



Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

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South Brisbane, QLD, 4101

Prepared by:

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**PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**

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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.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

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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 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 Precinct 9 ROL 1 (which is a sub-precinct of Precinct 9). The proposed layout plan for the Precinct 9 ROL 1 application is included at **Appendix A**.

Regarding an assessment of traffic impacts, this report documents the findings from an assessment of the entire Precinct 9, as it is intended for these results to be relied upon during subsequent sub-precinct applications within Precinct 9. It is important to recognise that Precinct 9 is located immediately north of Precinct 8, which has recently been approved.

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)’.**
- *Yarrabilba Precinct 8 ROL 1- Traffic Impact Assessment* (SLR, May 2025) – approved by EDQ on 21 November 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.
- The Precinct 9 assessment herein uses volumes from the traffic model update in 2018.
- The Precinct 9 assessment considers the impact from the recently approved Precinct 8 development (November 2025) located to the immediate south of Precinct 9.

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 Precinct 9 is generally consistent with the Endorsed MIMP (2025).



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.

The Precinct 9 assessment is based on the most recent traffic model volumes and demographics (2018). This is discussed in **Section 4.0** herein. The traffic volume results from the 2018 modelling have been considered and incorporated herein, including consideration of the recently approved Precinct 8 development. Such results include updated forecasts of traffic volumes and updated intersection capacity analysis. The latter includes key intersections providing access to Precinct 9.

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 Precinct 9 ROL 1 (**ROL 1**) development is situated to northern, southern and eastern areas of the broader Precinct 9 area. Primary vehicular access for this precinct will be via the following key roads:

- Mibinba Drive (formerly MIBA Access North South Road), which is a Sub Arterial road that connects Jimbillunga Drive in the east to the external transport network via Waterford-Tamborine Road to the west.
- Jimbillunga Drive (formerly MIBA Access North South Road and Ridge East-West Link), which is a Sub Arterial road (north of Mibinba Drive and Intersection P) and Major (Trunk) Collector road (south of Mibinba Drive and Intersection P) that travels in the north-south direction through Precinct 9.
- Roosevelt Drive (formerly Ridge East-West Link), which is a Major (Trunk) Collector road that connects Mibinba Drive in the south to the wider Yarrabilba development in the north via Jimbillunga Drive.

It is important to recognise that whilst the traffic assessment assumes that all of the above three road links will be in place, it is recognised that these three roads may be part of separate ROL applications (i.e. not part of ROL 1). In particular, Roosevelt Drive is part of Precinct 11 and the northern section of Jimbillunga Drive (SSP – S – L) will be part of a separate ROL application.

The proposed yield of ROL 1 primarily consists of 1,158 residential lots (subject to future applications). It is intended that a future ROL Application will be made for the remaining area of Precinct 9. The ROL application boundaries are illustrated on **Figure 1**, in the context of the precinct staging and overall Yarrabilba Development Area.

Figure 1 ROL 1 Site Context



The proposed development plan for ROL 1 has been prepared by RPS and incorporates input from the wider design team (including advice on traffic and transport design matters provided by SLR). The plan is submitted as part of the planning documents for the application and has been used as the basis of the traffic assessment herein.

Based on information provided by Stockland and RPS and as detailed within the precinct layout plan, ROL 1 is proposed to include the following key land uses and yields:

- 1,158 residential lots consisting of:
 - o 834 low density residential lots, and
 - o 324 low-medium density residential lots.
- One state primary school,
- One neighbourhood centre,
- Seven stormwater quality basins,
- Two neighbourhood recreational parks, and
- Eight local recreational parks.

The Plan of Development (**POD**) boundary is illustrated on **Figure 2**, with the full-scale plan of ROL 1 provided at **Appendix A**.

Figure 2 Precinct 9 ROL 1 POD



It is recognised that in the ultimate horizon, referred to herein as **Scenario 2 – Ultimate**, ROL 1 (and the entire Precinct 9) will have vehicle access to the external road network via the following key routes (i.e. the full network of Yarrabilba will be in place):

- North / West – Mibinba Drive to Waterford-Tamborine Road,
- North – Jimbillunga Drive to Waterford-Tamborine Road,



- South – Jimbillunga Drive, Yarrabilba Drive to Plunkett Road, and
- East – Jimbillunga Drive, Wentland Avenue to Plunkett Road.

It is recognised that when the development of Precinct 9 ROL 1 opens, it is expected to only have vehicle access to the external road network via Jimbillunga Drive to Waterford-Tamborine Road to the North.

A 2031 interim road network to serve ROL 1, **referred to herein as Scenario 1 – Interim (2031)**, is expected to only have vehicle access to the external road network via the following key routes:

- North / West – Mibinba Drive to Waterford-Tamborine Road;
- North – Jimbillunga Drive to Waterford-Tamborine Road,
- South / East – Jimbillunga Drive, Hootman Drive to Plunkett Road; and
- North / East – Jimbillunga Drive, Yarrabilba Drive to Waterford-Tamborine Road.

The intersection assessment herein (see **Section 4.0**) considers Scenario 1 – Interim and Scenario 2 – Ultimate above. The assessed road network for Scenarios 1 and 2 is provided at **Appendix B**.



3.0 Design Review

3.1 External Access

Precinct 9 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 ROL 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 lower-order streets and adjoining road connections specific to the ROL 1 application.

For completeness, the location of ROL 1 has been illustrated on **Figure 2** with respect to the wider road alignments and intersection access locations to the major road network.

3.2 Internal Road Network

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

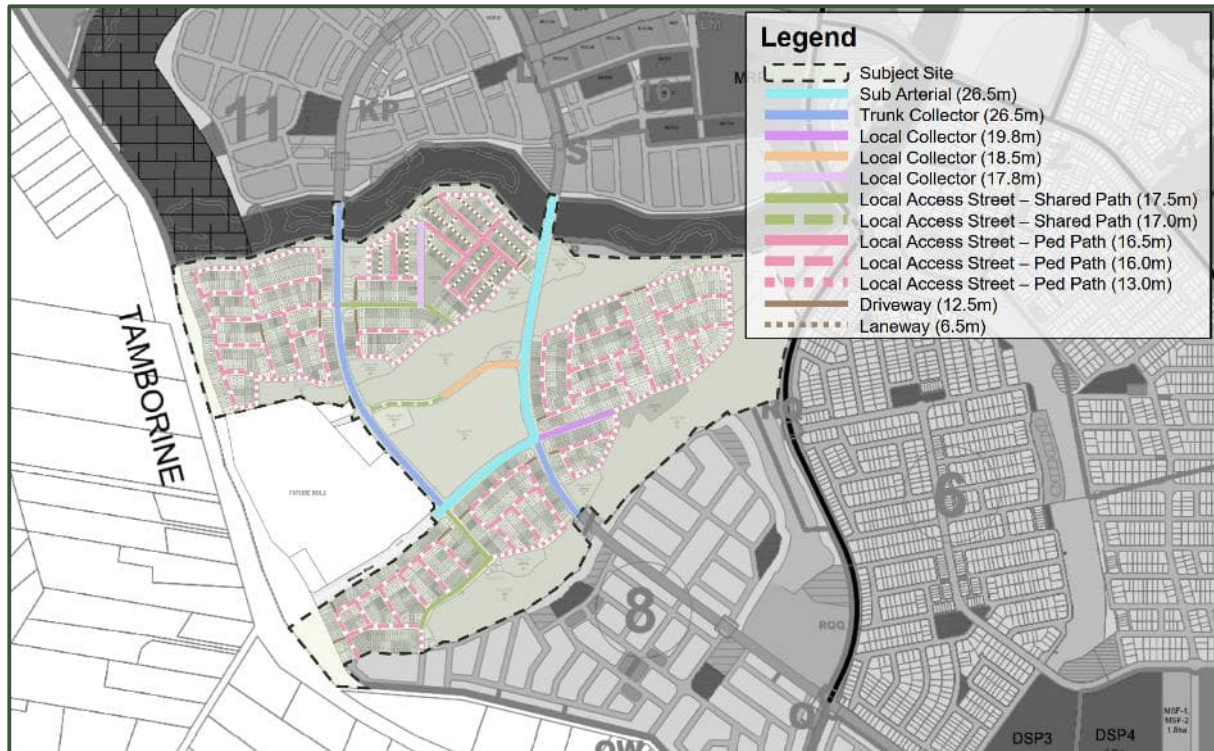
- Sub Arterial (13.5m road pavement in 26.5m road reserve) – Mibinba Drive (Intersection OP to Intersection P) and Jimbillunga Drive (Intersection P to the northern extent of ROL 1)
- Major (Trunk) Collector (13.5m road pavement in 26.5m road reserve) – Jimbillunga Drive (southern extent of ROL 1 to Intersection P) and Roosevelt Drive (north of Intersection OP to the northern extent of ROL 1).
- Local Collector (up to 10.5m road pavement in 17.8m, 18.5m or 19.8m road reserve).
- Local Access Street with Shared Path (7.5m road pavement in 17.0m or 17.5m road reserve).
- Local Access Street with Pedestrian Path (7.5m road pavement in 13.0m or 16.5m road reserve).
- Laneway (5.5m road pavement in 6.5m road reserve).
- Driveway (4.0m road pavement in 12.5m road reserve).

The allocation of the above road cross sections to the Precinct 9 road network can be seen in **Figure 3**. The road reference points for the Yarrabilba Development are provided at **Appendix B**. The cross sections for the roads within ROL 1 are shown in the Functional Plans prepared by KN Group (at **Appendix C**).

The road hierarchy and general road alignments are generally consistent with those identified in the Endorsed MIMP (2025).



Figure 3 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”.

It is important to note that the cross sections proposed for ROL 1 (see **Appendix C**) have some differences from those 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 ROL 1.

3.3 Active Transport Provisions

The key elements of the walk and cycle network proposed in ROL 1 are consistent with the connections and elements within the Endorsed MIMP (2025). It is recognised that some active transport links, as proposed in Precinct 9, are additional to those identified in the Endorsed MIMP (2025).

Key elements of the active transport network relevant to ROL 1, as identified within the Endorsed MIMP (2025), are as follows:

- Primary Cycle Route along Waterford-Tamborine Road and Yarrabilba Drive.
- Secondary Cycle Route along Jimbillunga Drive, Mibinba Drive and Roosevelt Drive.
- Local Cycle Route following the Local Street (With Shared Path) south of Mibinba Drive within Precinct 9.



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

- Jimbillunga Drive (Secondary Cycle Route) will include a Two-Way Cycle Track and pedestrian footpath along the western verge + Shared Path along the eastern verge.
- Mibinba Drive (Secondary Cycle Route) will include a Two-Way Cycle Track and pedestrian footpath along the northern verge + Shared Path along the southern verge.
- Roosevelt Drive (Secondary Cycle Route) will include a Two-Way Cycle Track and pedestrian footpath along the eastern verge + Shared Path along the western verge.
- Local Streets shown with a Shared Path will provide a Shared Path on one side, and a Pedestrian Path on the other side.
- All other Local Streets will include a footpath on at least one side.

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

The location of the Separated Cycle Track and Shared Path can be seen in **Figure 4**.

Figure 4 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 5**, several bus routes and bus stops (indicative locations only) are proposed within the subject site. Bus routes and bus stops are proposed along the Sub Arterial (Jimbillunga Drive and Mibinba Drive) and the Major (Trunk) Collector (Jimbillunga Drive and Roosevelt Drive) running through the site. 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 5**.

Figure 5 Proposed Public Transport Provisions

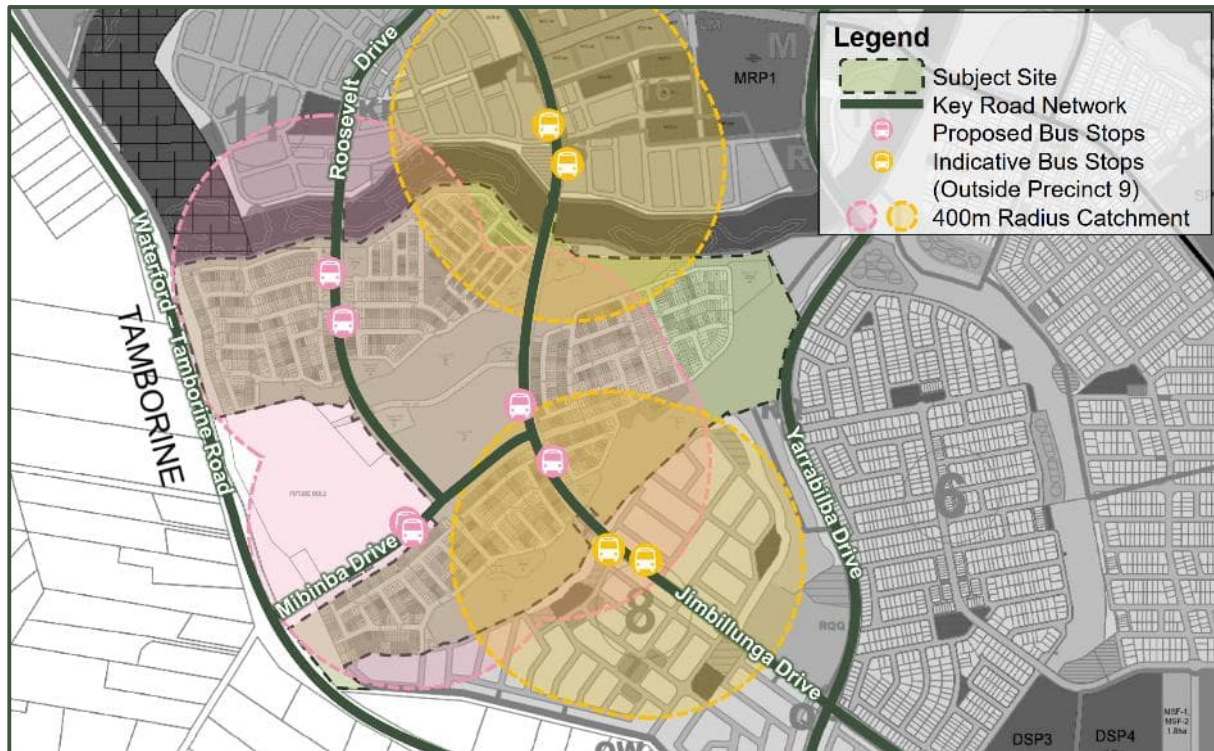


Figure 5 identifies that, when including the indicative bus stops (in orange on **Figure 5**), approximately 93% of lots in ROL 1 will be within 500m walking distance of a proposed bus stop. Approximately 7% of the total lots in ROL 1 are not located within the measured 400m radius of proposed bus stop pairs which is able to meet the target noted in the Movement IMP, which states that “90% of Residential Lots are located within a 500 metre walk of a 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 in accordance with TransLink’s Public Transport Infrastructure Manual (**PTIM**).

On this basis, the public transport stops proposed within ROL 1 and the wider Precinct 9 will adequately service the catchment and comply with those identified in the Endorsed MIMP (2025).



4.0 Traffic Analysis

4.1 Development Scenarios

The analysis herein includes the entire Precinct 9, not just ROL 1.

As identified in **Section 1.2**, the most current traffic modelling is that undertaken in 2018. The proposed scenarios (interim and ultimate) assessed within the revised modelling were consistent with those originally assessed. In line with this modelling, the analysis herein assesses the same two scenarios, identified as follows:

- Scenario 1: Interim (2031) – assumes partial (approximately 75%) development of the Yarrabilba Masterplan, excluding some precincts to the south and east predominantly.
 - o Used to establish the intersection forms for Precinct 9 at the interim horizon (and/or that the ultimate form would operate acceptably at the interim horizon).
- Scenario 2: Ultimate – which assumes the full development of the Yarrabilba Masterplan, with a completed external road network in line with the Movement IMP (including a future connection to the Southern Infrastructure Corridor).
 - o Used to establish the ultimate intersection forms for Precinct 9 (and acceptable operation at the ultimate horizon).

It is important to note that for both analysis scenarios, the Mibinba Drive connection between Precinct 9 and Waterford-Tamborine Road, has been included (Intersection O to OP).

The road network maps for both the interim and ultimate scenarios (Scenarios 1 and 2) are provided at **Appendix B**.

4.2 Trunk Road Background Traffic Volumes

For the purposes of the following analysis, the traffic volumes on Jimbillunga Drive, Mibinba Drive and Roosevelt Drive for both scenarios were determined from the traffic modelling previously undertaken in 2018 (as reported in the Yarrabilba Master Plan Development Traffic Model and Intersection Analysis Data Compendium (SLR, November 2019)).

The current plan of development for Precinct 9 reflects the latest planning by Stockland and has some changes in development yields and street layouts from that included in the 2018 traffic model. Those changes are not so significant to warrant an updated traffic model. However, given the changes in yield and changes to the internal road network for Precinct 9 since the 2018 traffic model, SLR has reviewed the previous traffic generated by each local catchment, redistributing traffic in accordance with the updated road layouts within Precinct 9. This is discussed further in **Section 4.3**.

The traffic generated by the Precinct 8 development, located immediately to the south of Precinct 9, is expected to have a considerable contribution to traffic demands along sections of the Precinct 9 trunk road network. As such, SLR has completed a review of the land use yield assumptions underpinning the 2018 traffic model for Precinct 8, to confirm the validity of adopting these volumes within the assessment undertaken herein. Refer to **Table 1** which summarises a comparison of land use yields for Precinct 8 between the 2018 traffic model and the recently approved ROL 1 plan.



Table 1 Precinct 8 Land Use Comparison

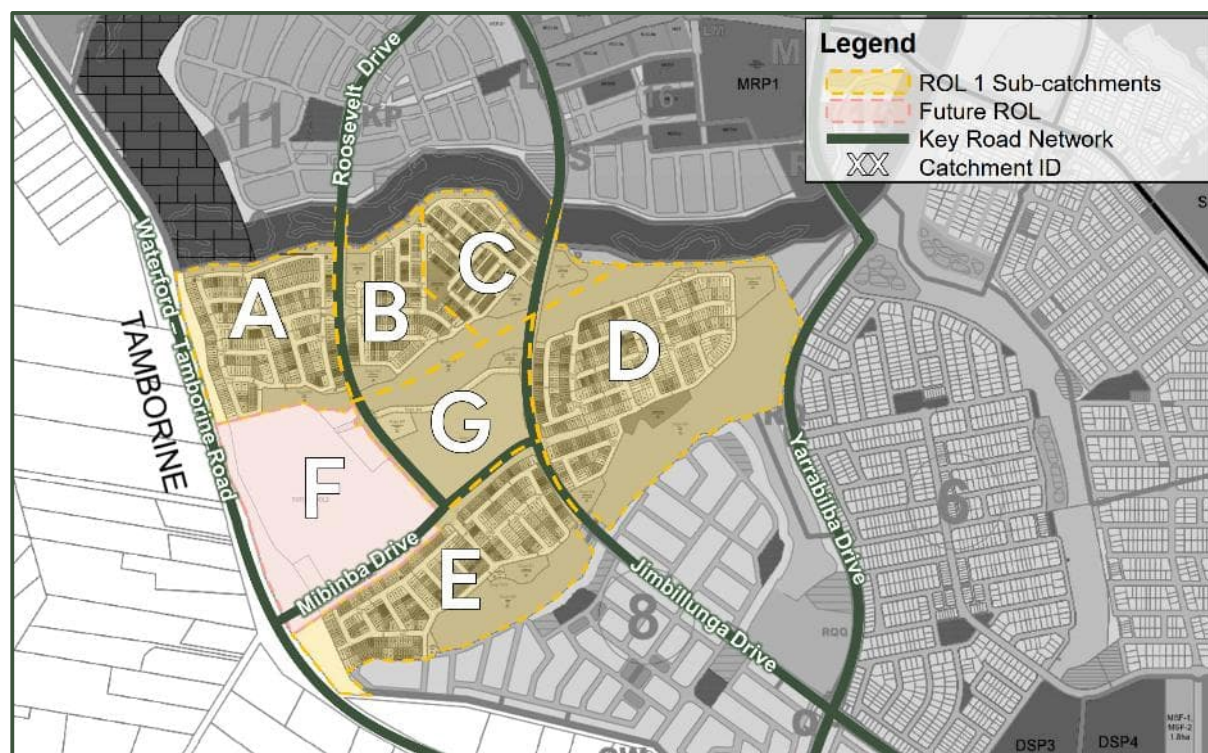
Land Use	2018 Traffic Model Yields	Approved Development
Residential	779 dwellings	846 dwellings
School	2,000 students	-

The approved Precinct 8 development does not provide the state high school with 2,000 students, however, provides an additional 67 residential dwellings. The difference in trips generated by Precinct 8 (and consequently, the impact to the wider trunk road network) between the 2018 traffic model and the currently approved development is expected to be negligible. As such, the 2018 traffic model background volumes adopted for the trunk road network are considered to appropriately reflect the traffic generation contribution from the Precinct 8 development.

4.3 Precinct 9 Development Traffic Assumptions

The traffic model for Precinct 9 has been divided into smaller sub-catchments to better understand the internal traffic movements. The identified sub-catchments are shown in Figure 6.

Figure 6 Precinct 9 Sub-catchments



For the purposes of the traffic analysis documented herein, Stockland and RPS have advised of the following assumed land uses for the Precinct 9 Future ROL area (Sub-catchment F in Figure 6):

- One local community centre,
- One major district sports park, and
- One zone substation.



4.3.1 Traffic Generation

The traffic generation rates adopted for ROL 1 have been sourced from previous assessments completed for Yarrabilba. Where necessary, a source appropriate to the context of the wider Yarrabilba Development and transport network has been used. To simplify the traffic generation, the estimated residential peak hour trips by sub-catchment is summarised in **Table 2**.

Table 2 Precinct 9 Trip Generation – Residential

Sub-catchment	Land Use	Yield	AM/PM Trip Rate	AM/PM Trips
A	Low Density	220 dwellings	0.80 vph / dwelling	176
	Low-medium Density	8 dwellings	0.60 vph / dwelling	5
B	Low Density	93 dwellings	0.80 vph / dwelling	75
	Low-medium Density	54 dwellings	0.60 vph / dwelling	33
C	Low Density	7 dwellings	0.80 vph / dwelling	6
	Low-medium Density	215 dwellings	0.60 vph / dwelling	129
D	Low Density	277 dwellings	0.80 vph / dwelling	222
	Low-medium Density	14 dwellings	0.60 vph / dwelling	9
E	Low Density	237 dwellings	0.80 vph / dwelling	190
	Low-medium Density	33 dwellings	0.60 vph / dwelling	20
Total		1,158 dwellings	-	865 trips

To simplify the traffic generation, the estimated non-residential peak hour trips by sub-catchment is summarised in **Table 3**. Given the nature of the proposed non-residential land uses the following assumptions were adopted:

- Total trips generated by the Major Sports Park are based on analysis previously undertaken for Yarrabilba Precinct 6 District Sports Park. The trips were determined from 1st principles based on the type of sports field, number of sports fields and expected capacity during each peak hour. For the Major Sports Park traffic, the total trips were proportioned against the proposed site area for the P6 District Sports Park.
- Community Centre does not have a traditional trip generation rate as the particular use is not defined. The community land use established in Yarrabilba Precinct 3 generally consists of a range of land uses. For the purposes of this assessment and given the local context, it is assumed that the proposed facility will be sports related as a local pool/gym/sports centre including meeting facilities and court hire.
- Neighbourhood centre is proposed to be a mixed-use development to apply appropriate trip generation rates.
- Gross Leasable Floor Areas (**GLFA**) were determined from an understanding of the area required for each use based on the available site area.
- Number of students sourced from Queensland Department of Education (**DoE**) New School Site Selection Guidelines (September 2023) for Low-density Greenfield Area Primary School Peak Enrolments.
- Number of childcare spaces based on review of existing childcare centres in Yarrabilba.



Table 3 Precinct 9 Trip Generation – Non-residential

Sub-catchment	Land Use	Yield	AM Trip Rate	PM Trip Rate	Source	AM Trips	PM Trips
F	Major Sports Park	15.258 ha	-	-	Yarrabilba Precinct 6 District Sports Park Analysis	36	210
	Community Centre	1,906 m ² GLFA	3.6 veh / 100m ² GLFA	3.6 veh / 100m ² GLFA	TfNSW GTIA v1.1 – Fitness Centre	69	69
G	State Primary School	1,100 students	0.7 veh / student	0.5 veh / student	TfNSW GTIA v1.1 – Schools	770	550
	Neighbourhood Centre (Childcare)	120 licensed child spaces	0.83 veh / licensed child space	0.51 veh / licensed child space	TfNSW GTIA v1.1 – Child Care Centres (Pre-school) Network Peaks	100	62
	Neighbourhood Centre (Food and Drink - Restaurants)	600 m ² GLFA	0 / 100m ² GLFA	5 / 100m ² GLFA	TfNSW GTIA v1.1 – Restaurant	0	60
	Neighbourhood Centre (Food and Drink - Cafe)	300 m ² GLFA	86 veh	23 veh	TfNSW GTIA v1.1 – Drive Through Coffee Outlets Network Peaks	86	23
Total						1,061 trips	974 trips

4.3.2 Traffic Distribution

The distribution of traffic generated by Precinct 9 has been assigned to the external road network consistent with the distribution assumptions adopted in the previously approved Precinct 8 (immediately south of Precinct 9) traffic analysis. To provide a conservative assessment of the internal intersections, no consideration has been given to the routing of traffic internal to the precinct.

The distribution assumptions adopted have been reproduced in **Table 4**. Given that the changes to the wider Yarrabilba Transport Network between the interim and ultimate scenarios will have a negligible impact on the traffic distribution for Precinct 9, the distribution assumptions in **Table 4** apply to both scenarios.



Table 4 Distribution of Precinct 9 Traffic

Sub-Precinct	To / From Mibinba Drive (W)	To / From Roosevelt Drive (N)	To / From Jimbillunga Drive (N)	To / From Jimbillunga Drive (S)
A	15%	73%	0%	12%
B	15%	73%	0%	12%
C	15%	0%	73%	12%
D	78%	5%	5%	12%
E	78%	10%	0%	12%
F	75%	13%	0%	12%
G	15%	15%	30%	40%

4.3.3 In / Out Split

In line with previous assessments, typical industry adopted in / out splits have been adopted for the various uses within the Precinct 9 development, summarised in **Table 5**.

Table 5 Precinct 9 In / Out Distribution Splits

Land Use	AM Trips		PM Trips	
	IN	OUT	IN	OUT
Residential	20%	80%	70%	30%
Primary School	55%	45%	45%	55%
Neighbourhood / Community Centre	60%	40%	50%	50%
Sports Park	50%	50%	50%	50%

The resultant traffic volume diagrams have been included in **Appendix D**.

4.4 Study Intersections

The following analysis considers the seven (7) intersections identified within and/or adjacent to Precinct 9. The intersection locations, along with their interim and ultimate forms, are identified in **Figure 7** and **Table 6**.



Figure 7 Study Intersections



Table 6 Intersection Form

ID	Interim Form	Ultimate Form
P, OP, O and PKP		
KKP		
SP and SSP		

4.5 Intersection Assessment

The form of the key intersections within Precinct 9 have adopted the ultimate road hierarchy and cross-sectional requirements of the major roads identified in the Movement IMP. The key roads and the lane capacity requirements have been summarised in **Table 7** (noting that additional lanes will be required at intersections).



Table 7 Ultimate Lane Capacity Requirements

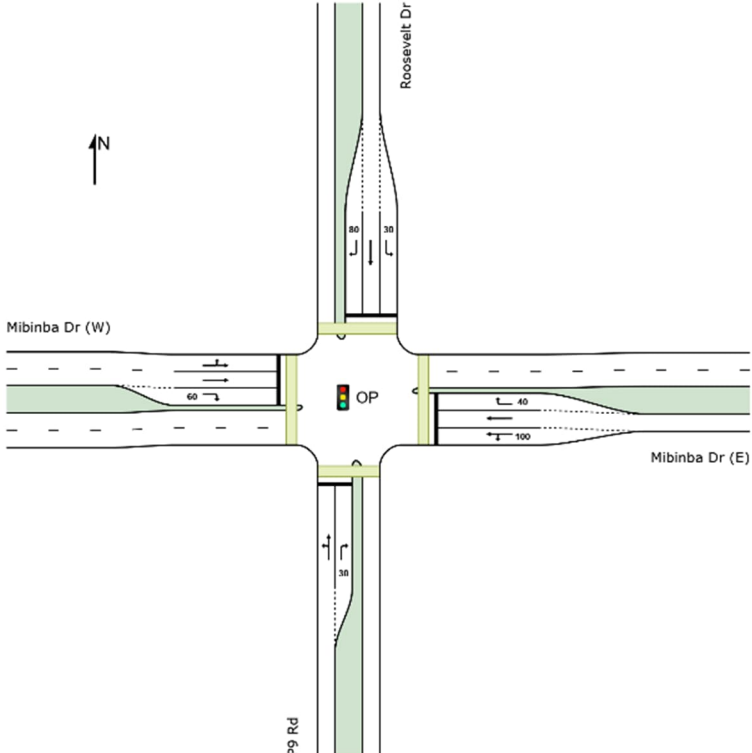
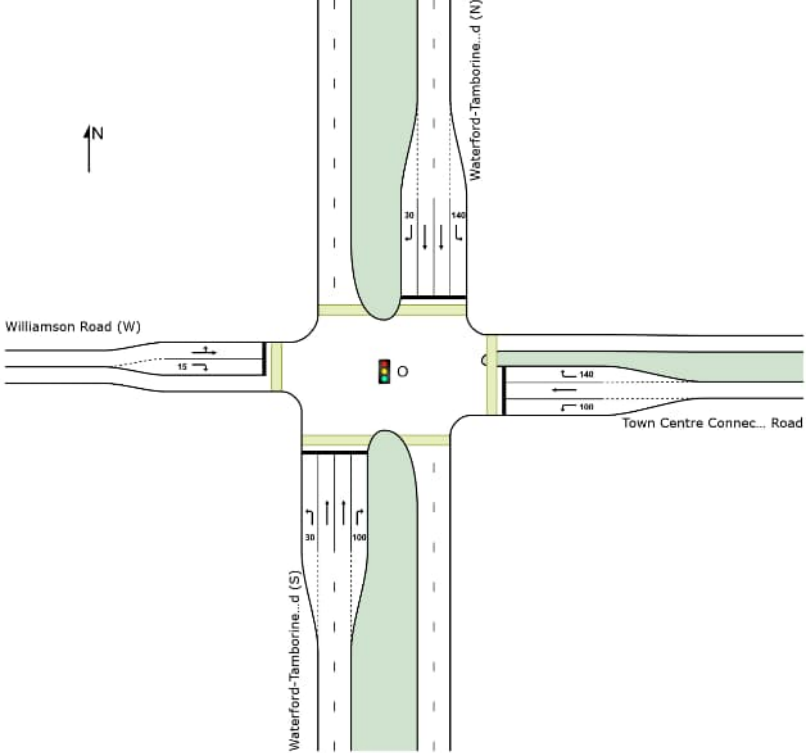
Road Name	Link Location	Proposed Traffic Lanes
Jimbillunga Drive	South of P	2 Lanes
	P – SP	
	SP – SSP	
	North of SSP	
Mibinba Drive	O – OP	4 Lanes
	OP – P	2-3 Lanes (inclusive of Auxiliary Lane)
Roosevelt Drive	OP – PKP	2 Lanes
	PKP – KKP	
	North of KKP	

The performance of all key intersections has been assessed in SIDRA Intersection 9.1 to establish the operational performance of the proposed layout. The proposed layouts assessed in SIDRA are shown in **Table 8** and provided at **Appendix E**.

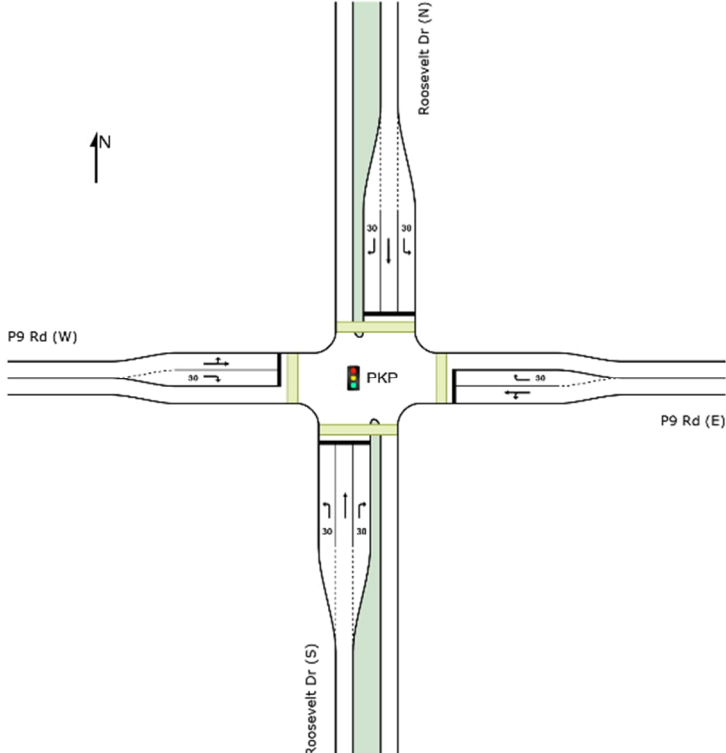
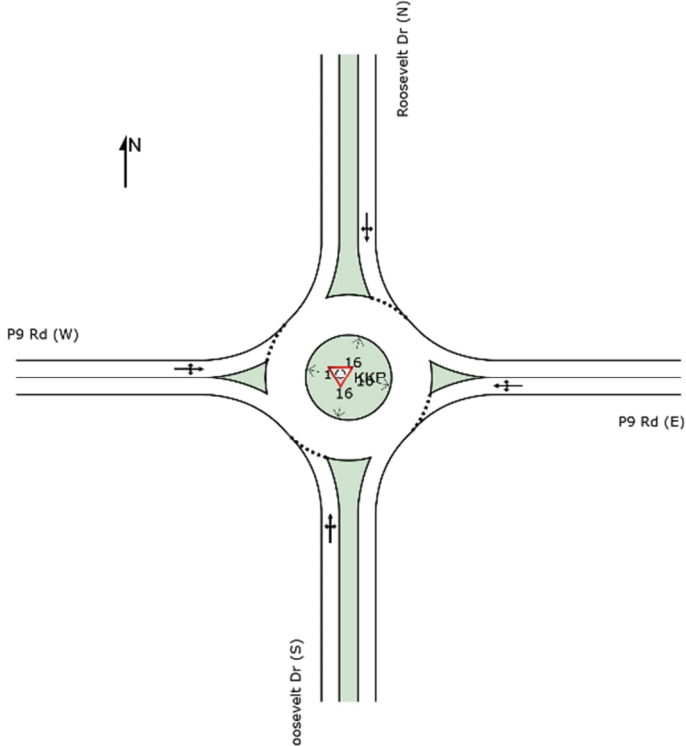
Table 8 Summary of Interim Intersection Results

Intersection	Layout
P	

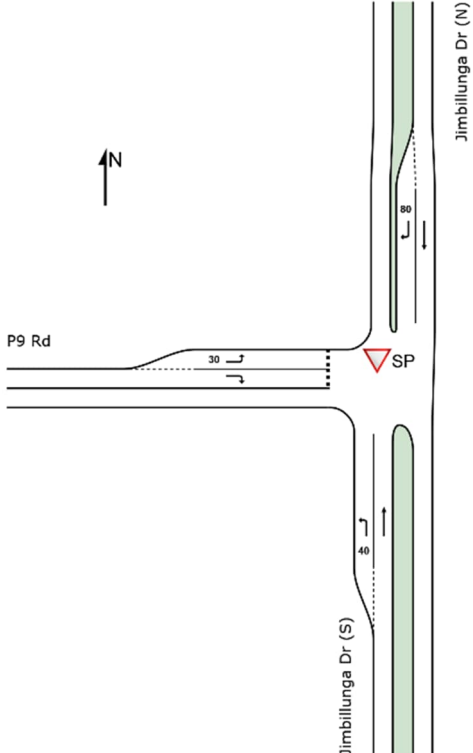
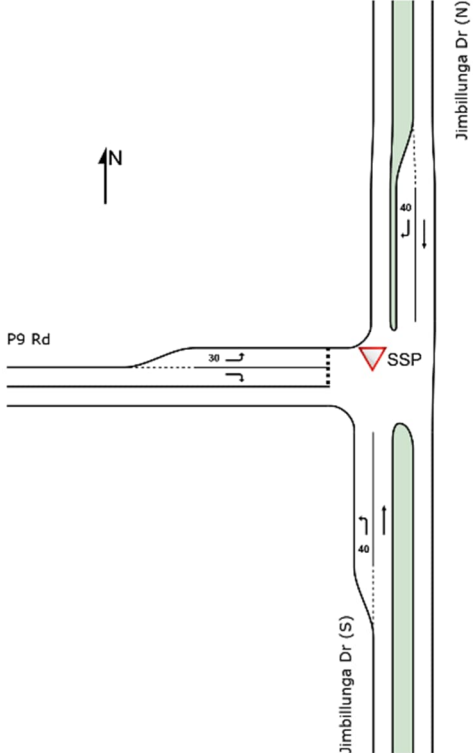


Intersection	Layout
OP	
O[2]	



Intersection	Layout
PKP	 Diagram illustrating the layout of the PKP intersection. The intersection is a signalized four-way intersection. The approaches are labeled: P9 Rd (W), P9 Rd (E), Roosevelt Dr (N), and Roosevelt Dr (S). The intersection is marked with a PKP signal head. Lane widths are indicated as 30m and 38m. A north arrow is present.
KKP	 Diagram illustrating the layout of the KKP intersection. The intersection is a roundabout with four approaches: P9 Rd (W), P9 Rd (E), Roosevelt Dr (N), and Roosevelt Dr (S). The roundabout is marked with a KKP sign. Lane widths are indicated as 16m and 38m. A north arrow is present.



Intersection	Layout
SP	 The diagram shows a T-junction where P9 Rd (horizontal) meets Jimbillunga Dr (vertical). A north arrow points upwards. On P9 Rd, there is a speed limit of 30 km/h. On Jimbillunga Dr, there are speed limits of 40 km/h for the southbound lane and 80 km/h for the northbound lane. A red triangle symbol labeled 'SP' is located at the intersection point.
SSP	 The diagram shows a T-junction where P9 Rd (horizontal) meets Jimbillunga Dr (vertical). A north arrow points upwards. On P9 Rd, there is a speed limit of 30 km/h. On Jimbillunga Dr, there are speed limits of 40 km/h for both the northbound and southbound lanes. A red triangle symbol labeled 'SSP' is located at the intersection point.

^[2] Intersection O layout based on previous work undertaken for Waterford Tamborine Road.

4.5.1 Scenario 1 – Interim

The analysis results are summarised in **Table 9**, with the detailed outputs (including intersection layout plans and movement summaries) provided at **Appendix E**.



Table 9 Summary of Interim Intersection Results

Intersection	Control Type	AM Peak			PM Peak		
		DoS	Delay (s) [1]	95th%ile Queue (m)	DoS	Delay (s) [1]	95th%ile Queue (m)
P	Signalised	0.74	40	100	0.73	42	85
OP		0.62	43	89	0.75	41	120
O ^[2]		0.65	51	112	0.58	51	93
PKP		0.48	29	41	0.48	29	39
KKP	Roundabout	0.27	7	14	0.29	7	13
SP	Priority Controlled (T-junction)	0.42	5	15	0.34	4	11
SSP		0.19	1	3	0.18	1	2

^[1] Average delay recorded for Signalised and Roundabout intersections and Maximum Delay recorded for Priority Controlled intersections.

^[2] Intersection O results based on previous work undertaken for Waterford Tamborine Road.

The results reported in **Table 9** confirm that the performance of all intersections in the proposed configuration (for ultimate traffic) within Precinct 9 in the interim scenario (Scenario 1) is within the adopted maximum operating parameters for signalised (maximum DoS 0.90), roundabout (maximum DoS 0.85) and unsignalised (maximum DoS 0.80) intersections.

4.5.2 Scenario 2 – Ultimate

The analysis results are summarised in **Table 10**, with the detailed outputs (including intersection layout plans and movement summaries) provided at **Appendix F**.

Table 10 Summary of Ultimate Intersection Results

Intersection	Control Type	AM Peak			PM Peak		
		DoS	Delay (s) [1]	95th%ile Queue (m)	DoS	Delay (s) [1]	95th%ile Queue (m)
P	Signalised	0.82	54	156	0.84	50	163
OP		0.79	46	107	0.83	49	170
O ^[2]		0.87	57	217	0.83	44	137
PKP		0.43	29	35	0.48	29	36
KKP	Roundabout	0.33	8	16	0.29	7	13
SP	Priority Controlled (T-junction)	0.46	5	16	0.37	4	13
SSP		0.21	1	3	0.17	1	2

^[1] Average delay recorded for Signalised and Roundabout intersections and Maximum Delay recorded for Priority Controlled intersections.

^[2] Intersection O results based on previous work undertaken for Waterford Tamborine Road.

The results reported in **Table 10** confirm that the performance of all intersections in the proposed configuration (for ultimate traffic) within Precinct 9 in the ultimate scenario (Scenario 2) is within the adopted maximum operating parameters.

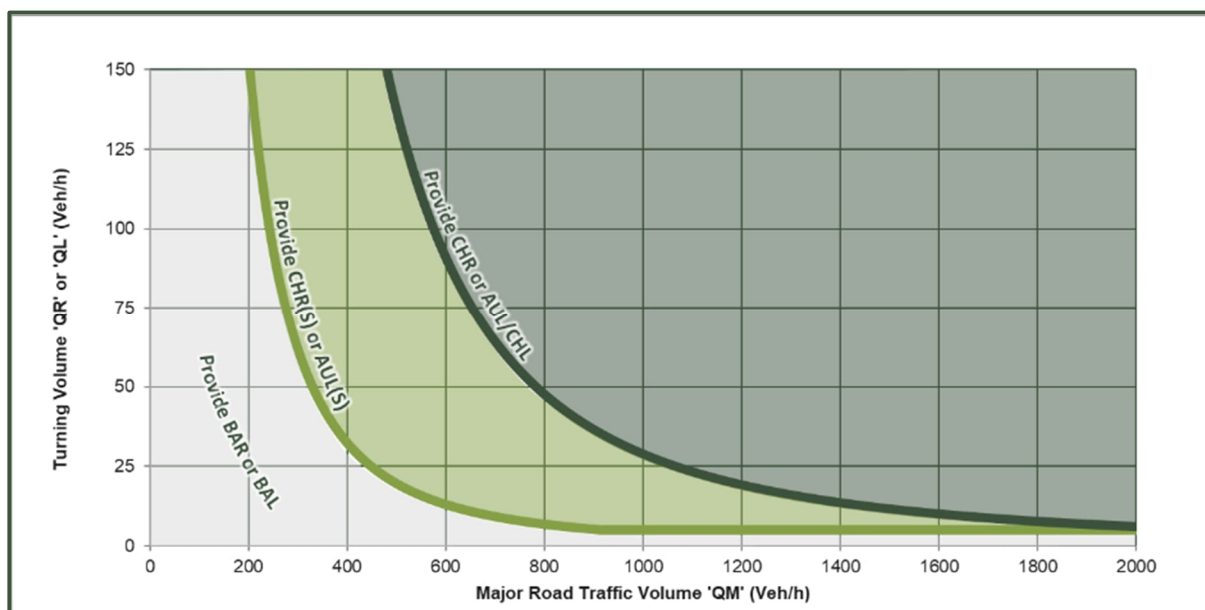


4.6 Turn Warrant Assessment

A turn warrant assessment has been conducted to confirm the appropriate turn treatment type required at intersection SP and SSP as a priority controlled (unsignalised) intersection.

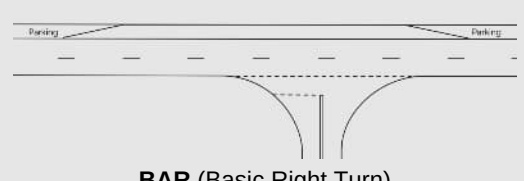
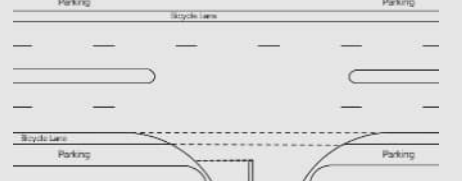
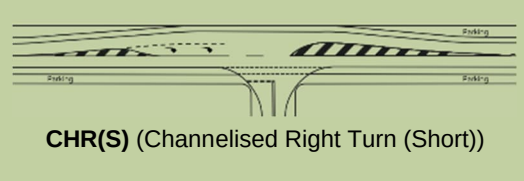
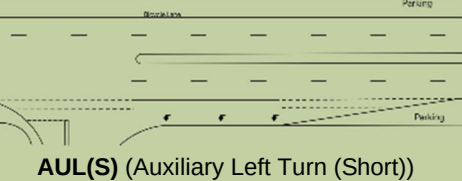
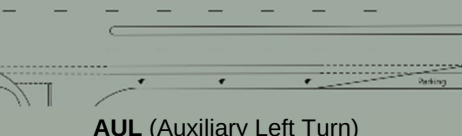
The turn warrant assessment has been undertaken in accordance with research summarised in *Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (2021) (AGRD4A)*. To assist the reader's interpretation of the assessment, a pictorial description of the various urban turn treatments that may be considered based on the design speed (**V**) is provided in **Figure 8** and **Table 11**.

Figure 8 Turn Treatment Types and Volume Criteria ($V \leq 70\text{km/h}$)



Source: AGTM4A-21

Table 11 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 or AUL or CHL	 AUL (Auxiliary Left Turn)



Acronym	Right Turn Treatment	Left Turn Treatment
	CHR (Channelised Right Turn)	 CHL (Channelised Left Turn)

The results are summarised in **Table 12** with the detailed output from the assessments included at **Appendix G**.

Table 12 Turn Warrant Assessment Summary

Intersection	Minimum Turn Treatment Required
SP	CHR / AUL(s)
SSP	CHR(s) / BAL

The results indicate that at a minimum, Short Auxiliary Left (**AUL(s)**) and Channelised Right (**CHR**) Turn Treatments will be required at intersection SP, and Basic Left (**BAL**) and Short Channelised Right (**CHR(s)**) Turn Treatments will be required at intersection SP during the ultimate scenario (Scenario 2).

Notwithstanding the above and the SIDRA analysis results, an auxiliary left turn lane (**AUL**) is recommended at both intersection SP and SSP, whether signalised or unsignalised. The AUL is recommended to provide for safe protection and appropriate operation for the pedestrian footpath and two-way cycle track crossing on the western leg of the intersections.

4.7 Intersection Form

The functional drawings for Precinct 9 have been prepared by KN Group to provide sufficient road reserve allocation to accommodate the necessary road and intersection configurations, provided at **Appendix C**.



5.0 Summary

The following summarises the key conclusions in respect of the traffic and transport aspects of Precinct 9 ROL 1 and considers the need for consistency with the Movement Infrastructure Master Plan (**MIMP**):

- **Road Hierarchy** – The network of roads within and adjacent to Precinct 9 is generally consistent with the road hierarchy identified in the Endorsed MIMP (2025). The proposed network of roads is appropriate for the proposed Precinct 9 ROL 1 development and the overall Yarrabilba development.
- **Key Intersections** – The design form of key intersections within Precinct 9, providing connections to/from each sub-precinct, is appropriate to accommodate the anticipated traffic volumes within Precinct 9. 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 Precinct 9 ROL 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 Precinct 9 ROL 1 in conjunction with the surrounding development of Yarrabilba.
- **Public Transport** – The layout and design of streets within Precinct 9 ROL 1 makes the appropriate provision for public transport (bus services) and potential bus stops, ensuring that approximately 93% of lots in Precinct 9 will be within 500m walking distance of a proposed bus stop. This is consistent with what is identified in the Endorsed MIMP (2025).

6.0 RPEQ Certification

This traffic assessment and report has 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.

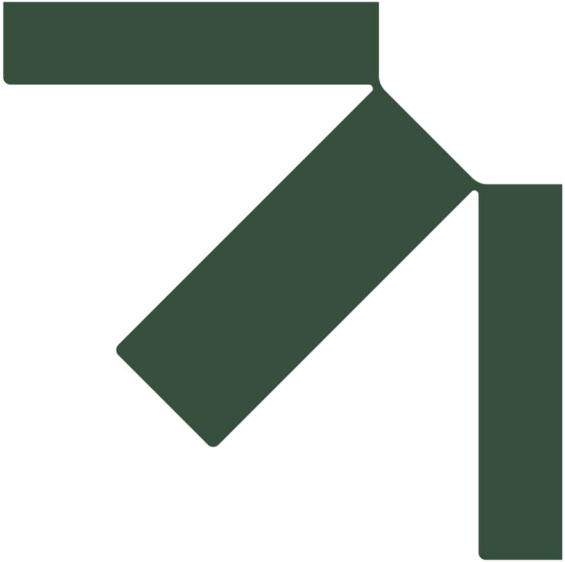
Sincerely,

SLR Consulting Australia Pty Ltd



Brendyn Rheinberger, RPEQ #17962
Principal Consultant





Appendix A Development Plans

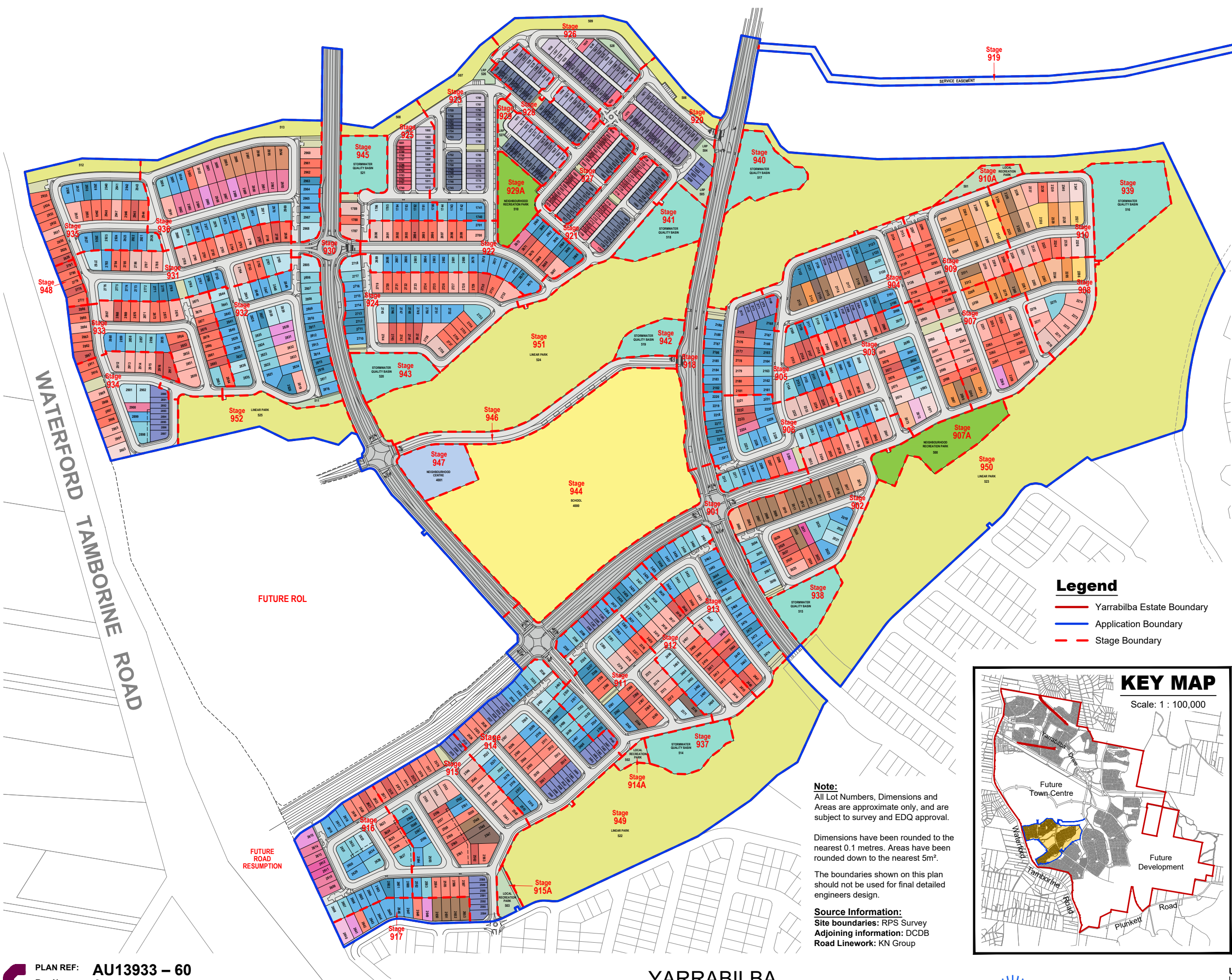
Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025



Land Budget		
Land Use	Overall	
Residential Allotments	36.949 ha	34.4%
Trunk / Collector Roads	6.323 ha	5.9%
Local Roads	20.907 ha	19.5%
Pedestrian Links	0.561 ha	0.5%
Service Easement	0.736 ha	0.7%
State Primary School	7.001 ha	6.5%
Neighbourhood Centre	0.575 ha	0.5%
Neighbourhood Recreation Park	1.325 ha	1.2%
Local Recreation Park	0.891 ha	0.8%
Drainage Open Space	4.880 ha	4.5%
Linear Open Space	27.312 ha	25.4%
Total Application Area	107.460 ha	100.0%

Yield Breakdown			
Allotment Typology	Typical Area	Overall	
16.5m Deep Product			
16.5m x 4.6m Laneway Terrace	76m²	28	2%
16.5m x 6.6m Laneway Terrace	109m²	33	3%
Subtotal		61	5%
21m Deep Product			
21m x 4.6m Laneway Terrace	97m²	25	2%
21m x 6.6m Laneway Terrace	139m²	63	5%
Subtotal		88	8%
25m Deep Product			
25m x 4.6m Laneway Terrace	115m²	15	1%
25m x 6.6m Laneway Terrace	165m²	53	5%
25m x 7.5m Laneway Terrace	188m²	38	3%
25m x 7.5m Front Loaded Terrace	188m²	59	5%
25m x 8.0m Laneway Terrace (with optional Fonzie)	200m²	10	1%
25m x 10.5m	263m²	64	6%
25m x 12.5m	313m²	182	16%
25m x 14m	350m²	92	8%
25m x 16m	400m²	38	3%
Subtotal		551	48%
28m Deep Product			
28m x 10.5m	280m²	48	4%
28m x 12.5m	350m²	173	15%
28m x 14m	392m²	87	8%
28m x 16m	448m²	32	3%
28m x 18m	504m²	8	1%
Subtotal		348	30%
30m Deep Product			
30m x 10.5m	315m²	3	0%
30m x 12.5m	375m²	20	2%
30m x 14m	420m²	9	1%
30m x 16m	480m²	2	0%
Subtotal		34	3%
32m Deep Product			
32m x 10.5m	336m²	6	1%
32m x 12.5m	400m²	23	2%
32m x 14m	448m²	27	2%
32m x 16m	512m²	15	1%
32m x 18m	576m²	5	0%
Subtotal		76	7%
Total Residential Allotments		1158	100%
Density (calc. includes area of residential lots, local roads and local parks)		19.1 dw/ha	

Legend

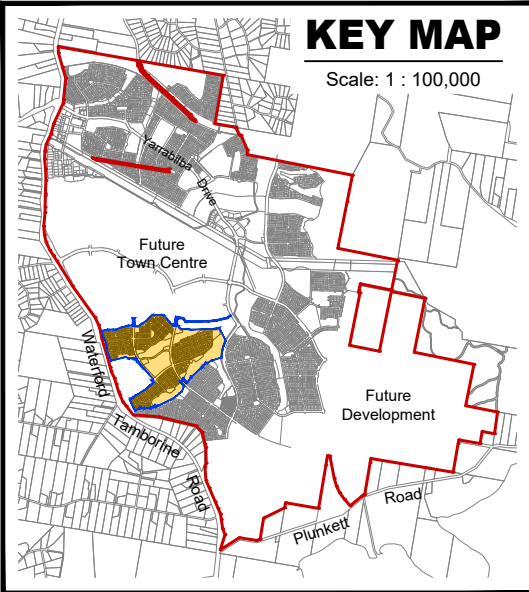
- Yarrabilba Estate Boundary
- Application Boundary
- Stage Boundary

Note:
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and EDQ approval.

Dimensions have been rounded to the nearest 0.1 metres. Areas have been rounded down to the nearest 5m².

The boundaries shown on this plan should not be used for final detailed engineers design.

Source Information:
Site boundaries: RPS Survey
Adjoining information: DCDB
Road Linework: KN Group



YARRABILBA
PRECINCT 9 - APPLICATION 1
RECONFIGURATION OF A LOT - OVERALL

PLAN REF: AU13933 – 60
Rev No: A
DATE: 10 Dec 2025
CLIENT: STOCKLAND
DRAWN BY: BM / MM
CHECKED BY: BM



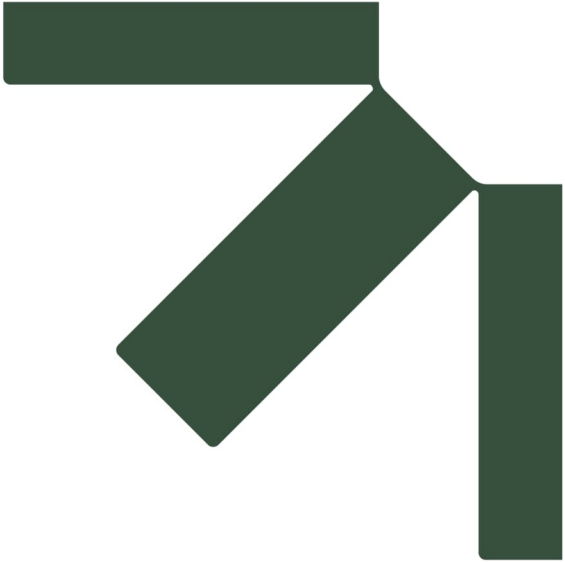
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URBAN DESIGN
Level 8
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Appendix B Yarrabilba Road Network Plan

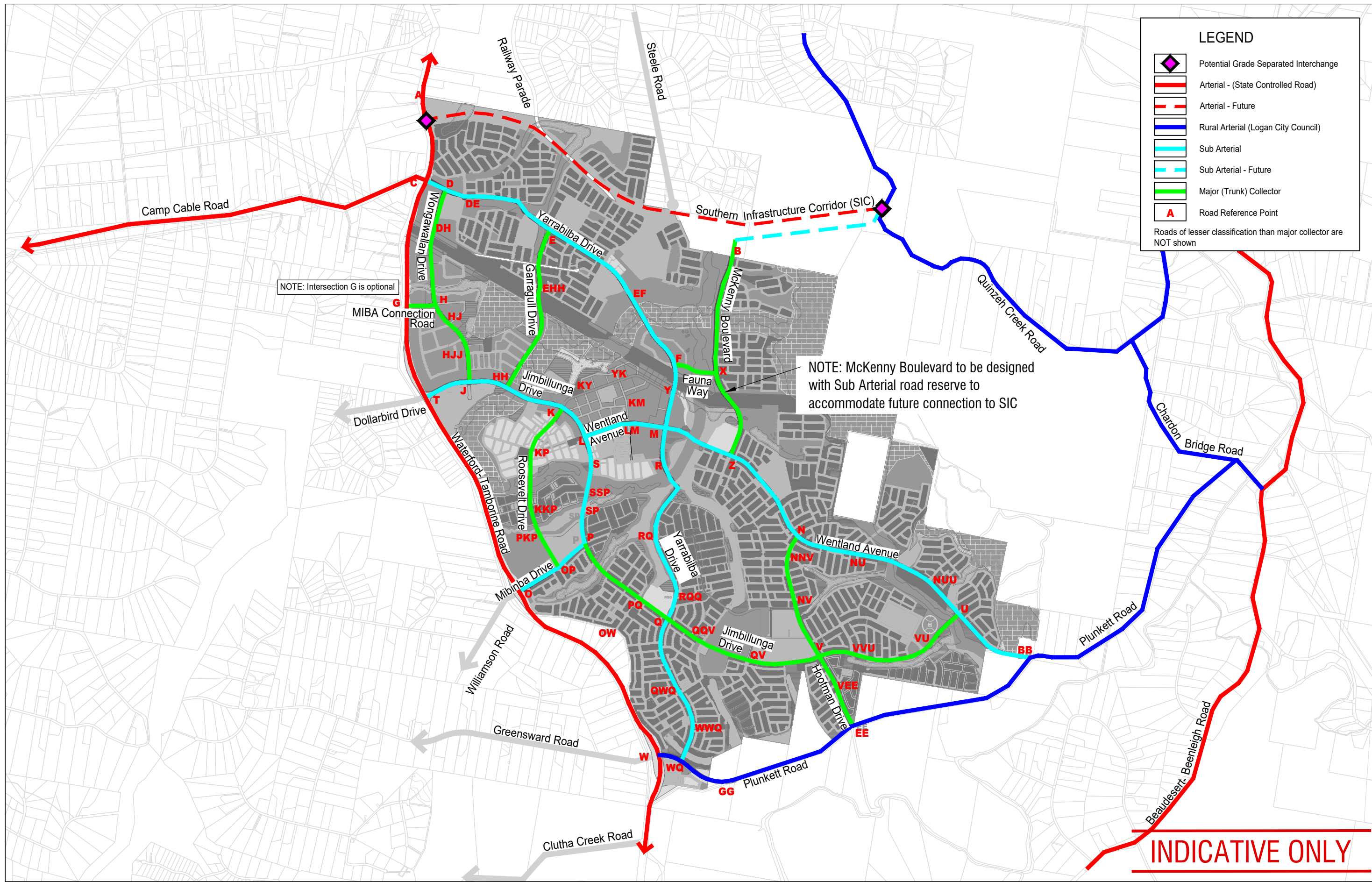
Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025



LEVEL 16, 175 EAGLE ST
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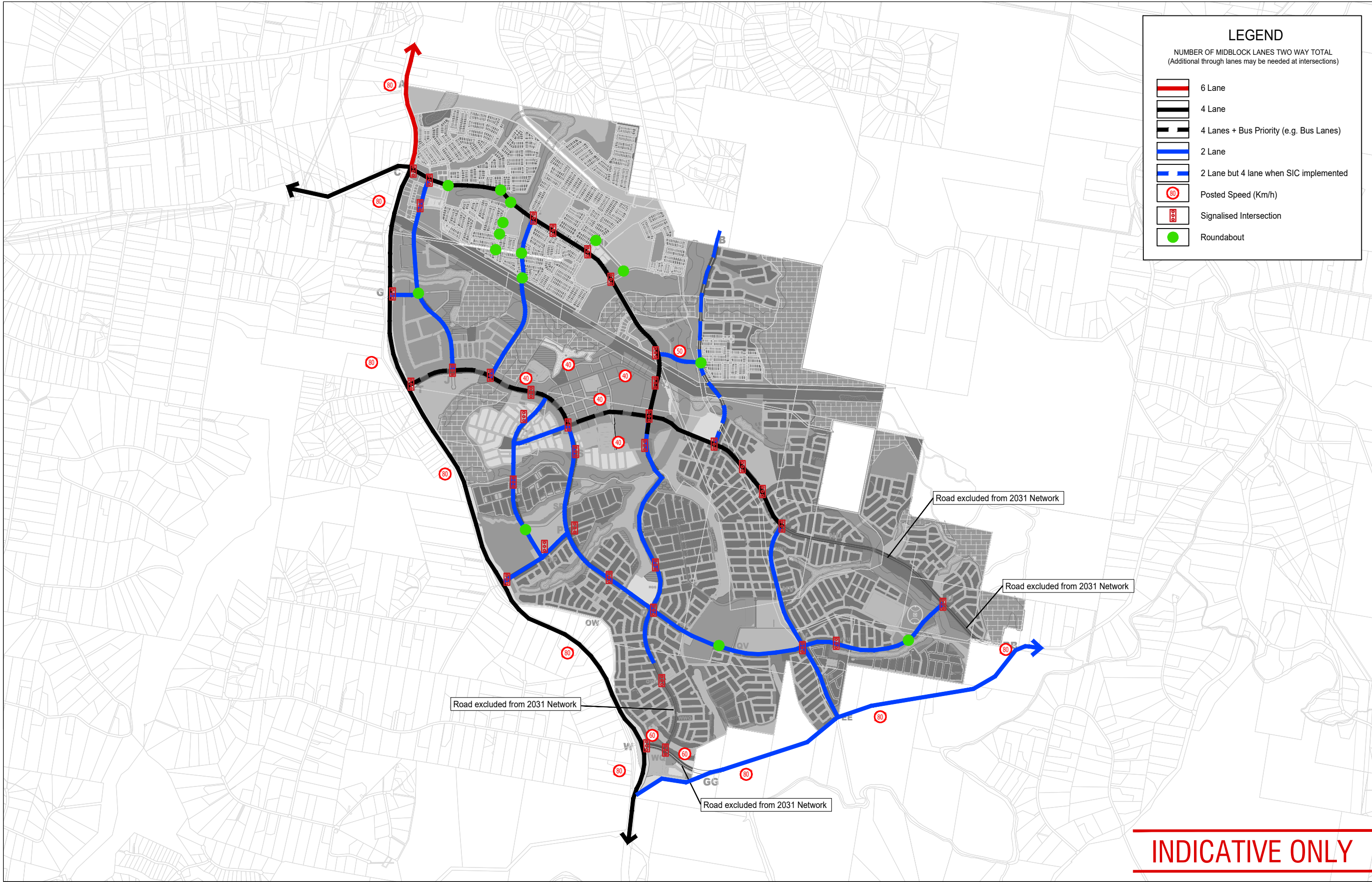
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Stockland Residential Communities

Yarrabilba Masterplan

**Functional Road Hierarchy
and Road Reference Points**

FIGURE 508



INDICATIVE ONLY



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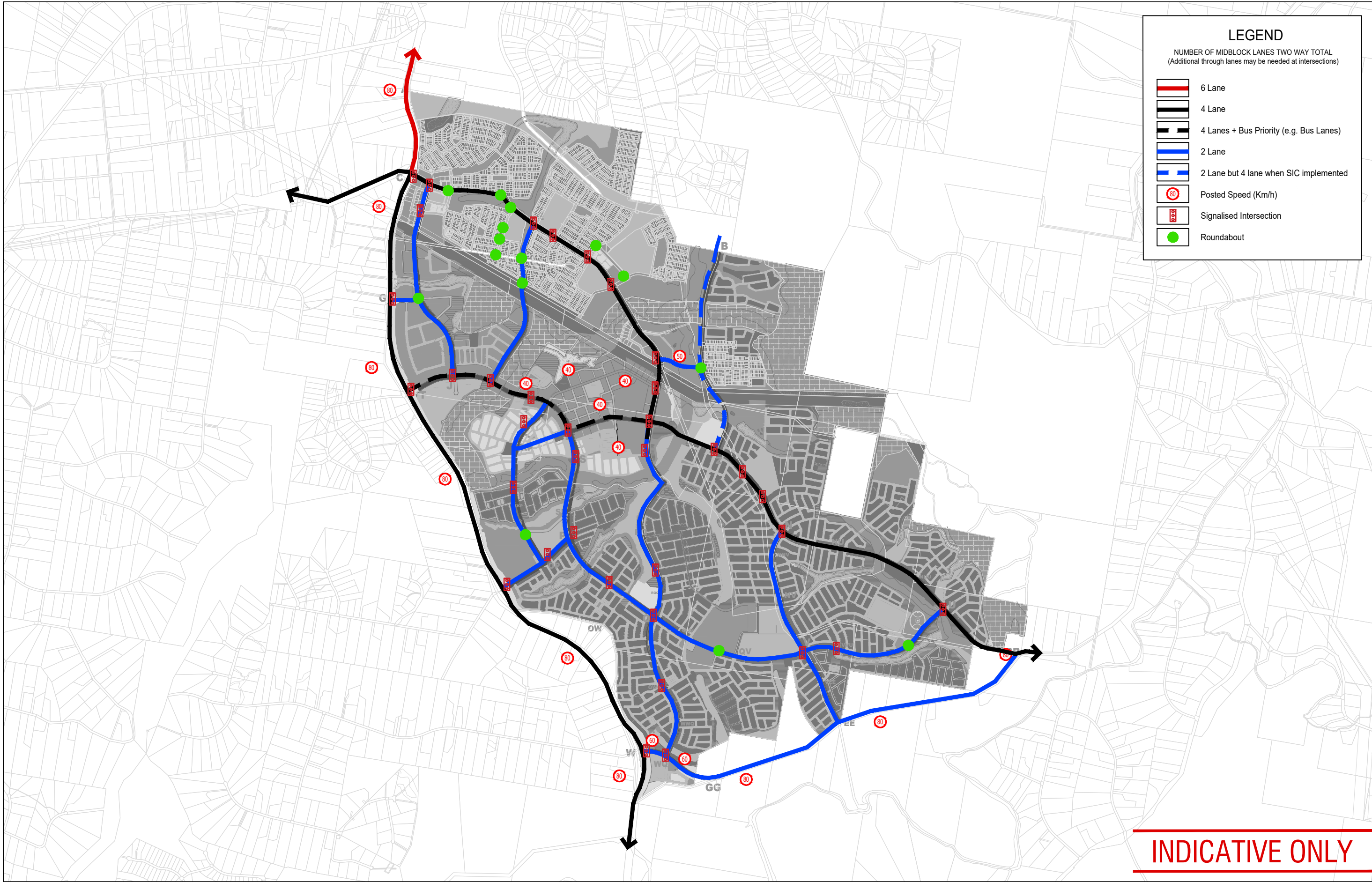
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Stockland Residential Communities

Yarrabilba Masterplan

Interim (2031) Traffic Model Road
(Lanes/Speed/Intersections)

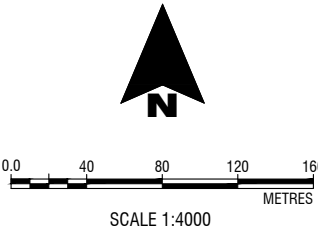
FIGURE 601

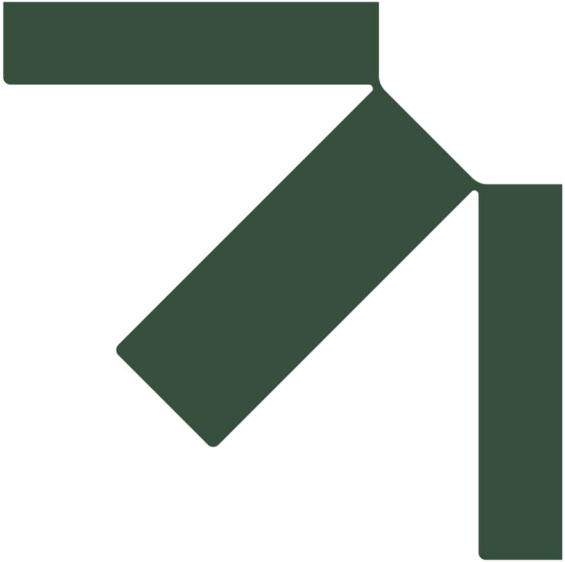


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Sheet Size:	A3
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Appendix C Functional Plans

Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025



PRECINCT 9 - ROL1 FUNCTIONAL PLANS



DRAWING INDEX

DRAWING NO.	DRAWING TITLE
24-153-SK101	GENERAL - LOCALITY PLAN, DRAWING INDEX AND NOTES
24-153-SK102	FUNCTIONAL LAYOUT - STAGING PLAN - SHEET 1
24-153-SK103	FUNCTIONAL LAYOUT - STAGING PLAN - SHEET 2
24-153-SK104	FUNCTIONAL LAYOUT - STAGING PLAN - SHEET 3
24-153-SK105	FUNCTIONAL LAYOUT - STAGING PLAN - SHEET 4
24-153-SK106	FUNCTIONAL LAYOUT - STAGING PLAN - SHEET 5
24-153-SK107	FUNCTIONAL LAYOUT - ROADWORKS PLAN - SHEET 1
24-153-SK108	FUNCTIONAL LAYOUT - ROADWORKS PLAN - SHEET 2
24-153-SK109	FUNCTIONAL LAYOUT - ROADWORKS PLAN - SHEET 3
24-153-SK110	FUNCTIONAL LAYOUT - ROADWORKS PLAN - SHEET 4
24-153-SK111	FUNCTIONAL LAYOUT - ROADWORKS PLAN - SHEET 5
24-153-SK112	FUNCTIONAL LAYOUT - TYPICAL CROSS SECTIONS
24-153-SK113	FUNCTIONAL LAYOUT - SERVICES PLAN - SHEET 1
24-153-SK114	FUNCTIONAL LAYOUT - SERVICES PLAN - SHEET 2
24-153-SK115	FUNCTIONAL LAYOUT - SERVICES PLAN - SHEET 3
24-153-SK116	FUNCTIONAL LAYOUT - SERVICES PLAN - SHEET 4
24-153-SK117	FUNCTIONAL LAYOUT - SERVICES PLAN - SHEET 5
24-153-SK118	FUNCTIONAL LAYOUT - STORMWATER PLAN - SHEET 1
24-153-SK119	FUNCTIONAL LAYOUT - STORMWATER PLAN - SHEET 2
24-153-SK120	FUNCTIONAL LAYOUT - STORMWATER PLAN - SHEET 3
24-153-SK121	FUNCTIONAL LAYOUT - STORMWATER PLAN - SHEET 4
24-153-SK122	FUNCTIONAL LAYOUT - STORMWATER PLAN - SHEET 5
24-153-SK123	FUNCTIONAL LAYOUT - SEWER RETICULATION PLAN - SHEET 1
24-153-SK124	FUNCTIONAL LAYOUT - SEWER RETICULATION PLAN - SHEET 2
24-153-SK125	FUNCTIONAL LAYOUT - SEWER RETICULATION PLAN - SHEET 3
24-153-SK126	FUNCTIONAL LAYOUT - SEWER RETICULATION PLAN - SHEET 4
24-153-SK127	FUNCTIONAL LAYOUT - SEWER RETICULATION PLAN - SHEET 5
24-153-SK128	FUNCTIONAL LAYOUT - SEWER RETICULATION PLAN - SHEET 6
24-153-SK129	FUNCTIONAL LAYOUT - WATER RETICULATION PLAN - SHEET 1
24-153-SK130	FUNCTIONAL LAYOUT - WATER RETICULATION PLAN - SHEET 2
24-153-SK131	FUNCTIONAL LAYOUT - WATER RETICULATION PLAN - SHEET 3
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24-153-SK134	FUNCTIONAL LAYOUT - EARTHWORKS CONTOUR PLAN - SHEET 1
24-153-SK135	FUNCTIONAL LAYOUT - EARTHWORKS CONTOUR PLAN - SHEET 2
24-153-SK136	FUNCTIONAL LAYOUT - EARTHWORKS CONTOUR PLAN - SHEET 3
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24-153-SK139	FUNCTIONAL LAYOUT - EARTHWORKS SECTIONS - SHEET 1
24-153-SK140	FUNCTIONAL LAYOUT - EARTHWORKS SECTIONS - SHEET 2
24-153-SK141	FUNCTIONAL LAYOUT - EARTHWORKS SECTIONS - SHEET 3
24-153-SK142	FUNCTIONAL LAYOUT - EARTHWORKS SECTIONS - SHEET 4
24-153-SK143	FUNCTIONAL LAYOUT - RETAINING WALLS PLAN - SHEET 1
24-153-SK144	FUNCTIONAL LAYOUT - RETAINING WALLS PLAN - SHEET 2
24-153-SK145	FUNCTIONAL LAYOUT - RETAINING WALLS PLAN - SHEET 3
24-153-SK146	FUNCTIONAL LAYOUT - RETAINING WALLS PLAN - SHEET 4
24-153-SK147	FUNCTIONAL LAYOUT - RETAINING WALLS PLAN - SHEET 5

FOR
APPROVAL

REVISIONS					
No	Description	DR	DES	CHK	Date
A	FOR APPROVAL	SLK	JAS	RWM	10.12.25

Project



**PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS**

Client



Approved - RPEQ 12805

Digitally signed by Robert William Mander BEng (Civl), CPEng, RPEQ 12805
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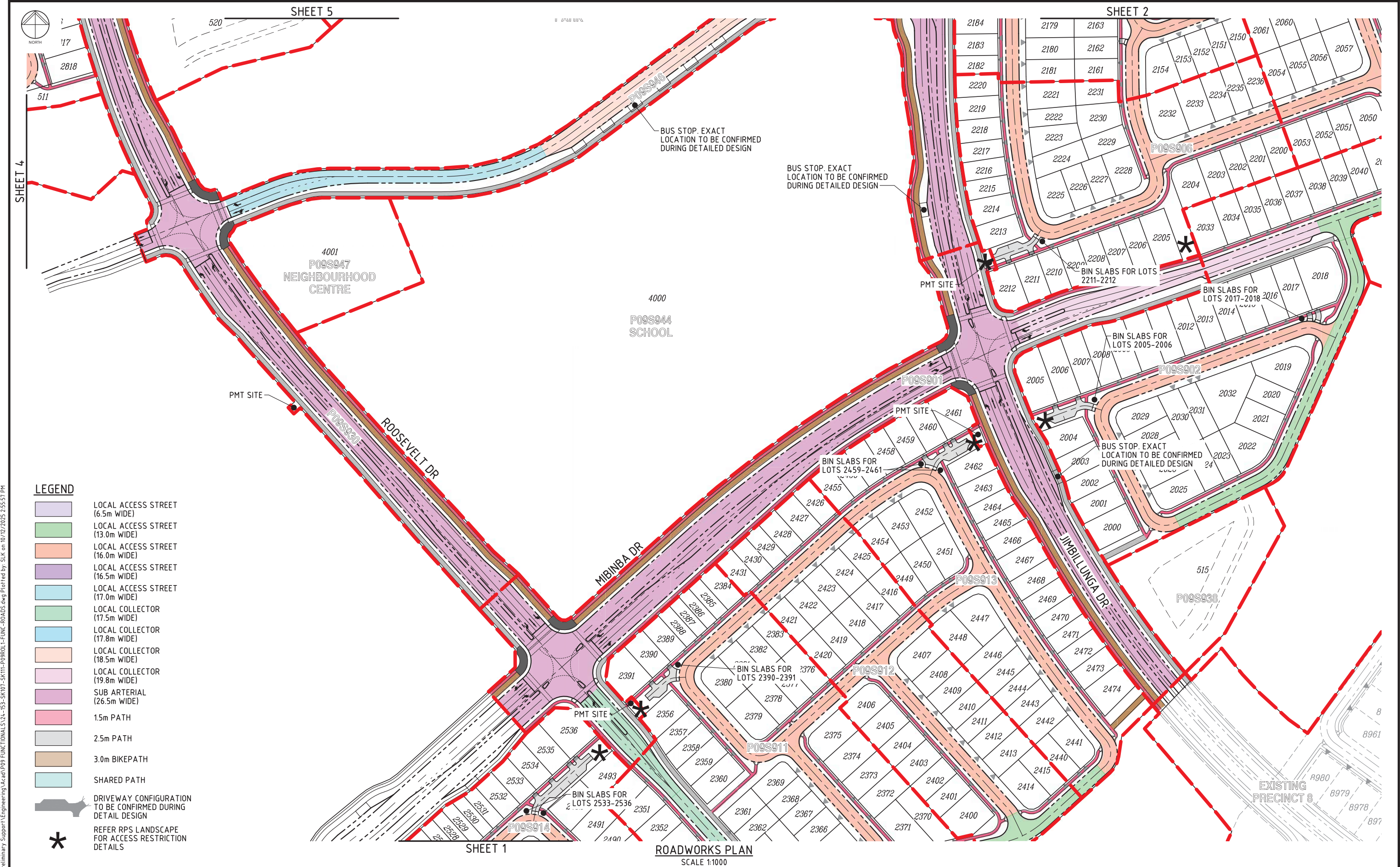
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www.kngrp.com.au | 07 3017 1900

Drawing Title

**GENERAL
LOCALITY PLAN,
DRAWING INDEX AND NOTES**

Application No.

A1	Drawing No 24-153-SK101	Revision A
----	-----------------------------------	----------------------



- LEGEND**
- LOCAL ACCESS STREET (6.5m WIDE)
 - LOCAL ACCESS STREET (13.0m WIDE)
 - LOCAL ACCESS STREET (16.0m WIDE)
 - LOCAL ACCESS STREET (16.5m WIDE)
 - LOCAL ACCESS STREET (17.0m WIDE)
 - LOCAL COLLECTOR (17.5m WIDE)
 - LOCAL COLLECTOR (17.8m WIDE)
 - LOCAL COLLECTOR (18.5m WIDE)
 - LOCAL COLLECTOR (19.8m WIDE)
 - SUB ARTERIAL (26.5m WIDE)
 - 1.5m PATH
 - 2.5m PATH
 - 3.0m BIKEPATH
 - SHARED PATH
 - DRIVEWAY CONFIGURATION TO BE CONFIRMED DURING DETAIL DESIGN
 - REFER RPS LANDSCAPE FOR ACCESS RESTRICTION DETAILS

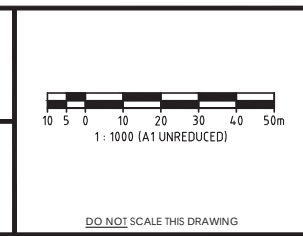
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A	FOR APPROVAL	SLK	JAS	RWM	10.12.25

PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS

Client

Approved - RPEQ 12805

Robert William Mander
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Date: 2025.12.10 15:10:20+10'00'



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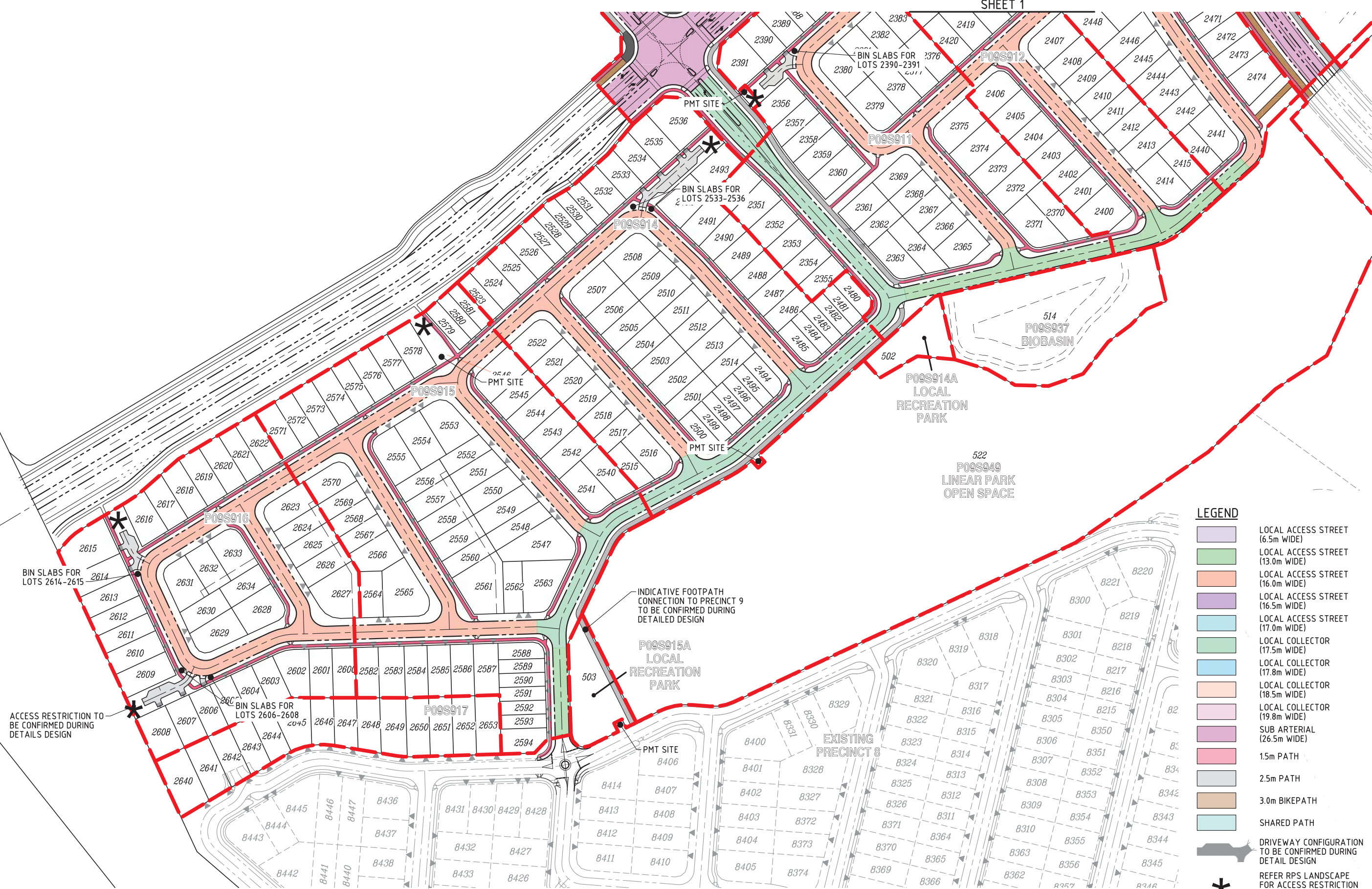
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Application No.		
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SHEET 1

VE ROAD
OPTION



LEGEND

- LOCAL ACCESS STREET (6.5m WIDE)
- LOCAL ACCESS STREET (13.0m WIDE)
- LOCAL ACCESS STREET (16.0m WIDE)
- LOCAL ACCESS STREET (16.5m WIDE)
- LOCAL ACCESS STREET (17.0m WIDE)
- LOCAL COLLECTOR (17.5m WIDE)
- LOCAL COLLECTOR (17.8m WIDE)
- LOCAL COLLECTOR (18.5m WIDE)
- LOCAL COLLECTOR (19.8m WIDE)
- SUB ARTERIAL (26.5m WIDE)
- 1.5m PATH
- 2.5m PATH
- 3.0m BIKEPATH
- SHARED PATH
- DRIVEWAY CONFIGURATION TO BE CONFIRMED DURING DETAIL DESIGN
- REFER RPS LANDSCAPE FOR ACCESS RESTRICTION DETAILS

ROADWORKS PLAN
SCALE 1:1000

FOR
APPROVAL

REVISIONS					
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Project

YARRABILBA

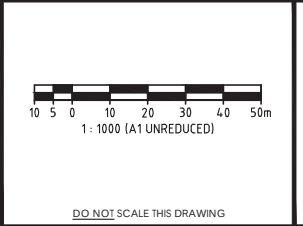
PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS

Client

Stockland

Approved - RPEQ 12805

Digitally signed by Robert William Mander BEng (Civ), CPEng, RPEQ 12805
Date: 2025.12.10 15:10:21+10'00'



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Drawing Title		
FUNCTIONAL LAYOUT ROADWORKS PLAN SHEET 2		
Application No.		
A1	Drawing No 24-153-SK108	Revision A



- LEGEND**
- LOCAL ACCESS STREET (6.5m WIDE)
 - LOCAL ACCESS STREET (13.0m WIDE)
 - LOCAL ACCESS STREET (16.0m WIDE)
 - LOCAL ACCESS STREET (16.5m WIDE)
 - LOCAL ACCESS STREET (17.0m WIDE)
 - LOCAL COLLECTOR (17.5m WIDE)
 - LOCAL COLLECTOR (17.8m WIDE)
 - LOCAL COLLECTOR (18.5m WIDE)
 - LOCAL COLLECTOR (19.8m WIDE)
 - SUB ARTERIAL (26.5m WIDE)
 - 1.5m PATH
 - 2.5m PATH
 - 3.0m BIKEPATH
 - SHARED PATH
 - DRIVEWAY CONFIGURATION TO BE CONFIRMED DURING DETAIL DESIGN
 - REFER RPS LANDSCAPE FOR ACCESS RESTRICTION DETAILS

M:\2024\24153 Yarrabilba Precinct 9-9 Preliminary Support\Engineering\Access\Functional\24153-SK107-SK111-P09R01-1-FUNC-ROADS.dwg Plotted by: SLK on 10/12/2025 2:56:03 PM

FOR APPROVAL

REVISIONS					
No	Description	DR	DES	CHK	Date
A	FOR APPROVAL	SLK	JAS	RWM	10.12.25

Project

YARRABILBA

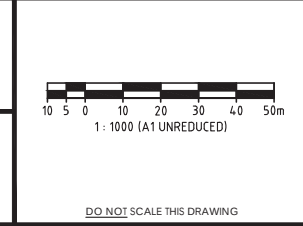
PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS

Client

Stockland

Approved - RPEQ 12805

Robert William Mander
Mander BEng (Civl), CPEng, RPEQ 12805
Date: 2025.12.10 15:10:21+1000



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Drawing Title		
FUNCTIONAL LAYOUT ROADWORKS PLAN SHEET 3		
Application No.		
A1	Drawing No 24-153-SK109	Revision A



ACCESS RESTRICTION TO BE CONFIRMED DURING DETAILS DESIGN

LEGEND

- LOCAL ACCESS STREET (6.5m WIDE)
- LOCAL ACCESS STREET (13.0m WIDE)
- LOCAL ACCESS STREET (16.0m WIDE)
- LOCAL ACCESS STREET (16.5m WIDE)
- LOCAL ACCESS STREET (17.0m WIDE)
- LOCAL COLLECTOR (17.5m WIDE)
- LOCAL COLLECTOR (17.8m WIDE)
- LOCAL COLLECTOR (18.5m WIDE)
- LOCAL COLLECTOR (19.8m WIDE)
- SUB ARTERIAL (26.5m WIDE)
- 1.5m PATH
- 2.5m PATH
- 3.0m BIKEPATH
- SHARED PATH
- DRIVEWAY CONFIGURATION TO BE CONFIRMED DURING DETAIL DESIGN
- REFER RPS LANDSCAPE FOR ACCESS RESTRICTION DETAILS

POTENTIAL DRAINAGE EASEMENT FOR FUTURE WTR UPGRADE

ACCESS RESTRICTION TO BE CONFIRMED DURING DETAILS DESIGN

ROADWORKS PLAN
SCALE 1:1000

SHEET 5

SHEET 5

SHEET 1

FOR
APPROVAL

REVISIONS					
No	Description	DR	DES	CHK	Date
A	FOR APPROVAL	SLK	JAS	RWM	10.12.25

Project

YARRABILBA

PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS

Client

Stockland

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Date: 2025.12.10 15:10:22+1000



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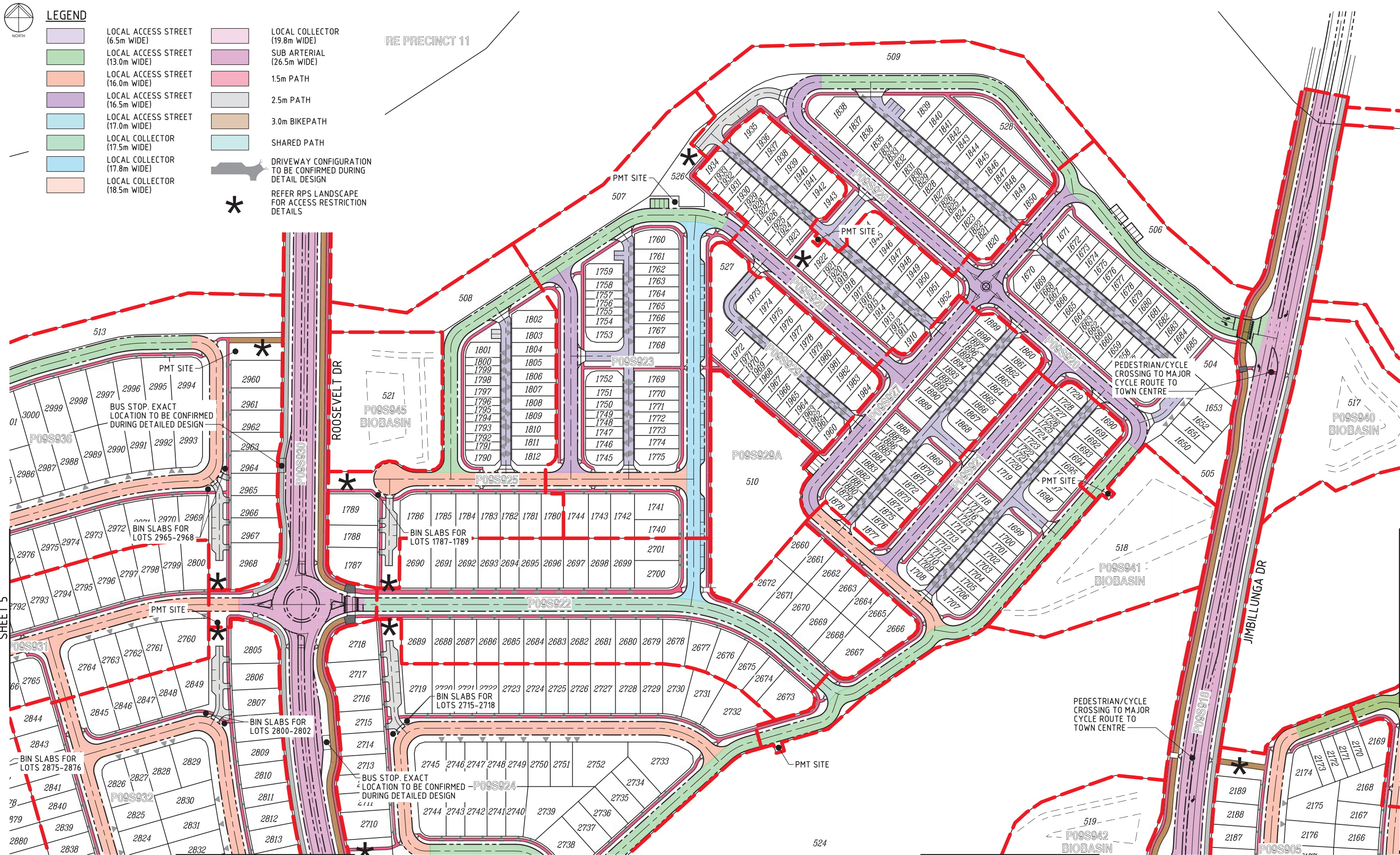
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FUNCTIONAL LAYOUT ROADWORKS PLAN SHEET 4		
Application No.		
A1	Drawing No 24-153-SK110	Revision A



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- LOCAL ACCESS STREET (16.0m WIDE)
- LOCAL ACCESS STREET (16.5m WIDE)
- LOCAL ACCESS STREET (17.0m WIDE)
- LOCAL COLLECTOR (17.5m WIDE)
- LOCAL COLLECTOR (17.8m WIDE)
- LOCAL COLLECTOR (18.5m WIDE)
- LOCAL COLLECTOR (19.8m WIDE)
- SUB ARTERIAL (26.5m WIDE)
- 1.5m PATH
- 2.5m PATH
- 3.0m BIKEPATH
- SHARED PATH
- DRIVEWAY CONFIGURATION TO BE CONFIRMED DURING DETAIL DESIGN
- REFER RPS LANDSCAPE FOR ACCESS RESTRICTION DETAILS

RE PRECINCT 11



ROADWORKS PLAN
SCALE 1:1000

SHEET 3

SHEET 5

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APPROVAL

REVISIONS					
No	Description	DR	DES	CHK	Date
A	FOR APPROVAL	SLK	JAS	RWM	10.12.25

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PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS

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Stockland
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Date: 2025.12.10 15:10:22+10'00'

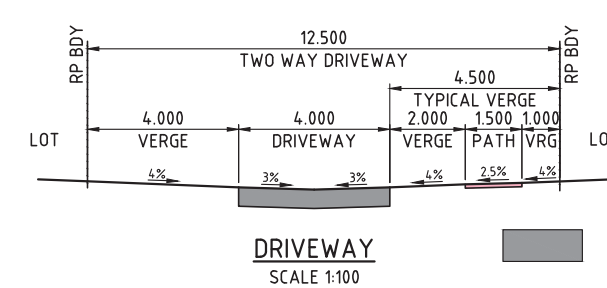
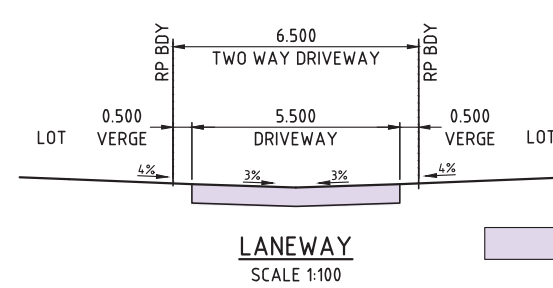
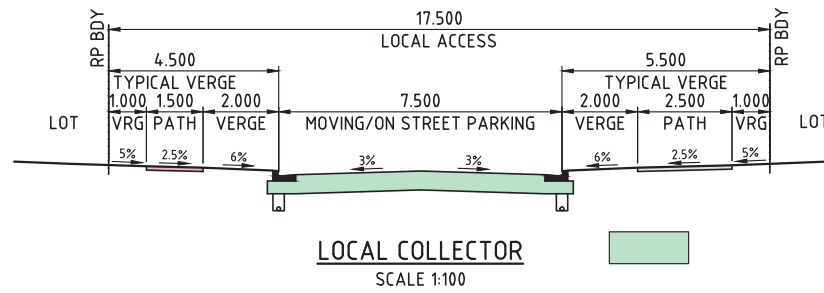
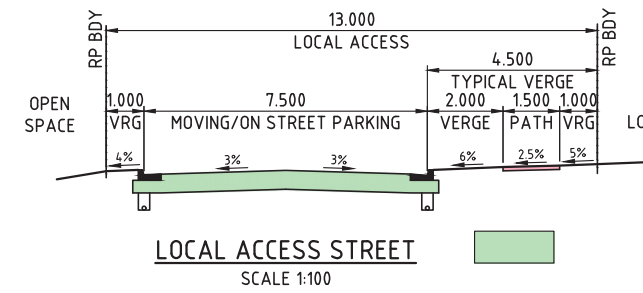
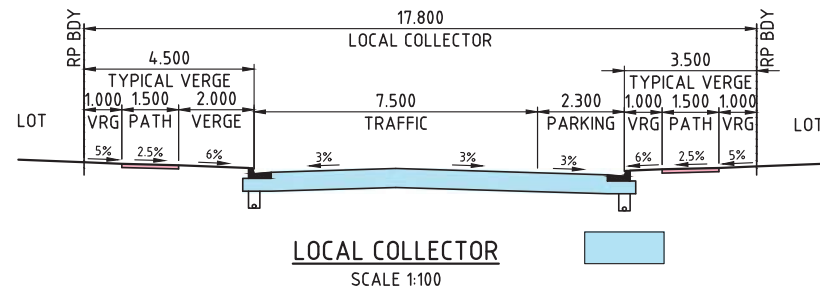
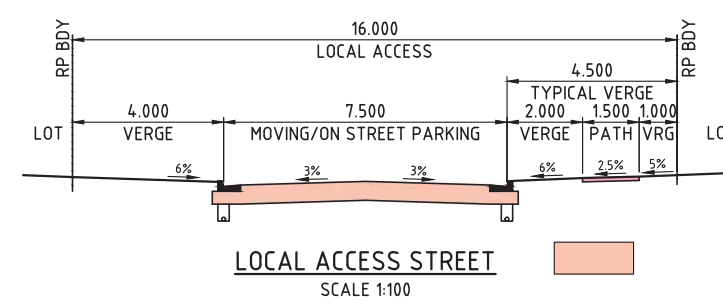
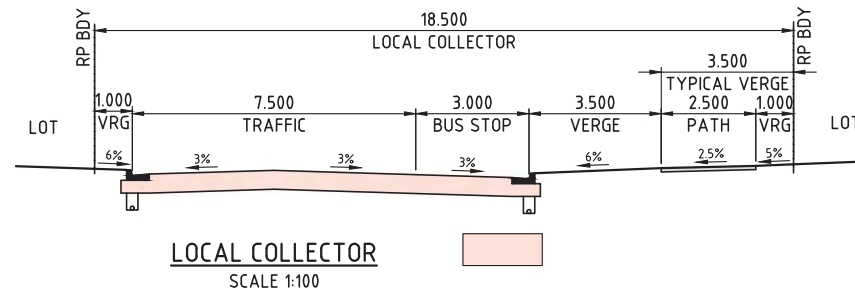
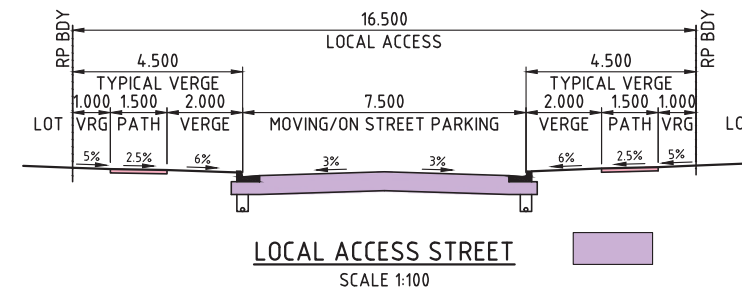
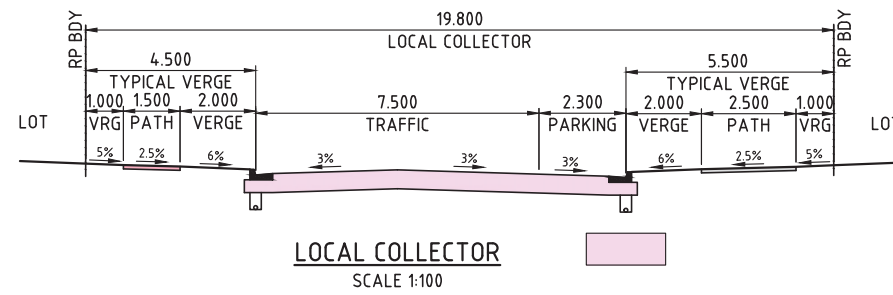
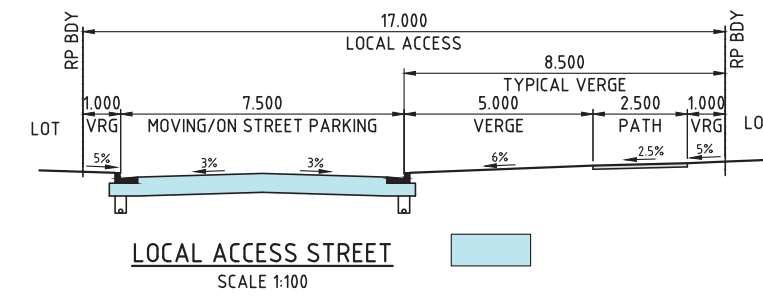
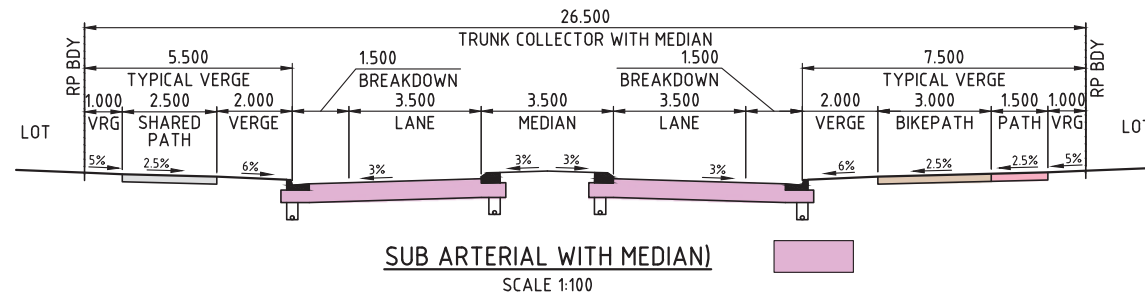


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Drawing Title FUNCTIONAL LAYOUT ROADWORKS PLAN SHEET 5		
Application No.		
A1	Drawing No 24-153-SK111	Revision A

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NB
KERB TYPES TO BE CONFIRMED
DURING DETAILED DESIGN

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REVISIONS					
No	Description	DR	DES	CHK	Date
A	FOR APPROVAL	SLK	JAS	RWM	10.12.25

Project
YARRABILBA
PRECINCT 9 - ROL1
PRELIMINARY PLANNING
FUNCTIONAL DRAWINGS

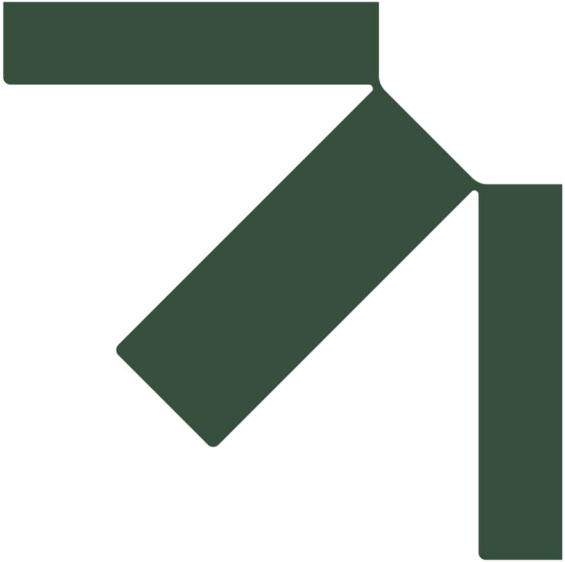
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Date: 2025.12.10 15:10:22+1000



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Drawing Title
**FUNCTIONAL LAYOUT
TYPICAL CROSS SECTIONS**
Application No.
A1
Drawing No.
24-153-SK112
Revision
A



Appendix D Traffic Volume Diagrams

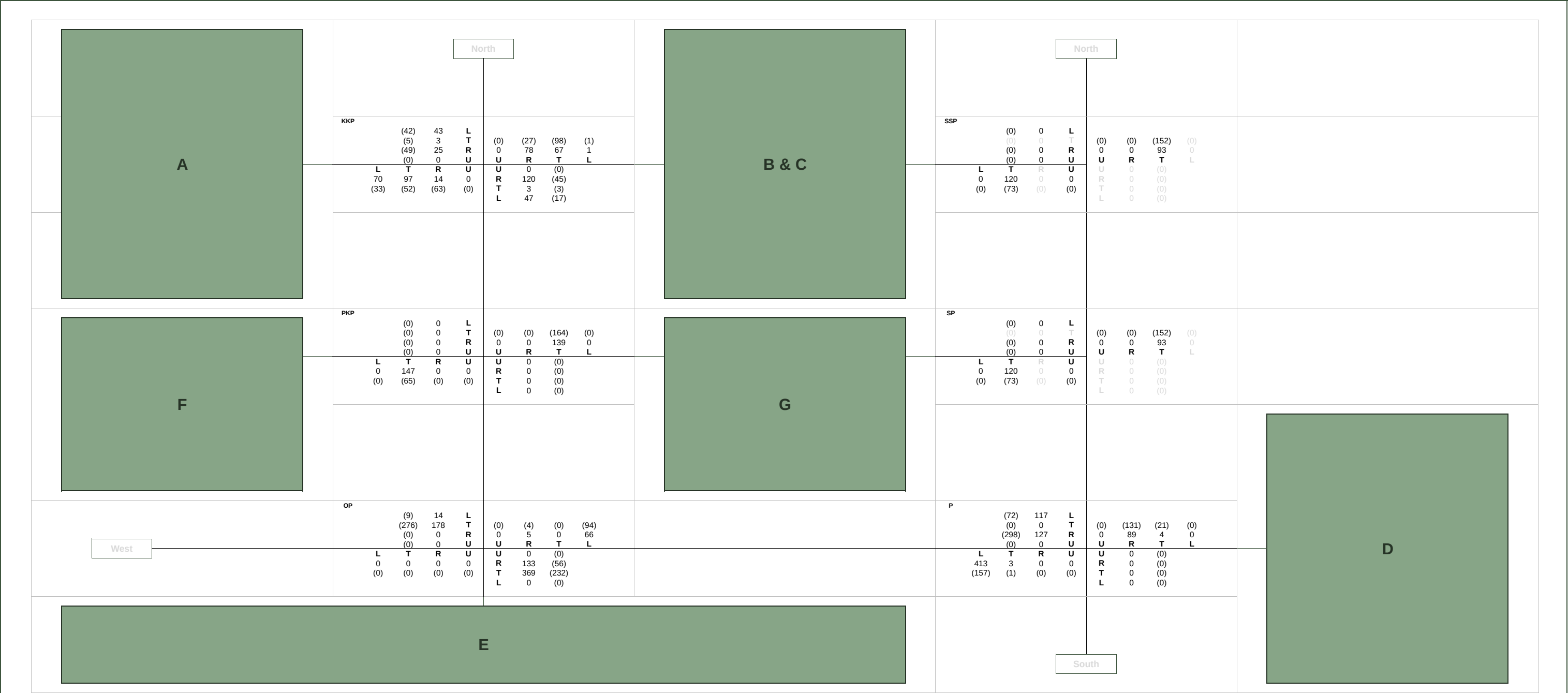
Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025

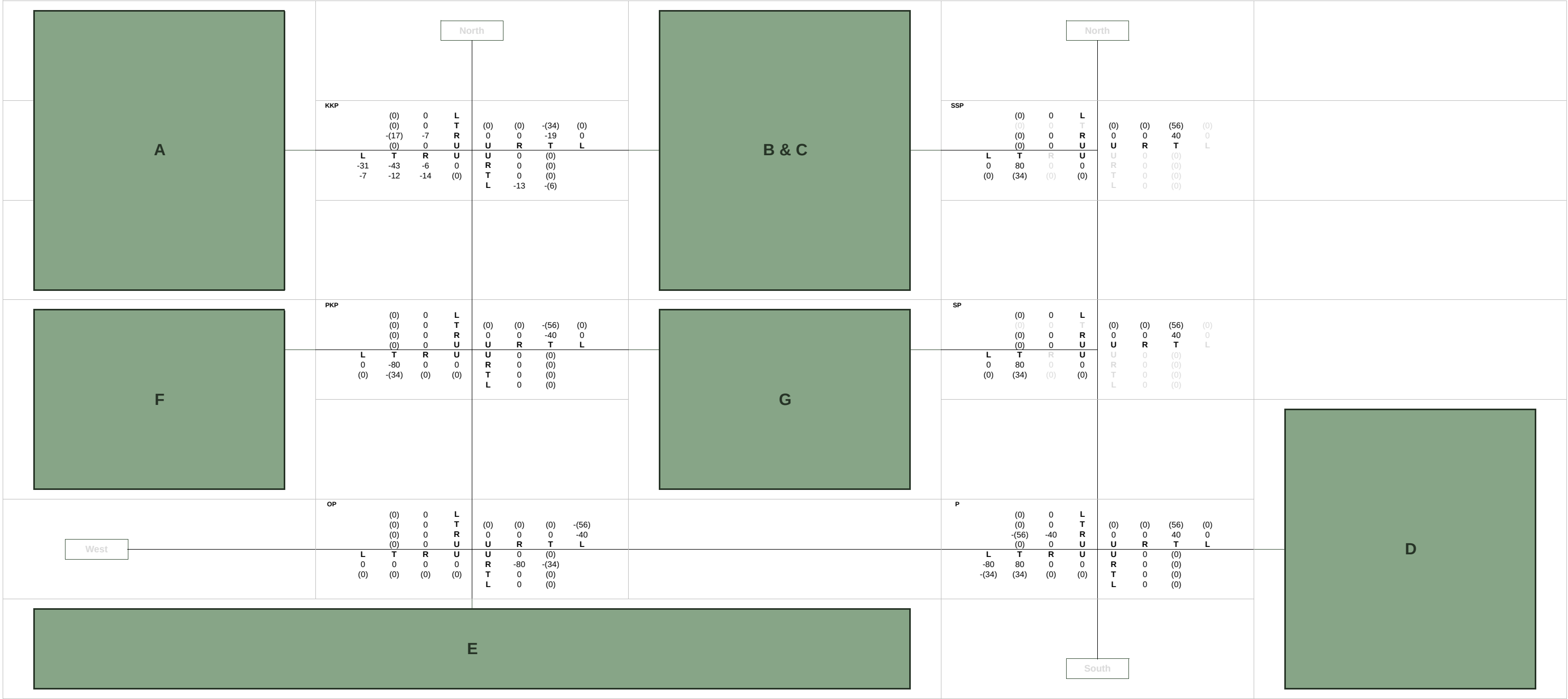


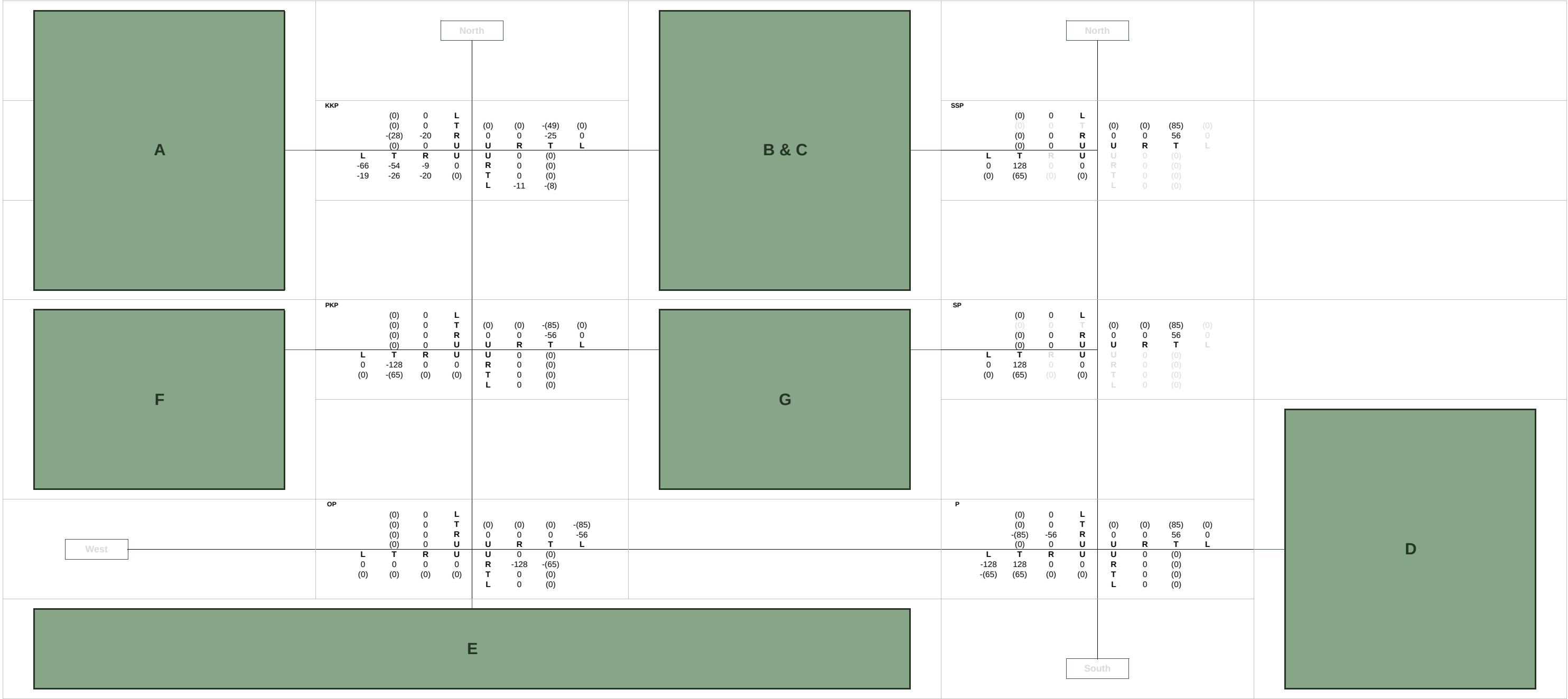
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620.11743.00016
Yarrabilba Master Plan Development Precinct 9

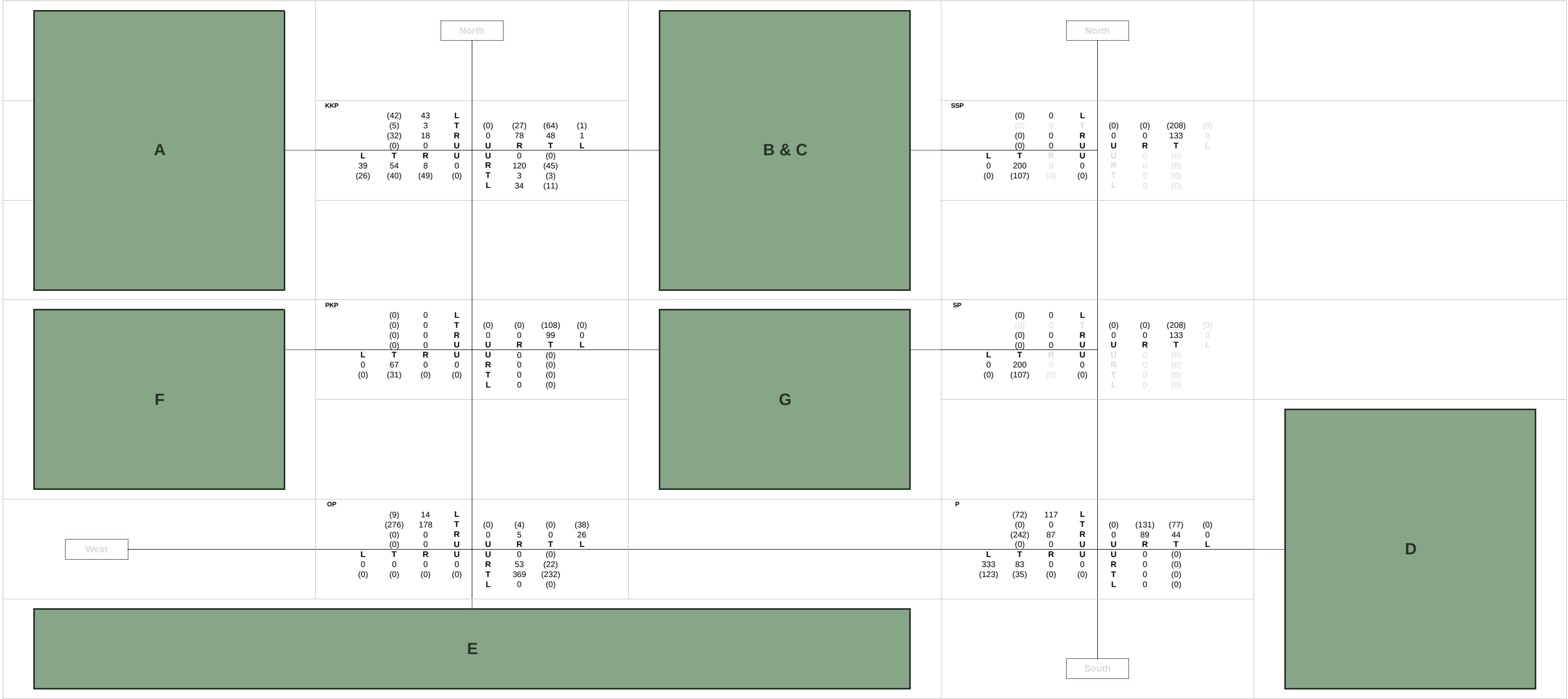
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T Through
R Right Turn
U U-Turn

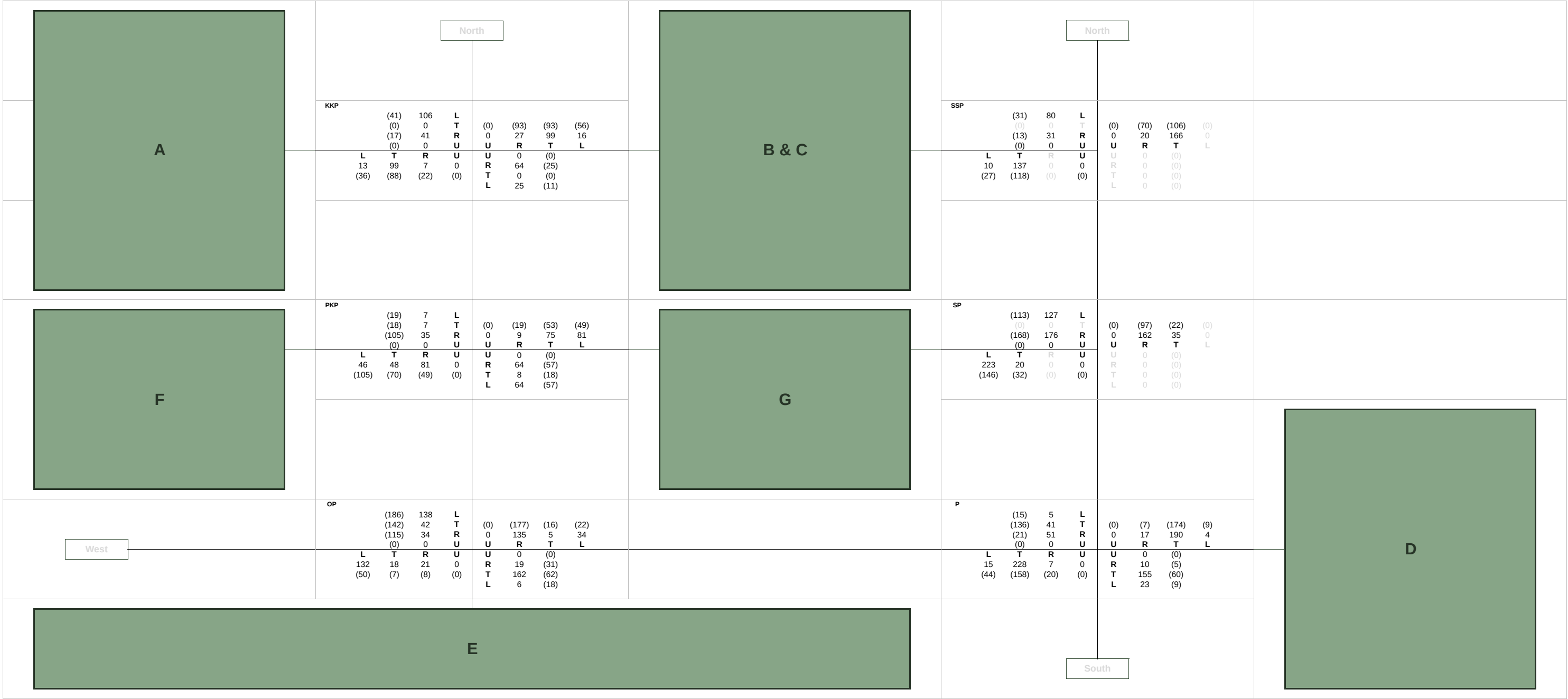
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00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site

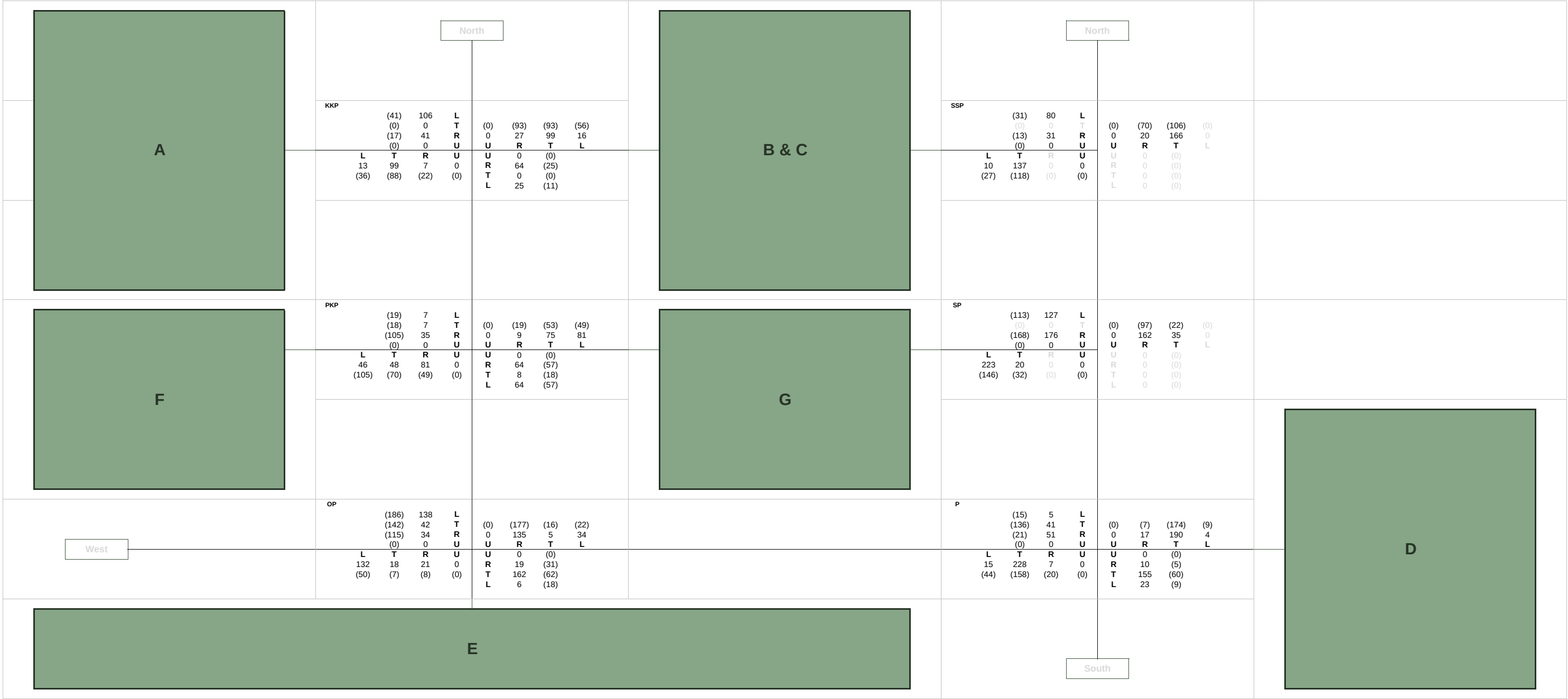










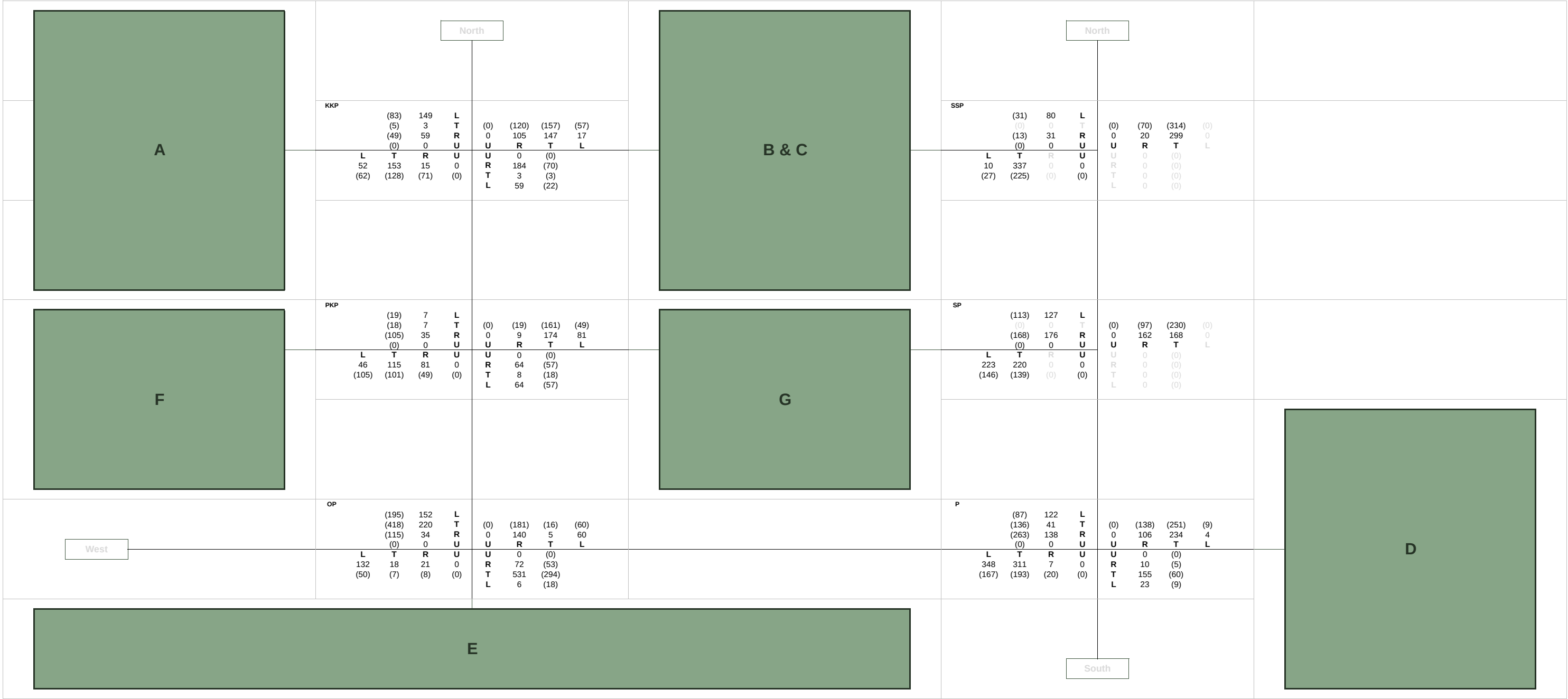


D08
Ultimate Year Development Traffic Volumes
620.11743.00016
Yarrabilba Master Plan Development Precinct 9

L Left Turn
T Through
R Right Turn
U U-Turn

Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site



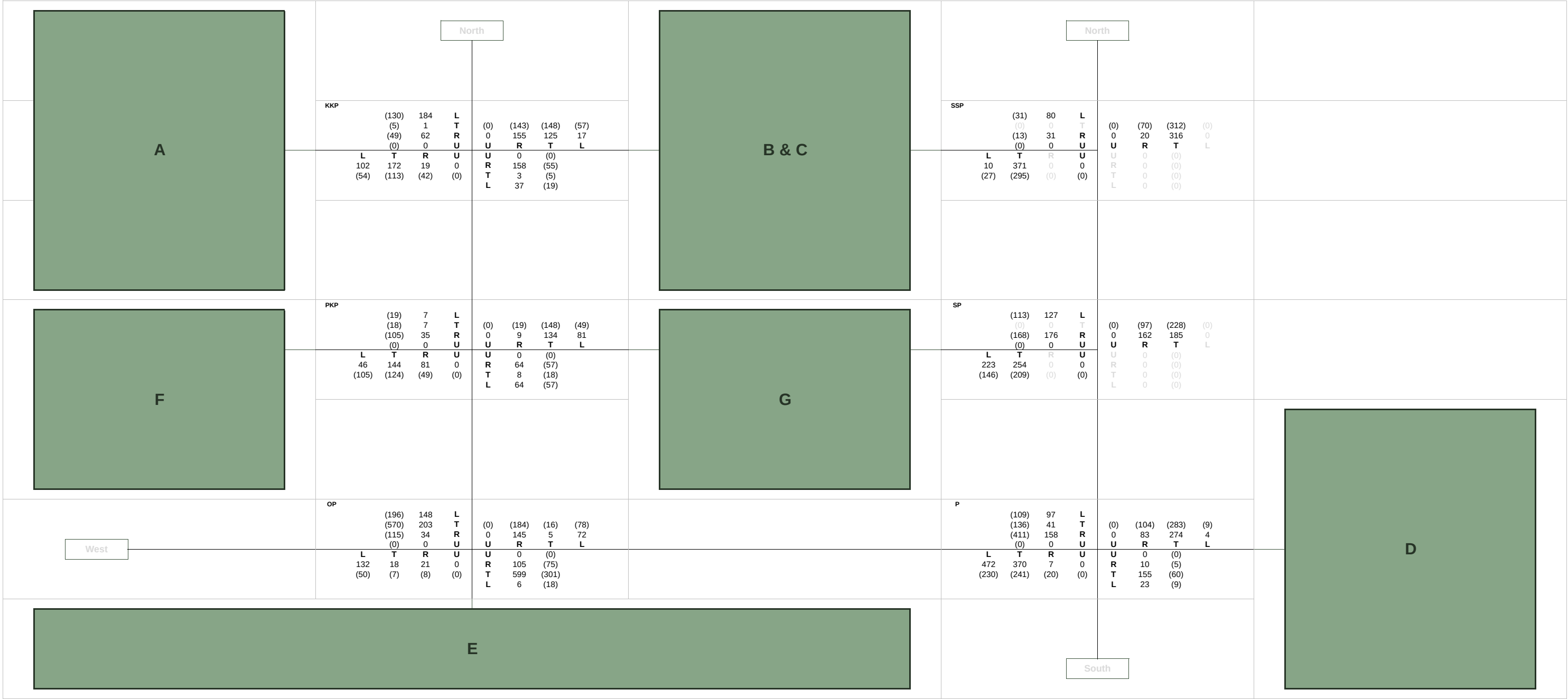


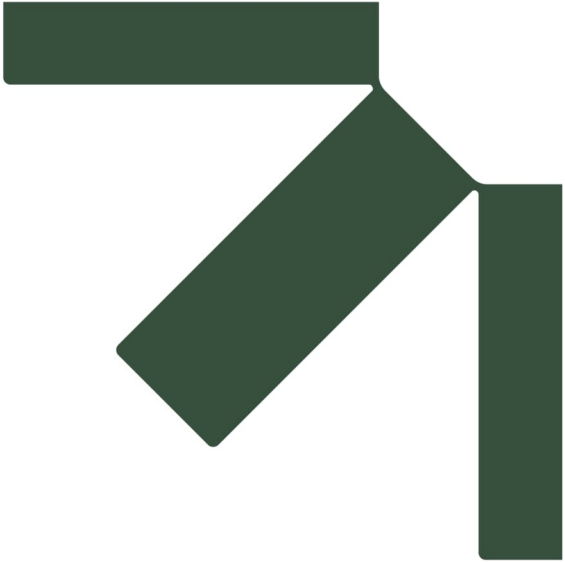
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2031 Background and Development Traffic Volumes
620.11743.00016
Yarrabilba Master Plan Development Precinct 9

L Left Turn
T Through
R Right Turn
U U-Turn

Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site







Appendix E Detailed SIDRA Outputs Scenario 1

Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025

SITE LAYOUT

Site: P [Int P - Interim AM (Site Folder: General)]

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

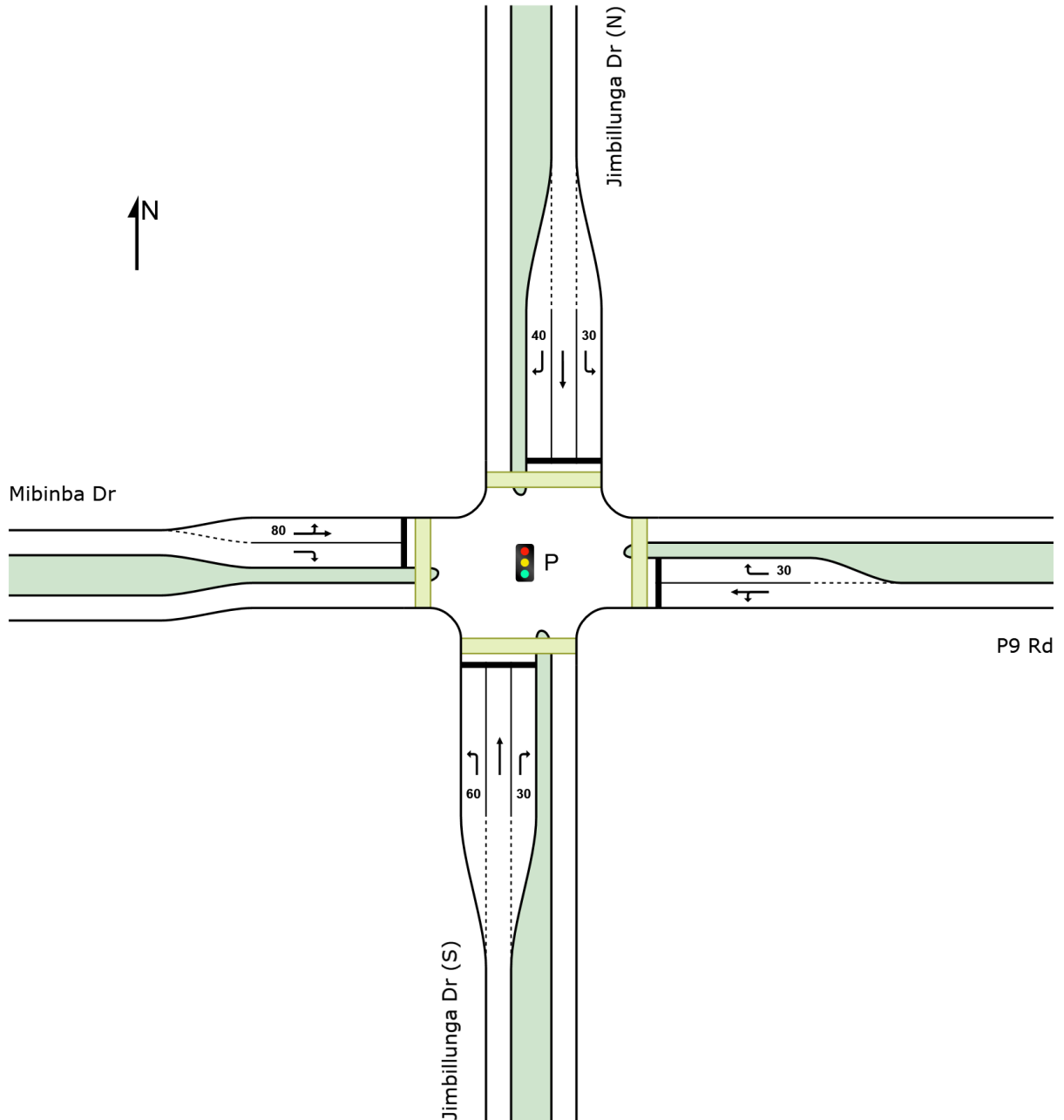
Prepared by: JH

Reviewed by: BR

Site Category: Proposed 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\Precinct 8 and 9\2025 11 04 - SLR - P9

SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.sip9

Site: P [Int P - Interim AM (Site Folder: General)]

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical 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 (Akcelik 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)												
P1	Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
East: P9 Rd												

P2 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
North: Jimbillunga Dr (N)											
P3 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
West: Mibinba Dr											
P4 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
All Pedestrians	200	211	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04

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: P [Int P - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int P

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	28	42	69
Green Time (sec)	22	8	21	15
Phase Time (sec)	28	14	27	21
Phase Split	31%	16%	30%	23%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: P [Int P - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

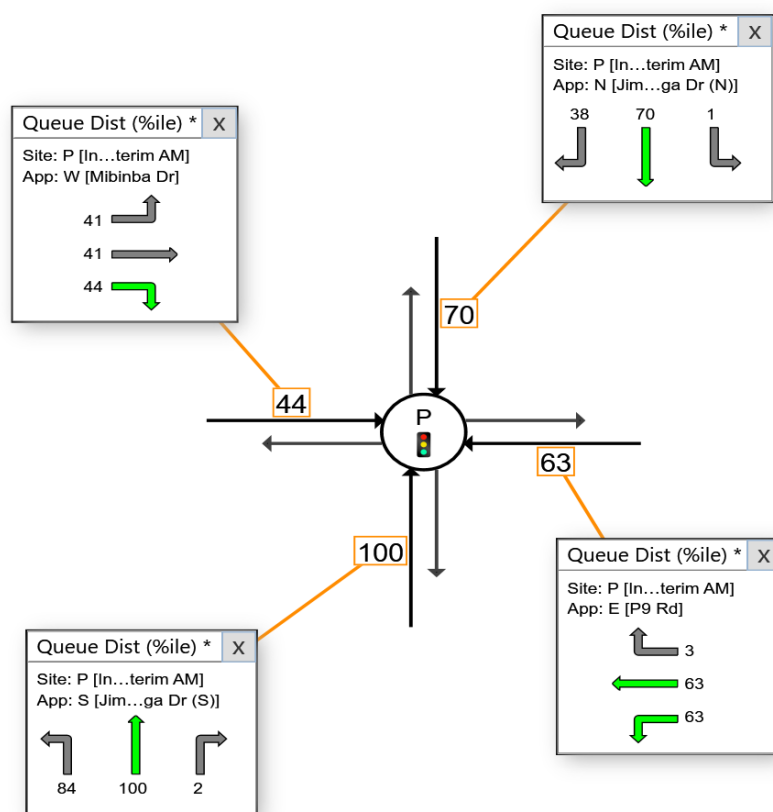
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

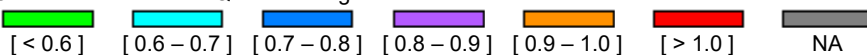
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

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)												
P1	Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
East: P9 Rd												

P2 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
North: Jimbillunga Dr (N)											
P3 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
West: Mibinba Dr											
P4 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
All Pedestrians	200	211	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04

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: P [Int P - Interim PM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int P

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

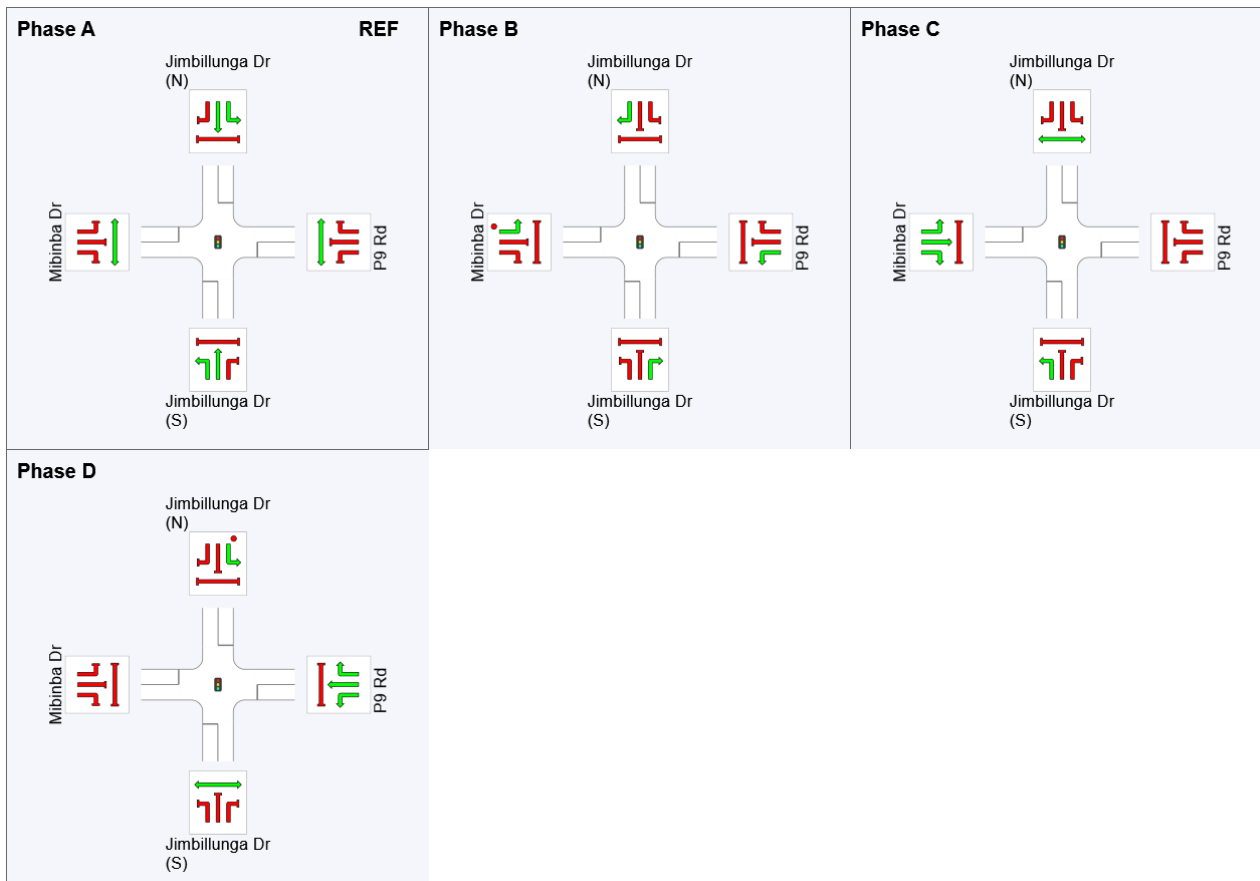
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	24	40	66
Green Time (sec)	18	10	20	18
Phase Time (sec)	24	16	26	24
Phase Split	27%	18%	29%	27%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: P [Int P - Interim PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

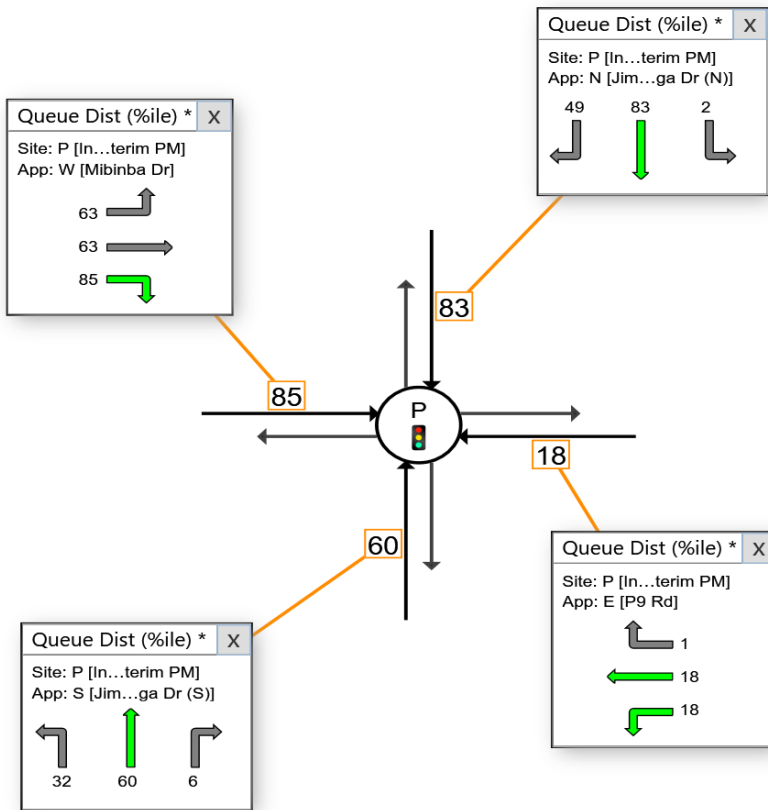
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Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

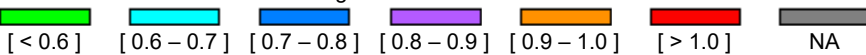
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 **Site: OP [Int OP - Interim AM (Site Folder: General)]**

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

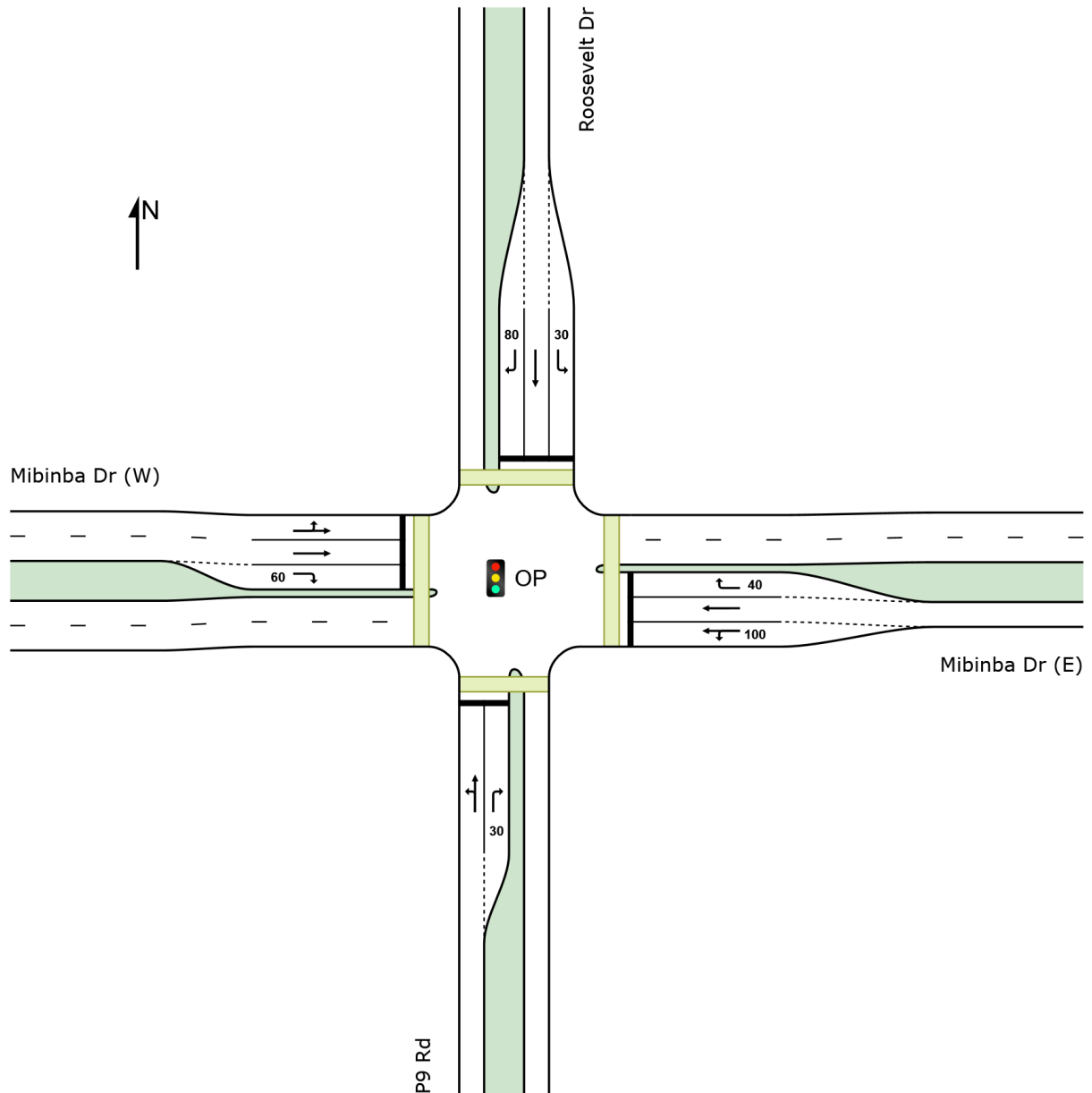
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.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: P9 Rd												
P1	Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
East: Mibinba Dr (E)												

P2 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
North: Roosevelt Dr											
P3 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
West: Mibinba Dr (W)											
P4 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
All Pedestrians	200	211	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04

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: OP [Int OP - Interim AM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

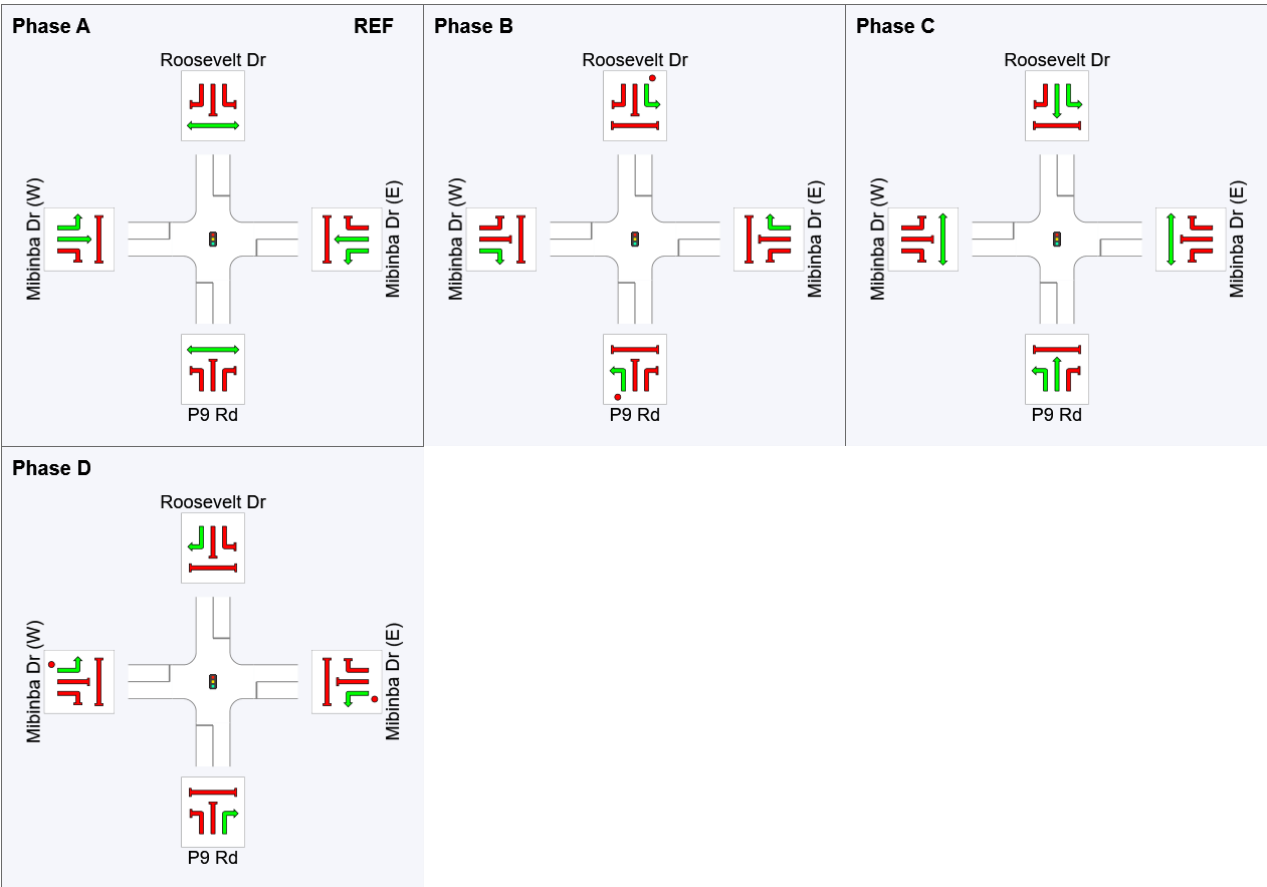
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Int OP
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	29	42	72
Green Time (sec)	23	7	24	12
Phase Time (sec)	29	13	30	18
Phase Split	32%	14%	33%	20%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: OP [Int OP - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

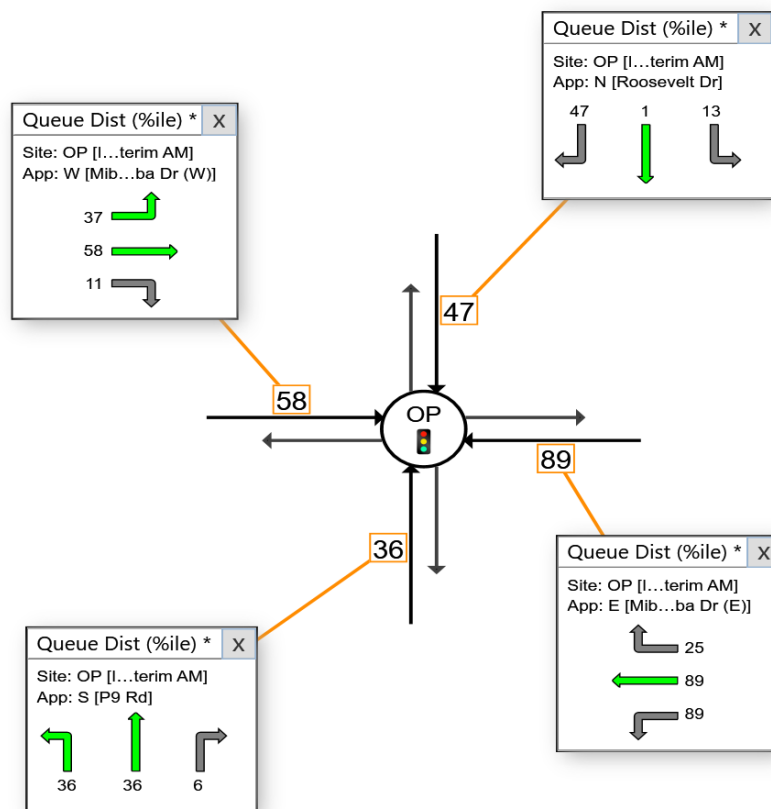
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

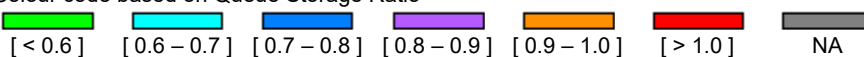
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

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: P9 Rd												
P1	Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
East: Mibinba Dr (E)												

P2 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
North: Roosevelt Dr											
P3 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
West: Mibinba Dr (W)											
P4 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
All Pedestrians	200	211	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01

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: OP [Int OP - Interim PM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int OP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

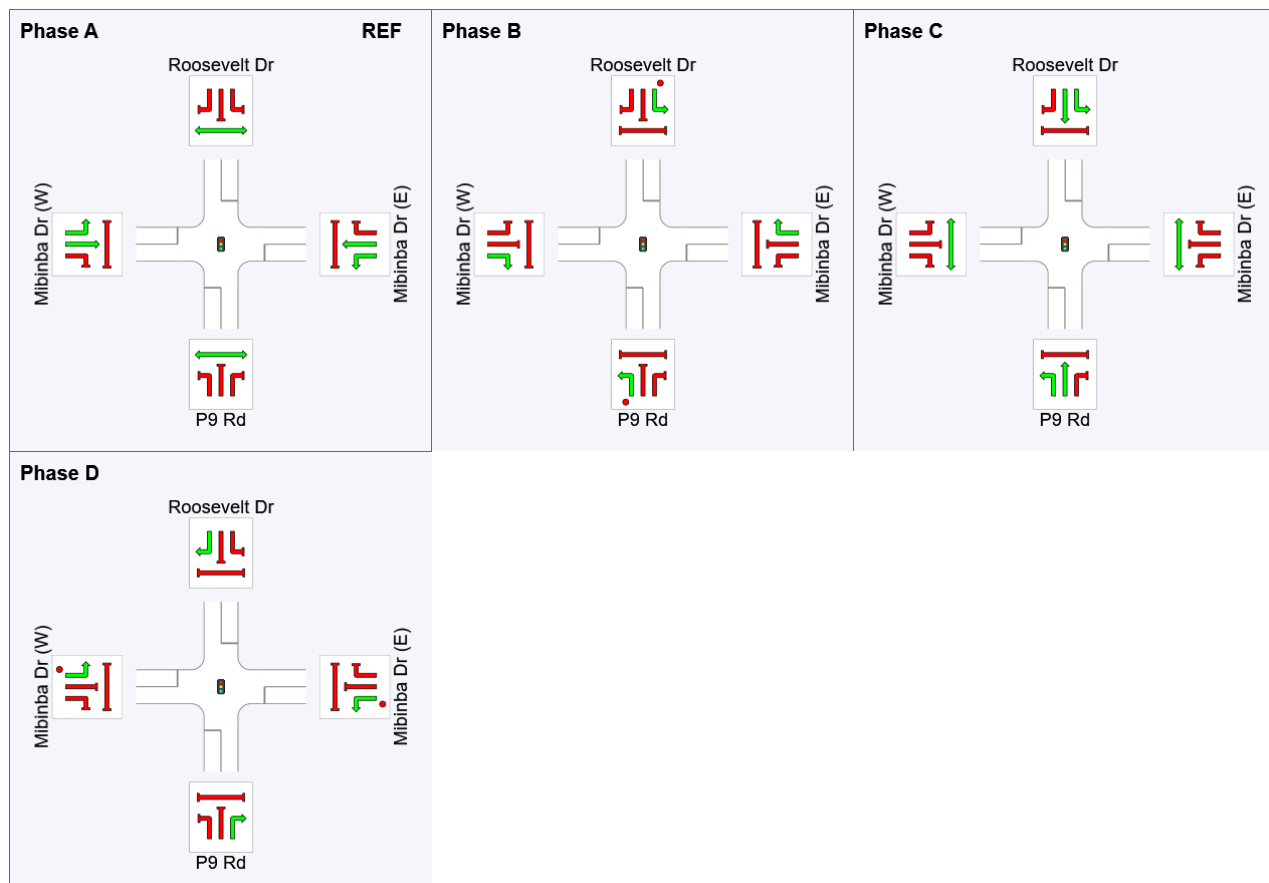
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	34	49	79
Green Time (sec)	28	9	24	15
Phase Time (sec)	34	15	30	21
Phase Split	34%	15%	30%	21%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: OP [Int OP - Interim PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

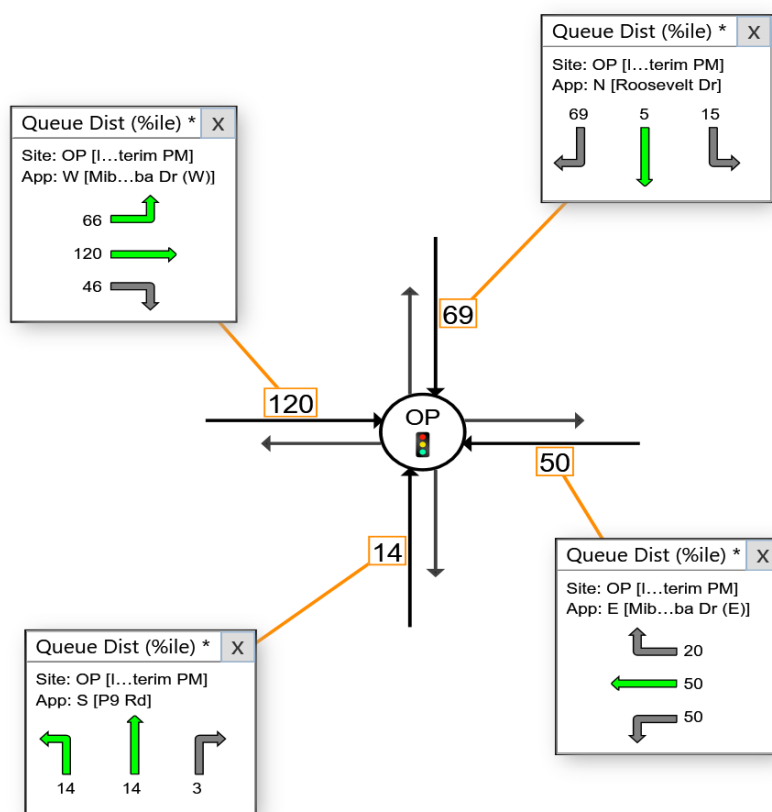
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

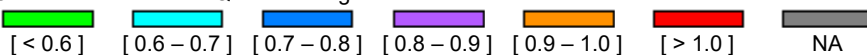
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

Site: PKP [Int PKP - Interim AM (Site Folder: General)]

Intersection: Roosevelt Drive / P9 Road

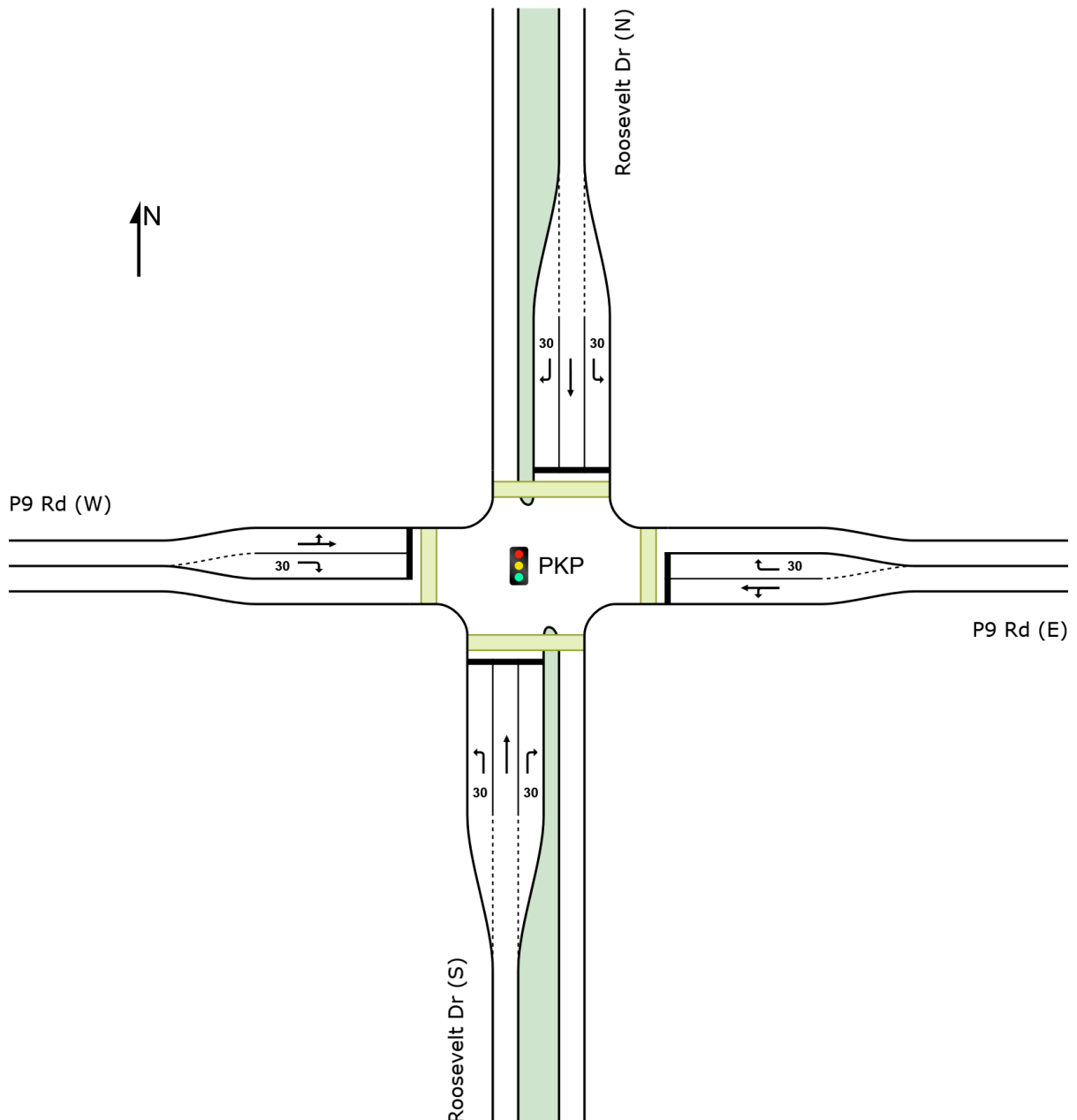
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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



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: Roosevelt Dr (S)												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: P9 Rd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Roosevelt Dr (N)											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: P9 Rd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
All Pedestrians	200	211	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.

PHASING SUMMARY

 Site: PKP [Int PKP - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

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

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int PKP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

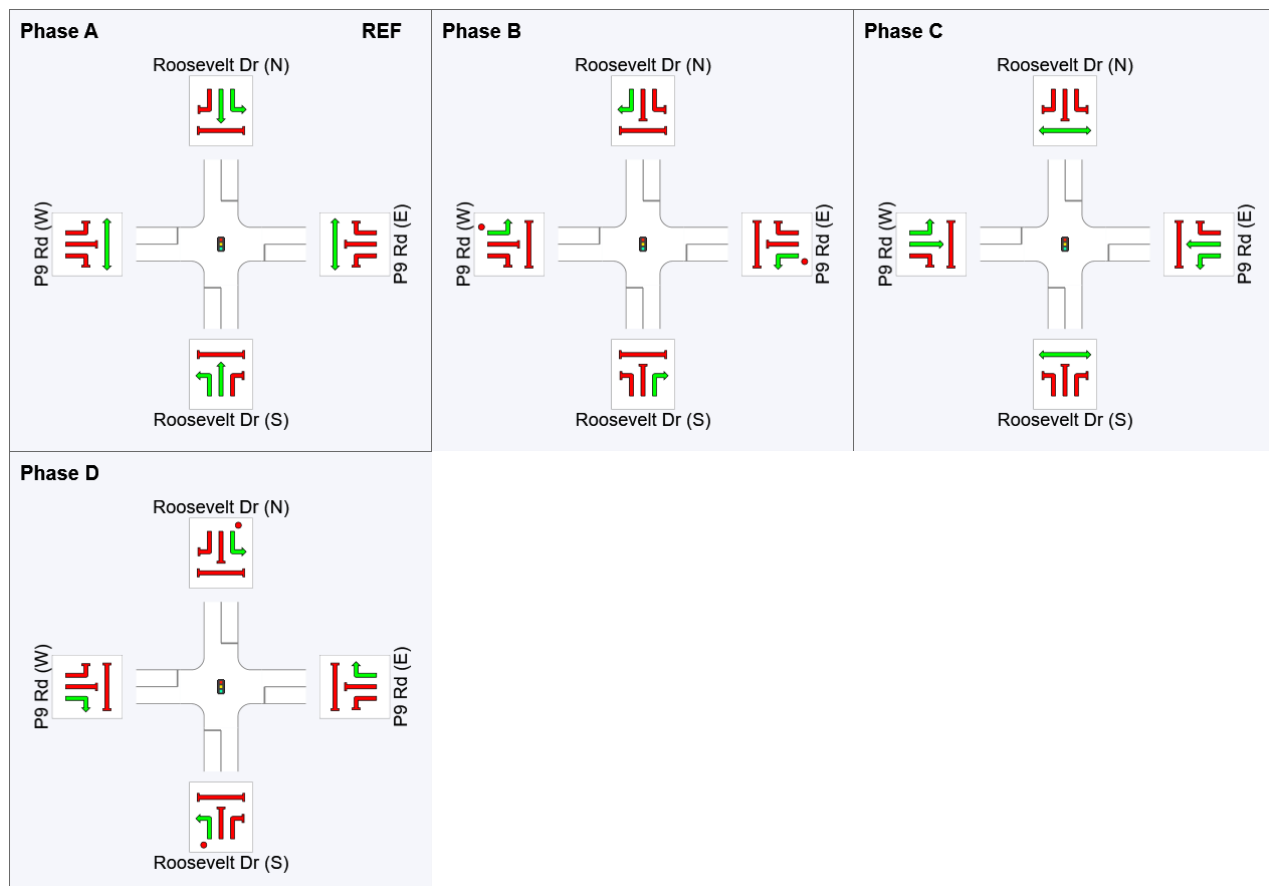
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	21	34	58
Green Time (sec)	15	7	18	6
Phase Time (sec)	21	13	24	12
Phase Split	30%	19%	34%	17%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: PKP [Int PKP - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

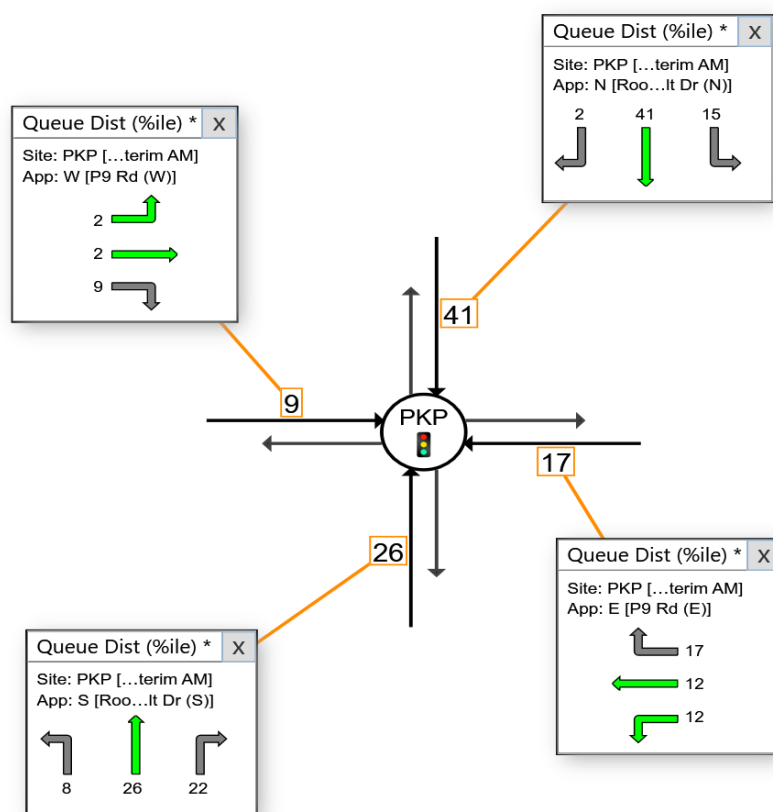
Site Category: Proposed Layout

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

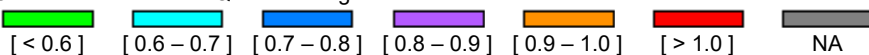
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

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: Roosevelt Dr (S)												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: P9 Rd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Roosevelt Dr (N)											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: P9 Rd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
All Pedestrians	200	211	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.

PHASING SUMMARY

 Site: PKP [Int PKP - Interim PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

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

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int PKP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

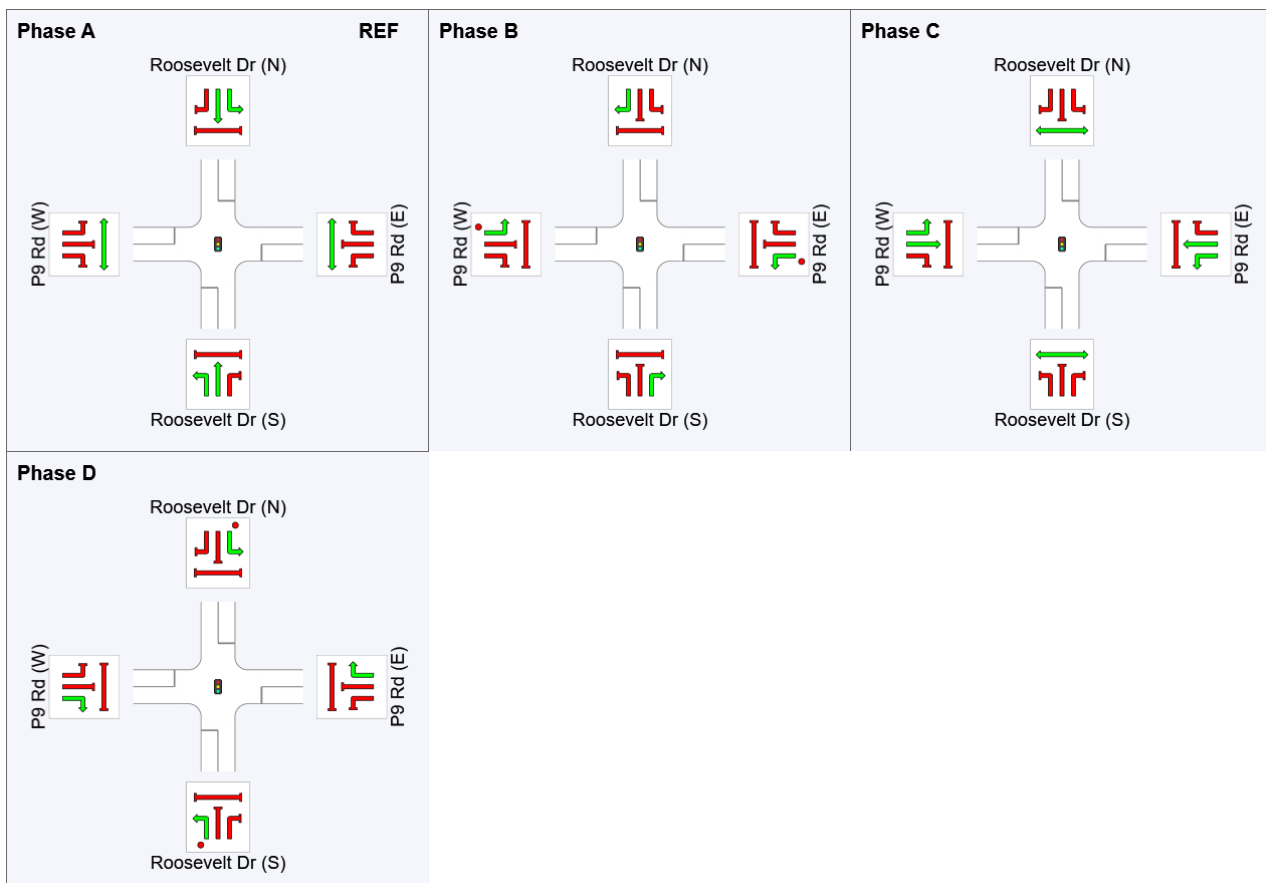
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	19	31	55
Green Time (sec)	13	6	18	9
Phase Time (sec)	19	12	24	15
Phase Split	27%	17%	34%	21%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: PKP [Int PKP - Interim PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

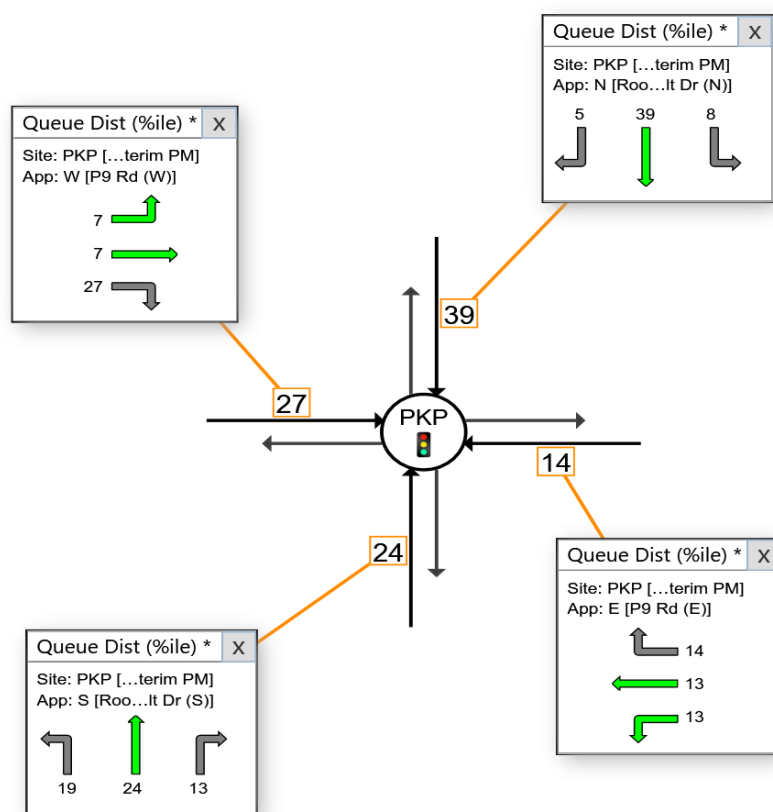
Site Category: Proposed Layout

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

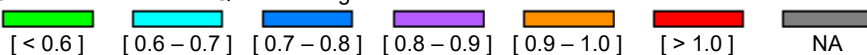
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 **Site: KKP [Int KKP - Interim AM (Site Folder: General)]**

Intersection: Roosevelt Drive / P9 Road

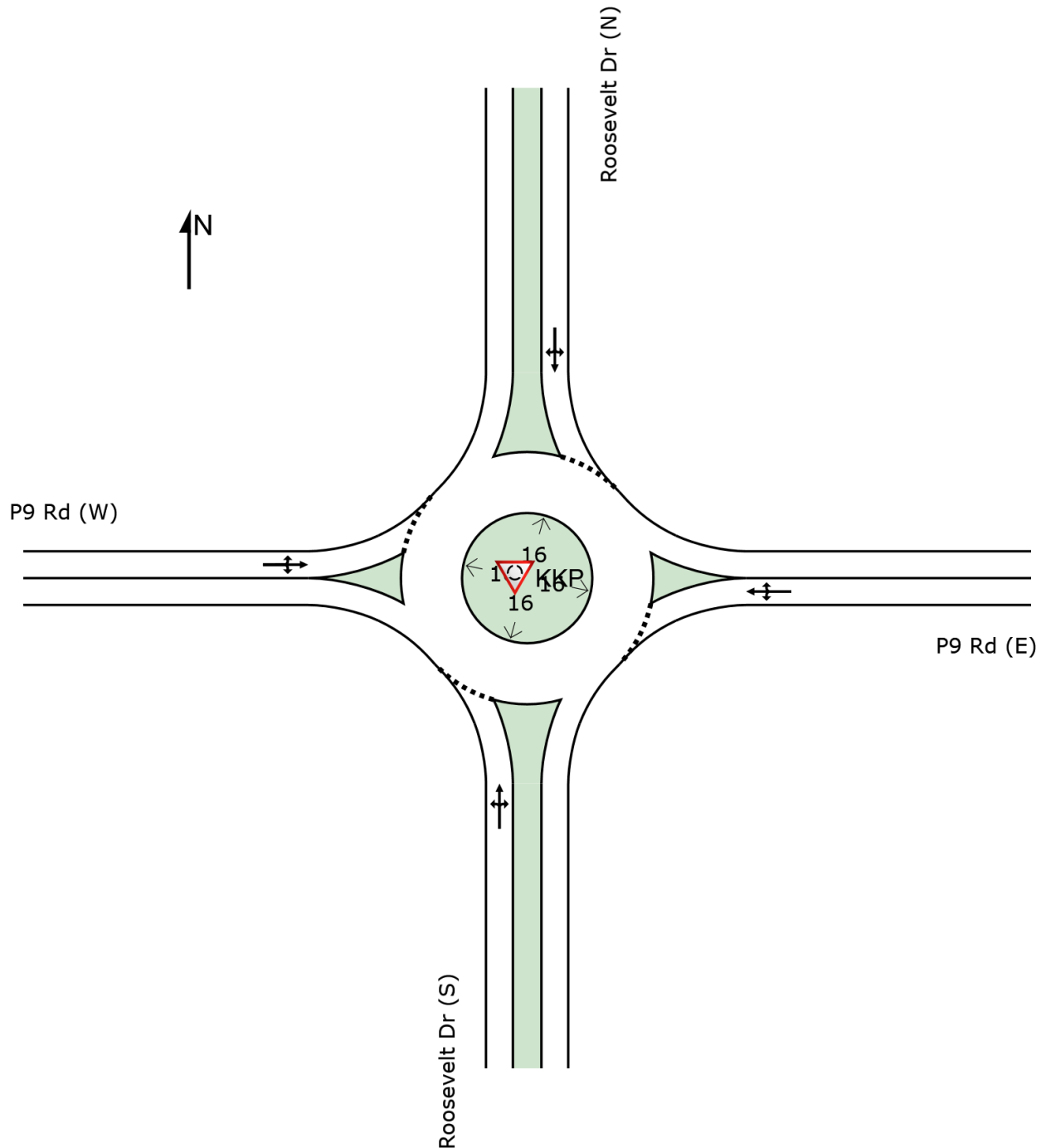
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Roundabout

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Precinct 8 and 9\2025 11 04 - SLR - P9

SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.sip9

MOVEMENT SUMMARY

 **Site: KKP [Int KKP - Interim AM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Roundabout

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]				km/h
South: Roosevelt Dr (S)															
1	L2	All MCs	55	5.0	55	5.0	0.242	6.5	LOS A	1.5	10.9	0.53	0.60	0.53	41.8
2	T1	All MCs	161	5.0	161	5.0	0.242	6.8	LOS A	1.5	10.9	0.53	0.60	0.53	46.5
3	R2	All MCs	16	5.0	16	5.0	0.242	10.9	LOS B	1.5	10.9	0.53	0.60	0.53	42.5
Approach			232	5.0	232	5.0	0.242	7.0	LOS A	1.5	10.9	0.53	0.60	0.53	45.3
East: P9 Rd (E)															
4	L2	All MCs	62	5.0	62	5.0	0.268	5.7	LOS A	1.9	13.7	0.60	0.62	0.60	40.2
5	T1	All MCs	3	5.0	3	5.0	0.268	5.7	LOS A	1.9	13.7	0.60	0.62	0.60	35.5
6	R2	All MCs	194	5.0	194	5.0	0.268	9.8	LOS A	1.9	13.7	0.60	0.62	0.60	40.0
Approach			259	5.0	259	5.0	0.268	8.8	LOS A	1.9	13.7	0.60	0.62	0.60	40.0
North: Roosevelt Dr (N)															
7	L2	All MCs	18	5.0	18	5.0	0.222	4.6	LOS A	1.4	9.9	0.26	0.53	0.26	44.1
8	T1	All MCs	155	5.0	155	5.0	0.222	4.9	LOS A	1.4	9.9	0.26	0.53	0.26	46.9
9	R2	All MCs	111	5.0	111	5.0	0.222	9.1	LOS A	1.4	9.9	0.26	0.53	0.26	42.1
Approach			283	5.0	283	5.0	0.222	6.5	LOS A	1.4	9.9	0.26	0.53	0.26	45.1
West: P9 Rd (W)															
10	L2	All MCs	157	5.0	157	5.0	0.245	6.0	LOS A	1.6	11.7	0.62	0.61	0.62	40.7
11	T1	All MCs	3	5.0	3	5.0	0.245	6.0	LOS A	1.6	11.7	0.62	0.61	0.62	37.2
12	R2	All MCs	62	5.0	62	5.0	0.245	10.1	LOS B	1.6	11.7	0.62	0.61	0.62	39.3
Approach			222	5.0	222	5.0	0.245	7.1	LOS A	1.6	11.7	0.62	0.61	0.62	40.3
All Vehicles			995	5.0	995	5.0	0.268	7.3	LOS A	1.9	13.7	0.49	0.59	0.49	42.7

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

Roundabout LOS Method: SIDRA Roundabout LOS.

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.

Roundabout 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.

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SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.sip9

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 **Site: KKP [Int KKP - Interim AM (Site Folder: General)]**

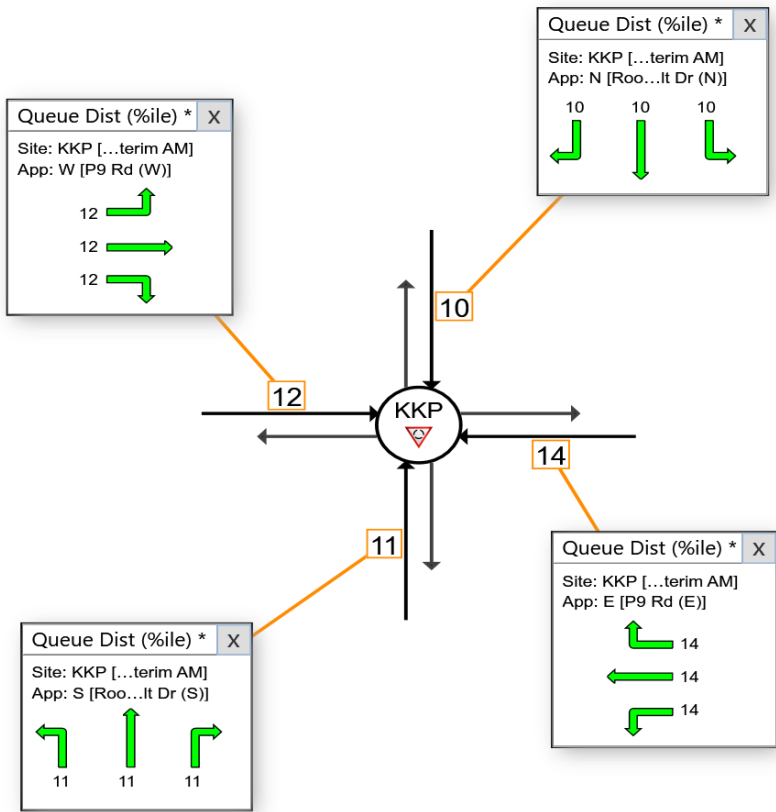
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Roundabout

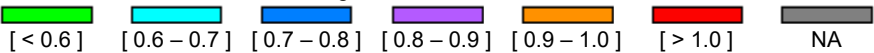
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

MOVEMENT SUMMARY

 **Site: KKP [Int KKP - Interim PM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Roundabout

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				
South: Roosevelt Dr (S)															
1	L2	All MCs	65	5.0	65	5.0	0.254	5.7	LOS A	1.6	11.5	0.43	0.57	0.43	41.8
2	T1	All MCs	135	5.0	135	5.0	0.254	5.9	LOS A	1.6	11.5	0.43	0.57	0.43	46.4
3	R2	All MCs	74	5.0	74	5.0	0.254	10.1	LOS B	1.6	11.5	0.43	0.57	0.43	42.5
Approach			274	5.0	274	5.0	0.254	7.0	LOS A	1.6	11.5	0.43	0.57	0.43	44.4
East: P9 Rd (E)															
4	L2	All MCs	23	5.0	23	5.0	0.106	5.4	LOS A	0.7	4.9	0.55	0.61	0.55	40.4
5	T1	All MCs	3	5.0	3	5.0	0.106	5.5	LOS A	0.7	4.9	0.55	0.61	0.55	35.8
6	R2	All MCs	74	5.0	74	5.0	0.106	9.5	LOS A	0.7	4.9	0.55	0.61	0.55	40.3
Approach			100	5.0	100	5.0	0.106	8.5	LOS A	0.7	4.9	0.55	0.61	0.55	40.2
North: Roosevelt Dr (N)															
7	L2	All MCs	60	5.0	60	5.0	0.293	5.1	LOS A	1.8	13.2	0.34	0.55	0.34	43.9
8	T1	All MCs	166	5.0	166	5.0	0.293	5.4	LOS A	1.8	13.2	0.34	0.55	0.34	46.7
9	R2	All MCs	126	5.0	126	5.0	0.293	9.5	LOS A	1.8	13.2	0.34	0.55	0.34	41.9
Approach			352	5.0	352	5.0	0.293	6.8	LOS A	1.8	13.2	0.34	0.55	0.34	44.7
West: P9 Rd (W)															
10	L2	All MCs	87	5.0	87	5.0	0.146	5.1	LOS A	0.9	6.7	0.52	0.57	0.52	41.4
11	T1	All MCs	5	5.0	5	5.0	0.146	5.1	LOS A	0.9	6.7	0.52	0.57	0.52	37.9
12	R2	All MCs	52	5.0	52	5.0	0.146	9.2	LOS A	0.9	6.7	0.52	0.57	0.52	40.0
Approach			144	5.0	144	5.0	0.146	6.5	LOS A	0.9	6.7	0.52	0.57	0.52	40.8
All Vehicles			871	5.0	871	5.0	0.293	7.0	LOS A	1.8	13.2	0.42	0.57	0.42	43.4

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

Roundabout LOS Method: SIDRA Roundabout LOS.

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.

Roundabout 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.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Precinct 8 and 9\2025 11 04 - SLR - P9

SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.sip9

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 **Site: KKP [Int KKP - Interim PM (Site Folder: General)]**

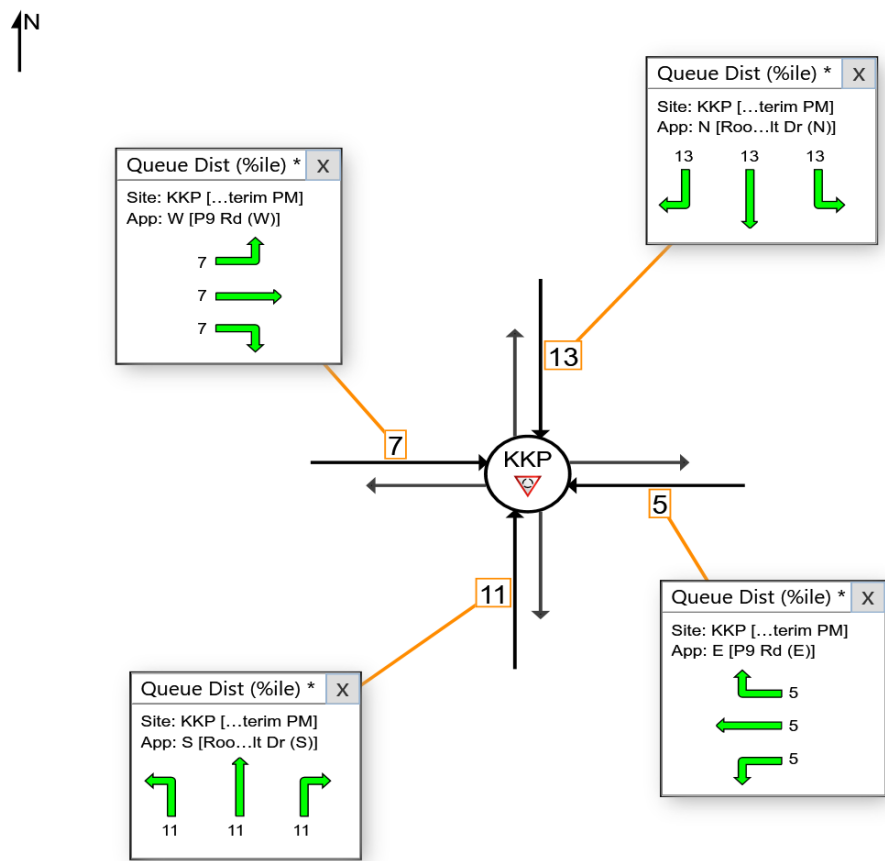
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Roundabout

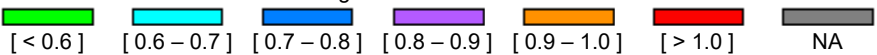
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

▽ Site: SP [Int SP - Interim AM (Site Folder: General)]

Intersection: Jimbillunga Drive / P9 Road

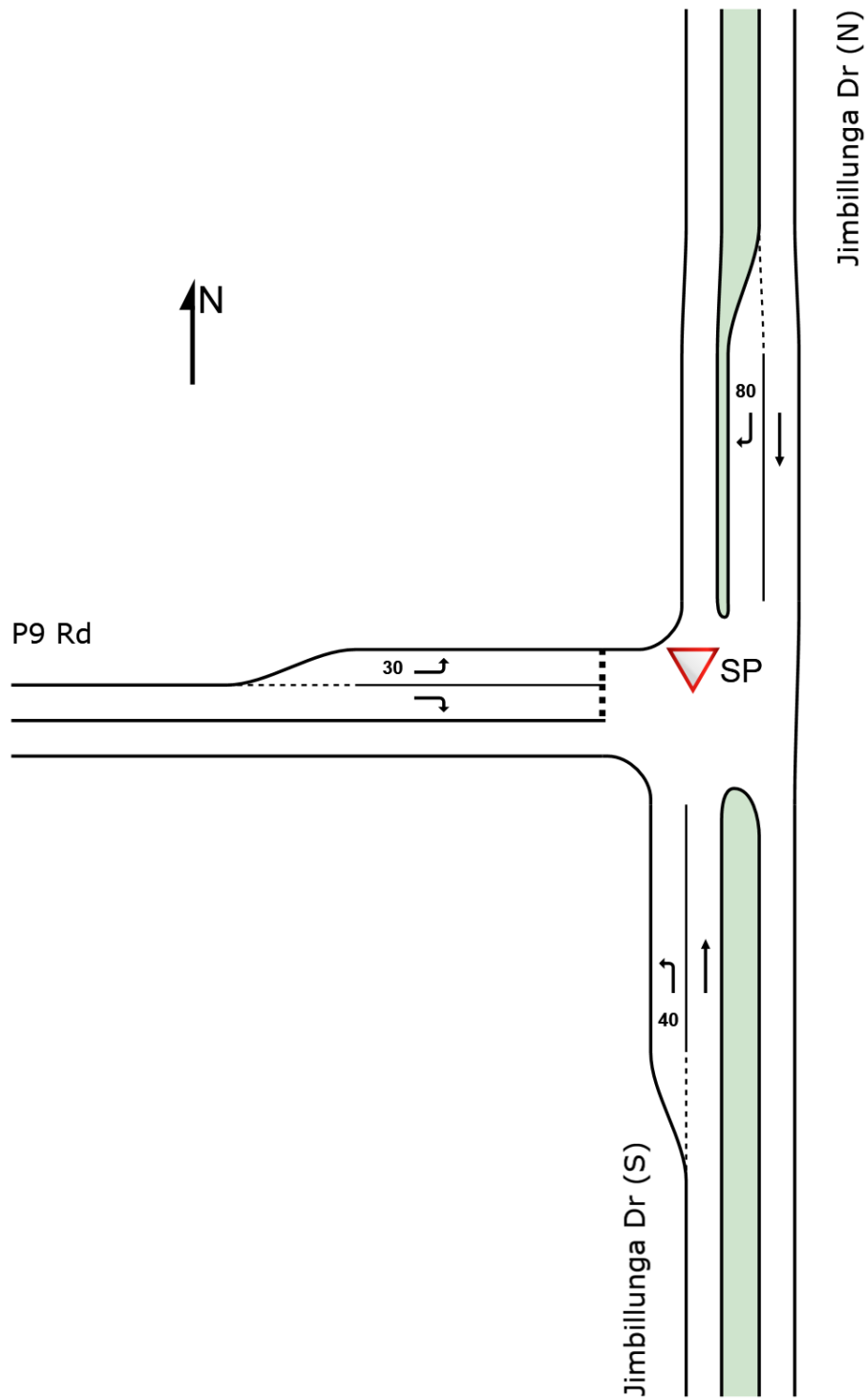
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Give-Way (Two-Way)

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



MOVEMENT SUMMARY

Site: SP [Int SP - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	235	5.0	235	5.0	0.131	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	49.4
2	T1	All MCs	231	5.0	231	5.0	0.123	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			466	5.0	466	5.0	0.131	2.8	NA	0.0	0.0	0.00	0.29	0.00	53.2
North: Jimbillunga Dr (N)															
8	T1	All MCs	176	5.0	176	5.0	0.093	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	171	5.0	171	5.0	0.190	8.0	LOS A	0.8	5.5	0.45	0.70	0.45	44.1
Approach			347	5.0	347	5.0	0.190	3.9	NA	0.8	5.5	0.22	0.34	0.22	49.4
West: P9 Rd															
10	L2	All MCs	134	5.0	134	5.0	0.128	5.7	LOS A	0.5	3.5	0.30	0.56	0.30	44.6
12	R2	All MCs	185	5.0	185	5.0	0.421	14.1	LOS B	2.0	14.7	0.70	0.95	0.96	38.0
Approach			319	5.0	319	5.0	0.421	10.6	LOS B	2.0	14.7	0.54	0.79	0.68	40.6
All Vehicles			1132	5.0	1132	5.0	0.421	5.4	NA	2.0	14.7	0.22	0.45	0.26	47.4

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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SP [Int SP - Interim AM (Site Folder: General)]

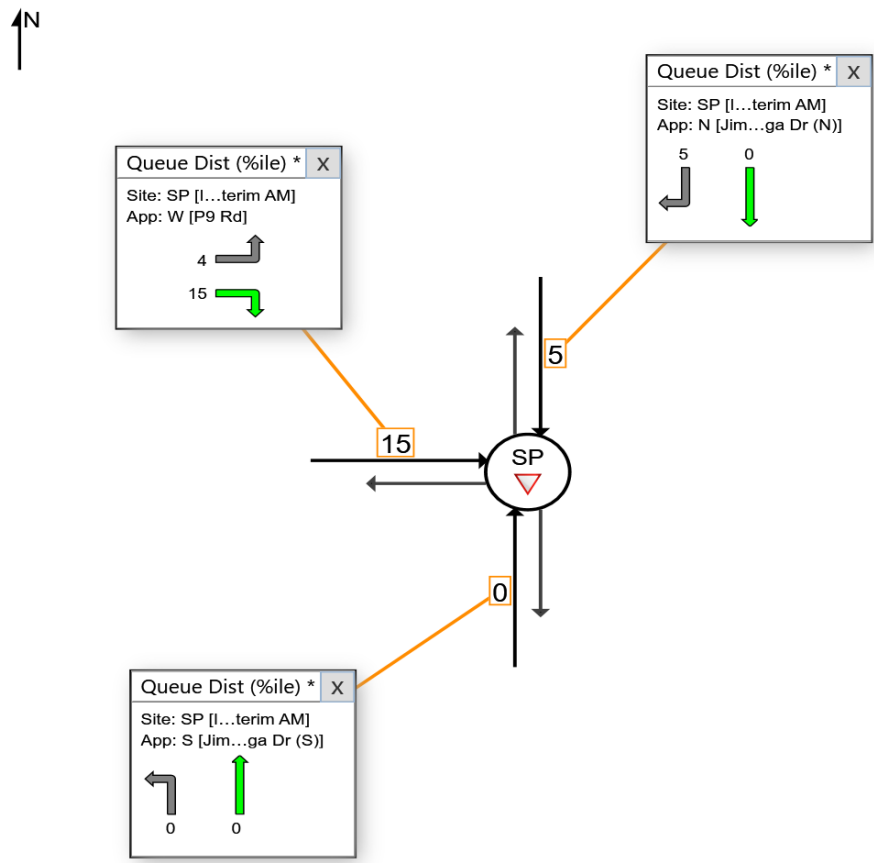
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

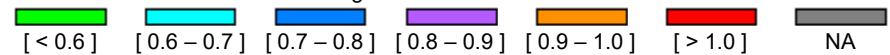
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

MOVEMENT SUMMARY

Site: SP [Int SP - Interim PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	154	5.0	154	5.0	0.086	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	49.4
2	T1	All MCs	146	5.0	146	5.0	0.077	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach			300	5.0	300	5.0	0.086	2.9	NA	0.0	0.0	0.00	0.29	0.00	53.1
North: Jimbillunga Dr (N)															
8	T1	All MCs	243	5.0	243	5.0	0.128	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	102	5.0	102	5.0	0.096	6.9	LOS A	0.4	2.7	0.34	0.61	0.34	44.9
Approach			345	5.0	345	5.0	0.128	2.0	NA	0.4	2.7	0.10	0.18	0.10	53.0
West: P9 Rd															
10	L2	All MCs	119	5.0	119	5.0	0.105	5.3	LOS A	0.4	2.9	0.23	0.53	0.23	44.8
12	R2	All MCs	177	5.0	177	5.0	0.341	11.3	LOS B	1.5	11.2	0.61	0.86	0.74	39.9
Approach			296	5.0	296	5.0	0.341	8.8	LOS A	1.5	11.2	0.46	0.73	0.53	41.8
All Vehicles			940	5.0	940	5.0	0.341	4.4	NA	1.5	11.2	0.18	0.39	0.21	48.3

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.
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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SP [Int SP - Interim PM (Site Folder: General)]

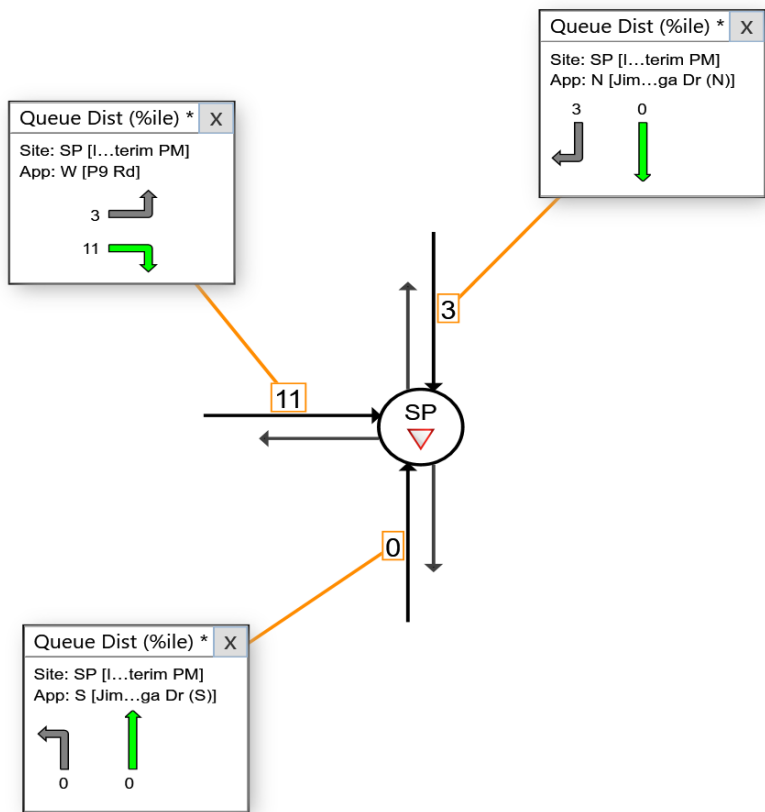
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

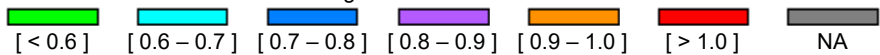
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

▽ Site: SSP [Int SSP - Interim AM (Site Folder: General)]

Intersection: Jimbillunga Drive / P9 Road

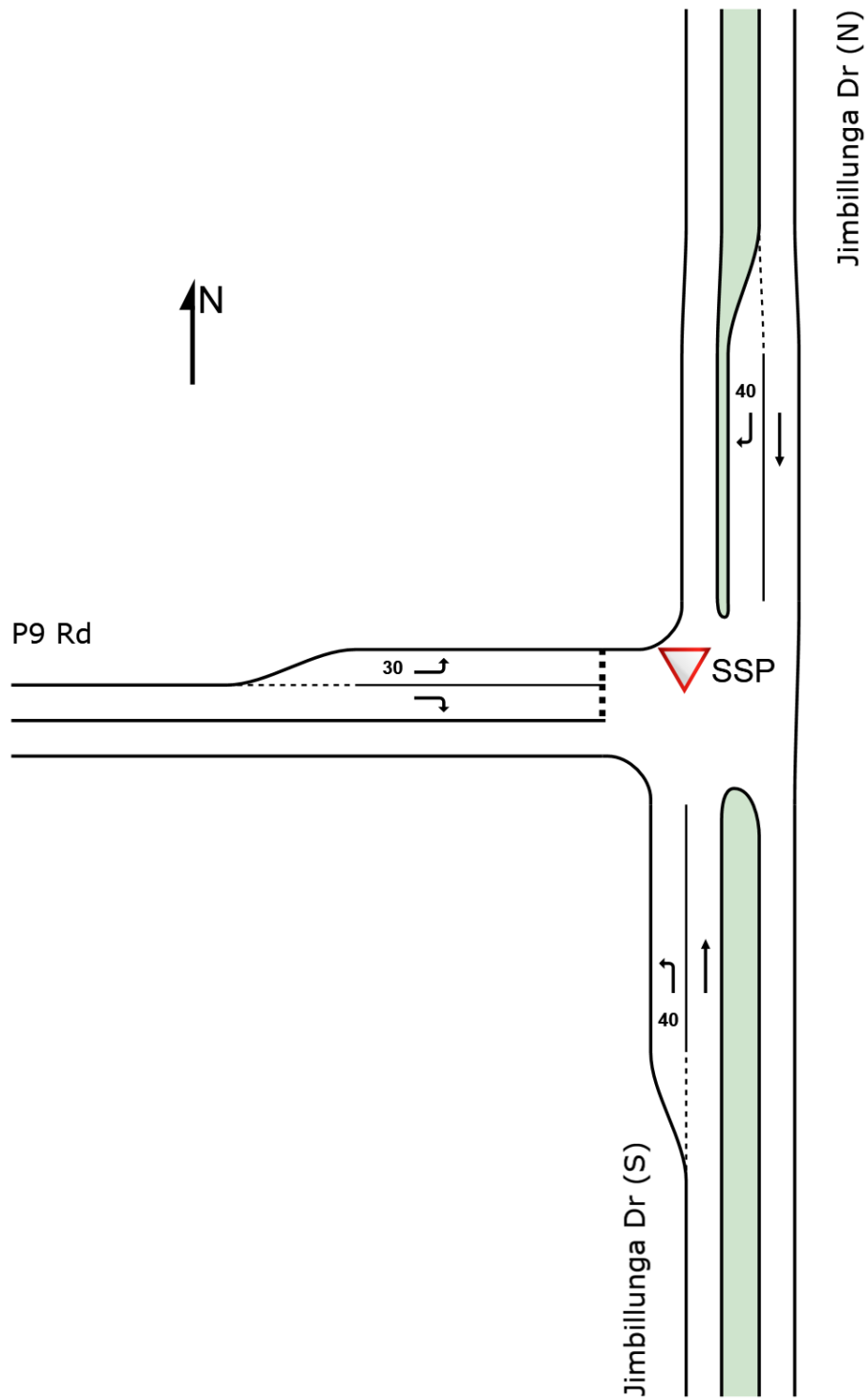
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Give-Way (Two-Way)

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



MOVEMENT SUMMARY

▼ Site: SSP [Int SSP - Interim AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	11	5.0	11	5.0	0.006	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	43.9
2	T1	All MCs	355	5.0	355	5.0	0.188	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			365	5.0	365	5.0	0.188	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.4
North: Jimbillunga Dr (N)															
8	T1	All MCs	314	5.0	314	5.0	0.166	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	21	5.0	21	5.0	0.022	7.2	LOS A	0.1	0.5	0.36	0.60	0.36	40.7
Approach			335	5.0	335	5.0	0.166	0.5	NA	0.1	0.5	0.02	0.04	0.02	58.6
West: P9 Rd															
10	L2	All MCs	84	5.0	84	5.0	0.093	6.4	LOS A	0.3	2.6	0.42	0.62	0.42	40.2
12	R2	All MCs	33	5.0	33	5.0	0.077	11.4	LOS B	0.3	2.0	0.61	0.79	0.61	35.2
Approach			117	5.0	117	5.0	0.093	7.8	LOS A	0.3	2.6	0.47	0.67	0.47	38.7
All Vehicles			817	5.0	817	5.0	0.188	1.4	NA	0.3	2.6	0.08	0.12	0.08	55.7

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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SSP [Int SSP - Interim AM (Site Folder: General)]

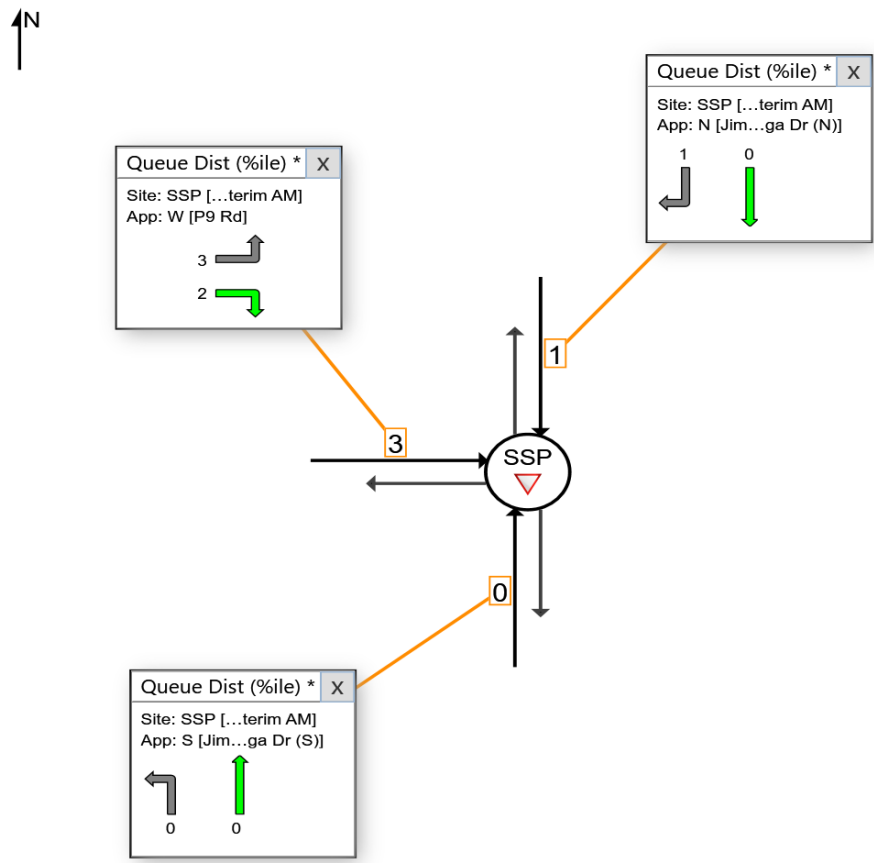
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

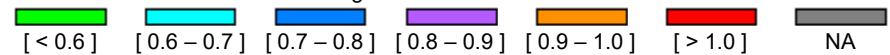
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

MOVEMENT SUMMARY

Site: SSP [Int SSP - Interim PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	28	5.0	28	5.0	0.016	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	43.9
2	T1	All MCs	236	5.0	236	5.0	0.125	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			265	5.0	265	5.0	0.125	0.6	NA	0.0	0.0	0.00	0.06	0.00	58.2
North: Jimbillunga Dr (N)															
8	T1	All MCs	331	5.0	331	5.0	0.175	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	74	5.0	74	5.0	0.068	6.7	LOS A	0.2	1.8	0.31	0.60	0.31	41.3
Approach			405	5.0	405	5.0	0.175	1.2	NA	0.2	1.8	0.06	0.11	0.06	56.3
West: P9 Rd															
10	L2	All MCs	33	5.0	33	5.0	0.032	5.6	LOS A	0.1	0.8	0.32	0.54	0.32	40.8
12	R2	All MCs	14	5.0	14	5.0	0.030	10.4	LOS B	0.1	0.8	0.58	0.72	0.58	36.1
Approach			46	5.0	46	5.0	0.032	7.0	LOS A	0.1	0.8	0.40	0.59	0.40	39.3
All Vehicles			716	5.0	716	5.0	0.175	1.4	NA	0.2	1.8	0.06	0.12	0.06	55.7

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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SSP [Int SSP - Interim PM (Site Folder: General)]

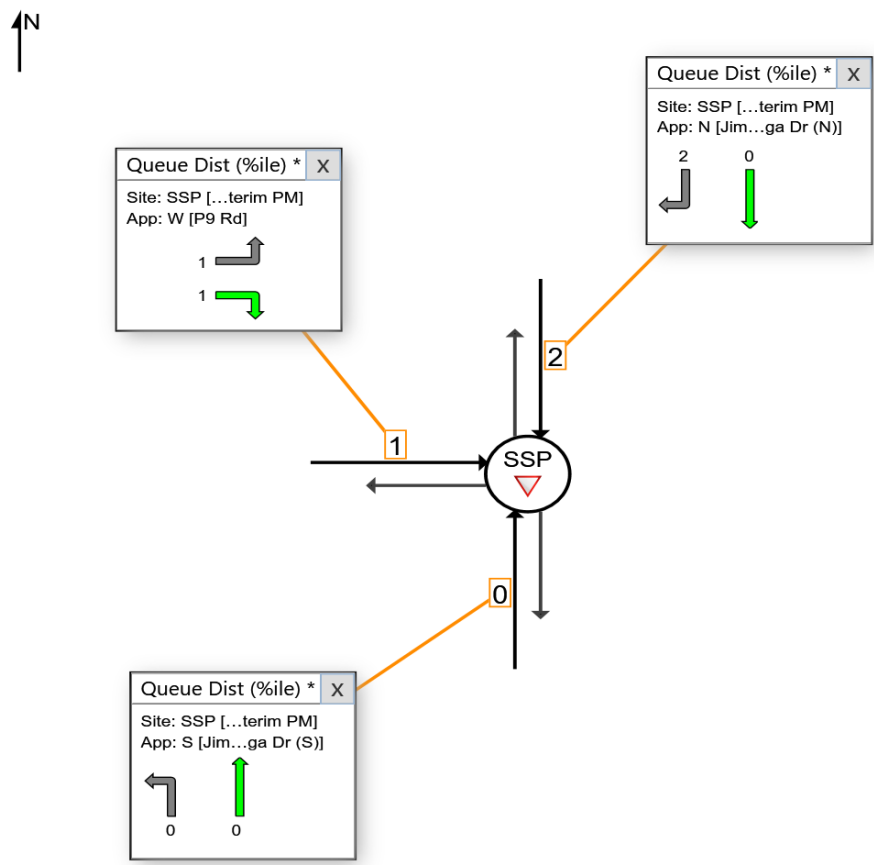
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

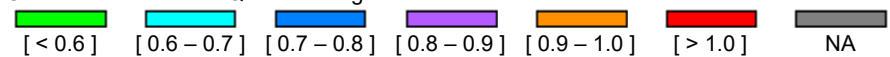
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 Site: O [WTR-Williamson - 2031 AM - S1 Opt (Site Folder: General)]

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

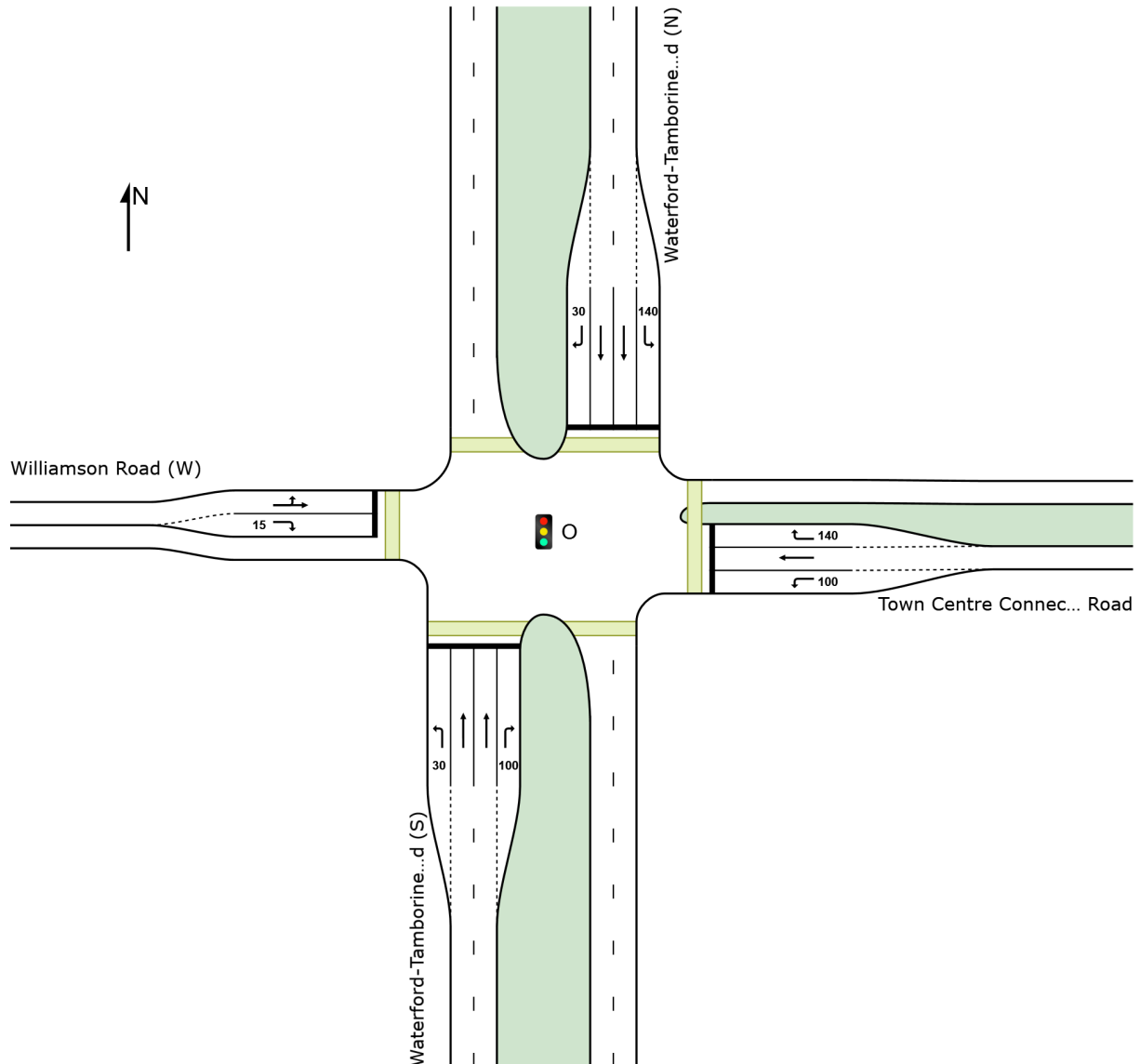
Prepared by: DN

Reviewed by: BM

Site Category: (None)

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: \\au.slr.local\Corporate\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Waterford-Tamborine Road\2024 09 24 - SLR - WTR P8.P9 base data\SIDRA Intersection O\WTR-TCEW_Williamson 20241025.sip9

MOVEMENT SUMMARY

 Site: O [WTR-Williamson - 2031 AM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

Prepared by: DN

Reviewed by: BM

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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: Waterford-Tamborine Road (S)															
1	L2	All MCs	3	2.0	3	2.0	0.006	43.7	LOS D	0.1	0.5	0.71	0.63	0.71	37.7
2	T1	All MCs	585	2.0	585	2.0	* 0.653	56.0	LOS D	15.7	111.6	0.96	0.82	0.96	37.6
3	R2	All MCs	216	2.0	216	2.0	* 0.643	56.4	LOS D	11.9	84.8	0.98	0.83	0.98	32.0
Approach			804	2.0	804	2.0	0.653	56.0	LOS D	15.7	111.6	0.97	0.82	0.97	33.3
East: Town Centre Connection Road															
4	L2	All MCs	224	2.0	224	2.0	0.507	48.2	LOS D	11.4	81.4	0.92	0.82	0.92	33.6
5	T1	All MCs	2	2.0	2	2.0	0.005	36.3	LOS C	0.1	0.7	0.78	0.49	0.78	29.2
6	R2	All MCs	281	2.0	281	2.0	* 0.635	49.9	LOS D	14.9	105.9	0.95	0.83	0.95	33.5
Approach			507	2.0	507	2.0	0.635	49.1	LOS D	14.9	105.9	0.94	0.82	0.94	33.5
North: Waterford-Tamborine Road (N)															
7	L2	All MCs	82	2.0	82	2.0	0.186	45.3	LOS D	3.8	27.2	0.83	0.76	0.83	35.0
8	T1	All MCs	303	2.0	303	2.0	0.337	41.4	LOS C	7.4	52.8	0.88	0.72	0.88	39.1
9	R2	All MCs	1	2.0	1	2.0	0.003	48.9	LOS D	0.0	0.4	0.83	0.60	0.83	25.4
Approach			386	2.0	386	2.0	0.337	42.2	LOS C	7.4	52.8	0.87	0.72	0.87	38.1
West: Williamson Road (W)															
10	L2	All MCs	13	2.0	13	2.0	0.201	61.9	LOS E	1.6	11.6	0.97	0.71	0.97	21.7
11	T1	All MCs	16	2.0	16	2.0	* 0.201	58.4	LOS E	1.6	11.6	0.97	0.71	0.97	21.7
12	R2	All MCs	25	2.0	25	2.0	0.184	62.2	LOS E	1.4	10.3	0.97	0.71	0.97	21.5
Approach			54	2.0	54	2.0	0.201	61.0	LOS E	1.6	11.6	0.97	0.71	0.97	21.6
All Vehicles			1752	2.0	1752	2.0	0.653	51.1	LOS D	15.7	111.6	0.94	0.80	0.94	34.0

Site Level of Service (LOS) Method: Delay (RTA NSW). 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: Waterford-Tamborine Road (S)											
P11 Stage 1	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
P12 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
East: Town Centre Connection Road											
P2 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
North: Waterford-Tamborine Road (N)											
P31 Stage 1	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
P32 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
West: Williamson Road (W)											
P4 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
All Pedestrians	60	63	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	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: O [WTR-Williamson - 2031 AM - S1 Opt (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)
Prepared by: DN
Reviewed by: BM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

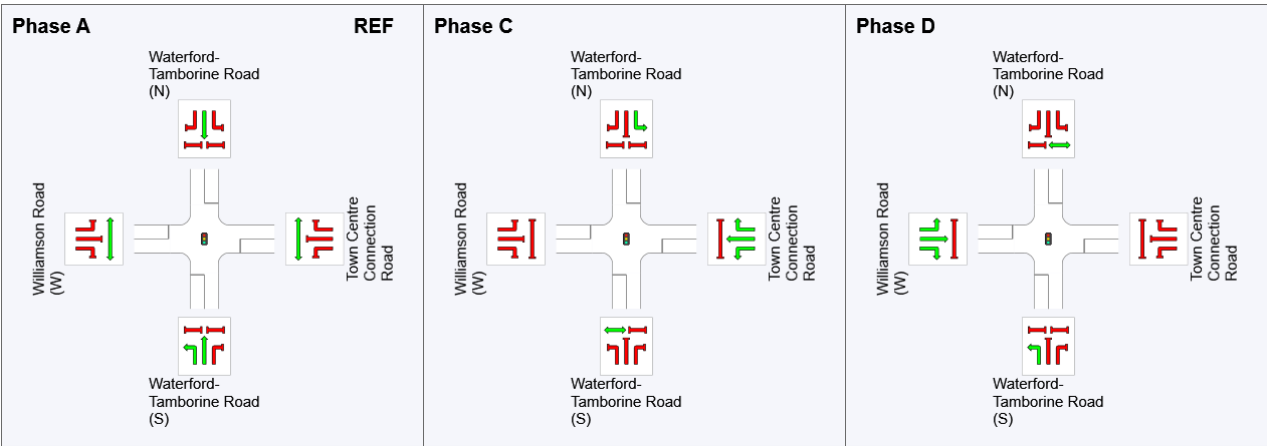
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Green Split Priority has been specified
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, C, D, E, E1*, E2*
Output Phase Sequence: A, C, D, E
Reference Phase: Phase A
(* Variable Phase)

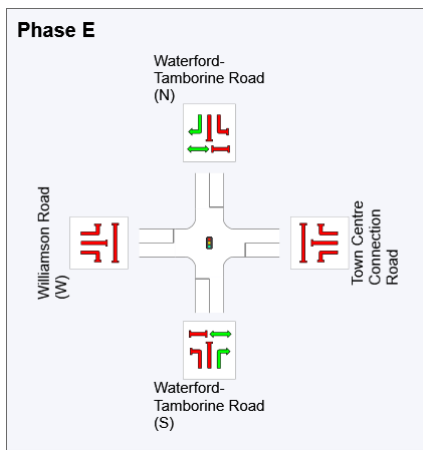
Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	0	36	73	90
Green Time (sec)	28	29	9	22
Phase Time (sec)	36	37	17	30
Phase Split	30%	31%	14%	25%
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



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Project: \\au.slr.local\Corporate\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Waterford-Tamborine Road\2024 09 24 - SLR - WTR P8.P9 base data\SIDRA Intersection O\WTR-TCEW_Williamson 20241025.sip9

MOVEMENT SUMMARY

 Site: O [WTR-Williamson - 2031 PM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

Prepared by: DN

Reviewed by: BM

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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: Waterford-Tamborine Road (S)															
1	L2	All MCs	19	2.0	19	2.0	* 0.034	32.4	LOS C	0.4	3.0	0.73	0.68	0.73	37.2
2	T1	All MCs	392	2.0	392	2.0	0.458	48.3	LOS D	10.1	71.9	0.91	0.76	0.91	38.3
3	R2	All MCs	204	2.0	204	2.0	* 0.558	53.9	LOS D	10.9	77.8	0.95	0.82	0.95	32.7
Approach			615	2.0	615	2.0	0.558	49.7	LOS D	10.9	77.8	0.92	0.77	0.92	35.0
East: Town Centre Connection Road															
4	L2	All MCs	231	2.0	231	2.0	0.540	49.4	LOS D	11.9	85.1	0.93	0.82	0.93	33.2
5	T1	All MCs	11	2.0	11	2.0	0.023	37.6	LOS C	0.5	3.3	0.80	0.55	0.80	28.6
6	R2	All MCs	97	2.0	97	2.0	0.227	45.8	LOS D	4.6	32.8	0.85	0.76	0.85	34.8
Approach			338	2.0	338	2.0	0.540	48.0	LOS D	11.9	85.1	0.90	0.79	0.90	33.6
North: Waterford-Tamborine Road (N)															
7	L2	All MCs	248	2.0	248	2.0	* 0.581	50.7	LOS D	13.0	92.8	0.94	0.83	0.94	33.2
8	T1	All MCs	484	2.0	484	2.0	* 0.571	52.9	LOS D	13.0	92.4	0.94	0.79	0.94	37.7
9	R2	All MCs	24	2.0	24	2.0	0.066	64.8	LOS E	1.1	8.2	0.84	0.71	0.84	25.5
Approach			757	2.0	757	2.0	0.581	52.6	LOS D	13.0	92.8	0.94	0.80	0.94	33.9
West: Williamson Road (W)															
10	L2	All MCs	3	2.0	3	2.0	0.030	60.2	LOS E	0.2	1.7	0.95	0.63	0.95	21.8
11	T1	All MCs	1	2.0	1	2.0	0.030	56.7	LOS E	0.2	1.7	0.95	0.63	0.95	21.7
12	R2	All MCs	2	2.0	2	2.0	0.015	60.1	LOS E	0.1	0.8	0.95	0.61	0.95	22.0
Approach			6	2.0	6	2.0	0.030	59.5	LOS E	0.2	1.7	0.95	0.63	0.95	21.8
All Vehicles			1716	2.0	1716	2.0	0.581	50.7	LOS D	13.0	92.8	0.93	0.79	0.93	34.2

Site Level of Service (LOS) Method: Delay (RTA NSW). 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]			sec	m	m/sec
							m					

South: Waterford-Tamborine Road (S)											
P11 Stage 1	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
P12 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
East: Town Centre Connection Road											
P2 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
North: Waterford-Tamborine Road (N)											
P31 Stage 1	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
P32 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
West: Williamson Road (W)											
P4 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
All Pedestrians	60	63	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	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: O [WTR-Williamson - 2031 PM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)
Prepared by: DN
Reviewed by: BM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

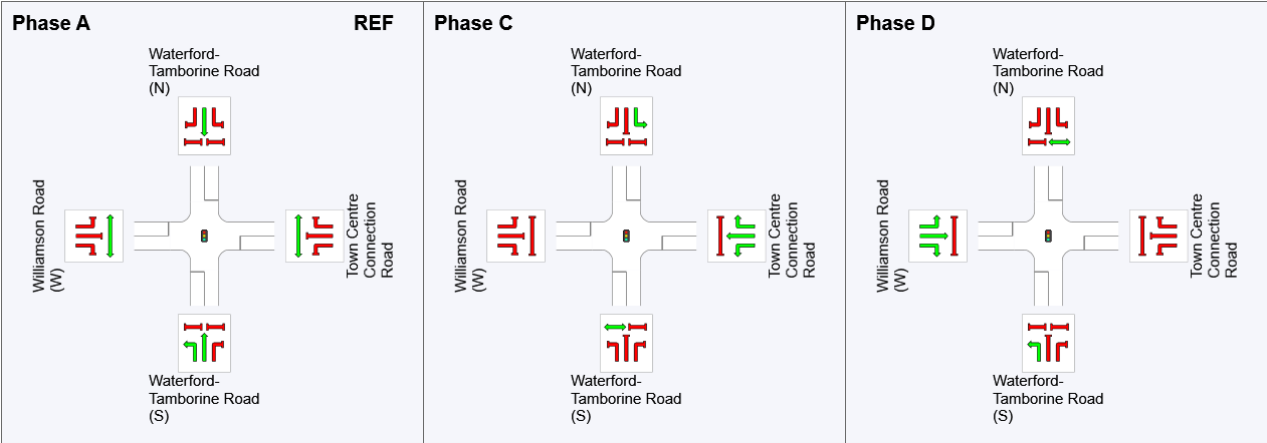
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Green Split Priority has been specified
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, C, D, E, E1*, E2*
Output Phase Sequence: A, C, D, E
Reference Phase: Phase A
(* Variable Phase)

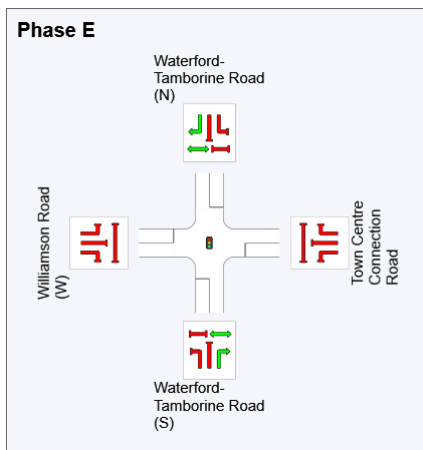
Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	0	35	71	88
Green Time (sec)	27	28	9	24
Phase Time (sec)	35	36	17	32
Phase Split	29%	30%	14%	27%
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

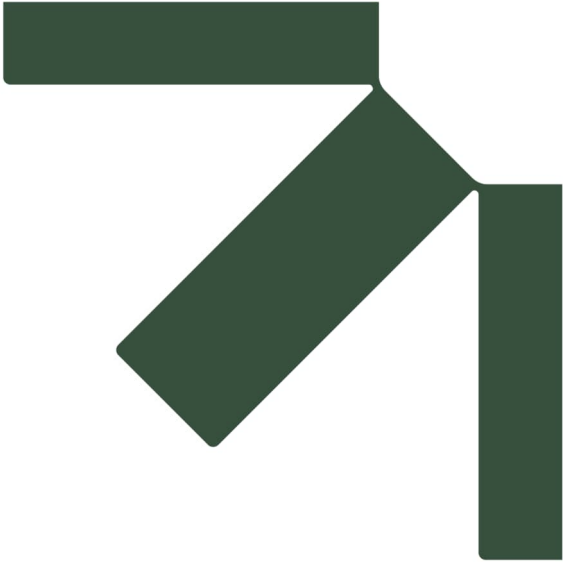
VAR: Variable Phase

	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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Project: \\au.slr.local\Corporate\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Waterford-Tamborine Road\2024 09 24 - SLR - WTR P8.P9 base data\SIDRA Intersection O\WTR-TCEW_Williamson 20241025.sip9



Appendix F Detailed SIDRA Outputs Scenario 2

Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025

SITE LAYOUT

Site: P [Int P - Ultimate AM (Site Folder: General)]

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

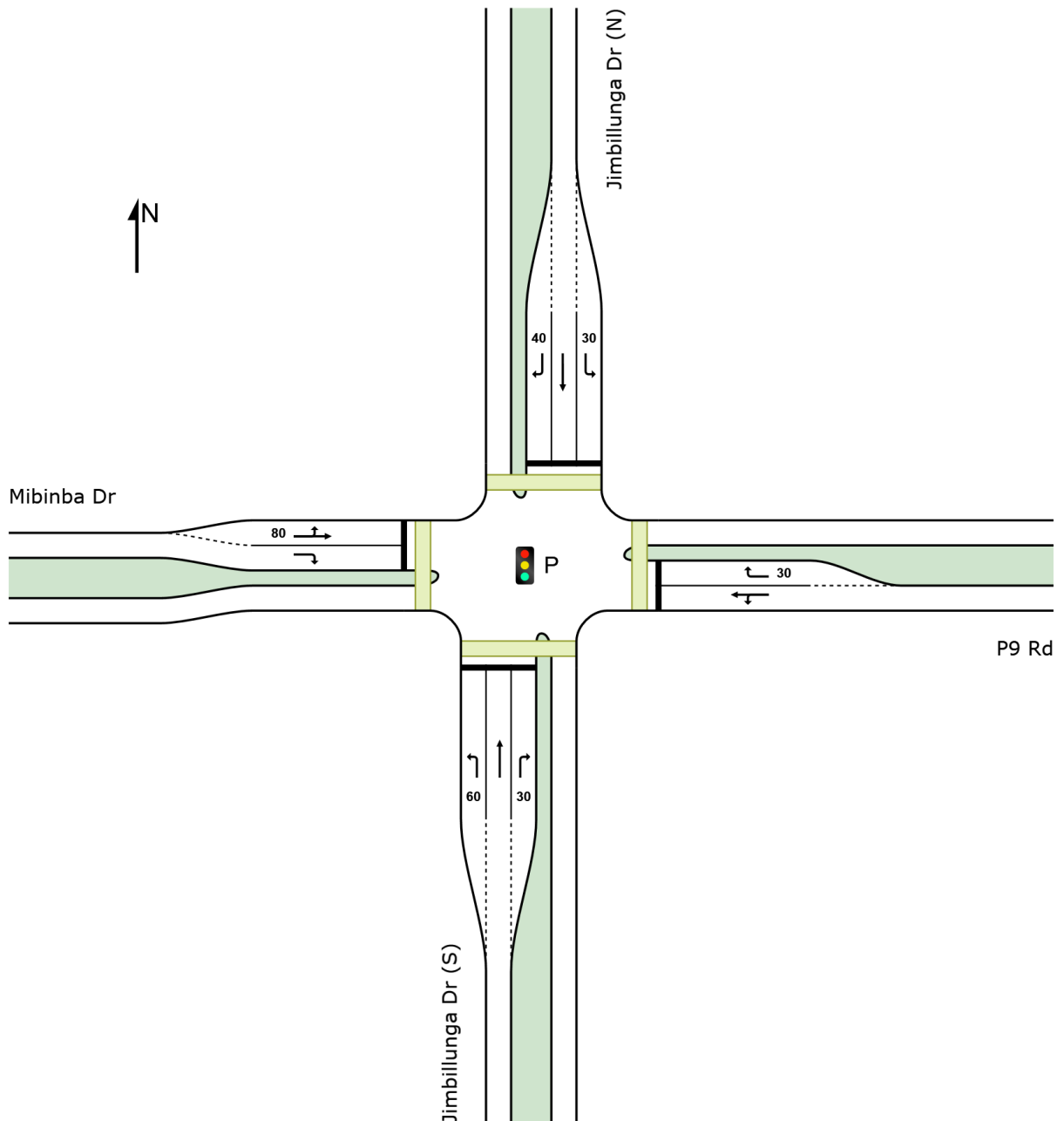
Prepared by: JH

Reviewed by: BR

Site Category: Proposed 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\Precinct 8 and 9\2025 11 04 - SLR - P9

SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.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: Jimbillunga Dr (S)												
P1	Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
East: P9 Rd												

P2 Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
North: Jimbillunga Dr (N)											
P3 Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
West: Mibinba Dr											
P4 Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
All Pedestrians	200	211	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98

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: P [Int P - Ultimate AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int P

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

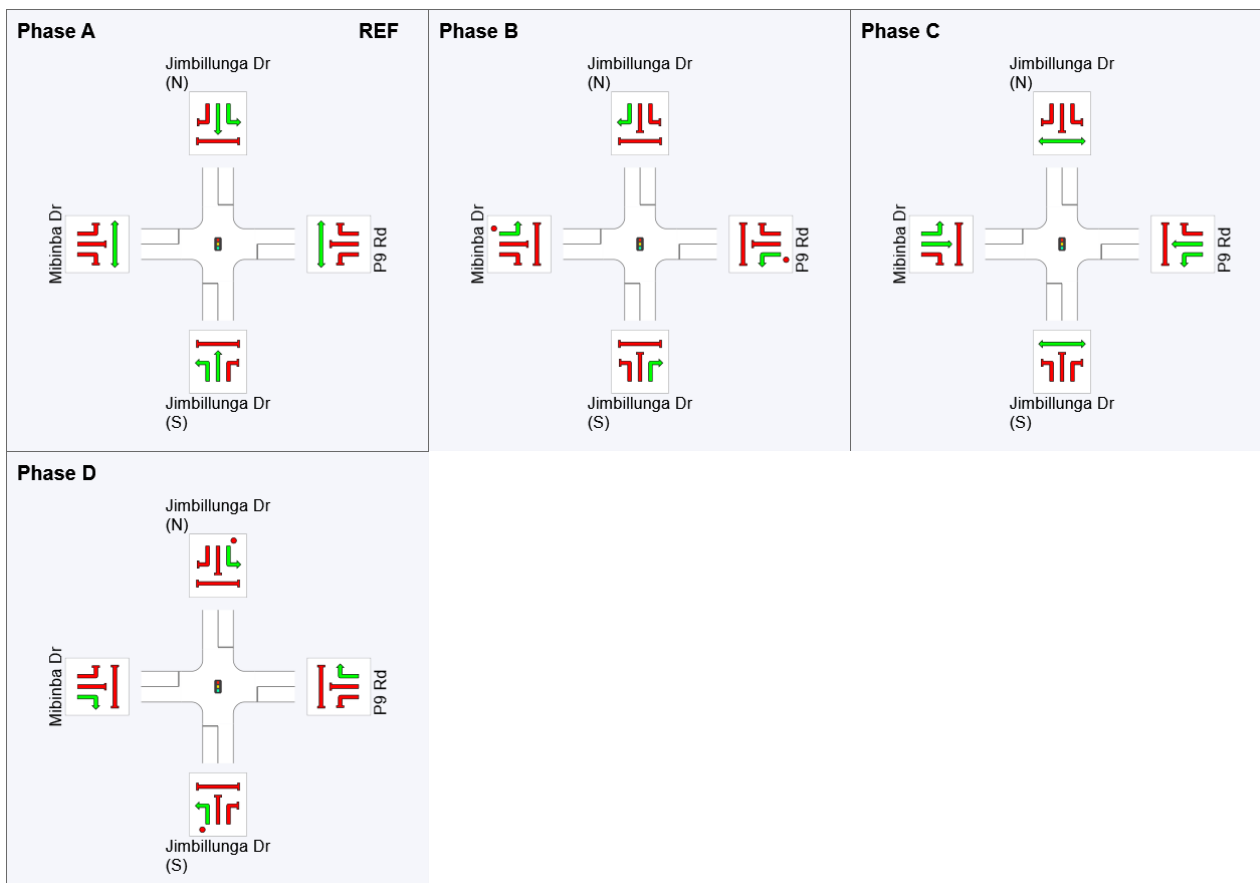
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	34	48	76
Green Time (sec)	28	8	22	28
Phase Time (sec)	34	14	28	34
Phase Split	31%	13%	25%	31%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: P [Int P - Ultimate AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

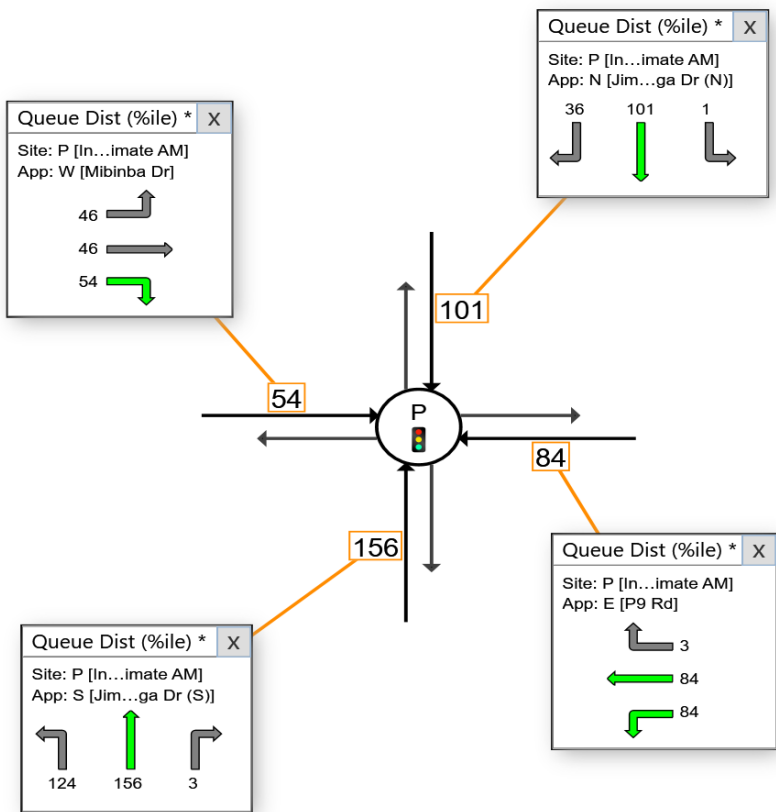
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site Practical Cycle Time)

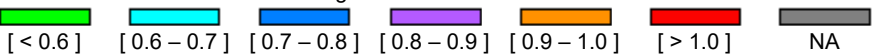
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

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)												
P1	Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
East: P9 Rd												

P2 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
North: Jimbillunga Dr (N)											
P3 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
West: Mibinba Dr											
P4 Full	50	53	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01
All Pedestrians	200	211	44.3	LOS E	0.1	0.1	0.94	0.94	198.1	200.0	1.01

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: P [Int P - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int P

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

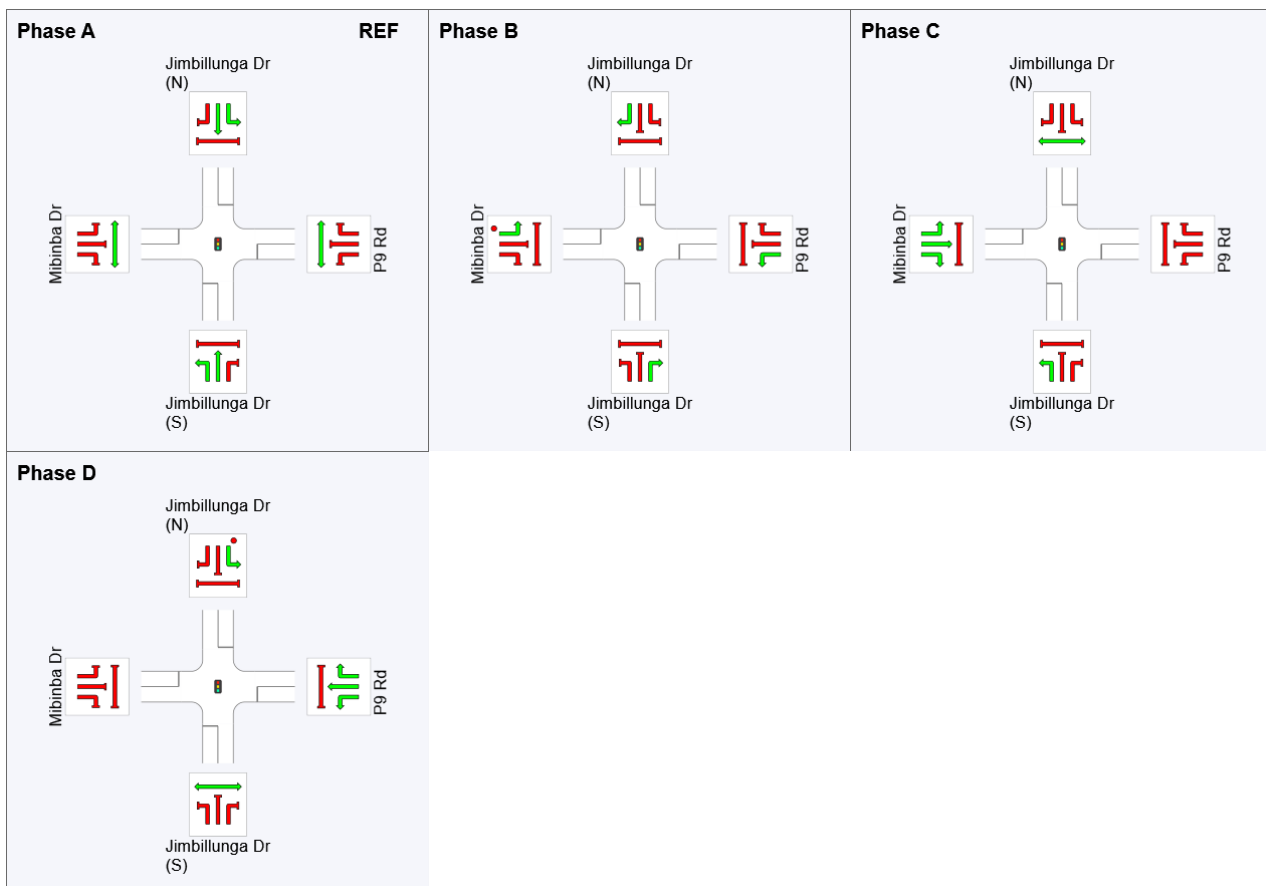
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	25	40	75
Green Time (sec)	19	9	29	19
Phase Time (sec)	25	15	35	25
Phase Split	25%	15%	35%	25%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: P [Int P - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / Mibinba Drive / P9 Road

Prepared by: JH

Reviewed by: BR

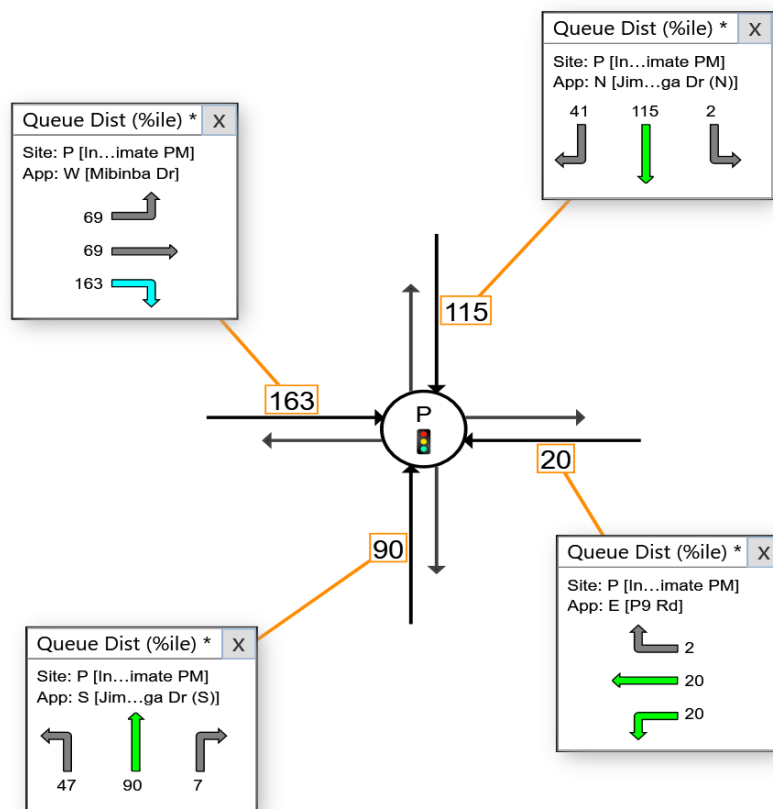
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)

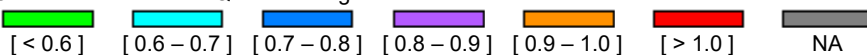
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 **Site: OP [Int OP - Ultimate AM (Site Folder: General)]**

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

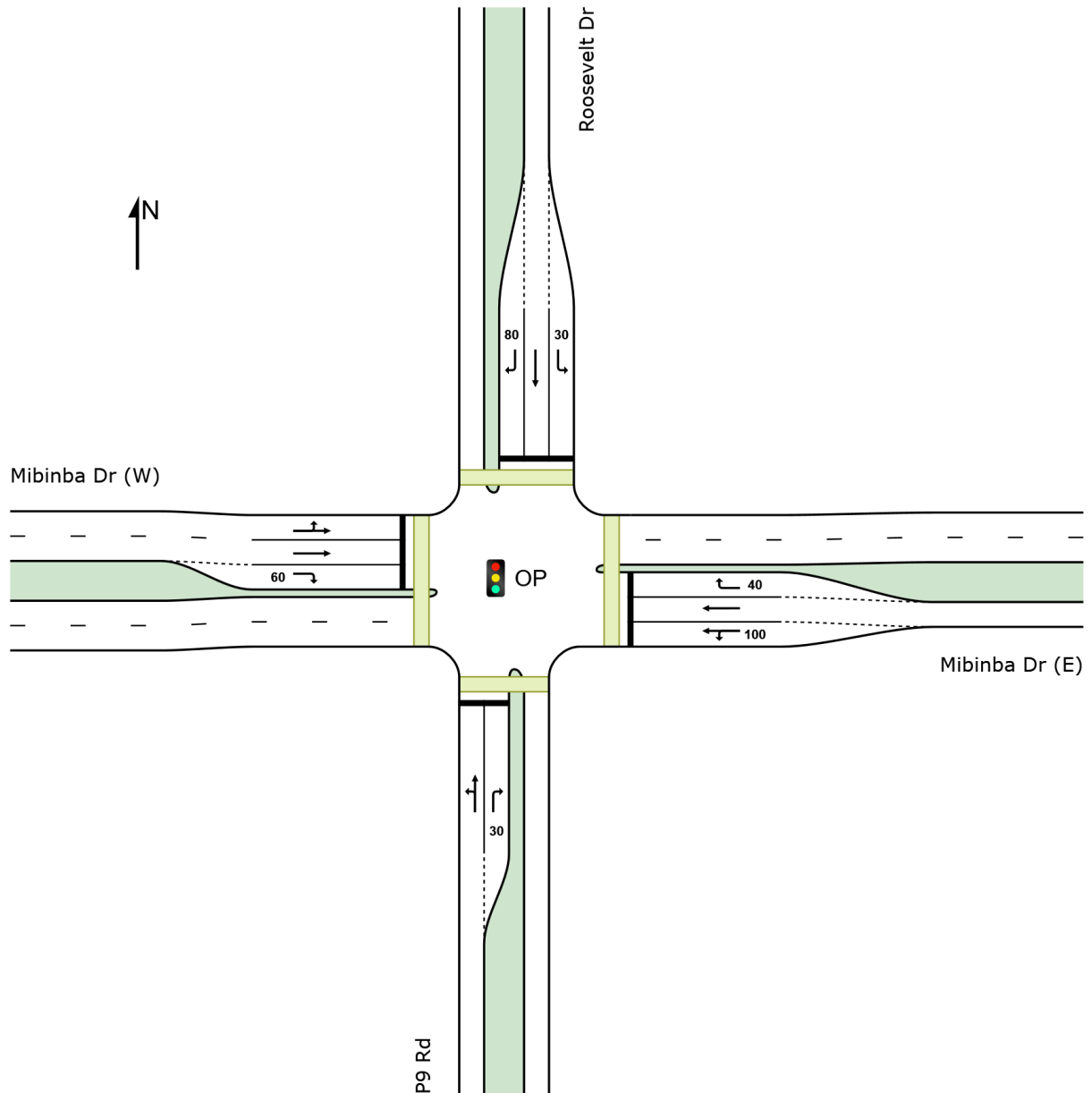
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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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: P9 Rd												
P1	Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
East: Mibinba Dr (E)												

P2 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
North: Roosevelt Dr											
P3 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
West: Mibinba Dr (W)											
P4 Full	50	53	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04
All Pedestrians	200	211	39.3	LOS D	0.1	0.1	0.94	0.94	193.1	200.0	1.04

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: OP [Int OP - Ultimate AM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int OP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

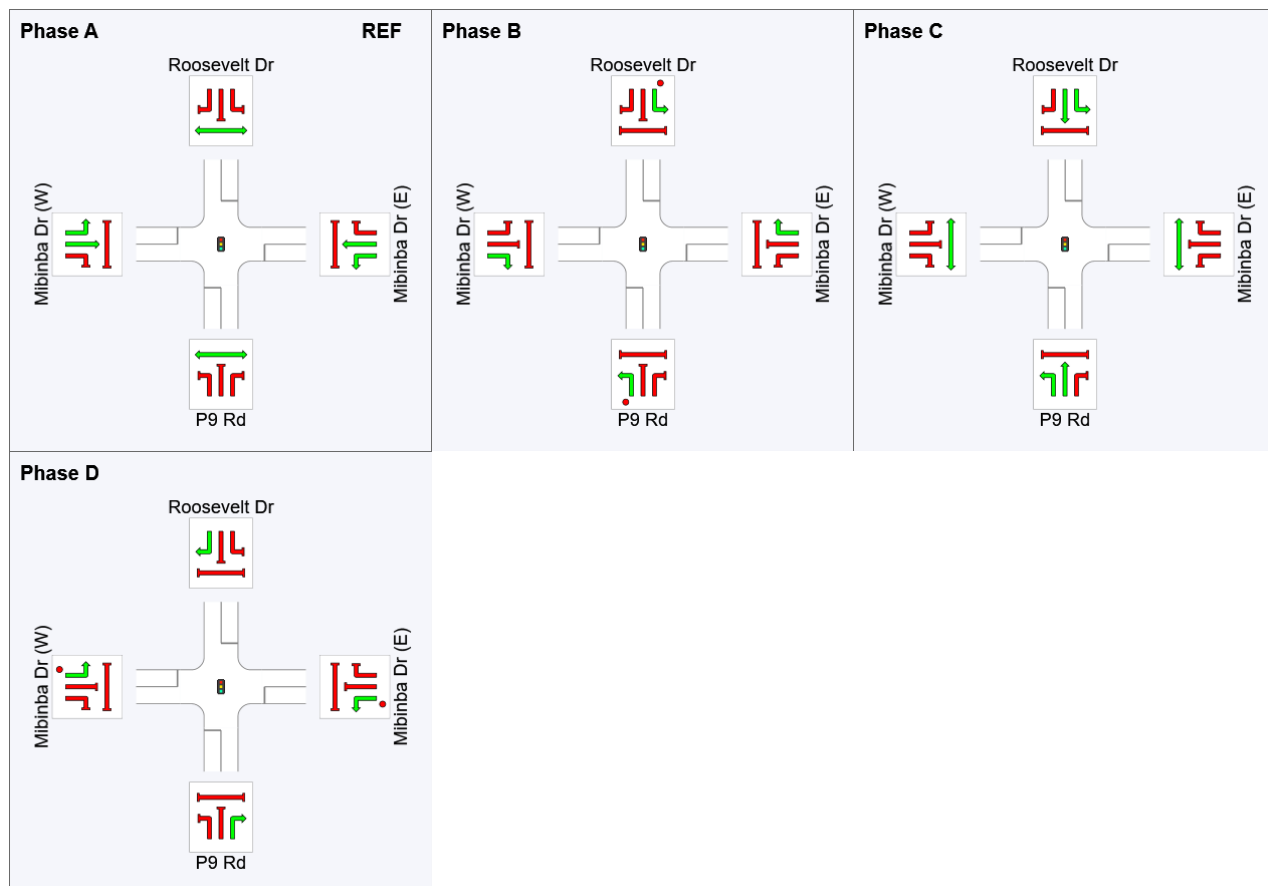
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	27	40	70
Green Time (sec)	21	7	24	14
Phase Time (sec)	27	13	30	20
Phase Split	30%	14%	33%	22%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: OP [Int OP - Ultimate AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

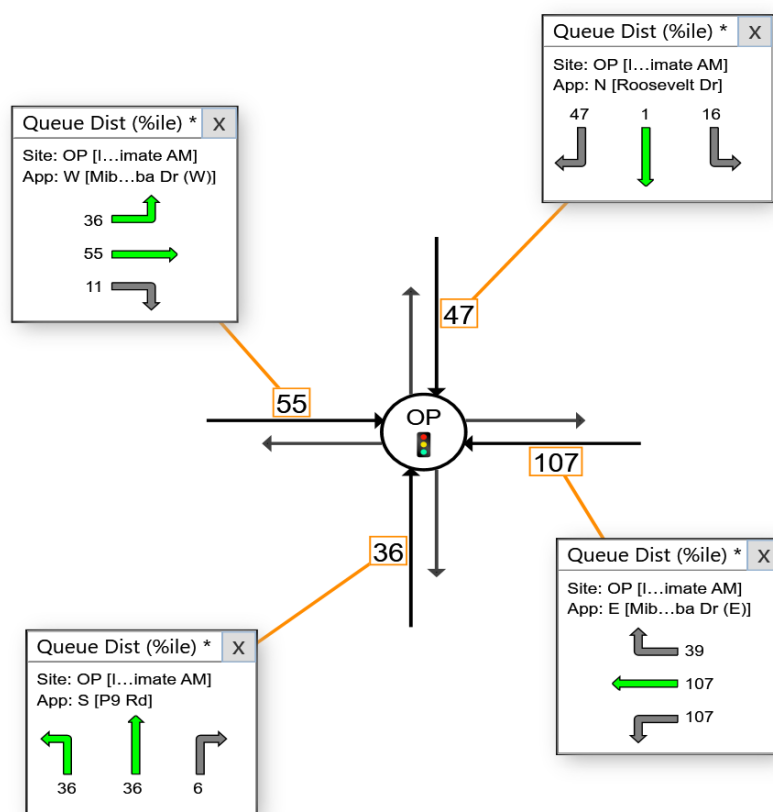
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

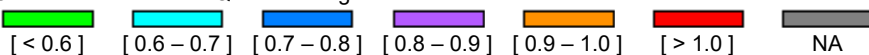
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Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

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: P9 Rd												
P1	Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
East: Mibinba Dr (E)												

P2 Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
North: Roosevelt Dr											
P3 Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
West: Mibinba Dr (W)											
P4 Full	50	53	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98
All Pedestrians	200	211	49.3	LOS E	0.2	0.2	0.95	0.95	203.1	200.0	0.98

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: OP [Int OP - Ultimate PM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int OP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

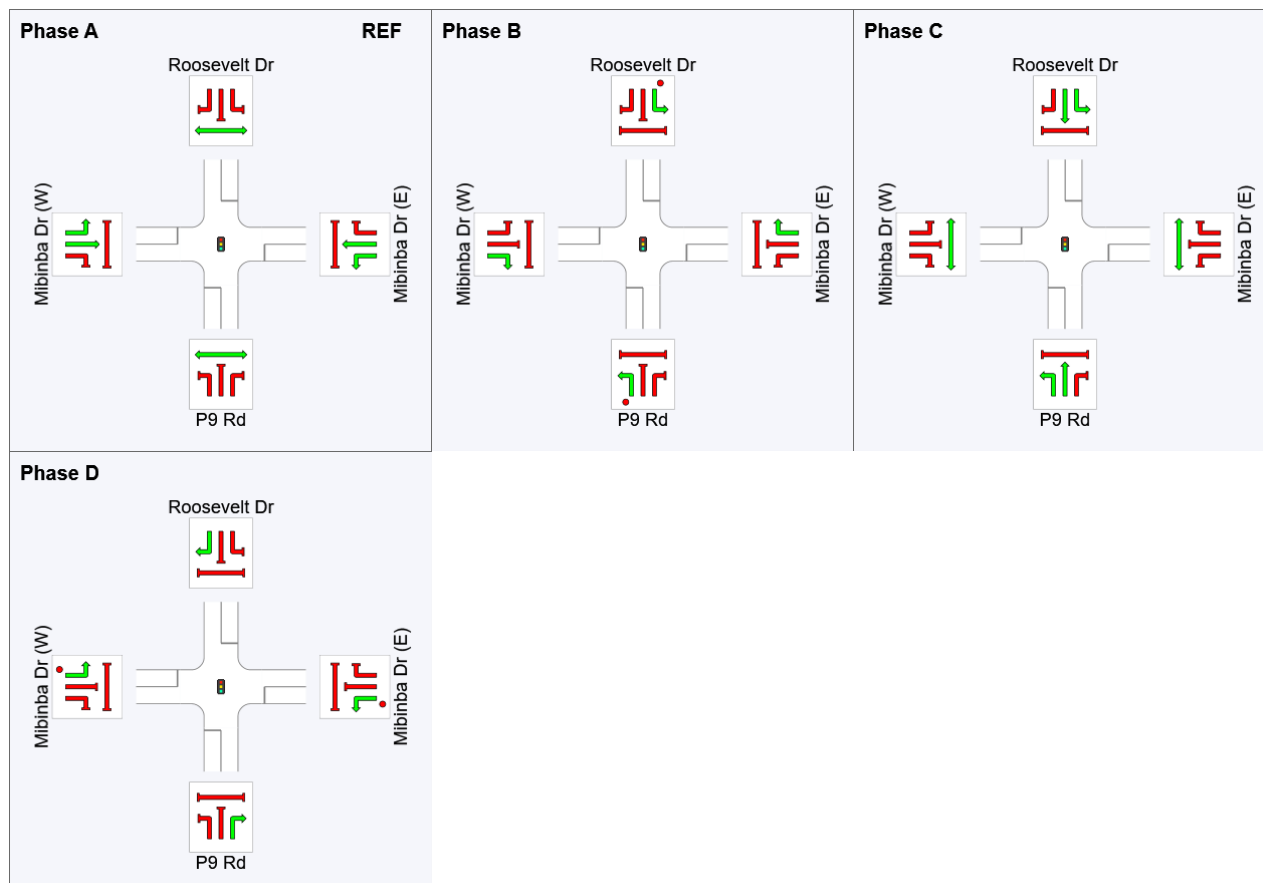
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	41	56	87
Green Time (sec)	35	9	25	17
Phase Time (sec)	41	15	31	23
Phase Split	37%	14%	28%	21%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: OP [Int OP - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Mibinba Drive / Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

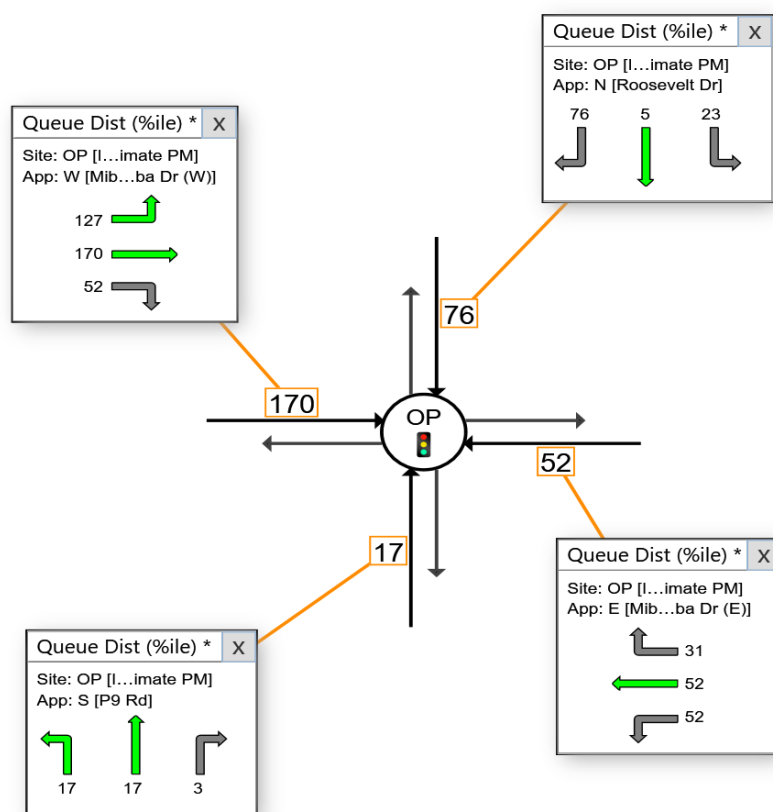
Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site Practical Cycle Time)

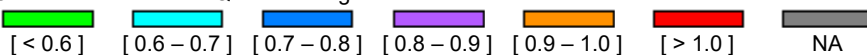
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
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Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 **Site: PKP [Int PKP - Ultimate AM (Site Folder: General)]**

Intersection: Roosevelt Drive / P9 Road

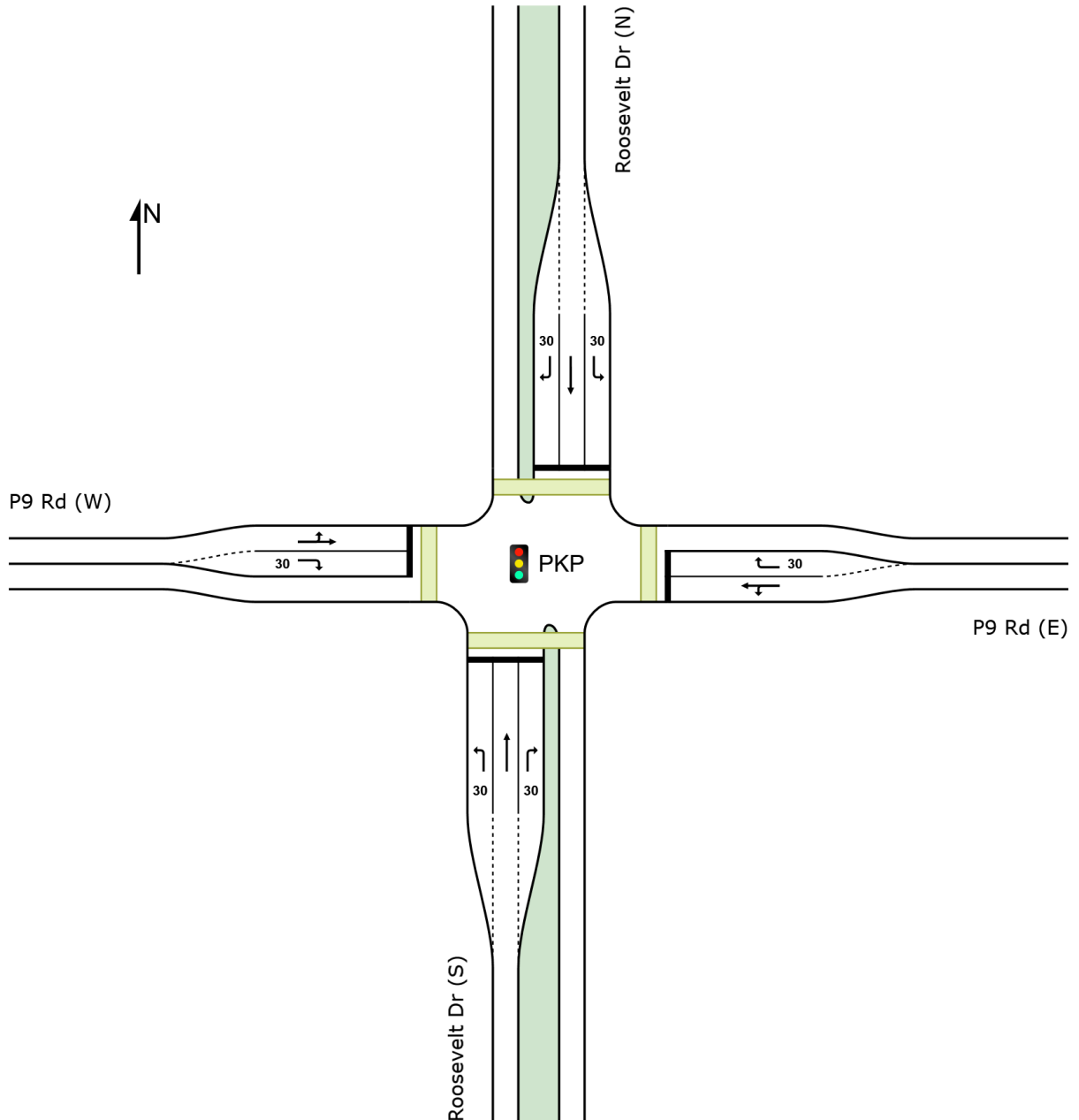
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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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: Roosevelt Dr (S)												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: P9 Rd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Roosevelt Dr (N)											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: P9 Rd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
All Pedestrians	200	211	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.

PHASING SUMMARY

 **Site: PKP [Int PKP - Ultimate AM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

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

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int PKP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

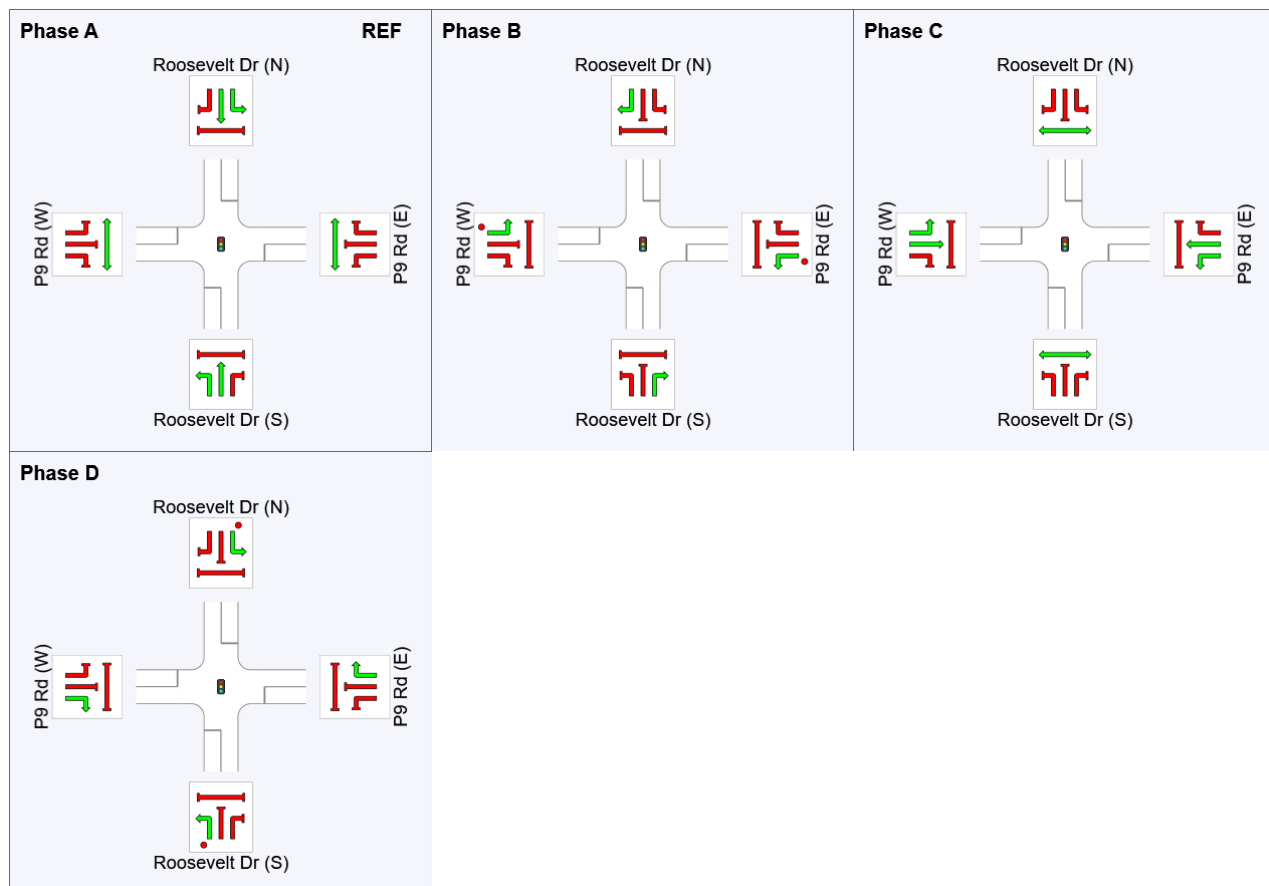
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	19	33	57
Green Time (sec)	13	8	18	7
Phase Time (sec)	19	14	24	13
Phase Split	27%	20%	34%	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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: PKP [Int PKP - Ultimate AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

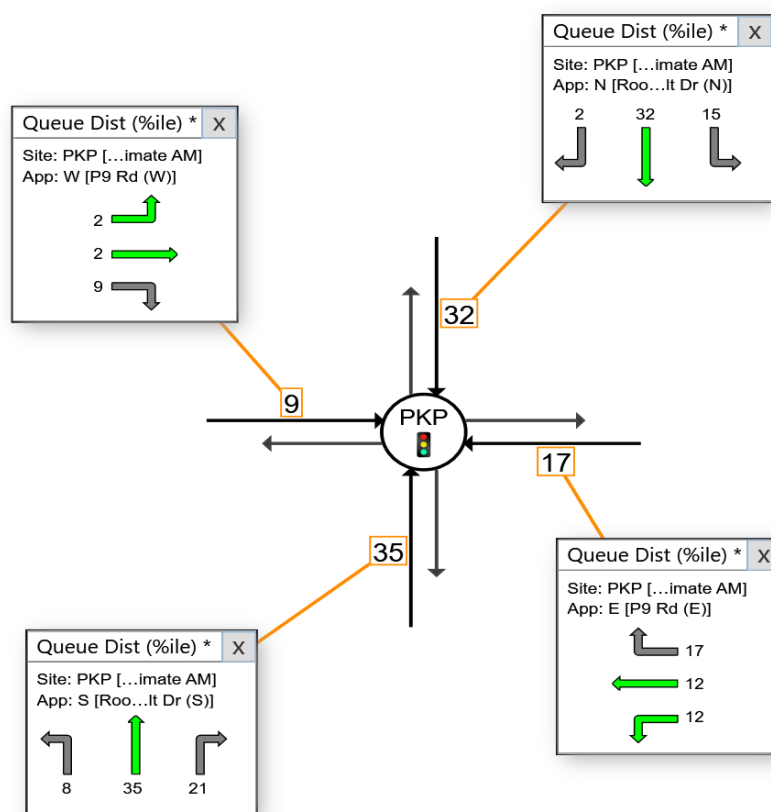
Site Category: Proposed Layout

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

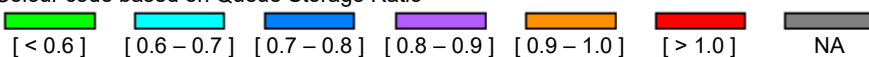
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

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: Roosevelt Dr (S)												
P1	Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
East: P9 Rd (E)												

P2 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
North: Roosevelt Dr (N)											
P3 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
West: P9 Rd (W)											
P4 Full	50	53	29.3	LOS C	0.1	0.1	0.92	0.92	183.2	200.0	1.09
All Pedestrians	200	211	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.

PHASING SUMMARY

 Site: PKP [Int PKP - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

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

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Int PKP

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

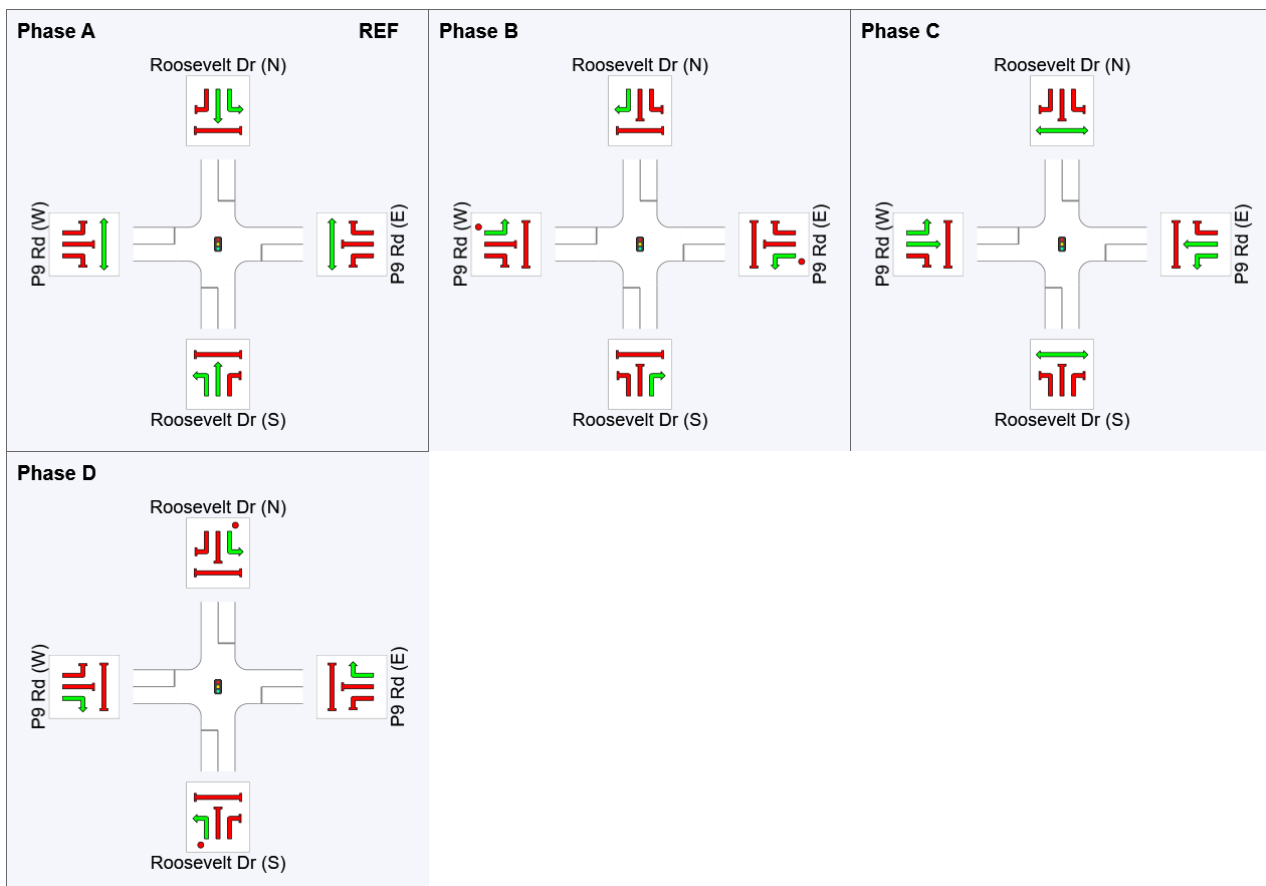
Reference Phase: Phase A

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	19	31	55
Green Time (sec)	13	6	18	9
Phase Time (sec)	19	12	24	15
Phase Split	27%	17%	34%	21%
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



QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: PKP [Int PKP - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

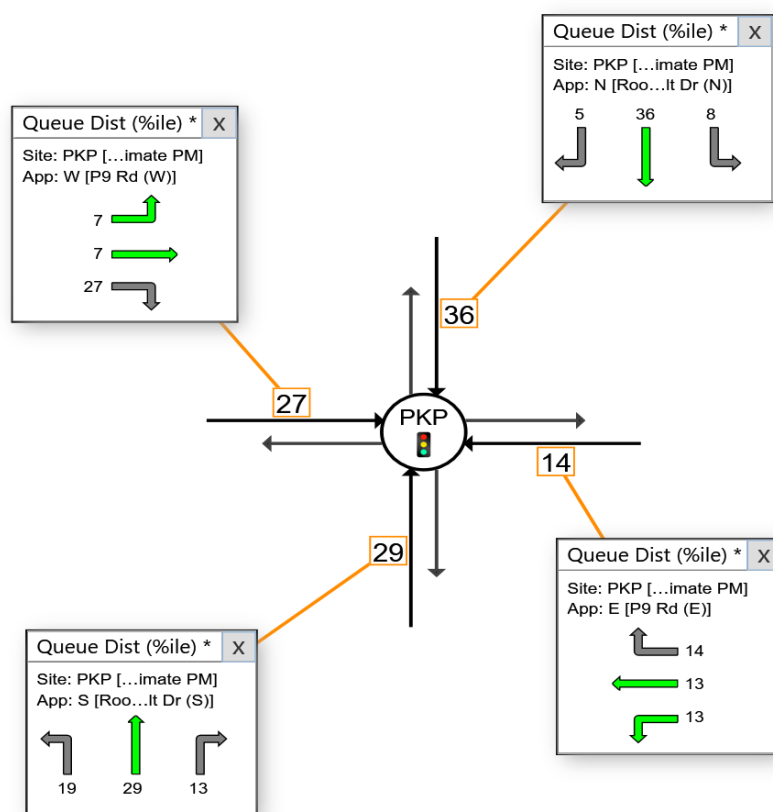
Site Category: Proposed Layout

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

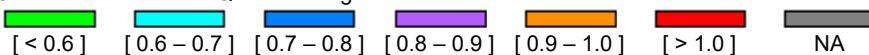
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 **Site: KKP [Int KKP - Ultimate AM (Site Folder: General)]**

Intersection: Roosevelt Drive / P9 Road

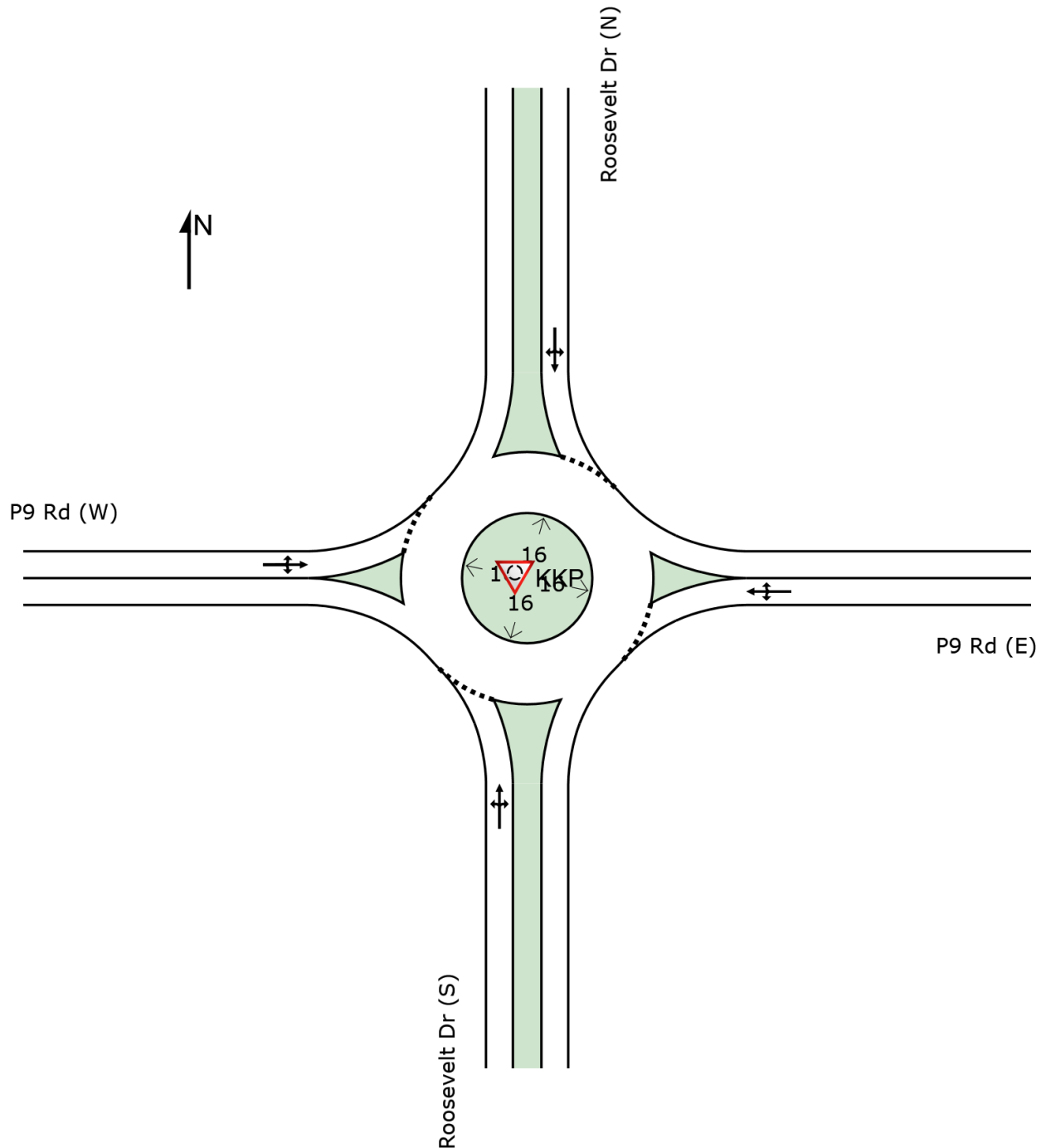
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Roundabout

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MOVEMENT SUMMARY

 **Site: KKP [Int KKP - Ultimate AM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Roundabout

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]				km/h
South: Roosevelt Dr (S)															
1	L2	All MCs	108	5.0	108	5.0	0.328	6.9	LOS A	2.1	15.7	0.57	0.62	0.57	41.4
2	T1	All MCs	181	5.0	181	5.0	0.328	7.2	LOS A	2.1	15.7	0.57	0.62	0.57	46.2
3	R2	All MCs	20	5.0	20	5.0	0.328	11.3	LOS B	2.1	15.7	0.57	0.62	0.57	42.2
Approach			309	5.0	309	5.0	0.328	7.4	LOS A	2.1	15.7	0.57	0.62	0.57	44.5
East: P9 Rd (E)															
4	L2	All MCs	39	5.0	39	5.0	0.223	5.9	LOS A	1.5	11.0	0.60	0.63	0.60	39.8
5	T1	All MCs	3	5.0	3	5.0	0.223	5.9	LOS A	1.5	11.0	0.60	0.63	0.60	35.2
6	R2	All MCs	166	5.0	166	5.0	0.223	10.0	LOS A	1.5	11.0	0.60	0.63	0.60	39.7
Approach			208	5.0	208	5.0	0.223	9.1	LOS A	1.5	11.0	0.60	0.63	0.60	39.7
North: Roosevelt Dr (N)															
7	L2	All MCs	18	5.0	18	5.0	0.246	4.7	LOS A	1.5	11.2	0.28	0.56	0.28	43.6
8	T1	All MCs	132	5.0	132	5.0	0.246	5.0	LOS A	1.5	11.2	0.28	0.56	0.28	46.3
9	R2	All MCs	163	5.0	163	5.0	0.246	9.1	LOS A	1.5	11.2	0.28	0.56	0.28	41.6
Approach			313	5.0	313	5.0	0.246	7.1	LOS A	1.5	11.2	0.28	0.56	0.28	43.9
West: P9 Rd (W)															
10	L2	All MCs	194	5.0	194	5.0	0.287	6.1	LOS A	1.9	14.1	0.64	0.61	0.64	40.8
11	T1	All MCs	1	5.0	1	5.0	0.287	6.1	LOS A	1.9	14.1	0.64	0.61	0.64	37.2
12	R2	All MCs	65	5.0	65	5.0	0.287	10.2	LOS B	1.9	14.1	0.64	0.61	0.64	39.4
Approach			260	5.0	260	5.0	0.287	7.1	LOS A	1.9	14.1	0.64	0.61	0.64	40.4
All Vehicles			1090	5.0	1090	5.0	0.328	7.6	LOS A	2.1	15.7	0.51	0.60	0.51	42.4

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

Roundabout LOS Method: SIDRA Roundabout LOS.

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.

Roundabout 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.

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SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.sip9

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: KKP [Int KKP - Ultimate AM (Site Folder: General)]

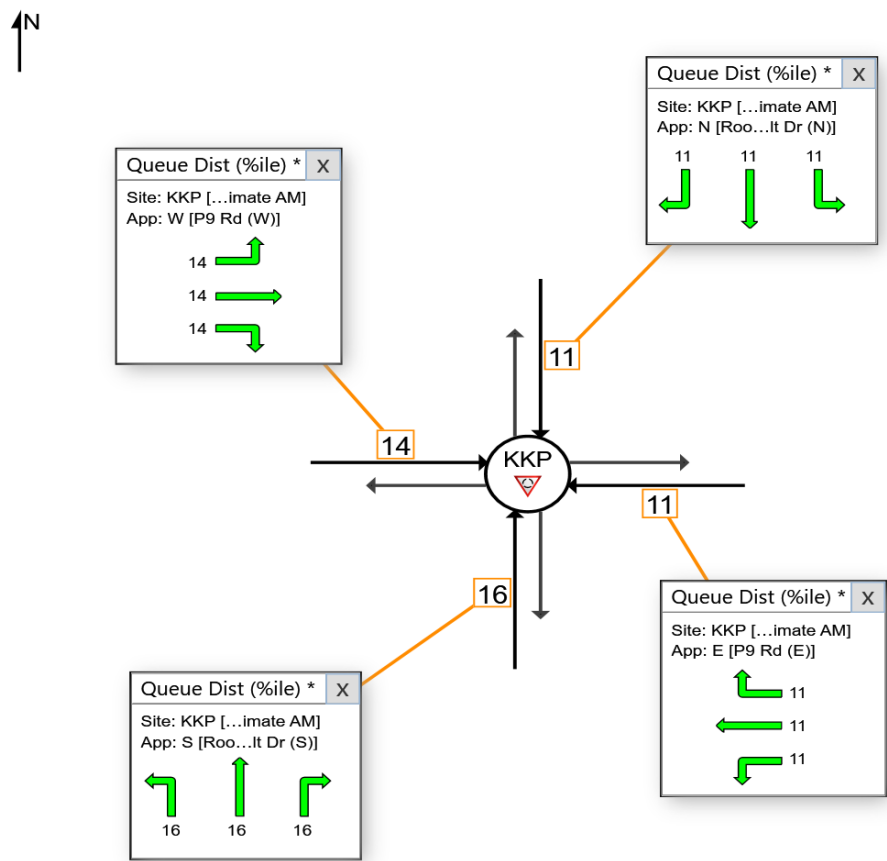
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Roundabout

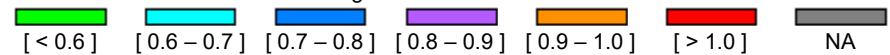
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

MOVEMENT SUMMARY

 **Site: KKP [Int KKP - Ultimate PM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road

Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Roundabout

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				
South: Roosevelt Dr (S)															
1	L2	All MCs	57	5.0	57	5.0	0.207	5.7	LOS A	1.2	9.1	0.43	0.56	0.43	42.1
2	T1	All MCs	119	5.0	119	5.0	0.207	6.0	LOS A	1.2	9.1	0.43	0.56	0.43	46.7
3	R2	All MCs	44	5.0	44	5.0	0.207	10.1	LOS B	1.2	9.1	0.43	0.56	0.43	42.8
Approach			220	5.0	220	5.0	0.207	6.7	LOS A	1.2	9.1	0.43	0.56	0.43	44.9
East: P9 Rd (E)															
4	L2	All MCs	21	5.0	21	5.0	0.089	5.5	LOS A	0.6	4.1	0.56	0.61	0.56	40.5
5	T1	All MCs	5	5.0	5	5.0	0.089	5.5	LOS A	0.6	4.1	0.56	0.61	0.56	35.9
6	R2	All MCs	58	5.0	58	5.0	0.089	9.6	LOS A	0.6	4.1	0.56	0.61	0.56	40.4
Approach			84	5.0	84	5.0	0.089	8.3	LOS A	0.6	4.1	0.56	0.61	0.56	40.2
North: Roosevelt Dr (N)															
7	L2	All MCs	60	5.0	60	5.0	0.291	4.8	LOS A	1.8	13.3	0.30	0.55	0.30	43.9
8	T1	All MCs	156	5.0	156	5.0	0.291	5.1	LOS A	1.8	13.3	0.30	0.55	0.30	46.7
9	R2	All MCs	151	5.0	151	5.0	0.291	9.3	LOS A	1.8	13.3	0.30	0.55	0.30	41.9
Approach			366	5.0	366	5.0	0.291	6.8	LOS A	1.8	13.3	0.30	0.55	0.30	44.5
West: P9 Rd (W)															
10	L2	All MCs	137	5.0	137	5.0	0.185	4.7	LOS A	1.2	8.7	0.48	0.54	0.48	42.1
11	T1	All MCs	5	5.0	5	5.0	0.185	4.7	LOS A	1.2	8.7	0.48	0.54	0.48	38.6
12	R2	All MCs	51	5.0	51	5.0	0.185	8.8	LOS A	1.2	8.7	0.48	0.54	0.48	40.7
Approach			193	5.0	193	5.0	0.185	5.8	LOS A	1.2	8.7	0.48	0.54	0.48	41.6
All Vehicles			863	5.0	863	5.0	0.291	6.7	LOS A	1.8	13.3	0.40	0.55	0.40	43.5

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

Roundabout LOS Method: SIDRA Roundabout LOS.

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.

Roundabout 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.

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Project: H:\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Precinct 8 and 9\2025 11 04 - SLR - P9

SIDRA and TWA\620.11743.00016-M02-v0.3 P9 SIDRA.sip9

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

 Site: KKP [Int KKP - Ultimate PM (Site Folder: General)]

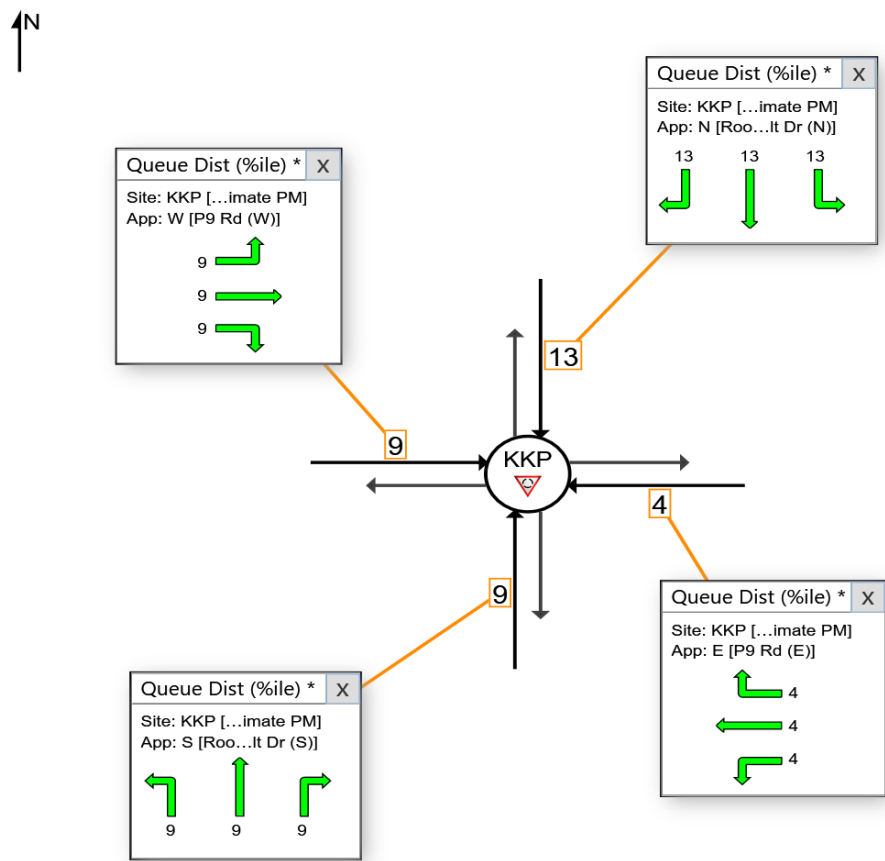
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Roosevelt Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Roundabout

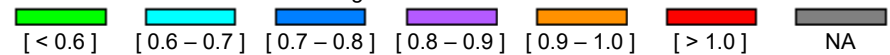
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

▽ Site: SP [Int SP - Ultimate AM (Site Folder: General)]

Intersection: Jimbillunga Drive / P9 Road

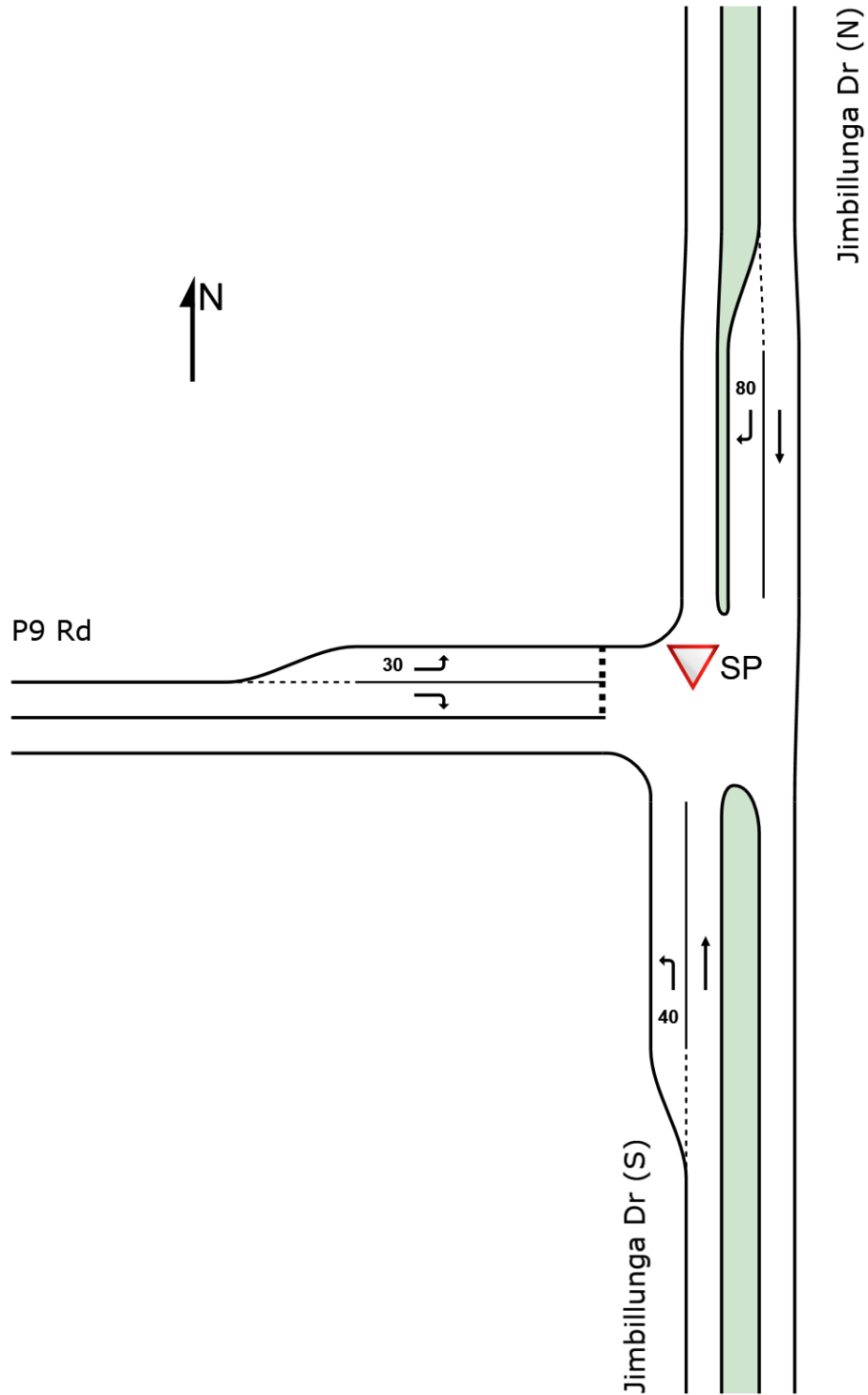
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Give-Way (Two-Way)

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



MOVEMENT SUMMARY

Site: SP [Int SP - Ultimate AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	235	5.0	235	5.0	0.131	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	49.4
2	T1	All MCs	268	5.0	268	5.0	0.142	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			503	5.0	503	5.0	0.142	2.6	NA	0.0	0.0	0.00	0.27	0.00	53.6
North: Jimbillunga Dr (N)															
8	T1	All MCs	195	5.0	195	5.0	0.103	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
9	R2	All MCs	171	5.0	171	5.0	0.198	8.2	LOS A	0.8	5.7	0.47	0.71	0.47	43.9
Approach			366	5.0	366	5.0	0.198	3.8	NA	0.8	5.7	0.22	0.33	0.22	49.6
West: P9 Rd															
10	L2	All MCs	134	5.0	134	5.0	0.133	5.9	LOS A	0.5	3.6	0.33	0.58	0.33	44.5
12	R2	All MCs	185	5.0	185	5.0	0.460	15.8	LOS C	2.2	16.2	0.75	0.99	1.06	37.0
Approach			319	5.0	319	5.0	0.460	11.7	LOS B	2.2	16.2	0.57	0.82	0.75	39.9
All Vehicles			1187	5.0	1187	5.0	0.460	5.4	NA	2.2	16.2	0.22	0.44	0.27	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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SP [Int SP - Ultimate AM (Site Folder: General)]

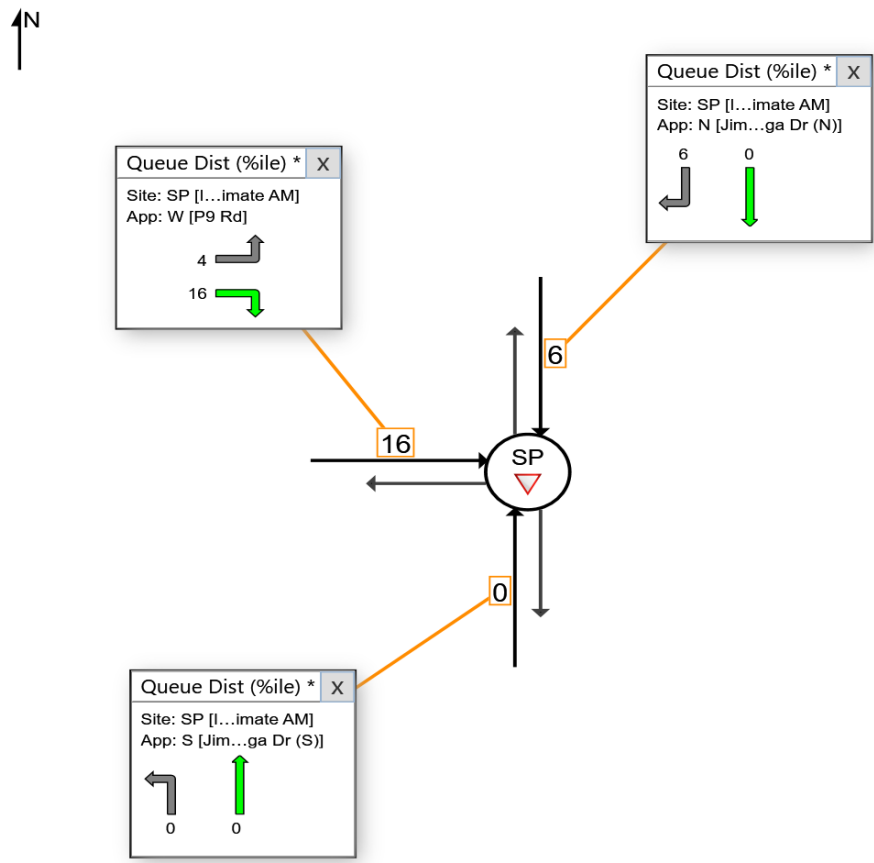
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

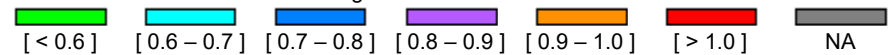
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
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Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

MOVEMENT SUMMARY

Site: SP [Int SP - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	154	5.0	154	5.0	0.086	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	49.4
2	T1	All MCs	220	5.0	220	5.0	0.117	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			374	5.0	374	5.0	0.117	2.3	NA	0.0	0.0	0.00	0.24	0.00	54.2
North: Jimbillunga Dr (N)															
8	T1	All MCs	240	5.0	240	5.0	0.127	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	102	5.0	102	5.0	0.104	7.3	LOS A	0.4	2.9	0.39	0.64	0.39	44.6
Approach			342	5.0	342	5.0	0.127	2.2	NA	0.4	2.9	0.12	0.19	0.12	52.8
West: P9 Rd															
10	L2	All MCs	119	5.0	119	5.0	0.113	5.6	LOS A	0.4	3.1	0.29	0.55	0.29	44.6
12	R2	All MCs	177	5.0	177	5.0	0.375	12.7	LOS B	1.7	12.6	0.66	0.91	0.85	38.9
Approach			296	5.0	296	5.0	0.375	9.9	LOS A	1.7	12.6	0.51	0.77	0.62	41.1
All Vehicles			1012	5.0	1012	5.0	0.375	4.5	NA	1.7	12.6	0.19	0.38	0.22	48.5

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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SP [Int SP - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road

Prepared by: JH

Reviewed by: BR

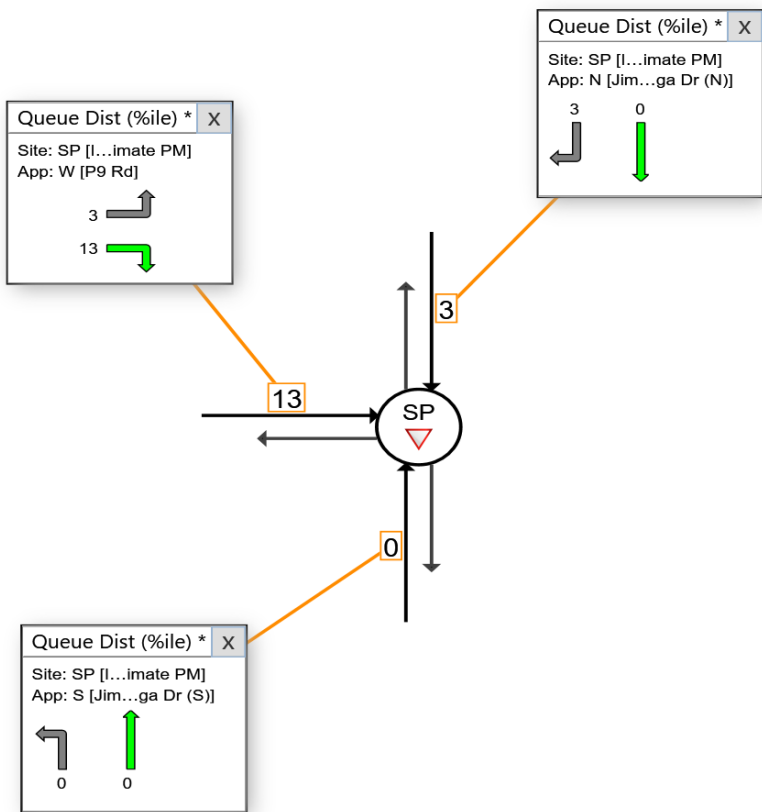
Site Category: Proposed Layout

Give-Way (Two-Way)

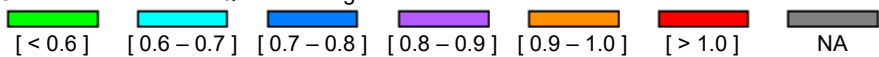
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Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

▽ Site: SSP [Int SSP - Ultimate AM (Site Folder: General)]

Intersection: Jimbillunga Drive / P9 Road

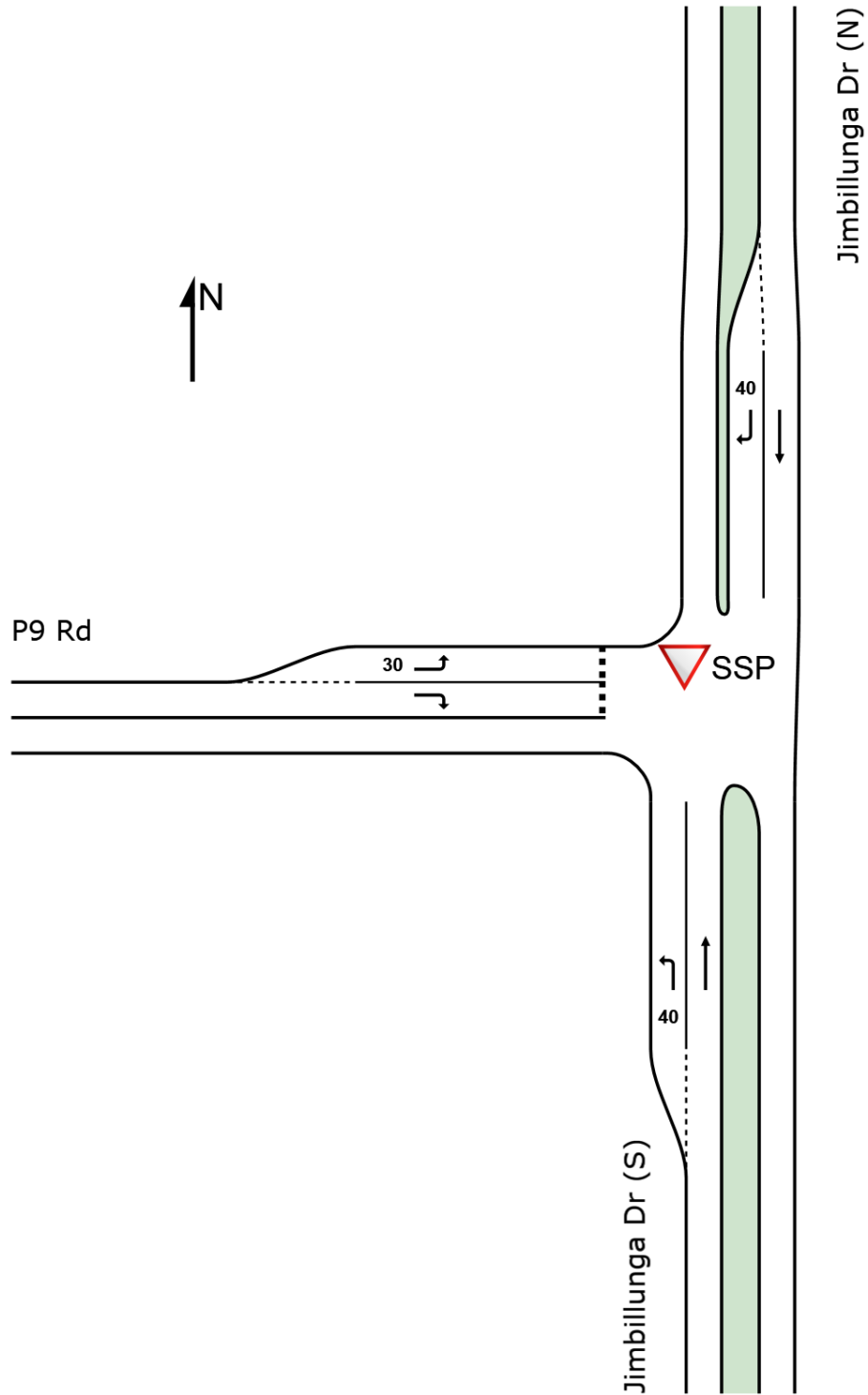
Prepared by: JH

Reviewed by: BR

Site Category: Proposed Layout

Give-Way (Two-Way)

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



MOVEMENT SUMMARY

▼ Site: SSP [Int SSP - Ultimate AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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					
South: Jimbillunga Dr (S)															
1	L2	All MCs	11	5.0	11	5.0	0.006	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	43.9
2	T1	All MCs	391	5.0	391	5.0	0.207	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			401	5.0	401	5.0	0.207	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Jimbillunga Dr (N)															
8	T1	All MCs	333	5.0	333	5.0	0.176	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	21	5.0	21	5.0	0.023	7.5	LOS A	0.1	0.6	0.38	0.61	0.38	40.4
Approach			354	5.0	354	5.0	0.176	0.5	NA	0.1	0.6	0.02	0.04	0.02	58.6
West: P9 Rd															
10	L2	All MCs	84	5.0	84	5.0	0.098	6.7	LOS A	0.4	2.7	0.44	0.64	0.44	39.9
12	R2	All MCs	33	5.0	33	5.0	0.084	12.4	LOS B	0.3	2.2	0.65	0.83	0.65	34.4
Approach			117	5.0	117	5.0	0.098	8.2	LOS A	0.4	2.7	0.50	0.69	0.50	38.2
All Vehicles			872	5.0	872	5.0	0.207	1.4	NA	0.4	2.7	0.08	0.11	0.08	55.9

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.
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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SSP [Int SSP - Ultimate AM (Site Folder: General)]

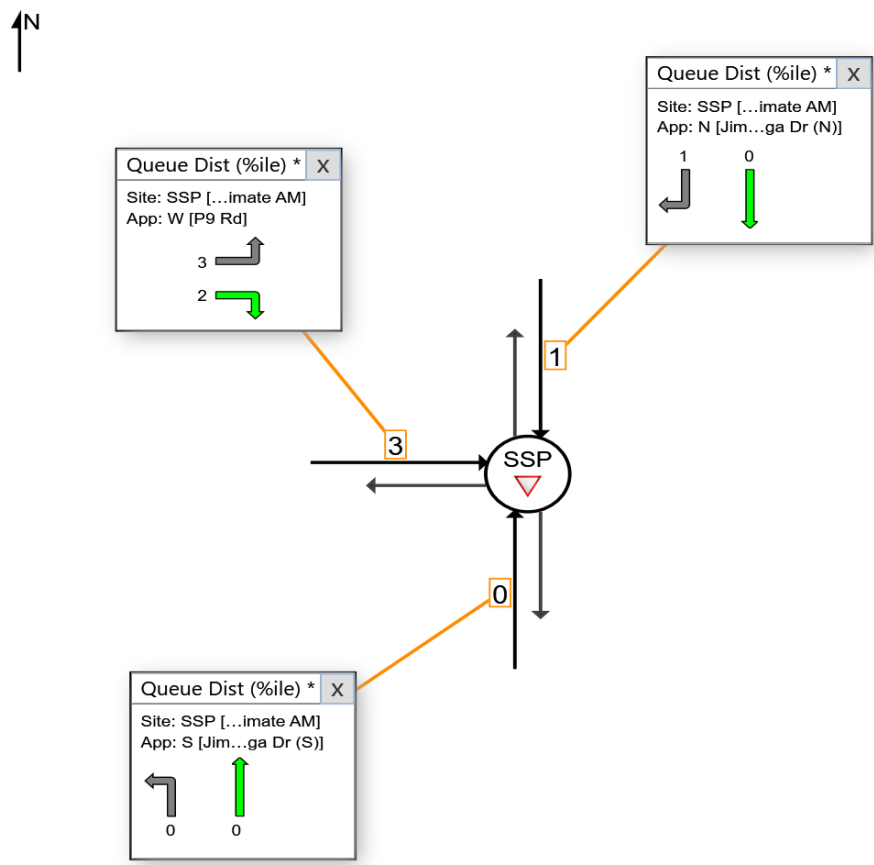
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

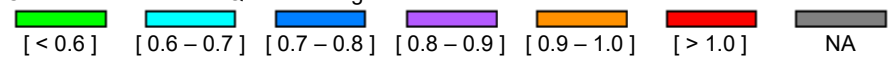
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Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

MOVEMENT SUMMARY

Site: SSP [Int SSP - Ultimate PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed 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
South: Jimbillunga Dr (S)															
1	L2	All MCs	28	5.0	28	5.0	0.016	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	43.9
2	T1	All MCs	311	5.0	311	5.0	0.165	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			339	5.0	339	5.0	0.165	0.5	NA	0.0	0.0	0.00	0.05	0.00	58.5
North: Jimbillunga Dr (N)															
8	T1	All MCs	328	5.0	328	5.0	0.174	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	All MCs	74	5.0	74	5.0	0.074	7.2	LOS A	0.3	1.9	0.35	0.62	0.35	40.8
Approach			402	5.0	402	5.0	0.174	1.3	NA	0.3	1.9	0.06	0.11	0.06	56.1
West: P9 Rd															
10	L2	All MCs	33	5.0	33	5.0	0.034	6.0	LOS A	0.1	0.9	0.37	0.57	0.37	40.5
12	R2	All MCs	14	5.0	14	5.0	0.033	11.4	LOS B	0.1	0.9	0.61	0.75	0.61	35.2
Approach			46	5.0	46	5.0	0.034	7.6	LOS A	0.1	0.9	0.44	0.62	0.44	38.8
All Vehicles			787	5.0	787	5.0	0.174	1.3	NA	0.3	1.9	0.06	0.12	0.06	56.0

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.
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.

QUEUE DISTANCE (PERCENTILE)

Largest 95% Back of Queue Distance for any lane used by the vehicle movement (metres)

▼ Site: SSP [Int SSP - Ultimate PM (Site Folder: General)]

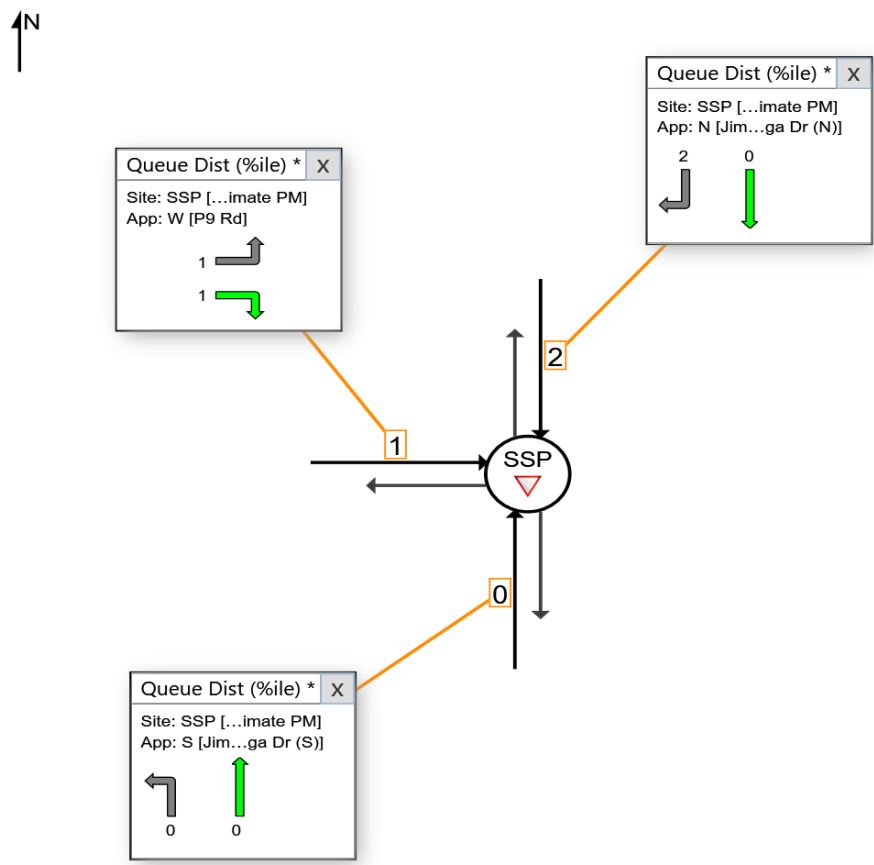
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Intersection: Jimbillunga Drive / P9 Road
Prepared by: JH
Reviewed by: BR
Site Category: Proposed Layout
Give-Way (Two-Way)

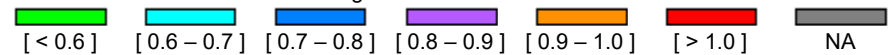
Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



Colour code based on Queue Storage Ratio



NA: The movement only runs in short lanes and these are not included in determining Queue Storage Ratio, or the movement has zero volume for the selected Movement Class.

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

SITE LAYOUT

 Site: O [WTR-Williamson - Ult AM - S1 Opt (Site Folder: General)]

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

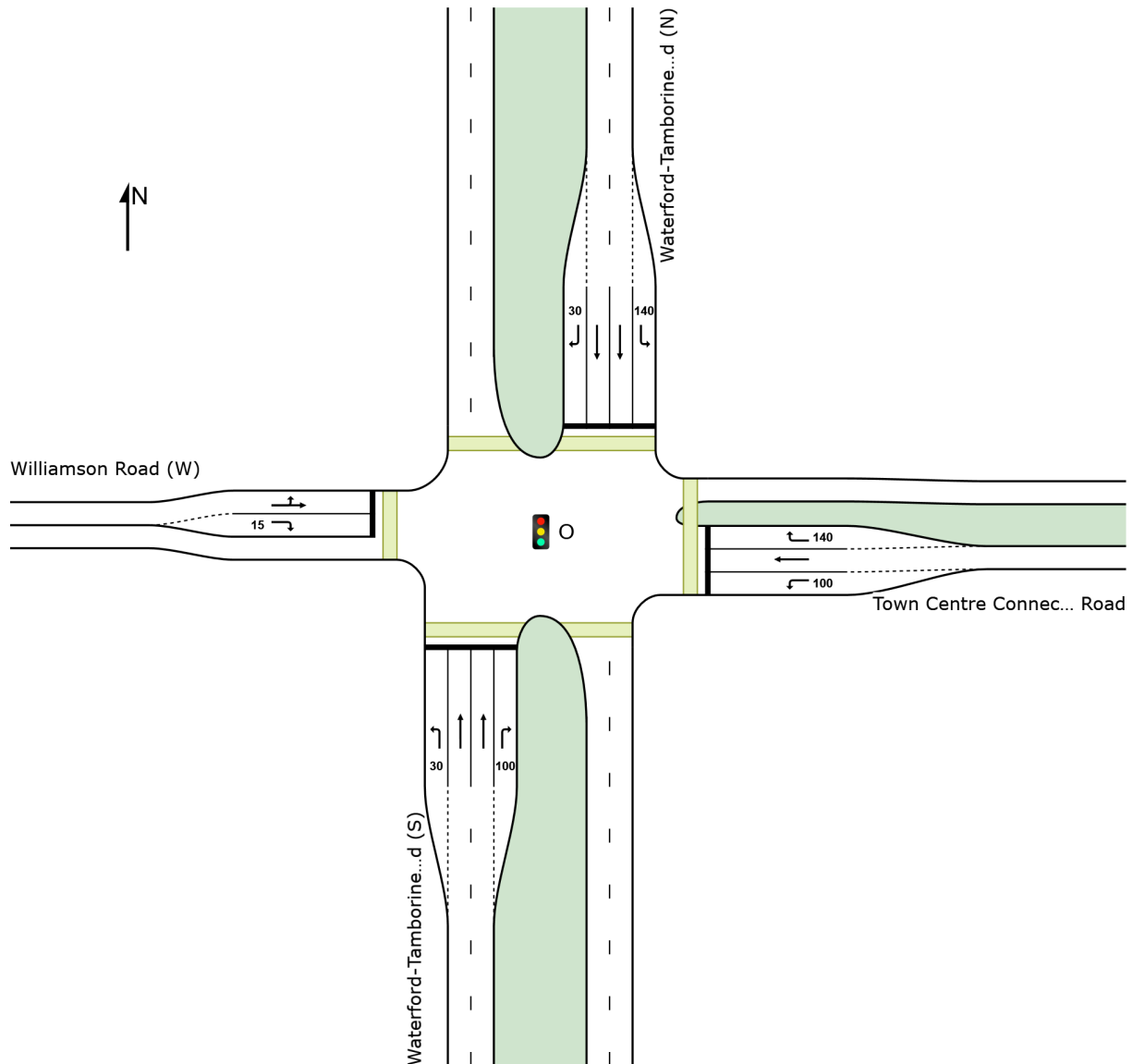
Prepared by: DN

Reviewed by: BM

Site Category: (None)

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: Friday, 25 October 2024 4:34:30 PM

Project: \\au.slr.local\Corporate\Projects-SLR\620-BNE\620-BNE\620.11743 Yarrabilba Master Plan Development\00 Data\Waterford-Tamborine Road\2024 09 24 - SLR - WTR P8.P9 base data\SIDRA Intersection O\WTR-TCEW_Williamson 20241025.sip9

MOVEMENT SUMMARY

 Site: O [WTR-Williamson - Ult AM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

Prepared by: DN

Reviewed by: BM

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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: Waterford-Tamborine Road (S)															
1	L2	All MCs	3	2.0	3	2.0	0.005	51.7	LOS D	0.1	0.6	0.67	0.63	0.67	37.5
2	T1	All MCs	914	2.0	914	2.0	* 0.869	68.5	LOS E	28.6	203.3	1.00	1.00	1.16	34.8
3	R2	All MCs	159	2.0	159	2.0	0.613	61.3	LOS E	9.0	64.0	0.99	0.81	0.99	31.0
Approach			1076	2.0	1076	2.0	0.869	67.4	LOS E	28.6	203.3	1.00	0.97	1.13	30.4
East: Town Centre Connection Road															
4	L2	All MCs	115	2.0	115	2.0	0.198	37.5	LOS C	4.9	34.6	0.77	0.75	0.77	37.2
5	T1	All MCs	2	2.0	2	2.0	0.003	29.3	LOS C	0.1	0.6	0.70	0.44	0.70	32.4
6	R2	All MCs	499	2.0	499	2.0	* 0.861	54.7	LOS D	30.4	216.6	1.00	0.96	1.13	32.1
Approach			616	2.0	616	2.0	0.861	51.4	LOS D	30.4	216.6	0.96	0.92	1.06	33.0
North: Waterford-Tamborine Road (N)															
7	L2	All MCs	133	2.0	133	2.0	0.229	38.7	LOS C	5.7	40.5	0.78	0.77	0.78	37.3
8	T1	All MCs	297	2.0	297	2.0	0.298	38.5	LOS C	7.0	49.7	0.85	0.69	0.85	40.4
9	R2	All MCs	1	2.0	1	2.0	0.009	63.8	LOS E	0.1	0.4	0.95	0.59	0.95	21.4
Approach			431	2.0	431	2.0	0.298	38.6	LOS C	7.0	49.7	0.83	0.72	0.83	39.3
West: Williamson Road (W)															
10	L2	All MCs	11	2.0	11	2.0	0.186	61.8	LOS E	1.5	10.7	0.97	0.70	0.97	21.8
11	T1	All MCs	16	2.0	16	2.0	0.186	58.3	LOS E	1.5	10.7	0.97	0.70	0.97	21.8
12	R2	All MCs	27	2.0	27	2.0	* 0.199	62.3	LOS E	1.6	11.2	0.97	0.72	0.97	21.5
Approach			54	2.0	54	2.0	0.199	61.0	LOS E	1.6	11.2	0.97	0.71	0.97	21.6
All Vehicles			2176	2.0	2176	2.0	0.869	57.0	LOS E	30.4	216.6	0.95	0.90	1.05	32.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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]			sec	m	m/sec
							m					

South: Waterford-Tamborine Road (S)											
P11 Stage 1	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
P12 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
East: Town Centre Connection Road											
P2 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
North: Waterford-Tamborine Road (N)											
P31 Stage 1	10	11	34.5	LOS D	0.0	0.0	0.90	0.90	188.4	200.0	1.06
P32 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
West: Williamson Road (W)											
P4 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
All Pedestrians	60	63	50.9	LOS E	0.0	0.0	0.94	0.94	204.7	200.0	0.98

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: O [WTR-Williamson - Ult AM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)
Prepared by: DN
Reviewed by: BM
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)
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
Green Split Priority has been specified
Phase Sequence: Four-Phase Leading Right Turns
Input Phase Sequence: A, C, D, E, E1*, E2*
Output Phase Sequence: A, C, D, E, E2*
Reference Phase: Phase A
(* Variable Phase)

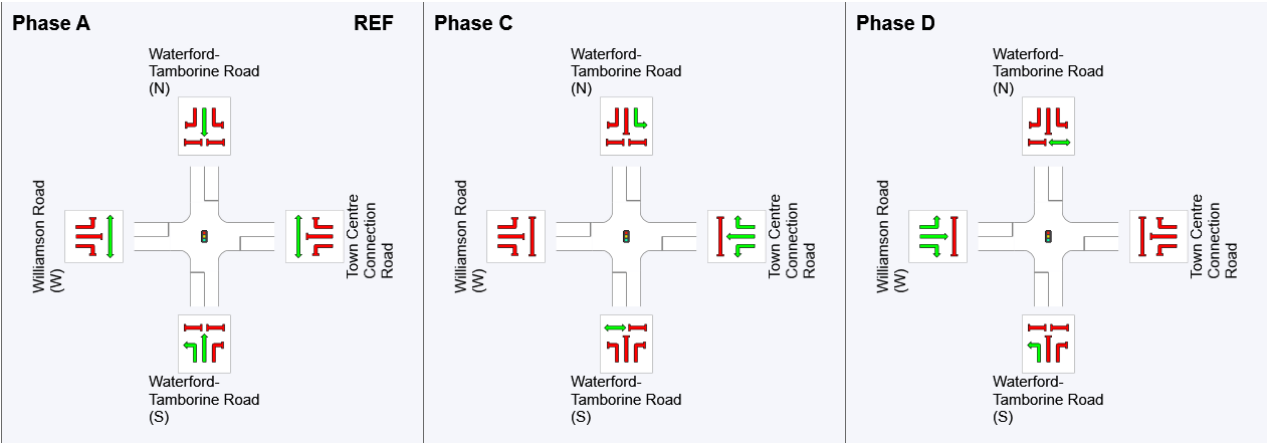
Phase Timing Summary

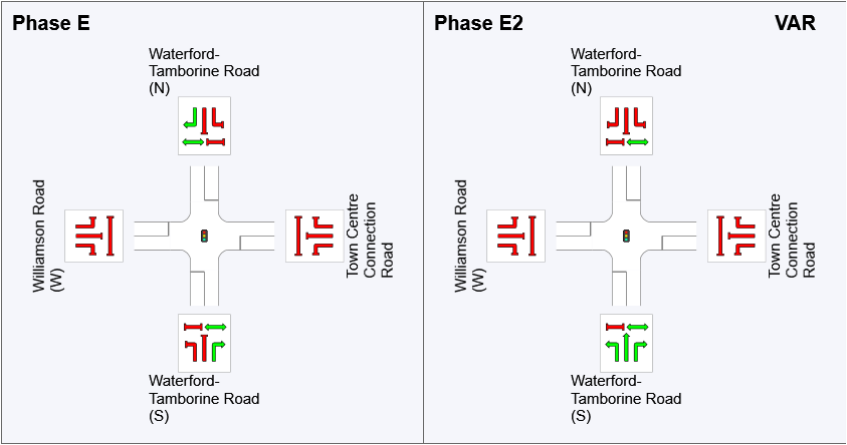
Phase	A	C	D	E	E2
Phase Change Time (sec)	0	32	78	95	111
Green Time (sec)	31	38	9	8	1
Phase Time (sec)	39	46	17	16	2
Phase Split	33%	38%	14%	13%	2%
Phase Frequency (%)	100.0	100.0	100.0	100.0	5.7 ³

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%.

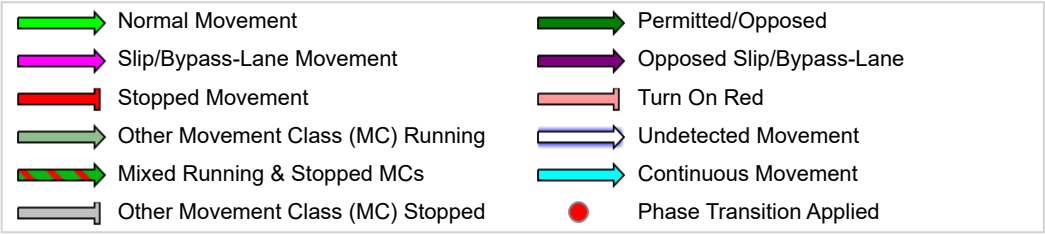
³ Phase Frequency has been estimated from actuated movement movement probabilities.

Output Phase Sequence





REF: Reference Phase
VAR: Variable Phase



MOVEMENT SUMMARY

 Site: O [WTR-Williamson - Ult PM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

Prepared by: DN

Reviewed by: BM

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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: Waterford-Tamborine Road (S)															
1	L2	All MCs	13	2.0	13	2.0	* 0.032	47.3	LOS D	0.4	2.5	0.81	0.68	0.81	34.1
2	T1	All MCs	438	2.0	438	2.0	* 0.813	69.3	LOS E	13.7	97.2	1.00	0.93	1.17	32.8
3	R2	All MCs	72	2.0	72	2.0	* 0.586	69.1	LOS E	4.3	30.9	1.00	0.79	1.04	28.8
Approach			522	2.0	522	2.0	0.813	68.8	LOS E	13.7	97.2	1.00	0.91	1.14	29.9
East: Town Centre Connection Road															
4	L2	All MCs	180	2.0	180	2.0	0.562	55.3	LOS D	9.8	70.0	0.97	0.81	0.97	31.5
5	T1	All MCs	8	2.0	8	2.0	0.025	43.9	LOS D	0.4	2.9	0.85	0.58	0.85	26.4
6	R2	All MCs	184	2.0	184	2.0	0.575	55.5	LOS D	10.1	71.8	0.97	0.81	0.97	31.9
Approach			373	2.0	373	2.0	0.575	55.1	LOS D	10.1	71.8	0.96	0.81	0.96	31.7
North: Waterford-Tamborine Road (N)															
7	L2	All MCs	581	2.0	581	2.0	* 0.828	28.9	LOS C	19.3	137.4	0.97	0.90	1.03	41.5
8	T1	All MCs	781	2.0	781	2.0	0.499	34.3	LOS C	17.1	121.6	0.79	0.69	0.79	45.9
9	R2	All MCs	33	2.0	33	2.0	0.052	48.7	LOS D	1.3	9.0	0.70	0.70	0.70	30.9
Approach			1395	2.0	1395	2.0	0.828	32.4	LOS C	19.3	137.4	0.86	0.78	0.89	41.6
West: Williamson Road (W)															
10	L2	All MCs	3	2.0	3	2.0	0.030	60.2	LOS E	0.2	1.7	0.95	0.63	0.95	21.8
11	T1	All MCs	1	2.0	1	2.0	0.030	56.7	LOS E	0.2	1.7	0.95	0.63	0.95	21.7
12	R2	All MCs	1	2.0	1	2.0	0.008	59.7	LOS E	0.1	0.4	0.94	0.59	0.94	22.1
Approach			5	2.0	5	2.0	0.030	59.4	LOS E	0.2	1.7	0.95	0.62	0.95	21.8
All Vehicles			2295	2.0	2295	2.0	0.828	44.4	LOS D	19.3	137.4	0.91	0.81	0.96	36.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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]			sec	m	m/sec
							m					

South: Waterford-Tamborine Road (S)											
P11 Stage 1	10	11	24.6	LOS C	0.0	0.0	0.90	0.90	178.5	200.0	1.12
P12 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
East: Town Centre Connection Road											
P2 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
North: Waterford-Tamborine Road (N)											
P31 Stage 1	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
P32 Stage 2	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
West: Williamson Road (W)											
P4 Full	10	11	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
All Pedestrians	60	63	49.2	LOS E	0.0	0.0	0.94	0.94	203.1	200.0	0.98

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: O [WTR-Williamson - Ult PM - S1 Opt (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Waterford-Tamborine Road/P8.9/Williamson Road (Future Signalised Intersection)

Prepared by: DN

Reviewed by: BM

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Degree of Saturation)

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

Green Split Priority has been specified

Phase Sequence: Four-Phase Leading Right Turns

Input Phase Sequence: A, C, D, E, E1*, E2*

Output Phase Sequence: A, C, D, E, E1*

Reference Phase: Phase A

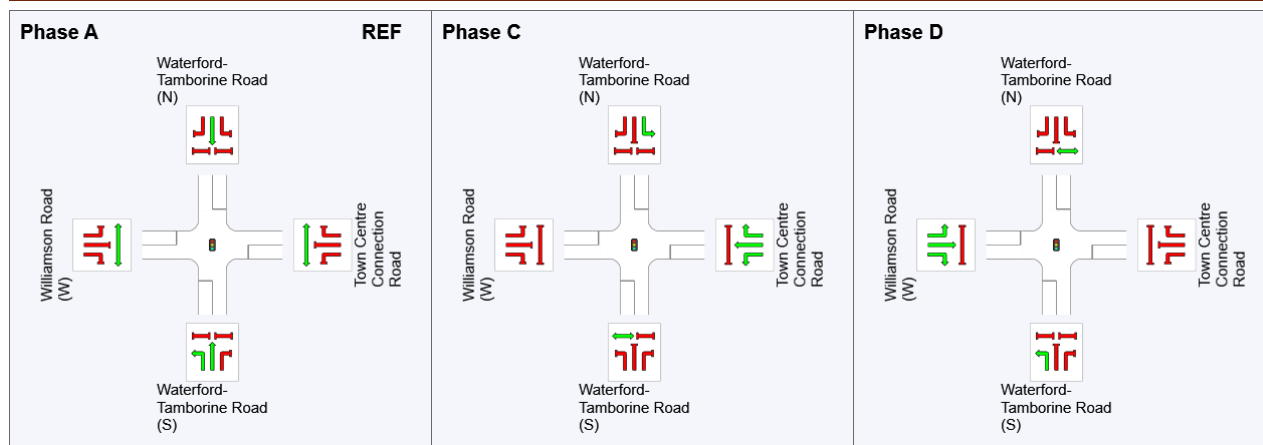
(* Variable Phase)

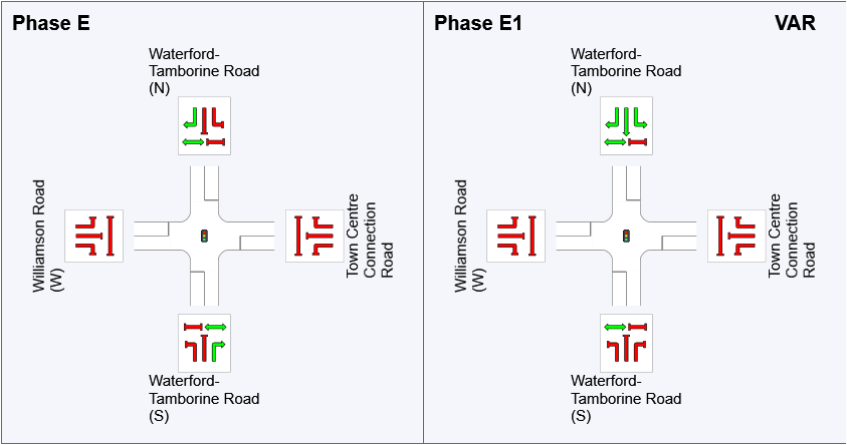
Phase Timing Summary

Phase	A	C	D	E	E1
Phase Change Time (sec)	0	25	54	71	87
Green Time (sec)	17	21	9	8	25
Phase Time (sec)	25	29	17	16	33
Phase Split	21%	24%	14%	13%	28%
Phase Frequency (%)	100.0	100.0	100.0	100.0	100.0

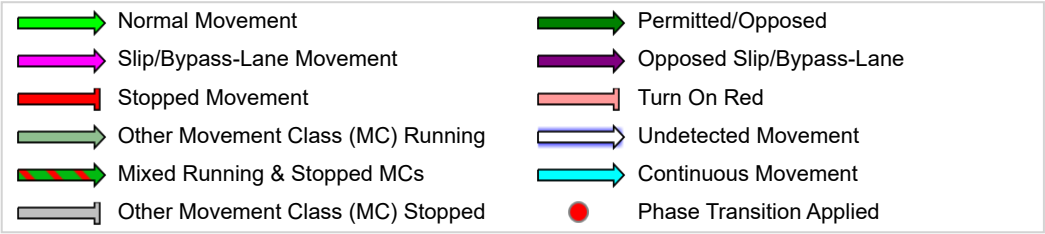
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified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

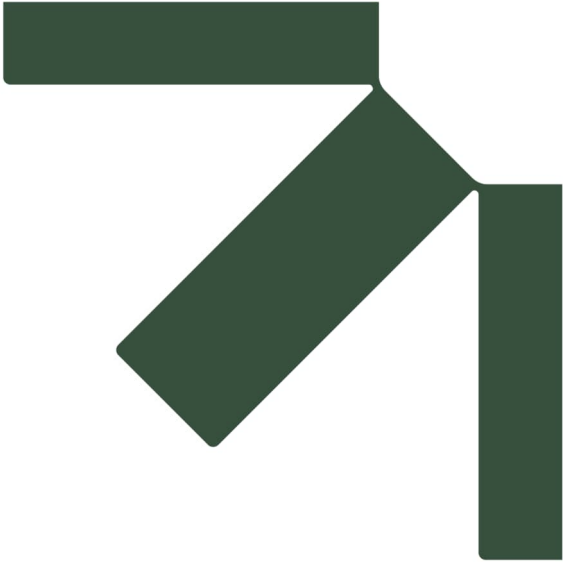
Output Phase Sequence





REF: Reference Phase
VAR: Variable Phase





Appendix G Turn Warrant Assessment

Yarrabilba, Precinct 9 ROL 1

Traffic Impact Assessment

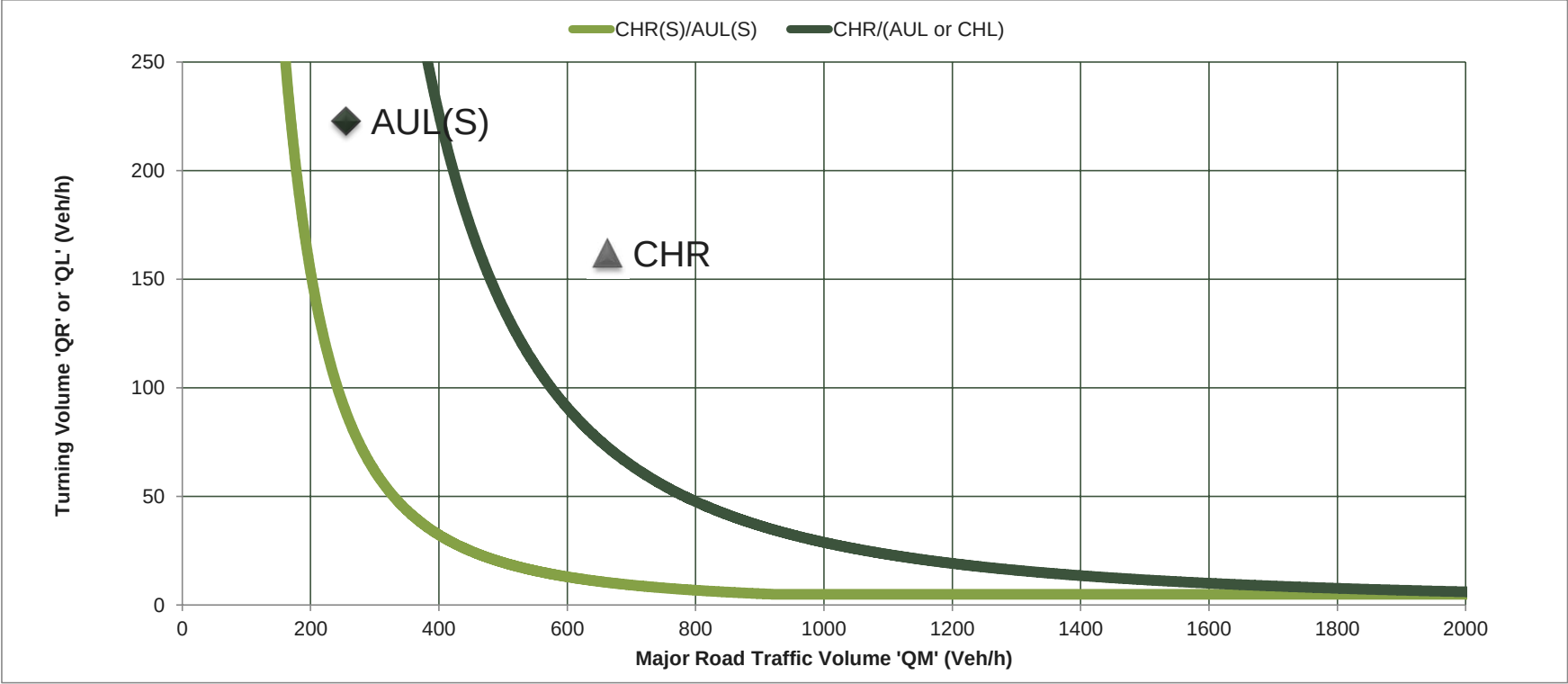
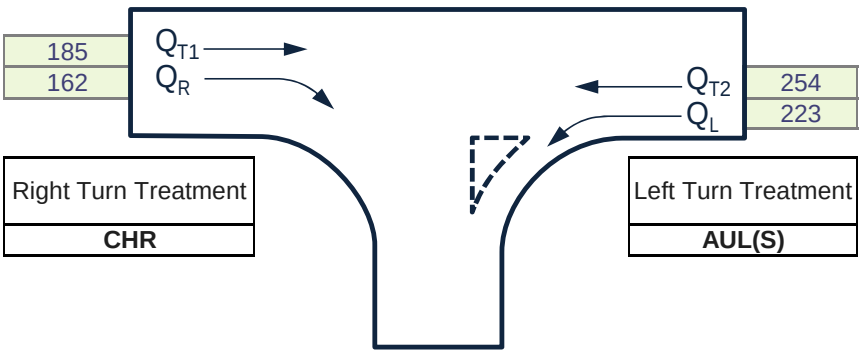
Stockland Residential Communities

SLR Project No.: 620.V11743.00016

11 December 2025

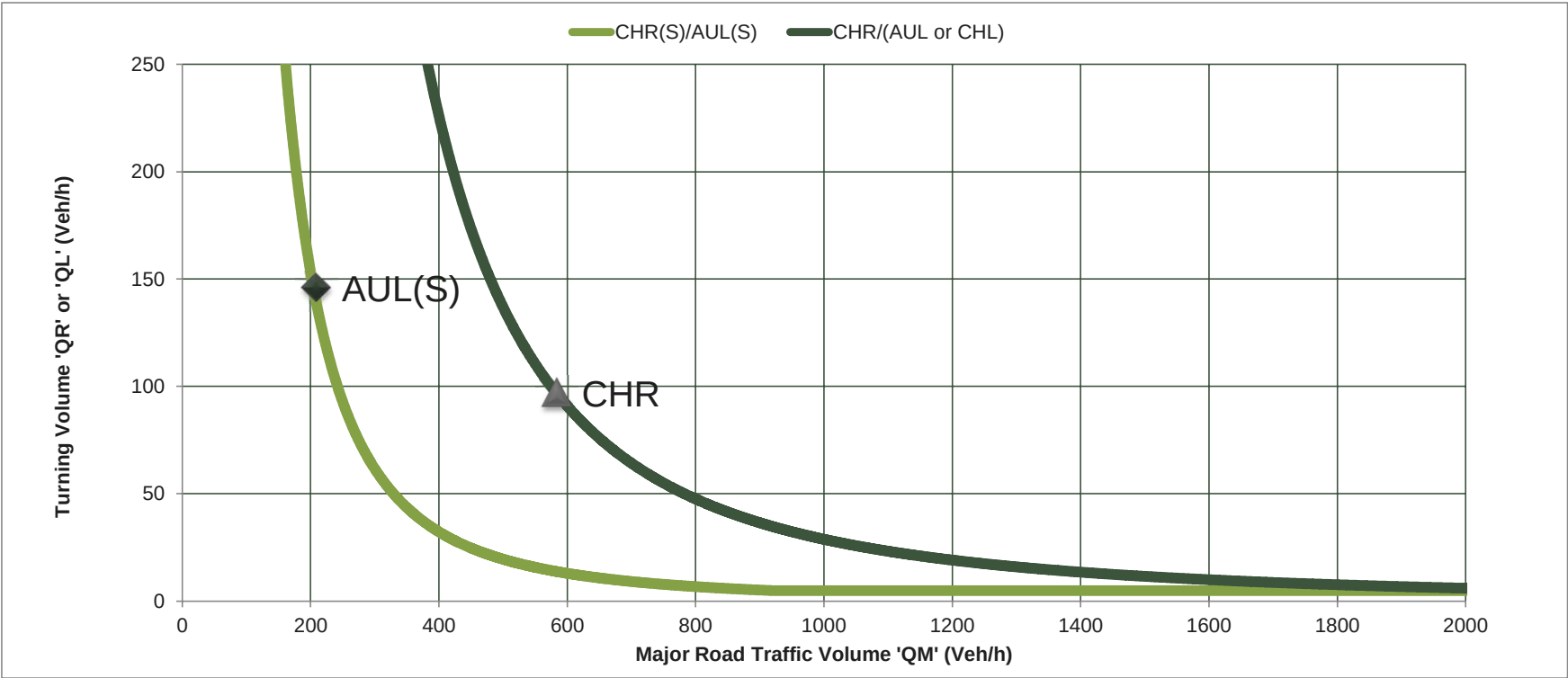
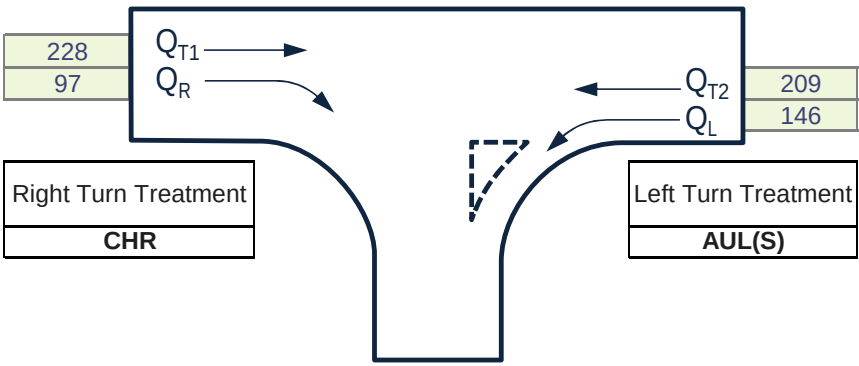
Assessment Year	Ultimate
Peak Period	AM
Scenario	Background + Dev
Design Domain	Normal Design Domain
Design Year	10
Lane Count	2L2W
Design Speed	<= 70km/h
Splitter Island?	No

Q_M	Q_R/Q_L	
663	162	Right
254	223	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	
583	97	Right
209	146	Left



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

Turn Warrant Assessment

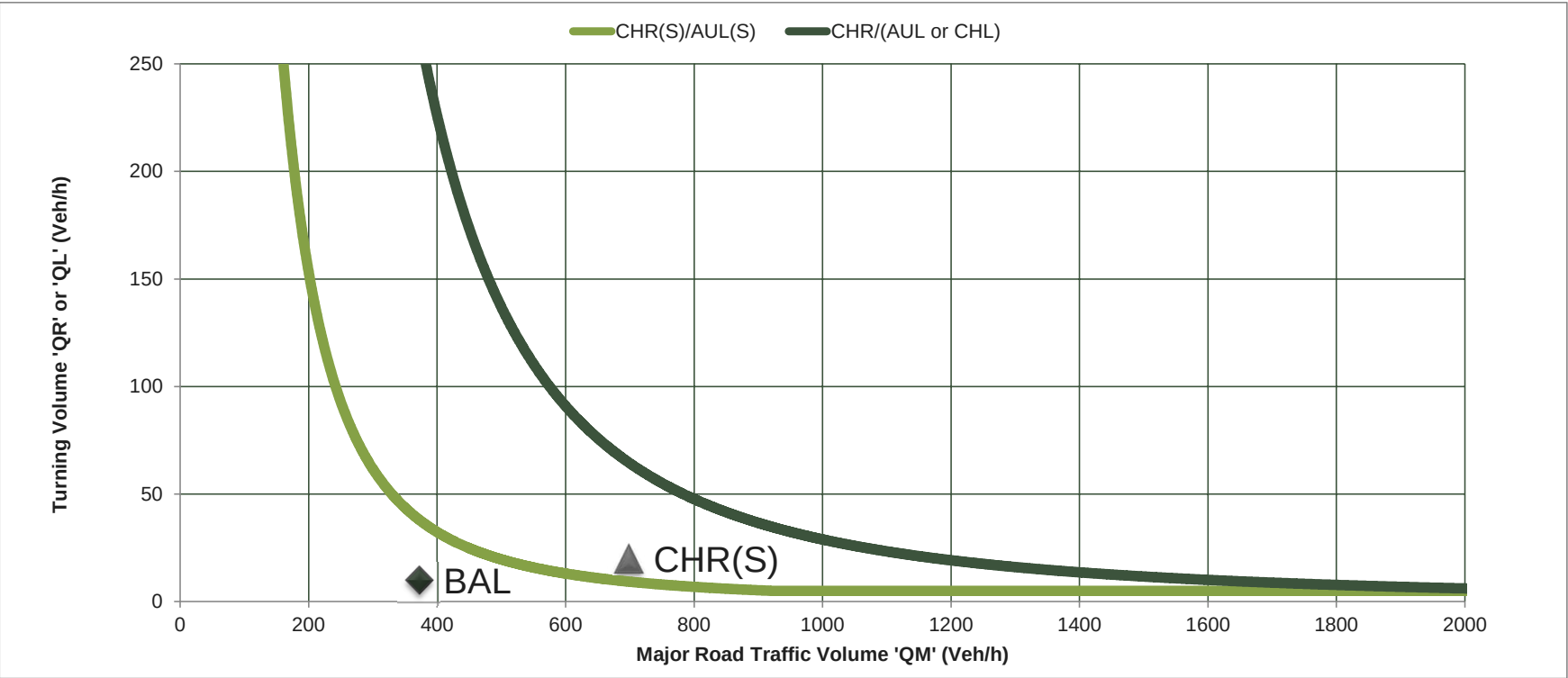
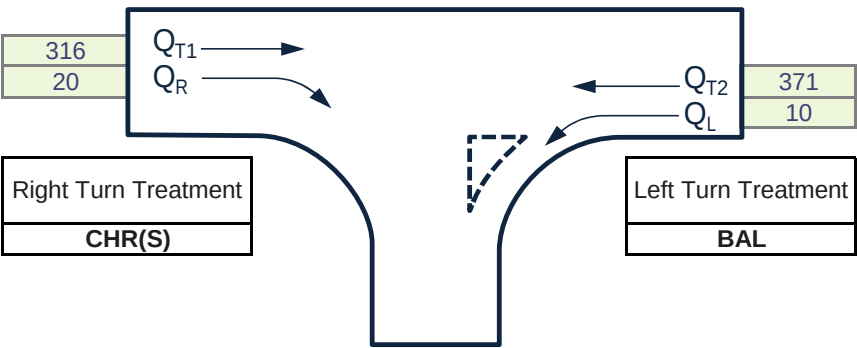
Intersection SP - Jimbillunga Drive / P9 Road
620.11743.00016
11/12/2025



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

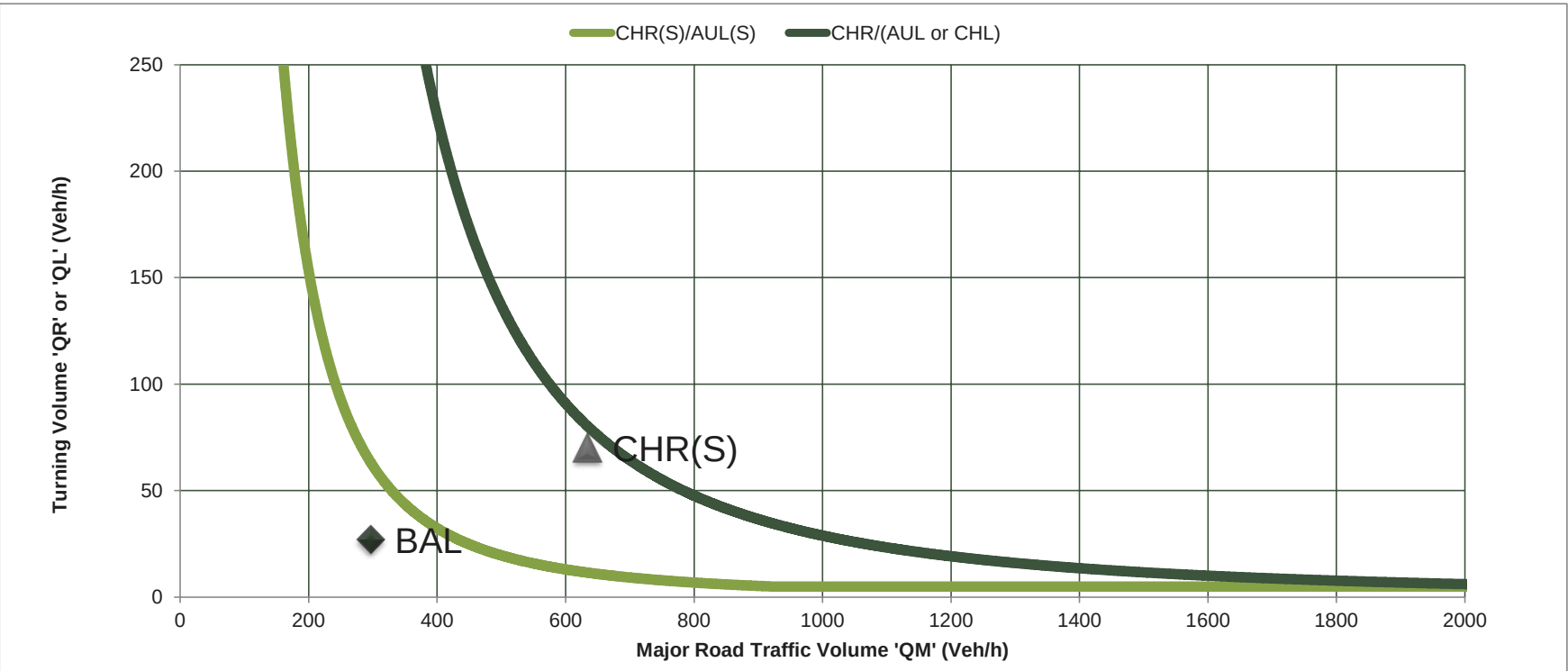
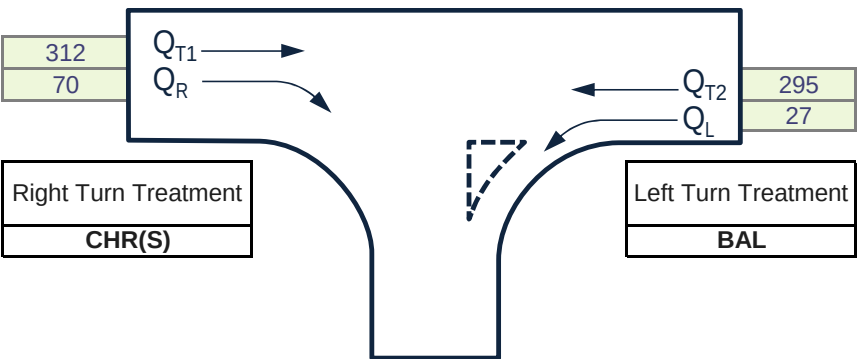
Q _M	Q _R /Q _L	
698	20	Right
371	10	Left



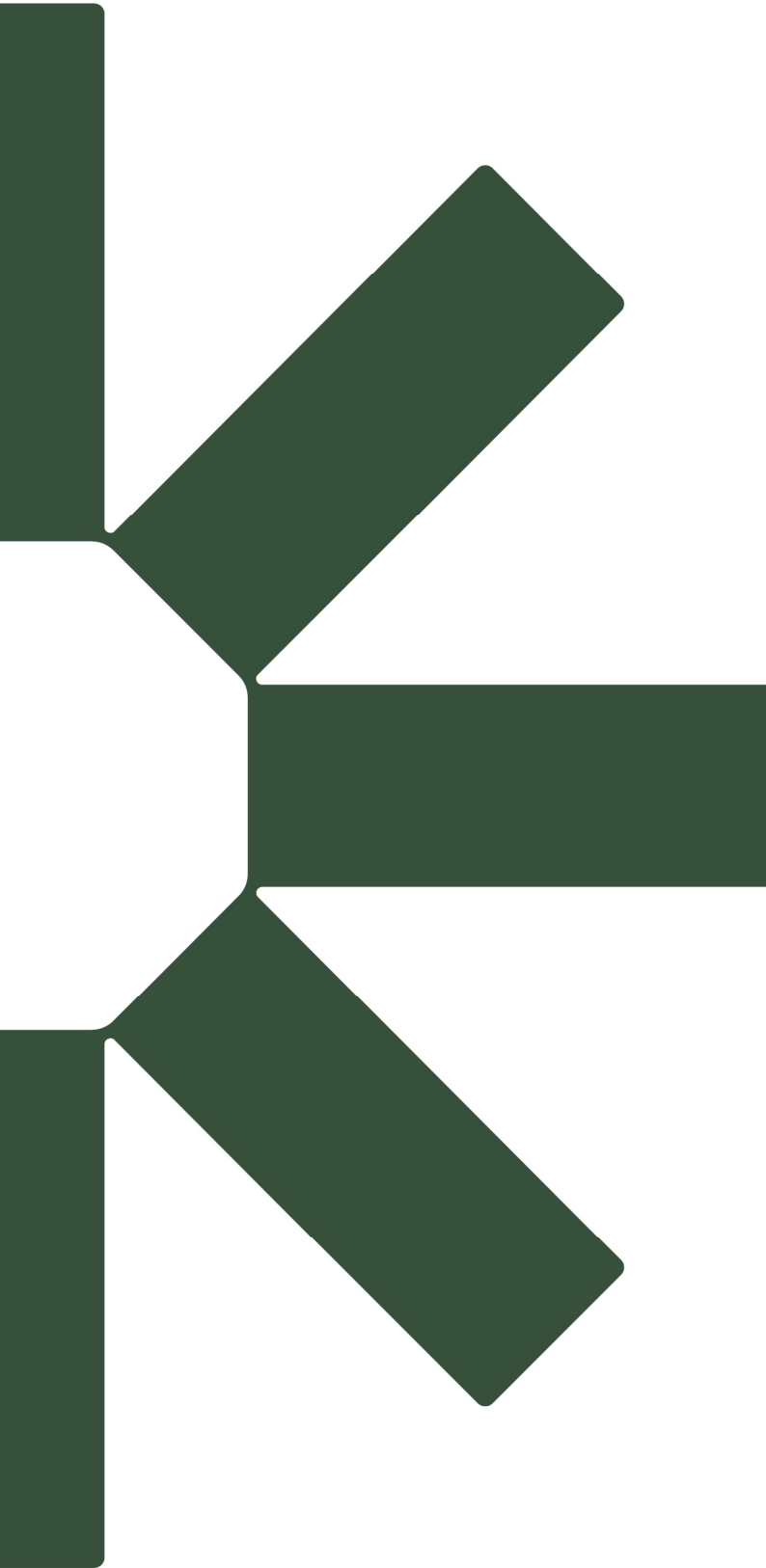
Assessment Year	Ultimate
Peak Period	PM
Scenario	Background + Dev

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

Q _M	Q _R /Q _L	
634	70	Right
295	27	Left



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



Making Sustainability Happen