D	10.2	73.0	0.89	0.76	0.96	31.3
North: Yarrabilba Dr (N)															
7	L2	All MCs	85	3.0	85	3.0	0.255	51.3	LOS D	4.3	30.9	0.90	0.76	0.90	30.1
8	T1	All MCs	450	3.0	450	3.0	0.642	49.6	LOS D	12.4	89.0	0.98	0.81	0.98	24.6
9	R2	All MCs	276	3.0	276	3.0	* 0.827	62.8	LOS E	17.0	122.1	1.00	0.94	1.16	22.1
Approach			811	3.0	811	3.0	0.827	54.3	LOS D	17.0	122.1	0.98	0.85	1.03	24.4
West: Wentland Ave (W)															
10	L2	All MCs	299	3.0	299	3.0	* 0.788	58.0	LOS E	17.6	126.5	1.00	0.90	1.10	22.8
11	T1	All MCs	324	3.0	324	3.0	0.216	25.8	LOS C	6.2	44.7	0.70	0.58	0.70	41.3
12	R2	All MCs	222	3.0	222	3.0	0.587	52.4	LOS D	11.9	85.5	0.96	0.82	0.96	23.9
Approach			845	3.0	845	3.0	0.788	44.2	LOS D	17.6	126.5	0.87	0.76	0.91	29.5
All Vehicles			2381	3.0	2381	3.0	0.827	49.9	LOS D	17.6	126.5	0.92	0.79	0.97	27.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Yarrabilba Dr (S)												
P11	Stage 1	50	53	27.4	LOS C	0.1	0.1	0.90	0.90	181.2	200.0	1.10
P12	Stage 2	50	53	25.0	LOS C	0.1	0.1	0.90	0.90	178.9	200.0	1.12

East: Wentland Ave (E)											
P21 Stage 1	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
P22 Stage 2	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
North: Yarrabilba Dr (N)											
P31 Stage 1	50	53	25.0	LOS C	0.1	0.1	0.90	0.90	178.9	200.0	1.12
P32 Stage 2	50	53	27.4	LOS C	0.1	0.1	0.90	0.90	181.2	200.0	1.10
West: Wentland Ave (W)											
P41 Stage 1	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
P42 Stage 2	50	53	54.3	LOS E	0.2	0.2	0.95	0.95	208.1	200.0	0.96
All Pedestrians	400	421	40.2	LOS E	0.2	0.2	0.93	0.93	194.1	200.0	1.03

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

PHASING SUMMARY

Site: M [M - Ult AM - Yarrabilba Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Yarrabilba Drive / Wentland Avenue
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Int M
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E
Reference Phase: Phase A

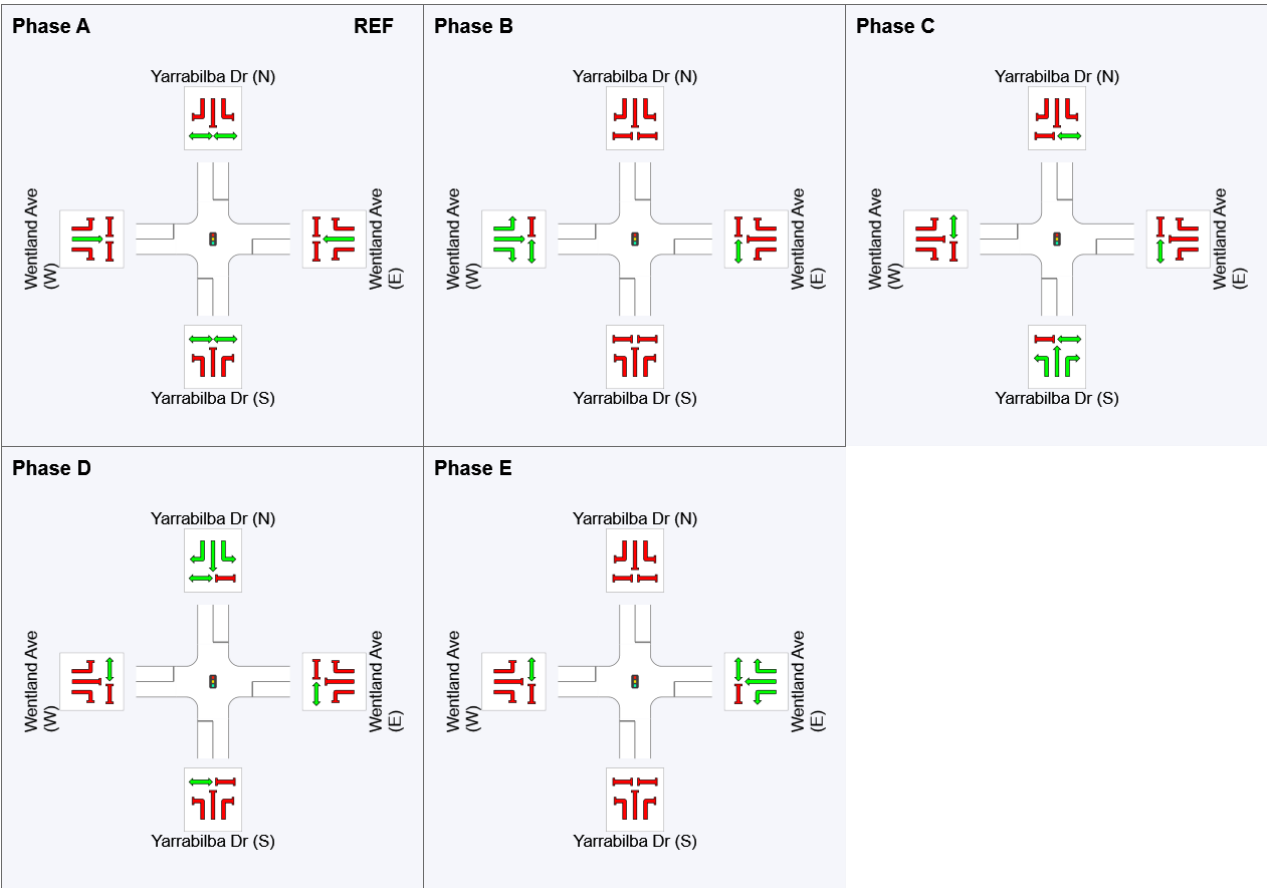
Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	0	22	53	73	101
Green Time (sec)	16	25	14	22	13
Phase Time (sec)	22	31	20	28	19
Phase Split	18%	26%	17%	23%	16%
Phase Frequency (%)	94.6 ³	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

MOVEMENT SUMMARY

 Site: M [M - Ult PM - Yarrabilba Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Yarrabilba Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Yarrabilba Dr (S)															
1	L2	All MCs	272	3.0	272	3.0	0.675	59.6	LOS E	17.1	122.7	0.97	0.84	0.97	21.9
2	T1	All MCs	598	3.0	598	3.0	* 0.749	70.3	LOS E	20.7	148.6	0.99	0.87	1.03	22.8
3	R2	All MCs	59	3.0	59	3.0	0.147	82.2	LOS F	3.3	23.3	0.84	0.74	0.84	29.5
Approach			929	3.0	929	3.0	0.749	67.9	LOS E	20.7	148.6	0.98	0.86	1.00	20.6
East: Wentland Ave (E)															
4	L2	All MCs	27	3.0	27	3.0	0.092	59.0	LOS E	1.6	11.4	0.88	0.72	0.88	27.5
5	T1	All MCs	408	3.0	408	3.0	0.332	38.4	LOS D	10.5	75.3	0.81	0.68	0.81	35.8
6	R2	All MCs	217	3.0	217	3.0	* 0.727	67.8	LOS E	14.6	104.7	1.00	0.86	1.05	26.3
Approach			653	3.0	653	3.0	0.727	49.1	LOS D	14.6	104.7	0.87	0.74	0.89	31.7
North: Yarrabilba Dr (N)															
7	L2	All MCs	39	3.0	39	3.0	0.136	60.5	LOS E	2.3	16.5	0.90	0.73	0.90	27.7
8	T1	All MCs	113	3.0	113	3.0	0.188	55.5	LOS E	3.4	24.2	0.91	0.69	0.91	23.0
9	R2	All MCs	205	3.0	205	3.0	* 0.718	68.3	LOS E	13.8	98.9	1.00	0.85	1.05	21.0
Approach			357	3.0	357	3.0	0.718	63.4	LOS E	13.8	98.9	0.96	0.79	0.99	22.4
West: Wentland Ave (W)															
10	L2	All MCs	147	3.0	147	3.0	0.283	27.4	LOS C	4.6	32.7	0.82	0.77	0.82	33.1
11	T1	All MCs	133	3.0	133	3.0	0.122	39.3	LOS D	3.3	23.8	0.78	0.61	0.78	35.5
12	R2	All MCs	170	3.0	170	3.0	* 0.729	72.0	LOS E	11.7	84.1	1.00	0.86	1.07	19.6
Approach			450	3.0	450	3.0	0.729	47.8	LOS D	11.7	84.1	0.87	0.76	0.90	27.7
All Vehicles			2389	3.0	2389	3.0	0.749	58.3	LOS E	20.7	148.6	0.93	0.80	0.95	25.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped]	[Dist m]			sec	m	m/sec
South: Yarrabilba Dr (S)												
P11 Stage 1		50	53	31.9	LOS D	0.1	0.1	0.92	0.92	185.8	200.0	1.08
P12 Stage 2		50	53	29.9	LOS C	0.1	0.1	0.92	0.92	183.7	200.0	1.09

East: Wentland Ave (E)											
P21 Stage 1	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
P22 Stage 2	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
North: Yarrabilba Dr (N)											
P31 Stage 1	50	53	29.9	LOS C	0.1	0.1	0.92	0.92	183.7	200.0	1.09
P32 Stage 2	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
West: Wentland Ave (W)											
P41 Stage 1	50	53	30.5	LOS D	0.1	0.1	0.92	0.92	184.4	200.0	1.08
P42 Stage 2	50	53	64.3	LOS F	0.2	0.2	0.96	0.96	218.1	200.0	0.92
All Pedestrians	400	421	47.4	LOS E	0.2	0.2	0.94	0.94	201.3	200.0	0.99

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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PHASING SUMMARY

 Site: M [M - Ult PM - Yarrabilba Drive / Wentland Avenue (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Yarrabilba Drive / Wentland Avenue

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int M

Input Phase Sequence: A, B, C, D, E

Output Phase Sequence: A, B, C, D, E

Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	0	22	46	83	111
Green Time (sec)	16	18	31	22	23
Phase Time (sec)	22	24	37	28	29
Phase Split	16%	17%	26%	20%	21%
Phase Frequency (%)	99.2 ³	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

 Site: KY [KY - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

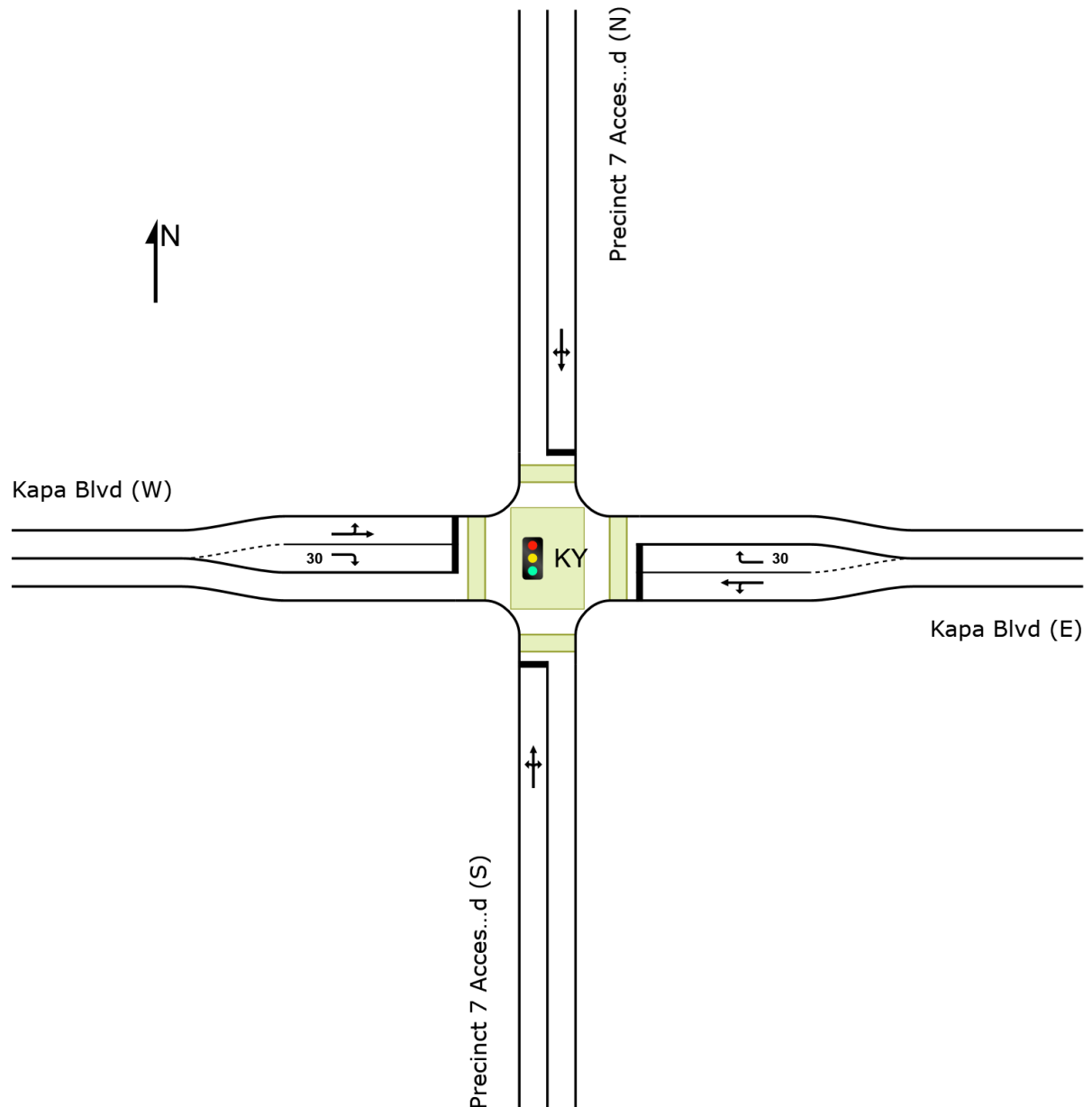
Intersection: Kapa Boulevard / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

**Site: KY [KY - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]**

Intersection: Kapa Boulevard / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- * Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Precinct 7 Access Rd (S)												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: Kapa Blvd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Precinct 7 Access Rd (N)											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: Kapa Blvd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
Pedestrian Movements (Diagonal)											
PD Diagonal	50	53	29.3	LOS C	0.0	0.0	0.92	0.92	183.2	200.0	1.09
All Pedestrians	250	263	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

PHASING SUMMARY

 Site: KY [KY - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int KY

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Reference Phase: Phase A

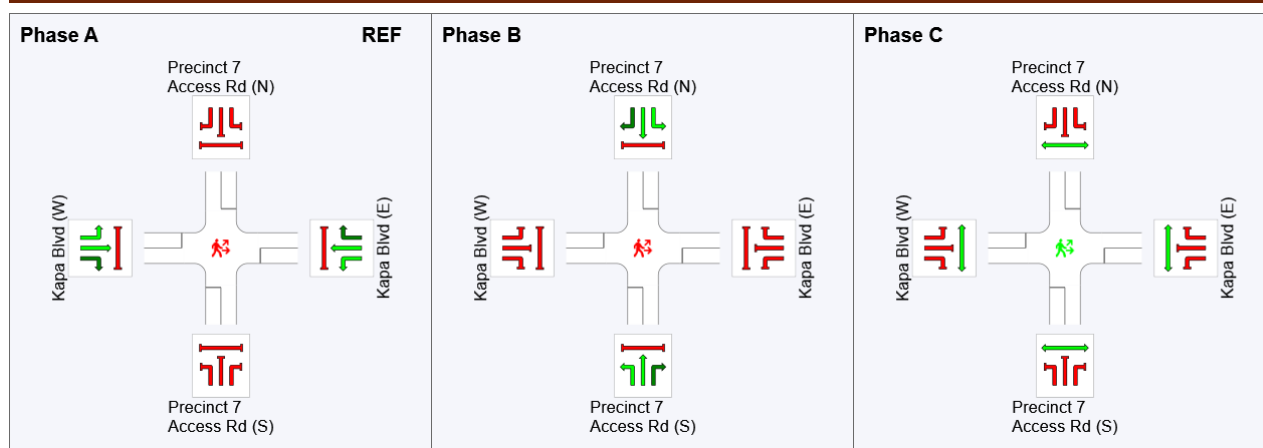
Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	25	46
Green Time (sec)	19	15	18
Phase Time (sec)	25	21	24
Phase Split	36%	30%	34%
Phase Frequency (%)	100.0	100.0	99.1 ³

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town
Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Precinct 7 Access Rd (S)												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: Kapa Blvd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Precinct 7 Access Rd (N)											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: Kapa Blvd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
Pedestrian Movements (Diagonal)											
PD Diagonal	50	53	29.3	LOS C	0.0	0.0	0.92	0.92	183.2	200.0	1.09
All Pedestrians	250	263	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

PHASING SUMMARY

 Site: KY [KY - Ult PM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int KY

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Reference Phase: Phase A

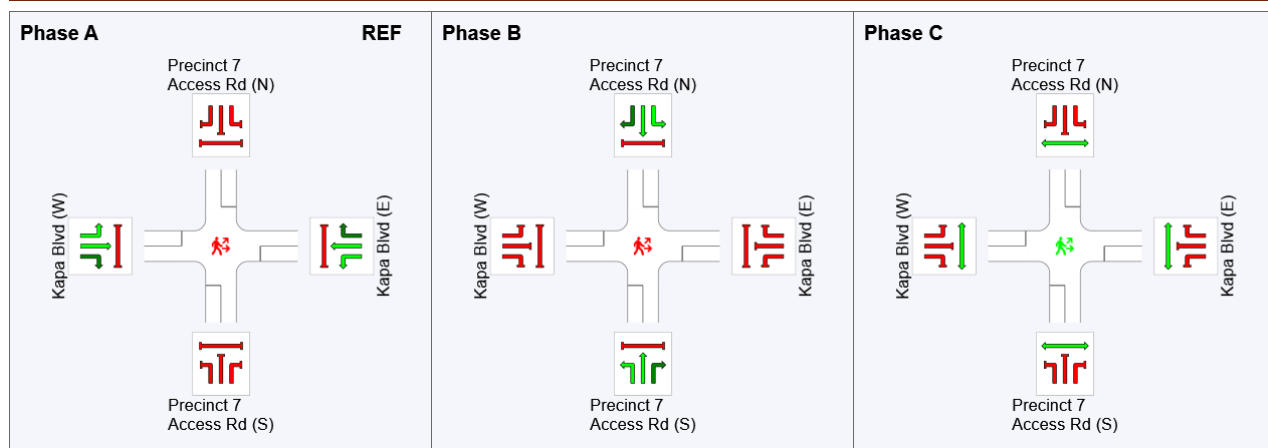
Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	30	46
Green Time (sec)	24	10	18
Phase Time (sec)	30	16	24
Phase Split	43%	23%	34%
Phase Frequency (%)	100.0	100.0	99.1 ³

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

SITE LAYOUT

 **Site: YK [YK - Ult AM - Kapa Boulevard / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]**

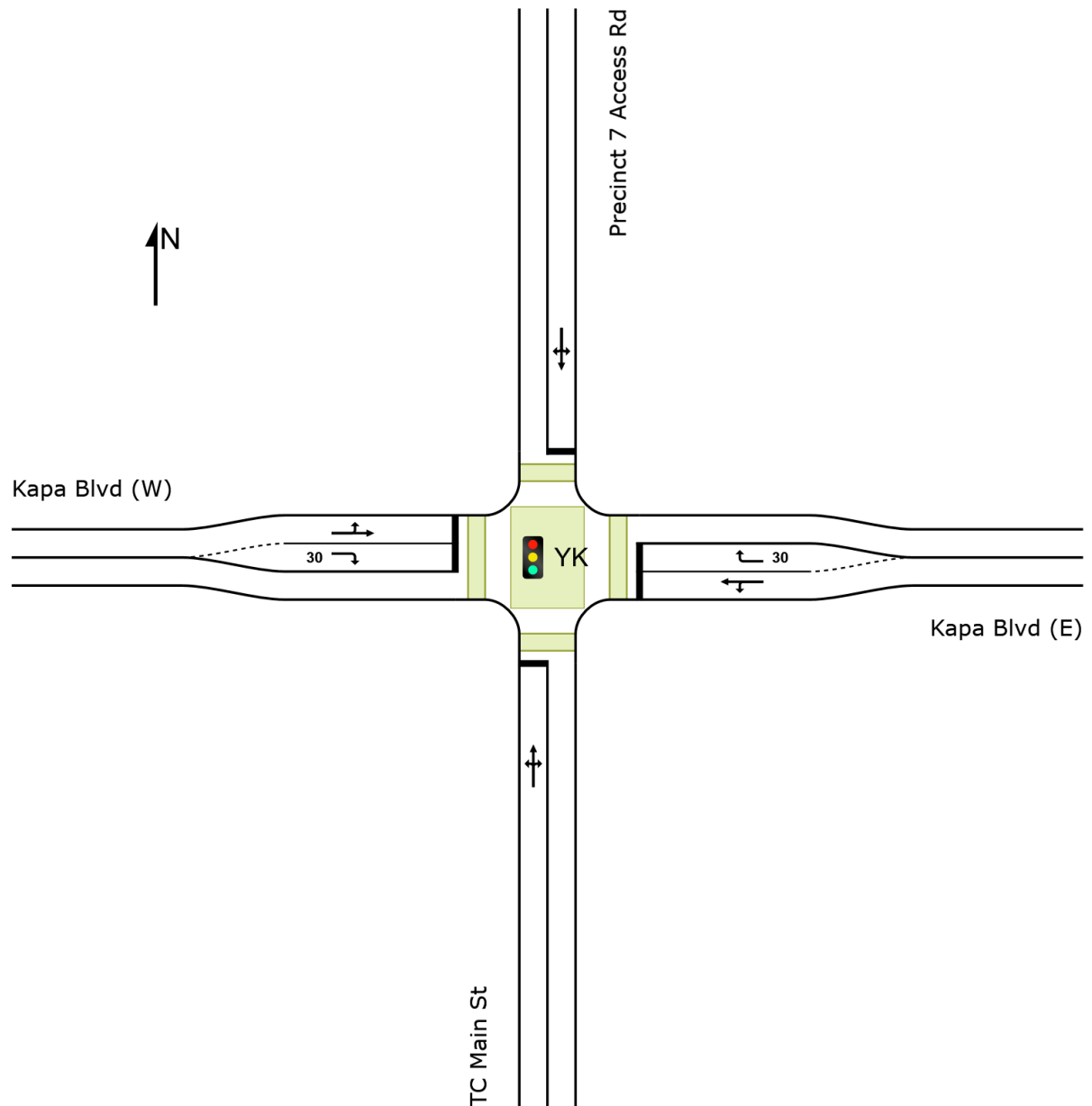
Intersection: Kapa Boulevard / Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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Site: YK [YK - Ult AM - Kapa Boulevard / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Intersection: Kapa Boulevard / Town Centre Main Street / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: TC Main St												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: Kapa Blvd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Precinct 7 Access Rd											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: Kapa Blvd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
Pedestrian Movements (Diagonal)											
PD Diagonal	50	53	29.3	LOS C	0.0	0.0	0.92	0.92	183.2	200.0	1.09
All Pedestrians	250	263	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

PHASING SUMMARY

Site: YK [YK - Ult AM - Kapa Boulevard / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int YK

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Reference Phase: Phase A

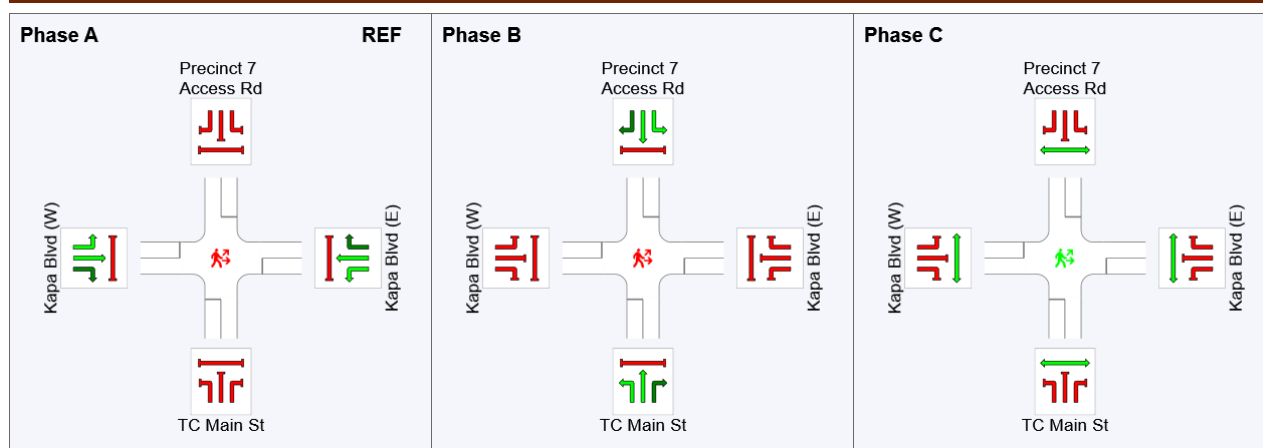
Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	31	46
Green Time (sec)	25	9	18
Phase Time (sec)	31	15	24
Phase Split	44%	21%	34%
Phase Frequency (%)	100.0	100.0	99.1 ³

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

Site: YK [YK - Ult PM - Kapa Boulevard / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Intersection: Kapa Boulevard / Town Centre Main Street / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: TC Main St												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: Kapa Blvd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Precinct 7 Access Rd											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: Kapa Blvd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
Pedestrian Movements (Diagonal)											
PD Diagonal	50	53	29.3	LOS C	0.0	0.0	0.92	0.92	183.2	200.0	1.09
All Pedestrians	250	263	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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PHASING SUMMARY

Site: YK [YK - Ult PM - Kapa Boulevard / Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int YK

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Reference Phase: Phase A

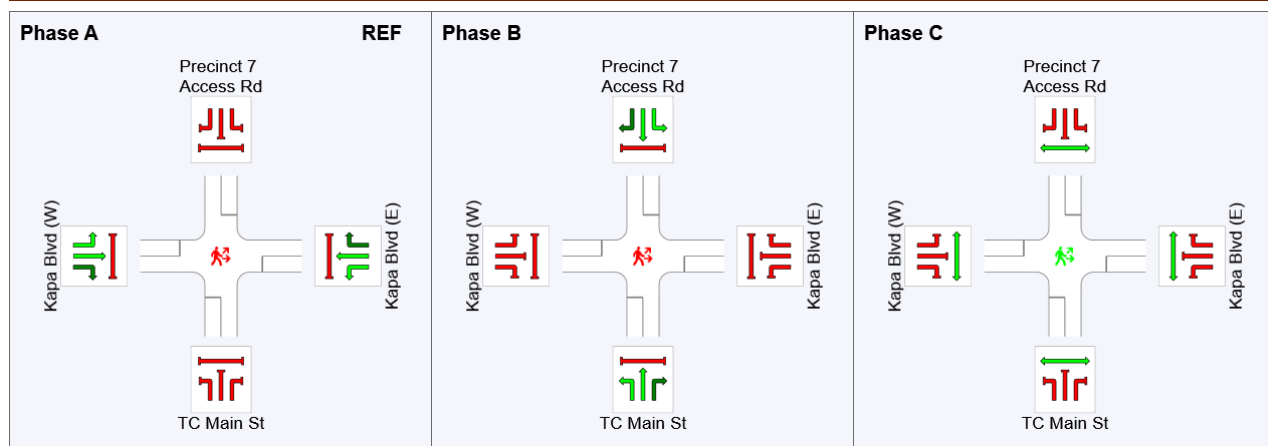
Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	29	46
Green Time (sec)	23	11	18
Phase Time (sec)	29	17	24
Phase Split	41%	24%	34%
Phase Frequency (%)	100.0	100.0	99.1 ³

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

SITE LAYOUT

▽ Site: KYK [KYK - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

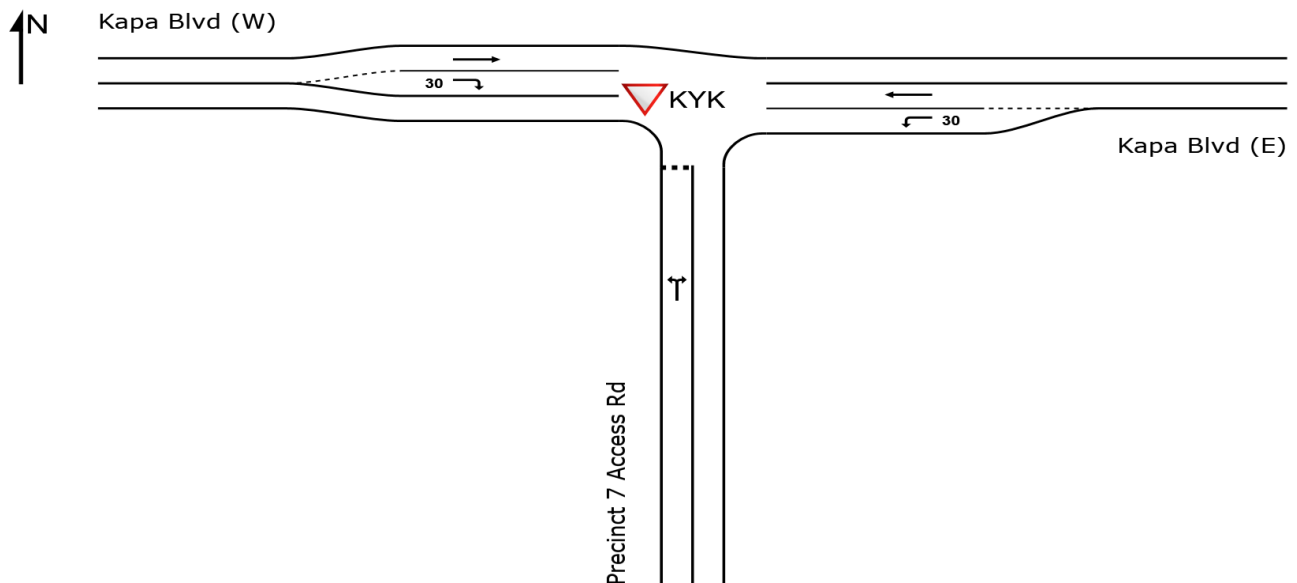
Intersection: Kapa Boulevard / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

Site: KYK [KYK - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Precinct 7 Access Rd															
1	L2	All MCs	35	3.0	35	3.0	0.060	5.5	LOS A	0.2	1.7	0.35	0.56	0.35	35.3
3	R2	All MCs	21	3.0	21	3.0	0.060	6.5	LOS A	0.2	1.7	0.35	0.56	0.35	39.2
Approach			56	3.0	56	3.0	0.060	5.9	LOS A	0.2	1.7	0.35	0.56	0.35	37.1
East: Kapa Blvd (E)															
4	L2	All MCs	0	3.0	0	3.0	0.000	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	40.9
5	T1	All MCs	227	3.0	227	3.0	0.119	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			227	3.0	227	3.0	0.119	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Kapa Blvd (W)															
11	T1	All MCs	38	3.0	38	3.0	0.020	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
12	R2	All MCs	21	3.0	21	3.0	0.018	5.5	LOS A	0.1	0.5	0.24	0.55	0.24	35.4
Approach			59	3.0	59	3.0	0.020	2.0	NA	0.1	0.5	0.09	0.20	0.09	44.2
All Vehicles			342	3.0	342	3.0	0.119	1.3	NA	0.2	1.7	0.07	0.13	0.07	46.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: KYK [KYK - Ult PM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
			veh/h		veh/h		v/c	sec							km/h
South: Precinct 7 Access Rd															
1	L2	All MCs	32	3.0	32	3.0	0.108	5.7	LOS A	0.4	3.1	0.46	0.64	0.46	33.7
3	R2	All MCs	48	3.0	48	3.0	0.108	8.3	LOS A	0.4	3.1	0.46	0.64	0.46	37.9
Approach			80	3.0	80	3.0	0.108	7.3	LOS A	0.4	3.1	0.46	0.64	0.46	36.5
East: Kapa Blvd (E)															
4	L2	All MCs	3	3.0	3	3.0	0.002	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	40.9
5	T1	All MCs	256	3.0	256	3.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			259	3.0	259	3.0	0.134	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.8
West: Kapa Blvd (W)															
11	T1	All MCs	208	3.0	208	3.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
12	R2	All MCs	21	3.0	21	3.0	0.019	5.6	LOS A	0.1	0.5	0.26	0.55	0.26	35.2
Approach			229	3.0	229	3.0	0.109	0.5	NA	0.1	0.5	0.02	0.05	0.02	48.4
All Vehicles			568	3.0	568	3.0	0.134	1.3	NA	0.4	3.1	0.07	0.11	0.07	46.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▽ Site: YKY [YKY - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

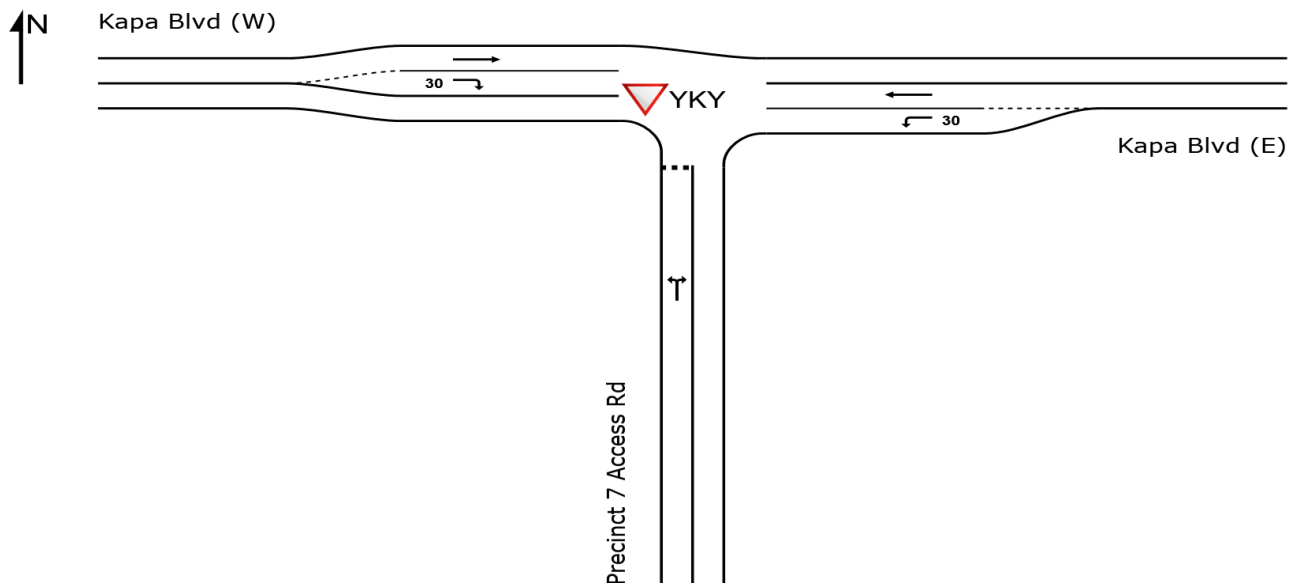
Intersection: Kapa Boulevard / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Give-Way (Two-Way)

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

▼ Site: YKY [YKY - Ult AM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Precinct 7 Access Rd															
1	L2	All MCs	32	3.0	32	3.0	0.042	4.9	LOS A	0.2	1.2	0.20	0.50	0.20	41.5
3	R2	All MCs	12	3.0	12	3.0	0.042	6.7	LOS A	0.2	1.2	0.20	0.50	0.20	41.3
Approach			44	3.0	44	3.0	0.042	5.3	LOS A	0.2	1.2	0.20	0.50	0.20	41.5
East: Kapa Blvd (E)															
4	L2	All MCs	205	3.0	205	3.0	0.113	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	42.3
5	T1	All MCs	73	3.0	73	3.0	0.038	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			278	3.0	278	3.0	0.113	3.4	NA	0.0	0.0	0.00	0.39	0.00	44.1
West: Kapa Blvd (W)															
11	T1	All MCs	75	3.0	75	3.0	0.039	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
12	R2	All MCs	69	3.0	69	3.0	0.063	5.7	LOS A	0.2	1.7	0.30	0.58	0.30	40.8
Approach			144	3.0	144	3.0	0.063	2.7	NA	0.2	1.7	0.15	0.28	0.15	45.2
All Vehicles			467	3.0	467	3.0	0.113	3.4	NA	0.2	1.7	0.06	0.36	0.06	44.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: YKY [YKY - Ult PM - Kapa Boulevard / Precinct 7 Access
(Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Kapa Boulevard / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Precinct 7 Access Rd															
1	L2	All MCs	195	3.0	195	3.0	0.285	5.2	LOS A	1.4	9.8	0.35	0.54	0.35	40.7
3	R2	All MCs	77	3.0	77	3.0	0.285	8.8	LOS A	1.4	9.8	0.35	0.54	0.35	40.5
Approach			272	3.0	272	3.0	0.285	6.3	LOS A	1.4	9.8	0.35	0.54	0.35	40.6
East: Kapa Blvd (E)															
4	L2	All MCs	272	3.0	272	3.0	0.150	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	42.3
5	T1	All MCs	124	3.0	124	3.0	0.065	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			396	3.0	396	3.0	0.150	3.2	NA	0.0	0.0	0.00	0.36	0.00	44.5
West: Kapa Blvd (W)															
11	T1	All MCs	138	3.0	138	3.0	0.072	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
12	R2	All MCs	52	3.0	52	3.0	0.054	6.3	LOS A	0.2	1.4	0.36	0.61	0.36	40.3
Approach			190	3.0	190	3.0	0.072	1.7	NA	0.2	1.4	0.10	0.17	0.10	46.9
All Vehicles			858	3.0	858	3.0	0.285	3.8	NA	1.4	9.8	0.13	0.38	0.13	43.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▼ Site: KM [KM - Ult AM - Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

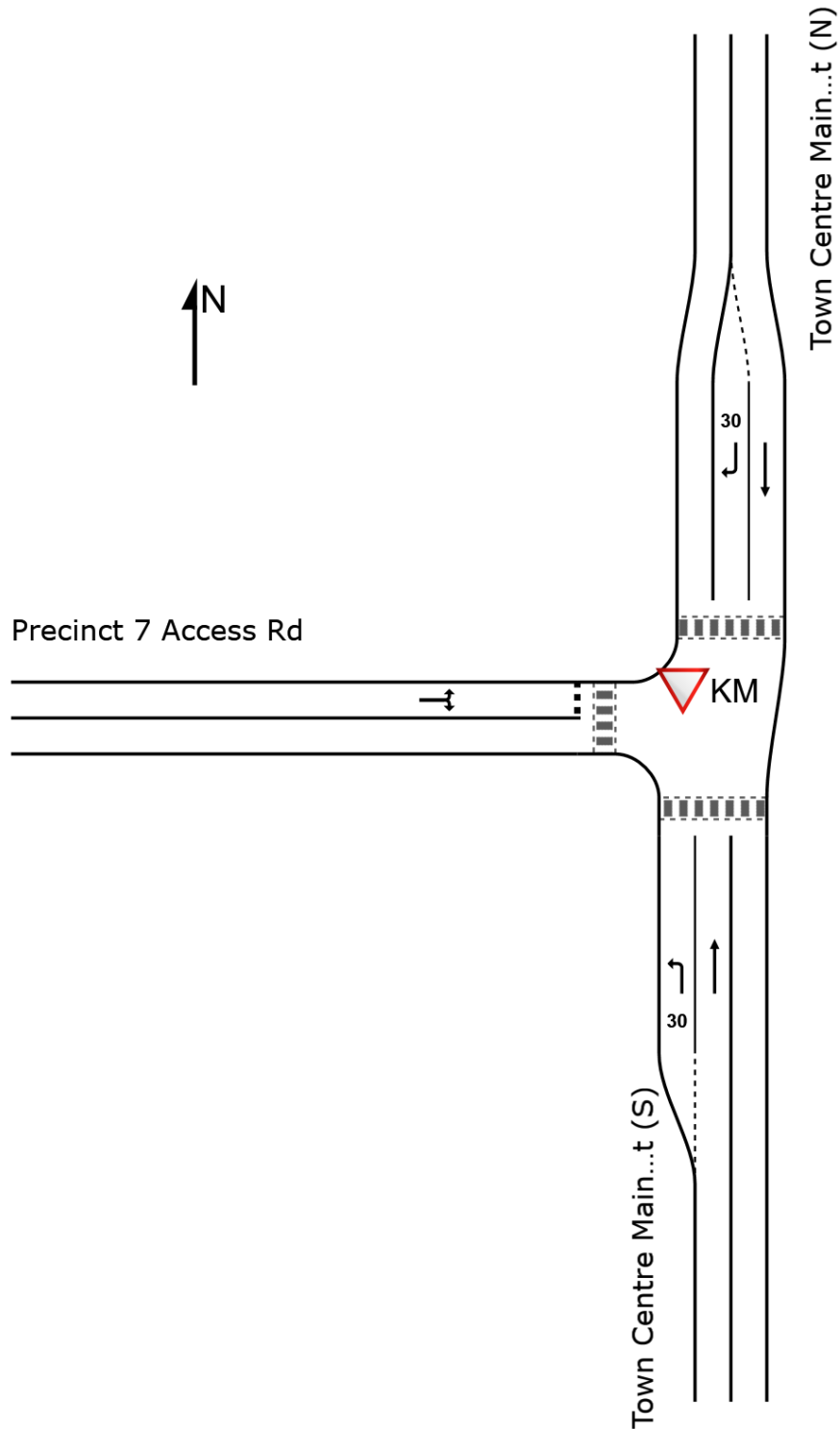
Intersection: Town Centre Main Street / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Give-Way (Two-Way)

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town
Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

▼ Site: KM [KM - Ult AM - Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Town Centre Main Street / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Town Centre Main St (S)															
1	L2	All MCs	105	3.0	105	3.0	0.058	3.4	LOS A	0.0	0.0	0.00	0.45	0.00	35.7
2	T1	All MCs	82	3.0	82	3.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			187	3.0	187	3.0	0.058	1.9	NA	0.0	0.0	0.00	0.26	0.00	37.3
North: Town Centre Main St (N)															
8	T1	All MCs	145	3.0	145	3.0	0.076	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
9	R2	All MCs	148	3.0	148	3.0	0.122	4.3	LOS A	0.5	3.3	0.23	0.51	0.23	34.2
Approach			293	3.0	293	3.0	0.122	2.2	NA	0.5	3.3	0.12	0.26	0.12	36.8
West: Precinct 7 Access Rd															
10	L2	All MCs	23	3.0	23	3.0	0.097	3.7	LOS A	0.4	2.8	0.35	0.50	0.35	33.5
12	R2	All MCs	53	3.0	53	3.0	0.097	6.5	LOS A	0.4	2.8	0.35	0.50	0.35	33.8
Approach			76	3.0	76	3.0	0.097	5.6	LOS A	0.4	2.8	0.35	0.50	0.35	33.7
All Vehicles			556	3.0	556	3.0	0.122	2.6	NA	0.5	3.3	0.11	0.29	0.11	36.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: KM [KM - Ult PM - Town Centre Main Street / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Town Centre Main Street / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Town Centre Main St (S)															
1	L2	All MCs	315	3.0	315	3.0	0.173	3.4	LOS A	0.0	0.0	0.00	0.45	0.00	35.7
2	T1	All MCs	201	3.0	201	3.0	0.105	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			516	3.0	516	3.0	0.173	2.1	NA	0.0	0.0	0.00	0.28	0.00	37.1
North: Town Centre Main St (N)															
8	T1	All MCs	113	3.0	113	3.0	0.059	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
9	R2	All MCs	180	3.0	180	3.0	0.205	6.2	LOS A	0.8	5.5	0.43	0.65	0.43	32.8
Approach			293	3.0	293	3.0	0.205	3.8	NA	0.8	5.5	0.27	0.40	0.27	35.1
West: Precinct 7 Access Rd															
10	L2	All MCs	78	3.0	78	3.0	0.205	4.4	LOS A	0.9	6.3	0.48	0.58	0.48	32.6
12	R2	All MCs	69	3.0	69	3.0	0.205	9.3	LOS A	0.9	6.3	0.48	0.58	0.48	33.0
Approach			147	3.0	147	3.0	0.205	6.7	LOS A	0.9	6.3	0.48	0.58	0.48	32.8
All Vehicles			956	3.0	956	3.0	0.205	3.3	NA	0.9	6.3	0.16	0.36	0.16	35.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▽ Site: LLM [LLM - Ult AM - Wentland Avenue / Precinct 7
Access (Site Folder: Ultimate)]

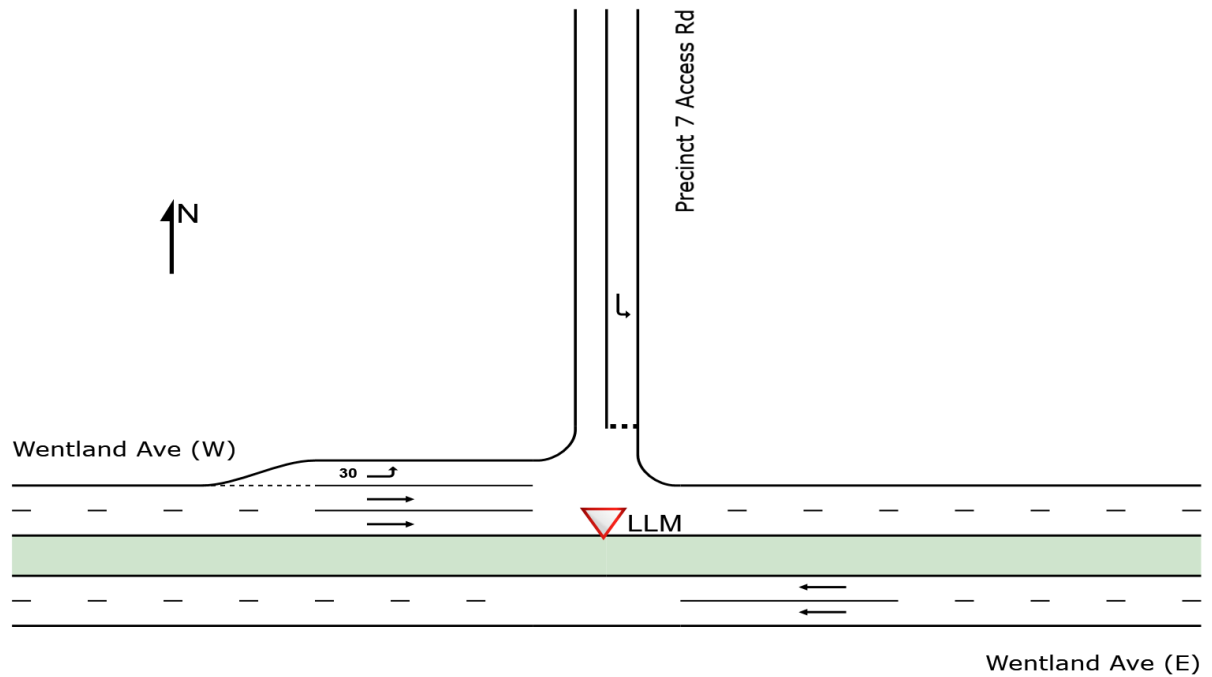
Intersection: Wentland Avenue / Precinct 7 Access

Prepared by: JH

Site Category: Ultimate Layout

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Town Centre\2025 09 23 - SLR - Town Centre RAL1 TIA\Analysis\SIDRA\620.11743 SIDRA v0.4 20260127.sip9

MOVEMENT SUMMARY

Site: LLM [LLM - Ult AM - Wentland Avenue / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Wentland Avenue / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Wentland Ave (E)															
5	T1	All MCs	553	3.0	553	3.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			553	3.0	553	3.0	0.145	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
North: Precinct 7 Access Rd															
7	L2	All MCs	109	3.0	109	3.0	0.118	7.4	LOS A	0.5	3.5	0.43	0.64	0.43	40.8
Approach			109	3.0	109	3.0	0.118	7.4	LOS A	0.5	3.5	0.43	0.64	0.43	40.8
West: Wentland Ave (W)															
10	L2	All MCs	134	3.0	134	3.0	0.074	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	43.1
11	T1	All MCs	735	3.0	735	3.0	0.192	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			869	3.0	869	3.0	0.192	0.9	NA	0.0	0.0	0.00	0.09	0.00	48.8
All Vehicles			1531	3.0	1531	3.0	0.192	1.0	NA	0.5	3.5	0.03	0.10	0.03	48.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

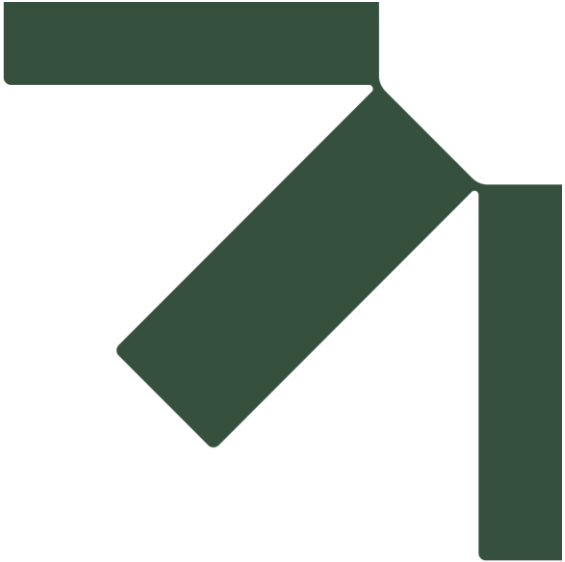
Site: LLM [LLM - Ult PM - Wentland Avenue / Precinct 7 Access (Site Folder: Ultimate)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Wentland Avenue / Precinct 7 Access
Prepared by: JH
Site Category: Ultimate Layout
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Wentland Ave (E)															
5	T1	All MCs	881	3.0	881	3.0	0.230	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			881	3.0	881	3.0	0.230	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
North: Precinct 7 Access Rd															
7	L2	All MCs	192	3.0	192	3.0	0.164	6.2	LOS A	0.7	5.3	0.25	0.56	0.25	41.8
Approach			192	3.0	192	3.0	0.164	6.2	LOS A	0.7	5.3	0.25	0.56	0.25	41.8
West: Wentland Ave (W)															
10	L2	All MCs	309	3.0	309	3.0	0.170	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	43.1
11	T1	All MCs	258	3.0	258	3.0	0.067	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			567	3.0	567	3.0	0.170	3.0	NA	0.0	0.0	0.00	0.31	0.00	46.1
All Vehicles			1640	3.0	1640	3.0	0.230	1.8	NA	0.7	5.3	0.03	0.17	0.03	47.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



Appendix G Turn Warrant Assessments

Yarrabilba, Town Centre RAL1

Traffic Impact Assessment

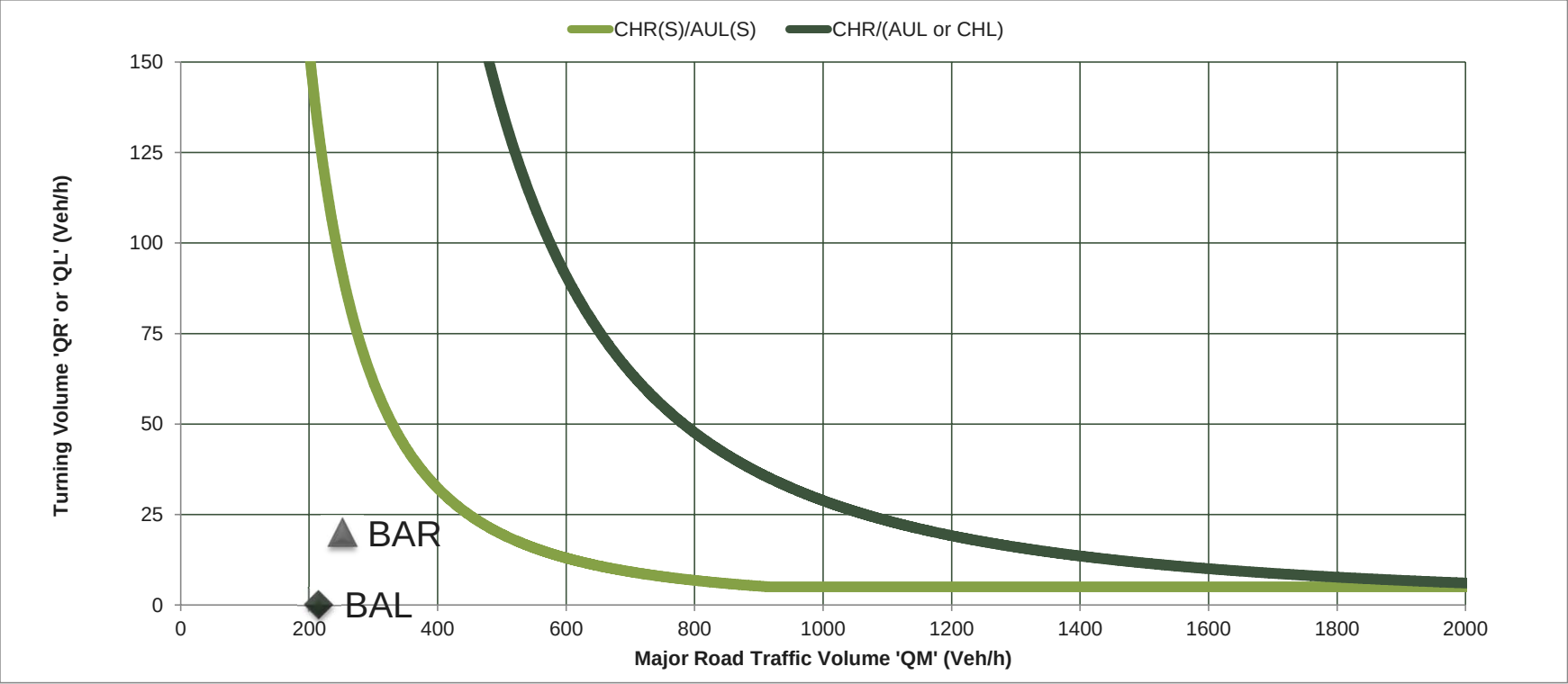
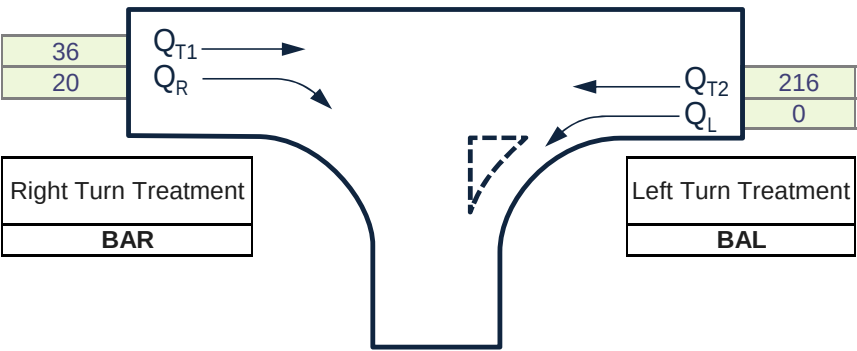
Stockland Residential Communities

SLR Project No.: 620.V11743.00025

27 March 2026

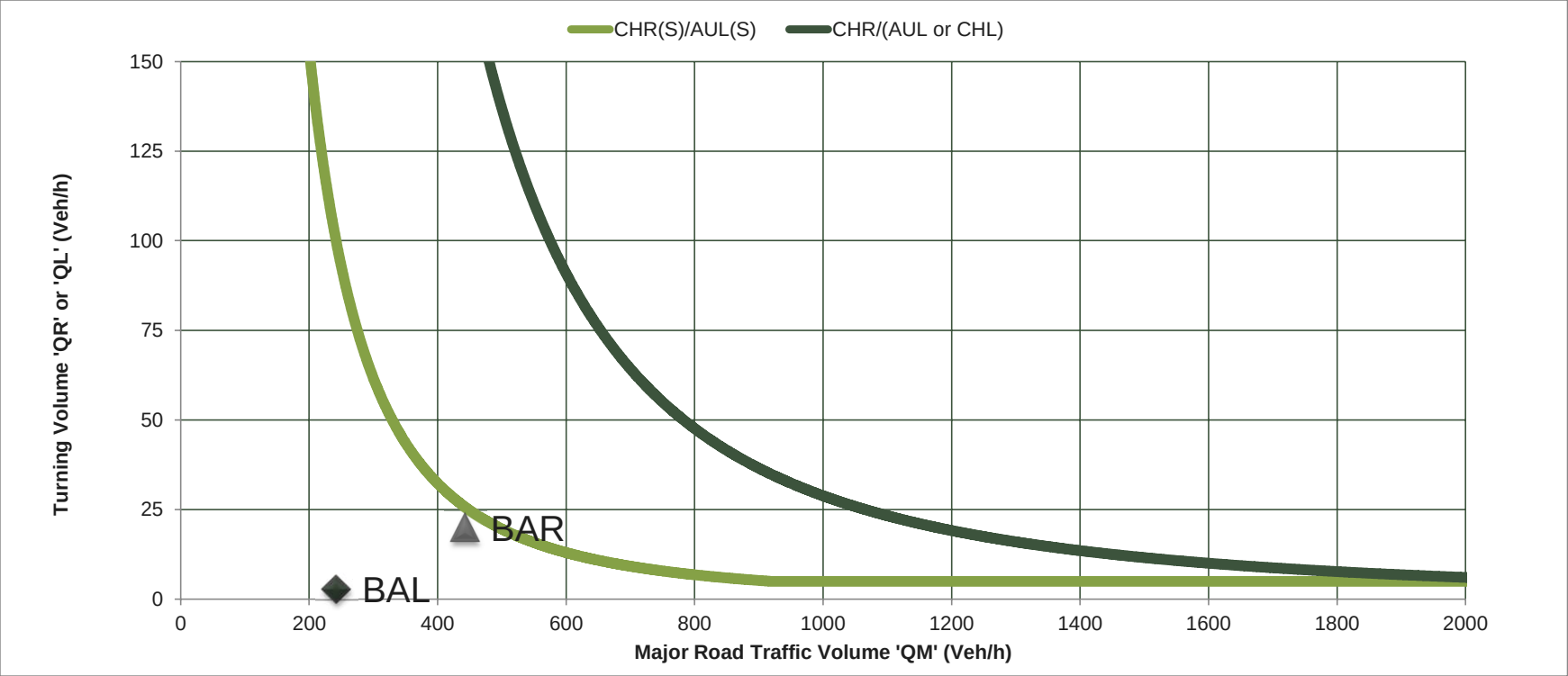
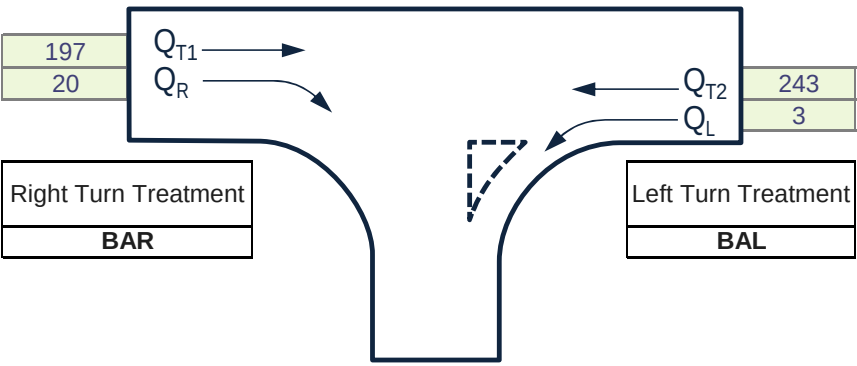
Assessment Year	Ultimate
Peak Period	AM
Scenario	Background + Dev
Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

Q _M	Q _R /Q _L	
252	20	Right
216	0.2	Left



Assessment Year	Ultimate
Peak Period	PM
Scenario	Background + Dev
Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

Q _M	Q _R /Q _L	
443	20	Right
243	2.8	Left



Reflects changes made in RPDM (Ed2: Vol3) Supplement to Austroads Part 4A (DTMR - August, 2014)

Turn Warrant Assessment

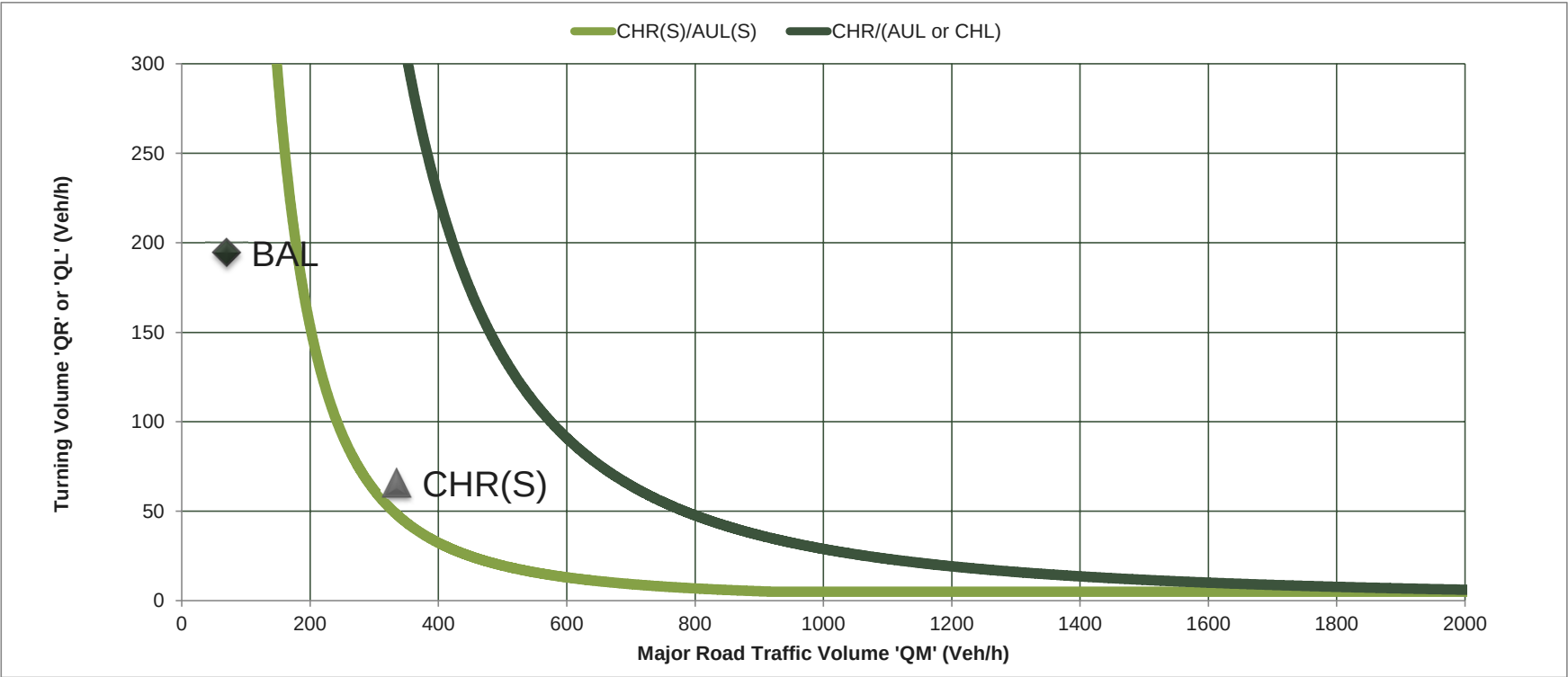
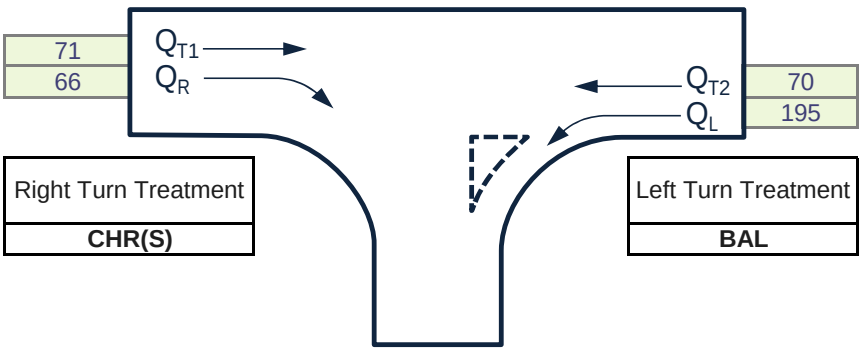
Int KYK - Kapa Boulevard / Precinct 7 Access
620.V11743
27/01/2026



Assessment Year	Ultimate
Peak Period	AM
Scenario	Background + Dev

Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

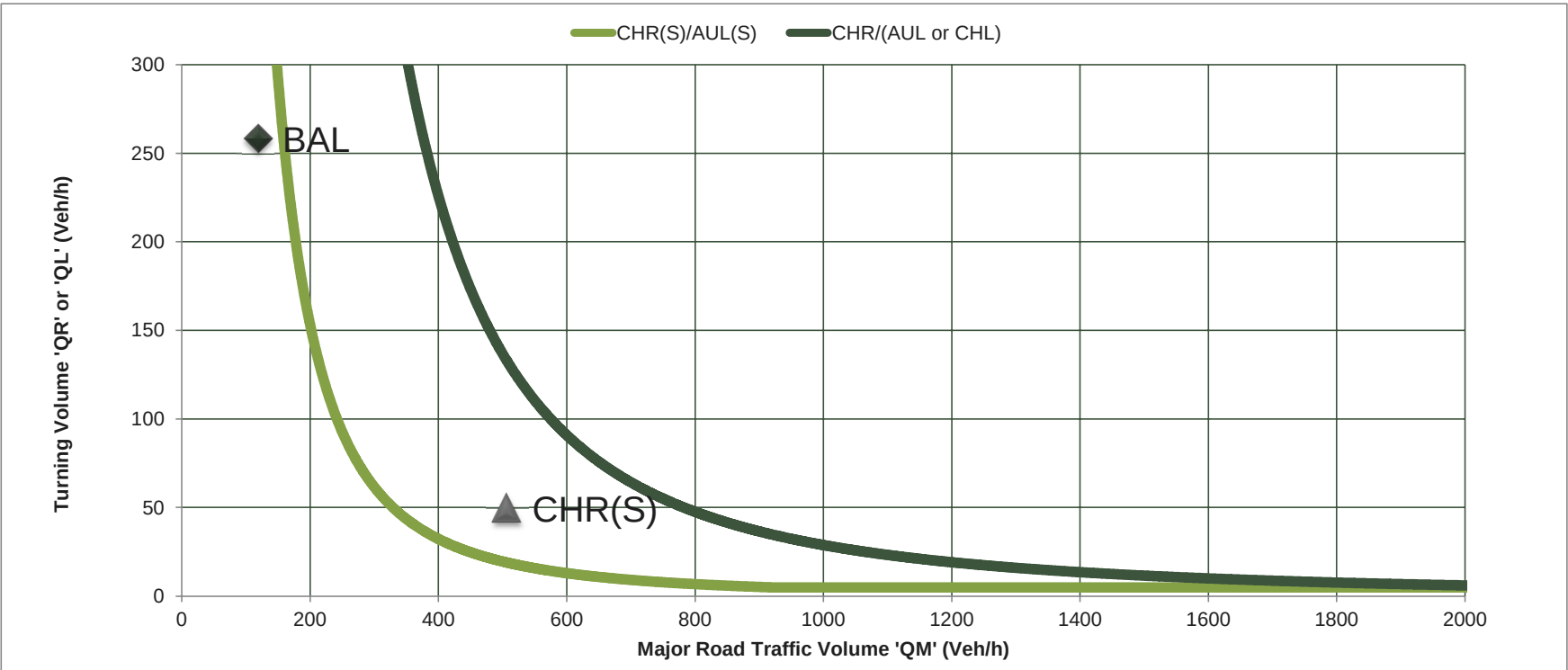
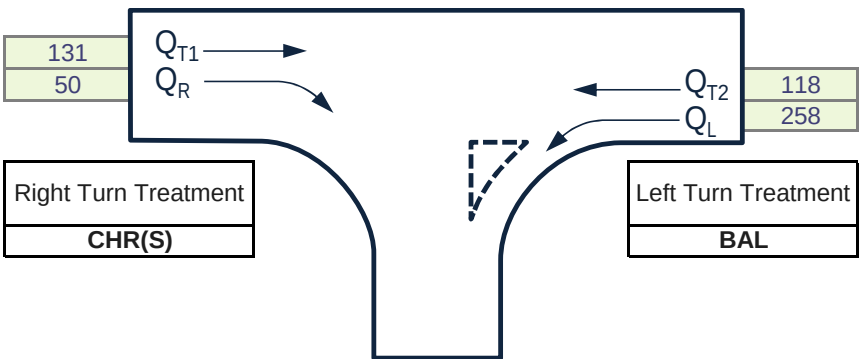
Q _M	Q _R /Q _L	
336	65.8	Right
70	194.6	Left



Assessment Year	Ultimate
Peak Period	PM
Scenario	Background + Dev

Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

Q _M	Q _R /Q _L	
507	49.6	Right
118	258.4	Left



Reflects changes made in RPDM (Ed2: Vol3) Supplement to Austroads Part 4A (DTMR - August, 2014)

Turn Warrant Assessment

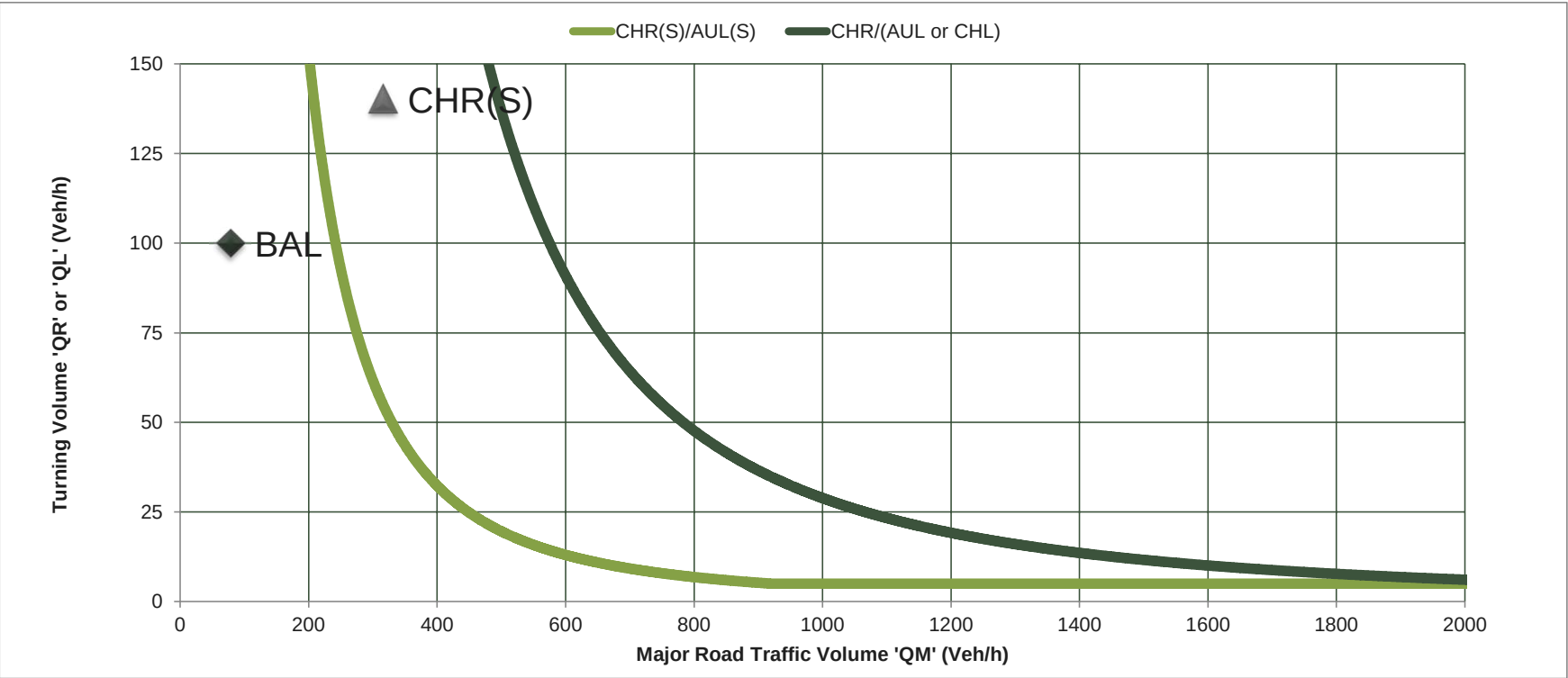
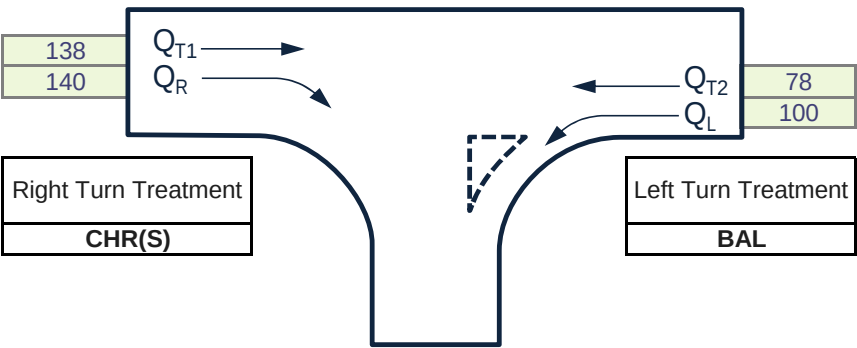
Int YKY - Kapa Boulevard / Precinct 7 Access
620.V11743
27/01/2026



Assessment Year	Ultimate
Peak Period	AM
Scenario	Background + Dev

Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

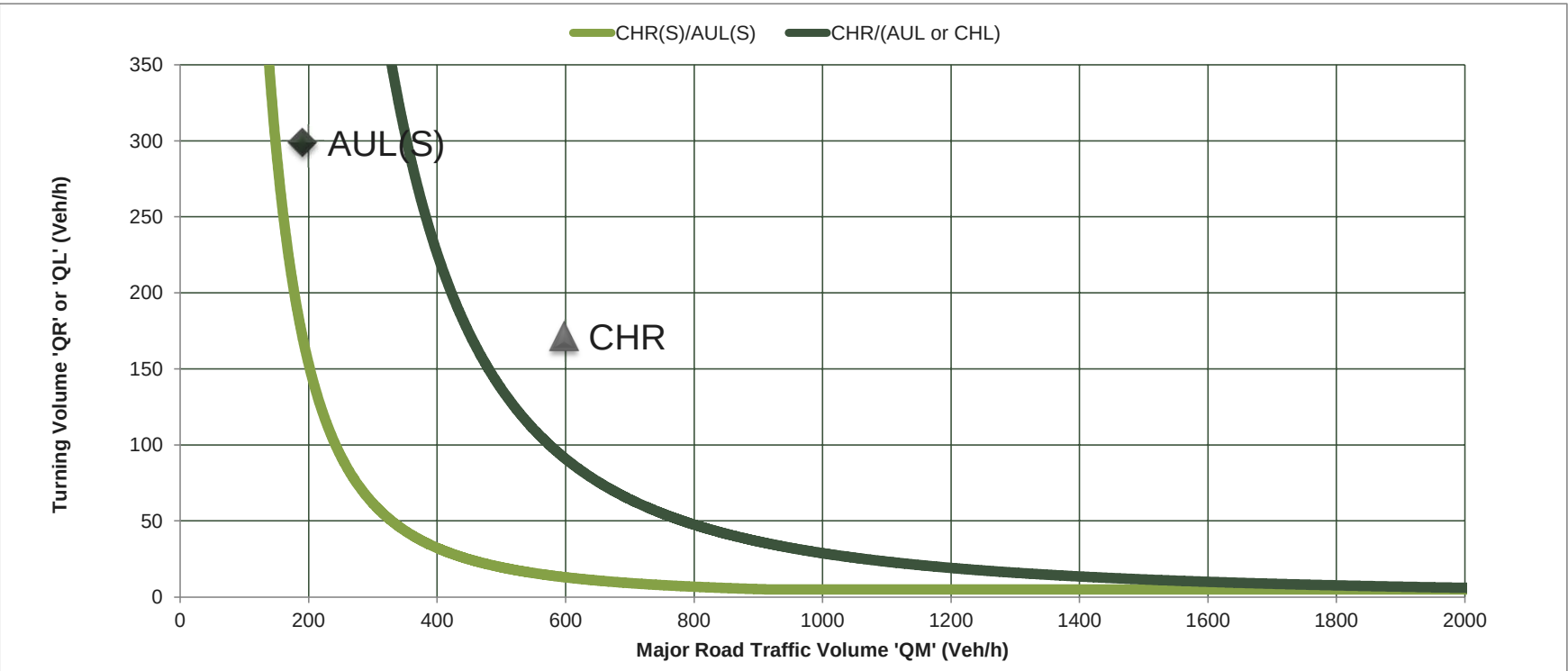
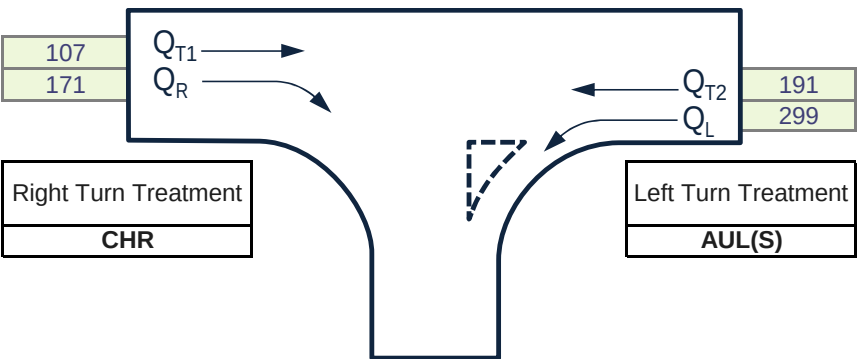
Q_M	Q_R/Q_L	
316	140.2	Right
78	100	Left



Assessment Year	Ultimate
Peak Period	PM
Scenario	Background + Dev

Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

Q_M	Q_R/Q_L	
597	171.4	Right
191	298.8	Left



Reflects changes made in RPDM (Ed2: Vol3) Supplement to Austroads Part 4A (DTMR - August, 2014)

Turn Warrant Assessment

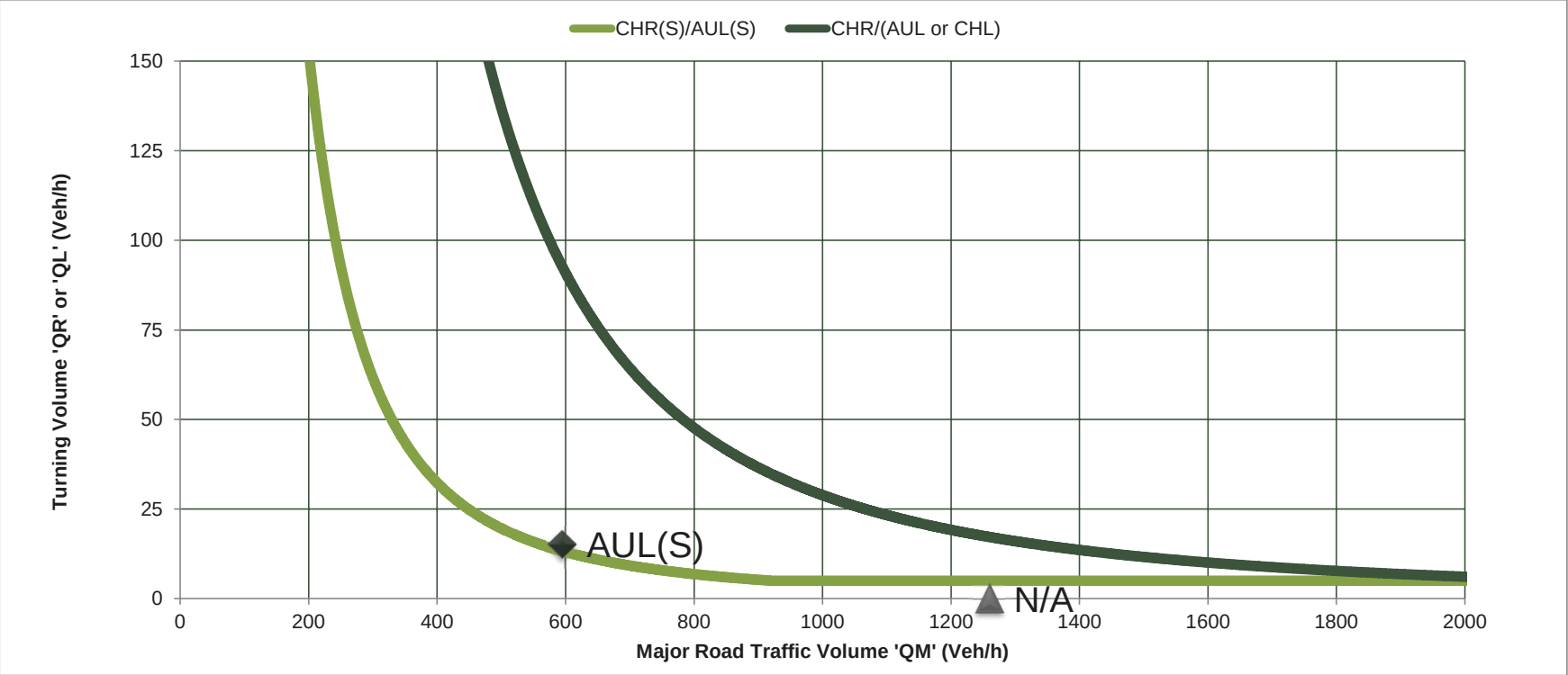
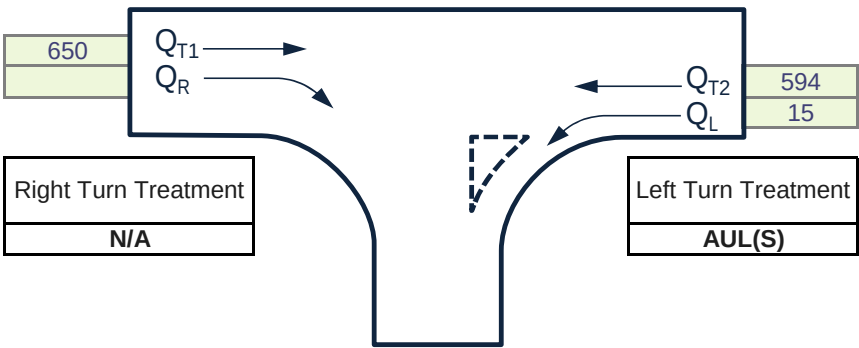
Int KM - Town Centre Main Street / Precinct 7 Access
620.V11743
27/01/2026



Assessment Year	Ultimate
Peak Period	AM
Scenario	Background + Dev

Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

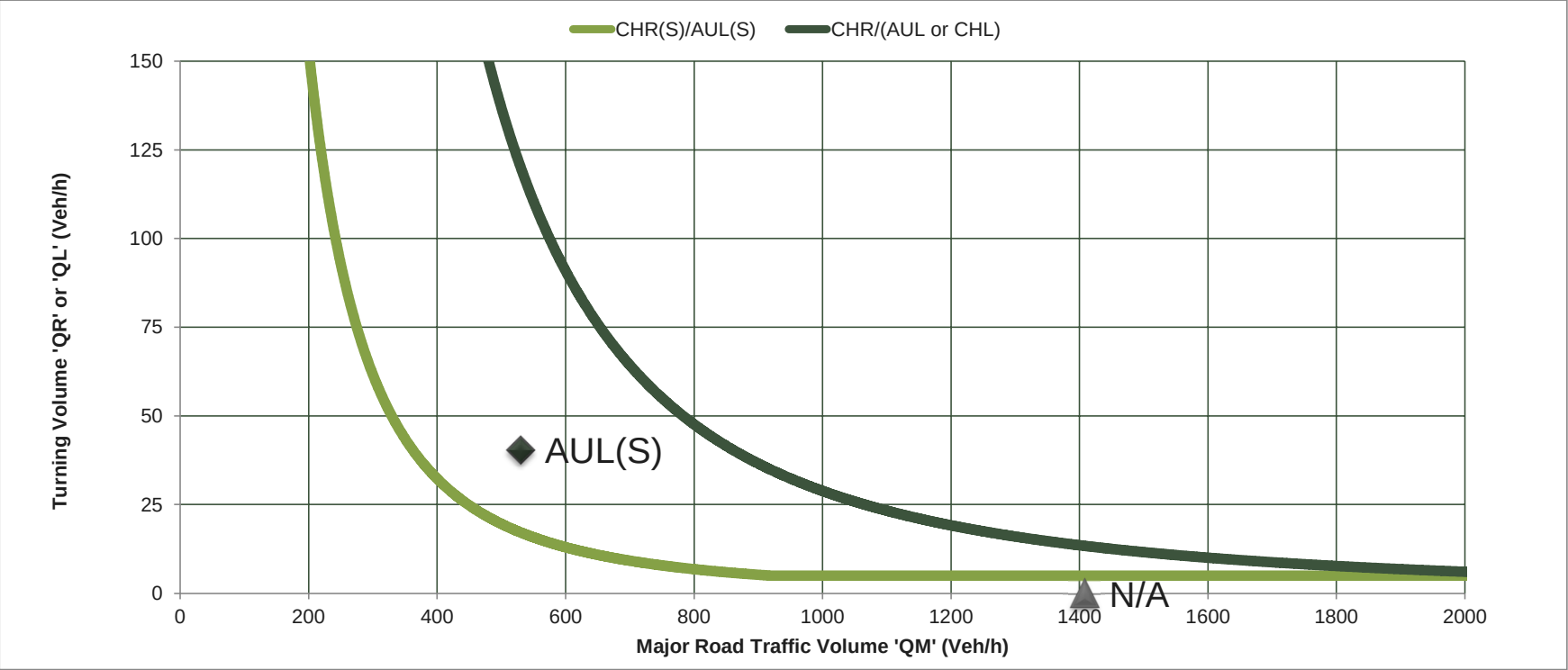
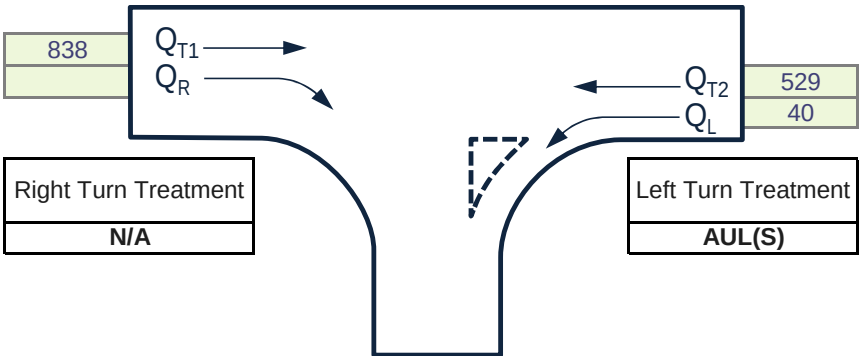
Q _M	Q _R /Q _L	
1259	0	Right
594	15.2	Left



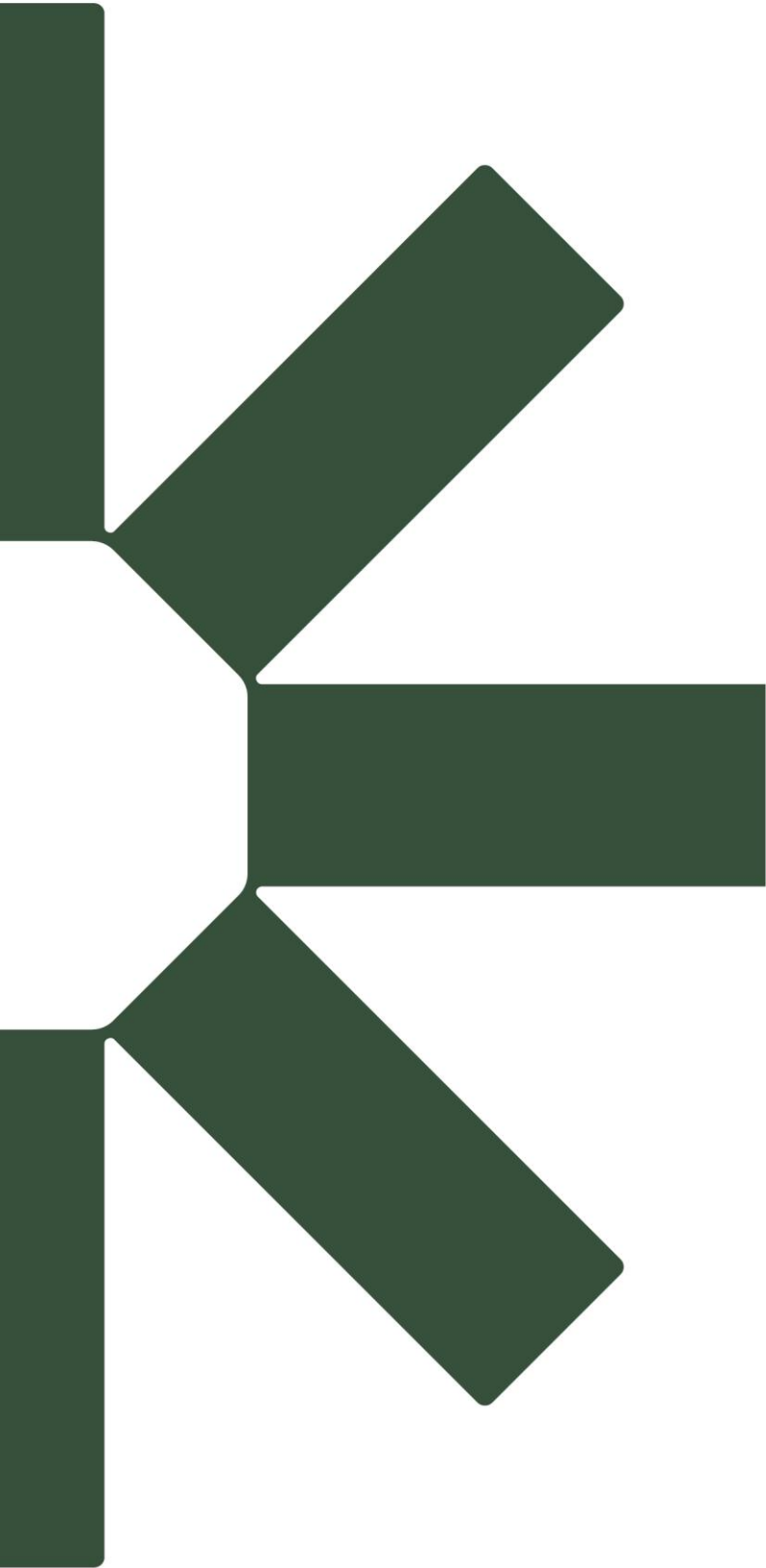
Assessment Year	Ultimate
Peak Period	PM
Scenario	Background + Dev

Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

Q _M	Q _R /Q _L	
1407	0	Right
529	40.4	Left



Reflects changes made in RPDM (Ed2: Vol3) Supplement to Austroads Part 4A (DTMR - August, 2014)



Making Sustainability Happen