

Montefiore St Ives

Transport Impact Assessment

5 June 2026

Prepared for: Montefiore



Urbis staff responsible for this report were:

Director	K McNatty
Senior Consultant	C White, S Aralar
Consultant	M Brdar
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Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork – **Sacred River Dreaming**.



The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

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Executive Summary

This Transport Impact Assessment report has been prepared by Urbis Pty Ltd (**Urbis**) to accompany a State Significant Development Application (**SSDA**) for the development of seniors housing accommodation at 19–25 College Crescent, St Ives, NSW, in the Ku-ring-gai Local Government Area (**LGA**). The site is legally described as Lot 2 and Lot 3 in DP616326.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (**SEARs**) (SSD-98363228) issued by the Department of Planning, Housing and Infrastructure on 10 November 2025.

During the preparation of this report, consultation was conducted with Transport for NSW and Ku-ring-gai Council, both of whom support the proposed access strategy subject to detailed design.

The site is located within an established urban area characterised by a mix of residential and education uses. It benefits from proximity to bus services on Link Road and Yarrabung Road, while acknowledging that pedestrian infrastructure, particularly along College Crescent and crossing opportunities on Link Road, is currently limited. The proposal includes new pedestrian connections along the site frontage to improve local walkability.

Traffic surveys and intersection modelling confirm that the surrounding road network currently operates efficiently, with all assessed intersections performing at Level of Service A, B or C during peak periods. The development is expected to generate low levels of traffic, with approximately 25 vehicle trips in the AM peak hour and 33 trips in the PM peak hour. Importantly, the operational peak for the seniors housing development is anticipated to occur between 10:00am and 2:30pm, outside of network peak periods.

Future modelling for the anticipated year of opening (2030) demonstrates that, with the addition of development traffic, the surrounding intersections will continue to operate similar to existing conditions, with minimal delays and queues.

Vehicle access is proposed from both Link Road and College Crescent, with the Link Road access designed as left-in/left-out only. This arrangement is supported by Transport for NSW and Council and provides a balanced outcome by reducing traffic on College Crescent while maintaining safe and efficient access for residents, visitors, service vehicles and emergency services.

The proposal provides 260 basement car parking spaces, exceeding the minimum requirements of the State Environmental Planning Policy (Housing) 2021. The parking supply has been informed from experience with other similar developments and allows for resident needs, staff parking, visitors and allied health services, with an emphasis on containing demand within the site and avoiding impacts on surrounding streets. The car park design complies with relevant Australian Standards and includes appropriate provision for accessible parking, ambulance access, servicing, waste collection and a resident mini-bus.

A preliminary Construction Traffic Management Plan has been prepared to demonstrate that construction impacts can be appropriately managed. Construction access is expected to be primarily from Link Road, with measures proposed to minimise impacts on local streets, pedestrians, public transport and nearby school operations.

This report concludes that the proposed seniors housing is suitable and warrants approval subject to the implementation of the following mitigation measures:

- Two, short No Stopping zones to provide passing opportunities for traffic on College Crescent and facilitate site egress.
- A detailed Construction Traffic Management Plan being prepared prior to commencement of work.

No further traffic infrastructure upgrades are required to accommodate the proposal. Following the implementation of the above mitigation measures, the remaining impacts are appropriate.

1 Introduction

1.1 Background

A State Significant Development Application (**SSDA**) has been prepared in support of the proposed seniors housing development at 19-25 College Crescent, St Ives.

The proposed development comprises:

- Site preparation and demolition of existing structures.
- Construction of four buildings ranging in heights from five to eight storeys comprising:
 - approximately one hundred and twenty-six (126) Independent Living Units
 - approximately forty-eight (48) residential care beds.
 - a range of resident amenities and facilities.
 - basement car parking containing approximately 260 spaces.
- Vehicular and pedestrian access from Link Road and College Crescent.
- Associated landscaping works.

1.2 Scope of the Study

The purpose of this report is to assess the impacts of the proposed development on all transport modes including active transport, public transport, private transport and service vehicles. The aim of this assessment is to show these impacts are acceptable, provided that the recommended mitigation measures or actions are implemented.

The following elements have been considered in this study:

- site location and planning context
- existing transport network conditions surrounding the site
- any planned future transport network improvements
- suitability of parking supply for cars, bicycles, motorcycles and accessible users
- adequacy of access and car park design in accordance with relevant Australian Standards and Kuring-gai Council guidelines
- impact of traffic generated by the proposed development on the surrounding road network
- impacts to active transport and public transport infrastructure and connectivity.

Pursuant to Section 15 of Schedule 2 of *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**), the proposed development is deemed as a State Significant Development (**SSD**).

This report has been prepared to address the Secretary's Environmental Assessment Requirements (**SEARs**) and accompanying cover letter issued for the project (reference SSD-98363228) dated 10 November 2025.

As part of the consultation process, Urbis have consulted with both Transport for NSW and Council who subsequently issued advice regarding the subject development. Copies of this agency consultation are included in Appendix A.

Table 1, Table 2 and Table 3 below provide a brief response as to how/ where each item in the SEARs, Transport for NSW and Council Advice has been addressed in this report.

Table 1 Project-Specific Secretary's Environmental Assessment Requirements

Item	Response/ Section Reference
<i>Provide a Transport Impact Assessment (TIA) in accordance with the processes and methodology recommended in the Guide to Transport Impact Assessment (GITA) published by TfNSW.</i>	This TIA has been prepared in accordance with the GTIA.
<i>If the construction of the development would cause interruptions to regular pedestrian and transport routes (including public transport, active transport or general traffic), a preliminary Construction Traffic (or Transport) Management Plan (CTMP) should be prepared as part of the TIA to mitigate any such impacts.</i>	A preliminary Construction Traffic Management Plan has been included in Section 8 of this TIA.

Source: Department of Planning, Housing and Infrastructure (10 November 2025)

Table 2 Transport for NSW Advice

Item	Response/ Section Reference
<i>It is noted that the subject site has frontage to College Crescent (local road). TfNSW current practice is to limit the number of vehicular conflict points (access points) along the classified road network in accordance with Section 7.3.1 of TfNSW's current publication: Guide to Transport Impact Assessment. This practice aligns with the principles of Clause 2.119(2a) of State Environmental Planning Policy (Transport and Infrastructure) 2021, which states that "where practicable and safe, vehicular access to the land is provided by a road other than the classified road."</i> <i>TfNSW's preference is that all vehicular access is obtained via the local road network where practicable and safe. However, as Link Road is a classified regional road under the care and control of Council as the relevant road authority, please direct your request to Council in the first instance. Justification should be provided for the proposed access on Link Road, to the satisfaction of Council.</i>	Correspondence with Ku-ring-gai Council is included in Table 3. Section 5.8 contains commentary which justifies the use of Link Road for site access.
<i>Should Council endorse the proposed vehicular access to Link Road, TfNSW would recommend that the access is restricted to left-turn movements only (as you've proposed). To enforce this restriction, the required traffic management measures must be designed and constructed to the satisfaction of Council. TfNSW's preferred measure is the installation of a central raised concrete median island on Link Road, subject to a compliant median being able to be accommodated.</i>	The Link Road site access has been designed as left-in/ left-out only.
<i>Any driveway works and associated traffic management measures on Link Road would need to be designed and constructed to Council's satisfaction. Any works in the road reserve of Link Road would also require concurrence from TfNSW under section 138 of the Roads Act 1993.</i>	TfNSW concurrence for works on Link Road under Section 138 of the Roads Act would occur in a future detailed design stage.

Source: Transport for NSW (via email on 5 December 2025)

Table 3 Ku-ring-gai Council Advice

Item	Response
<i>Council advised to include traffic distribution between access points in the TIA.</i>	Refer to Section 6.3 .
<i>Council advised to include the expected peak times of the ILU and RACF in the TIA.</i>	Refer to Section 3.4 .
<i>Council advised to include operational details of the minibus in the TIA.</i>	Refer to Section 5.6 .
<i>Council raised the possibility of considering a car share scheme.</i>	Refer to Section 5.2 .
<i>Council raised that if Link Road access is the main access point, this should be reflected on maps and in navigation apps, as the current address is for College Crescent.</i>	The majority of trips to and from the site will be from residents and staff, who know the site and are unlikely to require maps or navigation apps. Visitors to the RACF or allied health are more likely to use navigation apps, and the entry for RACF and allied health visitors is from College Crescent.
<i>Council confirmed support for vehicle access from both Link Road (left-in/ left-out only) and College Crescent and conveyed the importance of managing how residents use each site access. A site access from Link Road takes traffic pressure off College Crescent. Council also supported separate access points for ILUs and RACF from College Crescent.</i>	Noted.

Source: Ku-ring-gai Council (based on meeting held on 2 February 2026)

1.3 References

The following documents were referred to during the preparation of this report:

- Guide to Transport Impact Assessment (TfNSW, 2024)
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessment for Developments (2020)
- Ku-ring-gai Council Development Control Plan (DCP) 2024
- Australian/New Zealand Standard, Parking Facilities (AS 2890)
- traffic surveys undertaken by Austraffic on 11 November 2025.
- plans for the proposed development prepared by Jackson Teece, Project Number 2022089, dated 15 May 2026.

2 Strategic Context

2.1 State Government Policies

2.1.1 Connecting NSW

The Connecting NSW Strategy explains how the NSW Government plans to improve the transport system, so it is safe, reliable and easy for everyone to use. It responds to key issues like population growth, rising costs, ageing infrastructure, climate change and changing travel habits. The strategy highlights that transport is essential for connecting people to jobs, services and housing, and that solutions need to reflect the different needs of cities, regional areas and remote communities. Overall, it guides how decisions are made about funding, planning and improving the transport network across the state.

To tackle these challenges, the strategy focuses on six main priorities: making the network safer, improving reliability, reducing emissions, helping people who have limited access to transport, encouraging more use of public and active transport, and supporting wider government goals like housing and economic growth. It aims to make it easier for people to get around, reduce reliance on cars, and create a more fair, sustainable and efficient transport system for the future. While this document does not call out any specific geographies, the principles of encouraging public and active transport usage and reducing the reliance on cars are applicable to the development, especially considering how close the site is to a local centre and major bus corridor (Mona Vale Road).

2.1.2 Active Transport Strategy

The NSW Active Transport Strategy outlines the state's ambition to enable active transport as the mode of choice. The strategy aims to double the number of active transport trips in 20 years by focusing on the following areas:

- Enable 15-minute neighbourhoods.
- Deliver connected and continuous cycling networks.
- Provide safer and better precincts and main streets.
- Promote walking and riding and encourage behaviour change.
- Support partners and accelerate change.

The strategy ultimately intends to increase active transport mode share, which translates to a reduced number of car trips and parking demand. For the site specifically, the location of the proposal places the site within a 15-minute walking and cycling catchment of the St Ives town centre. Although seniors are less likely to use bicycles, staff and visitors may choose to use bicycle riding as their travel mode, especially those who live locally within the St Ives area.

2.1.3 NSW Movement and Place Framework

The NSW Movement and Place Framework is a strategic approach to urban planning and transport network design that integrates mobility with placemaking. It acknowledges that roads and streets serve both as movement corridors and as public spaces, requiring a balanced approach to infrastructure planning. The framework employs the "vision and validate" methodology, which prioritizes desired urban outcomes over traditional "predict and provide" models. This method ensures that transport solutions align with long-term sustainability goals, fostering communities that are accessible, efficient, and vibrant. Additionally, built environment performance indicators are used to evaluate the effectiveness of projects in achieving movement and place objectives.

By applying this framework, urban planners, transport professionals, and policymakers can design environments that optimize transport functionality while enhancing the social and economic value of public spaces. The framework categorizes streets based on their movement function (ranging from local roads to arterial corridors) and their place function (from quiet neighbourhoods to bustling activity centres), guiding

the selection of appropriate infrastructure and policy interventions. This integrated approach supports a people-centric urban design philosophy, promoting walkability, public transport use, and environmental sustainability while ensuring efficient movement of goods and services across NSW.

2.1.4 Draft Sydney Plan

The draft Sydney Plan is a strategic land use framework prepared by the NSW Government to guide how Sydney will grow and develop over the next 20 years, particularly in response to population growth, housing demand, and infrastructure delivery. It sets out priorities and actions to coordinate housing, jobs, transport, and environmental outcomes across the metropolitan region.

The Plan highlights a rapidly ageing population, with nearly half a million more people aged 65+ and a doubling of those over 85 by 2045. This shift is a key driver for increasing housing diversity, including options that allow people to age in place. The Plan emphasises delivering more medium and higher-density housing in well-located areas close to transport, services, and health facilities, conditions that are particularly relevant for seniors housing. It also notes the importance of providing a mix of dwelling sizes (including larger apartments) and improving access to affordable and secure housing, including social and key worker housing. These directions support the development of seniors housing that is accessible, connected, and integrated into existing communities rather than isolated. This need for both more and different types of senior housing outlined by the draft Sydney Plan is directly addressed by this proposal.

On Sydney's North Shore, where there is already strong access to infrastructure, services, and public transport, the Plan's focus on infill development and transport-oriented growth is especially significant. Established areas in the east and north are identified as having capacity for increased density, meaning more opportunities for seniors housing near centres. This supports ageing populations by enabling proximity to hospitals, public transport, and social infrastructure, while reducing reliance on cars, such as the proposed development.

2.2 Local Government Policies

2.2.1 Ku ring gai Integrated Transport Strategy

This is the long term transport strategy for Ku ring gai that sets out how people will move around the area more easily and sustainably as the population grows. In simple terms, it aims to reduce reliance on cars and make it easier to use public transport, walk, or cycle. It links transport planning with land use, meaning new housing and development should be located close to shops, services, and transport so people don't need to travel as far. The strategy includes a range of actions across walking and cycling, public transport, traffic management, and parking, along with policies to encourage people to change how they travel. Overall, the goal is to create a safer, more efficient, and more environmentally friendly transport system.

A key theme throughout the document is responding to an ageing population, which is especially relevant for seniors housing. The strategy highlights that Ku ring gai has a higher proportion of older residents than the Sydney average and stresses the need for housing that allows people to "age in place." This means smaller, well-located homes near public transport, shops, and services, so older residents can remain independent without relying on a car. It also calls for more accessible transport options (like better bus services and walkable centres) and safer, more comfortable environments for walking. In short, transport and land use planning are seen as critical to supporting seniors, ensuring they can easily access healthcare, shops, and community services as they age.

2.2.2 Ku ring gai Bike Plan

The Ku-ring-gai Bike Plan sets a clear direction for improving cycling across the local area. It reviews existing cycling routes and facilities, identifies gaps in the network, and proposes targeted upgrades. These include new on-road bike lanes, off-road paths and shared paths, all aimed at making cycling safer and easier for people of all ages and abilities.

The plan recognises that supportive infrastructure is essential to encouraging cycling. It places a strong focus on practical measures such as providing bike parking, end-of-trip facilities including showers and lockers, and clear wayfinding. Community and stakeholder feedback has been central to shaping the plan, with consistent themes around the need for safer routes, better connectivity between paths, and improved awareness among drivers to support safer sharing of the road.

Beyond infrastructure, the plan outlines initiatives to grow cycling participation. These include bike safety education, cycling events, and the development of clear and accessible cycling maps. It also identifies potential funding pathways, such as Council's Environmental Levy and external government grants, to support delivery. The plan identifies routes in St Ives, including the construction of cycleways on streets surrounding the site. This provides direct benefit to the proposed development and supports alternative modes of transport to connect to key destinations, in particular for staff and visitors to the site.

3 Proposed Development

3.1 Site Location

The primary area of the site is located at 19–25 College Crescent, St Ives, within the Ku-ring-gai Local Government Area and is approximately 10 kilometres north of Chatswood and 19 kilometres north of Sydney CBD. This primary site is legally described as Lot 3 in DP 616326.

A small part of site to be developed is the adjoining lot upon which the Masada College is located at 9–15 Link Road, St Ives (legally described as part of Lot 2 in DP 616326). This part of the development site will specifically be used for access purposes and provide a direct connection from the proposal to the Link Road frontage.

On this basis, the site (for the purpose of this SSDA) comprises:

- the (primary) residual land, being 14,600 square metres (accommodating the proposed buildings and associated spaces); and
- part of the adjoining land, being 2,225 square metres (accommodating the proposed access driveway and pedestrian link from the proposed buildings to the Link Road frontage)

The site is zoned SP2 Infrastructure under the Ku-ring-gai LEP 2015.

The surrounding area is characterised by residential flat buildings, aged care facilities, educational uses and commercial/retail uses within St Ives Town Centre, which is located approximately 400 metres west of the site on Mona Vale Road.

- To the north of the site is 132–138 Killeaton Street, which comprises a residential development with six residential flat buildings.
- To the east of this development (at 142 Killeaton Street) comprises town houses and further east (at 144–146 Killeaton Street on the corner of Yarrabung Road) exists an aged care facility (Estia Healthcare). The site is bounded to the east by College Crescent, with tall street trees providing partial screening of the site. On the eastern side of College Crescent are detached houses, set back from the road and generally below street level, with significant street-front planting.
- To the south of the site is Chabad North Shore. Further south are large, detached houses along Stanley Street and Lancaster Avenue, and residential flat buildings to the south-west along Stanley Street
- To the west of the site is Masada College, which includes early learning, junior and secondary schools. An easement will be created on the edge of the campus to provide vehicle access from Link Road for the development. Link Road, a four-lane regional road, runs west of the school campus and connects to Mona Vale Road. West of Link Road are residential buildings along Newhaven Place, and further west are medium and higher-density housing and commercial premises in St Ives Town Centre. This includes five–six –storey buildings along Porters Lane, St Ives Shopping Centre and St Ives Village Green. The shopping centre precinct is expected to be subject to future major redevelopment.

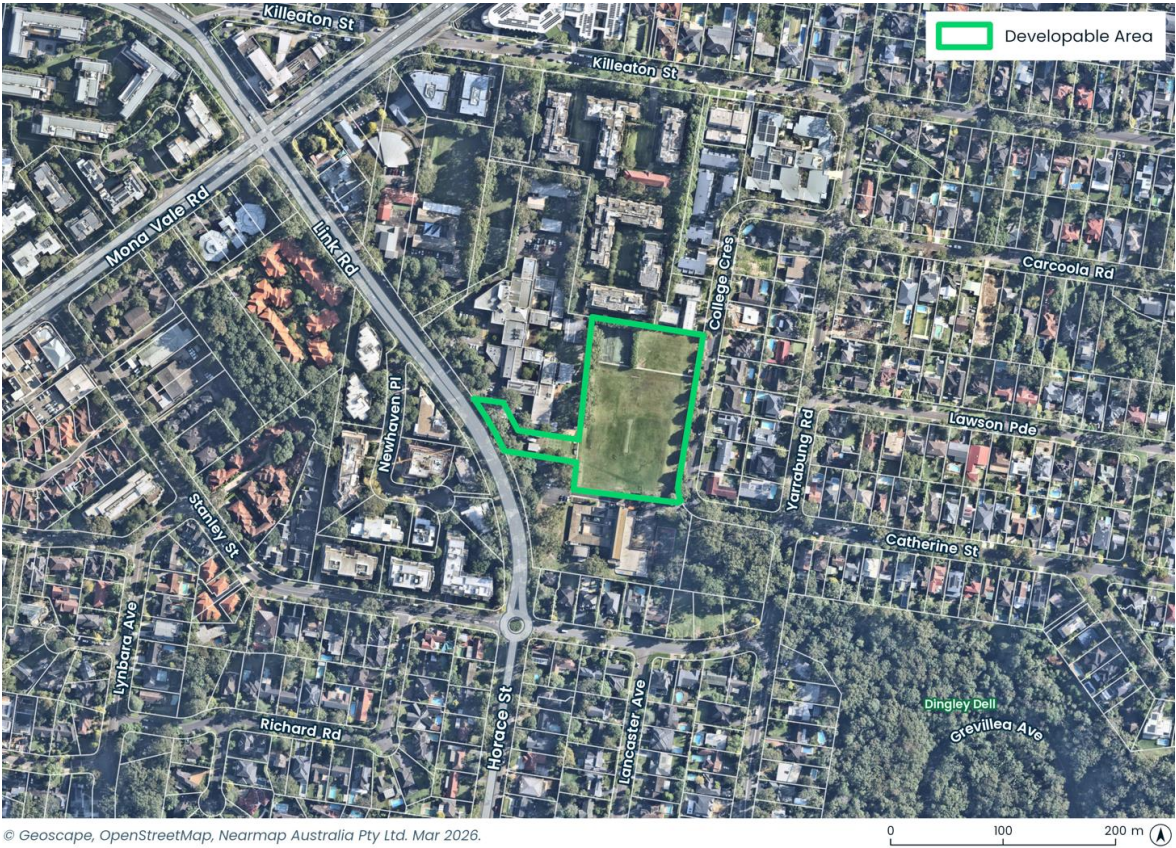
A map of the regional context of the site is shown in Figure 1. The location of the site relative to the external road network is shown in Figure 2.

Figure 1 Site Location and Surrounds



Source: Urbis

Figure 2 Aerial Site Location and Surrounds



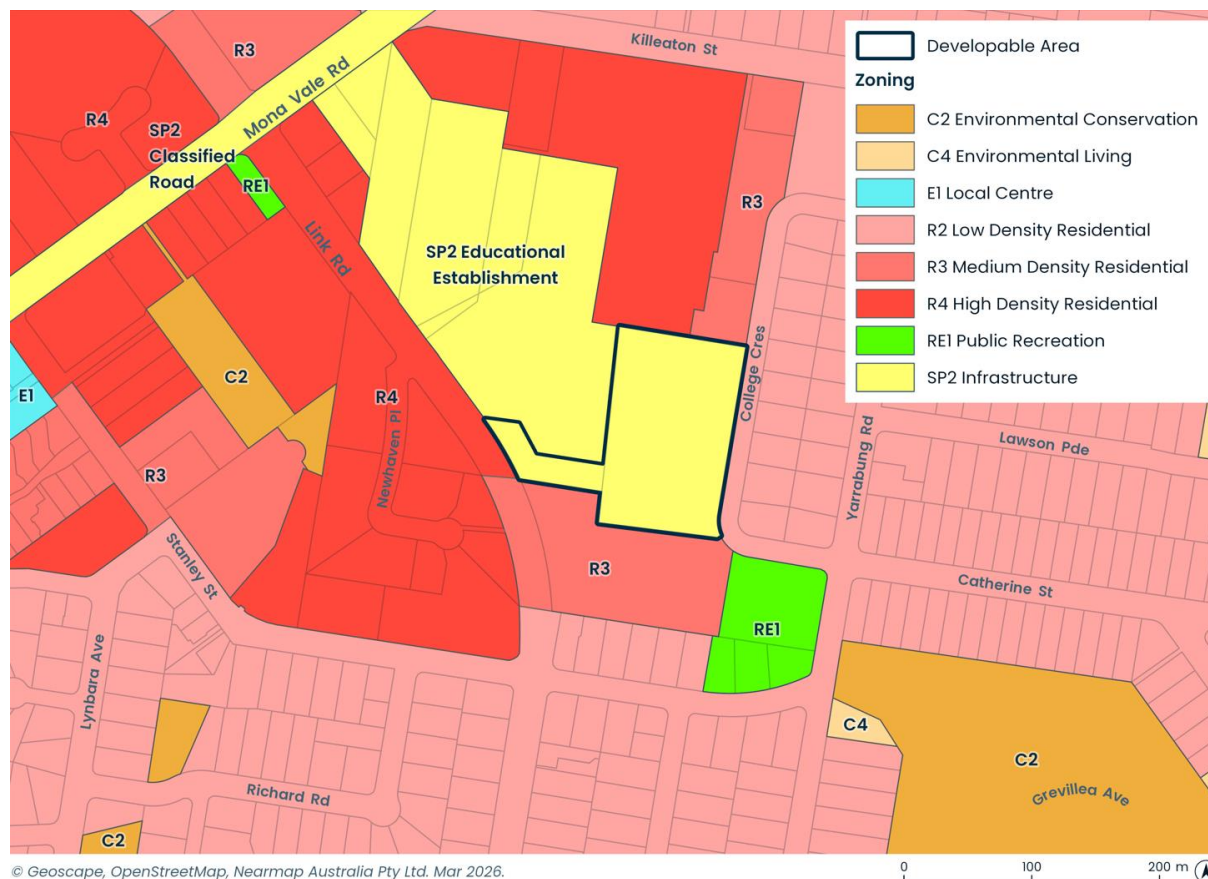
Source: Urbis

3.2 Land Zoning

The site currently has a land use classification as SP2 Infrastructure. The surrounding properties include an educational establishment and a mix of low, medium and high-density residential uses.

The land use zones for the subject site and nearby are presented in Figure 3.

Figure 3 Surrounding Land Use Zones



Source: Urbis

3.3 Land Uses

The proposed development includes the land uses and sizes summarised in Table 4.

It is understood that up to 26 staff members would be expected to be present on-site for the RACF day shift.

Table 4 Development Schedule

Land Use	Size	Quantity
Independent Living Units	1-bed	2 units (2 bedrooms)
	2-bed	72 units (144 bedrooms)
	3-bed	52 units (156 bedrooms)
	Sub-total	126 units (302 bedrooms)
Residential Aged Care Facility		48 beds (26 staff)

Source: Jackson Teece (dated 15 May 2026)

3.4 Operational Peak Periods

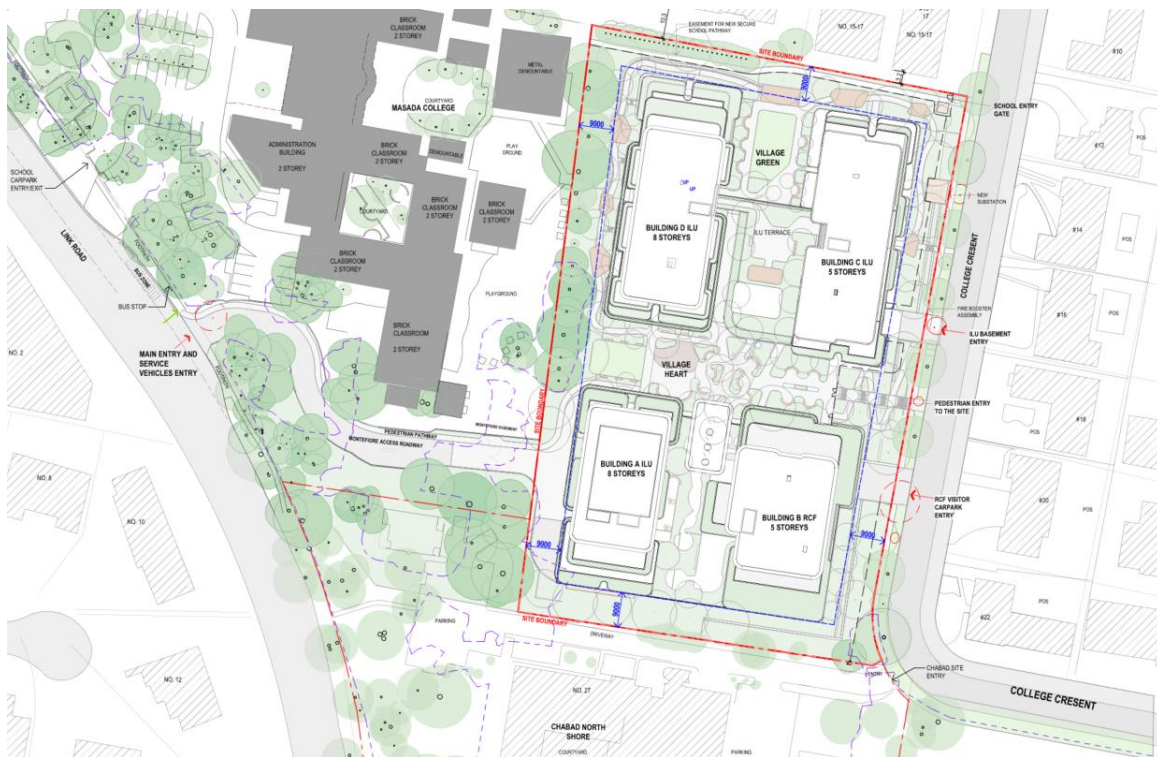
To indicatively show what the operational peak periods of the development are anticipated to be, reference is made to the Transport for NSW Analysis Report in relation to Housing for Seniors (Hyder, 2009). Based on surveys conducted of five other seniors housing developments, the site peak hour is expected to lie within the hours of 10:00am – 2:30pm.

It is noted that these site peak times do not correlate with the road network's peak hour times.

3.5 Site Plan

The ground floor plan for the site is shown in Figure 4.

Figure 4 Ground Floor Site Plan



Source: Jackson Teece (dated 15 May 2026)

The plan shows that three vehicle crossovers are proposed to access the site from both Link Road and College Crescent. The vehicle access from Link Road aligns with an existing vehicle crossover that will provide a new access to the subject site. The proposed curved alignment of the access driveway has been designed over the Masada College land in a manner that reduced impacts on existing vegetation in this area of the site.

Additionally, a further two site access points are proposed on College Crescent, with one to provide access to the ILU basement parking, and the other to provide access to the basement parking area for the RACF.

Pedestrian access to the site is proposed from both Link Road and College Crescent.

The development also proposes to provide a total of 260 parking spaces in the basement levels of the development.

Service vehicle access to the site loading dock is proposed from Link Road, for vehicles up to and including an 8.8 metre Medium Rigid Vehicle (MRV). Waste collection is proposed to be undertaken from the same loading dock.

The suitability of the proposed development in terms of access, operational transport facilities and parking is assessed in the following sections of this report.

4 Existing Conditions

4.1 Active Transport

4.1.1 Pedestrian

The site generally has limited pedestrian connectivity, with no existing footpaths on either side of the road on College Crescent.

Figure 5 College Crescent



Link Road has footpaths on both sides of the road, ranging between 1.5–2.0 metres in width. However, it is also noted that there are no pedestrian crossing facilities on Link Road for 450 metres between Mona Vale Road and Stanley Street. From an afternoon site visit undertaken on Wednesday 26 February 2025, it was observed that many students from Masada College crossed Link Road at various locations to get from the school to the western side of the road, which is in the general direction of St Ives Shopping Village.

Figure 6 Link Road



4.1.2 Cycling

The site is located within proximity of an established shared path route through St Ives. A two metre-wide shared path is located on the western side of Link Road, which provides a cycle connection to areas both north and south of the subject site. However as identified in Section 4.1.1, it would be difficult for users to access the shared path on the opposite side of Link Road, given the lack of crossing infrastructure.

The location of this shared path bicycle route is shown below in Figure 7.

Figure 7 Surrounding Bicycle Routes



Source: Urbis

4.2 Public Transport

The site is located in an area accessible by public transport. There are bus stops on both Yarrabung Road and Link Road which are all located within 400 metres walking distance of the site. The bus stops on each road are primarily serviced by one public bus route each throughout a typical day.

In addition to the public buses, there are a number of school buses which stop once a day at the nearest bus stops on Link Road.

The nearest train station is Gordon Station, which is approximately a 10-minute drive away from the site (4.5 kilometres) and therefore travel to/from the site is unlikely to be via train.

A review of the regular bus services available from the Link Road bus stop are summarised in Table 5. Route 594 also uses this bus stop, however there are only two services per day.

Table 5 Regular Bus Routes at Link Road Bus Stop

Service	Route	Route Description	Location of Stops	Distance to Nearest Stop	Frequency On/Off Peak
Bus	194	St Ives to City QVB	Link Road opp Corpus Christi Catholic Primary School (northbound)	Southbound - 0 metres – directly outside Masada College	Off-peak (only): every 30 minutes
	194X	St Ives to City QVB (Express Service)	Masada College, Link Road (southbound)	Northbound - 400 metres (6-minute walk)	Peak (only): every 15-20 minutes

Source: Transport for NSW Trip Planner

On the eastern side of the site, the nearest bus stops are located on Yarrabung Road near Catherine Street, approximately 200 metres (3-minute walk). These bus stops are serviced by Route 582 which runs every 30 minutes during the peak and every hour in the off-peak.

The locations of all the nearest bus stops are shown in Figure 8.

Figure 8 Surrounding Bus Routes and Bus Stops



Source: Urbis

4.3 Surrounding Road Network

4.3.1 Road Network

Transport for NSW (TfNSW), in partnership with local government, have established an administrative framework of state, regional and local road categories to help manage the extensive network of roads. State roads are managed and financed by TfNSW, with regional/ local roads under Council responsibility.

A map of the external road network surrounding the subject site is shown below in Figure 9.

Figure 9 External Road Network



Source: Urbis

Link Road

Link Road is a classified Regional Road (SR 2043) and functions as a sub-arterial route between Hornsby and Roseville. Near the site, it is a two-way road aligned in a north-south direction. Link Road is configured with two travel lanes in each direction and a carriageway width of approximately 13 metres.

Along the site frontage, no kerbside parking is permitted on either side of the road. However, there is an approximate 39-metre Bus Zone within an indented bay on the eastern side of the road, directly outside the site.

Link Road has a posted speed limit of 60 kilometres per hour and carries approximately 1,500 – 1,600 vehicles in the network peak hours¹.

College Crescent

College Crescent is classified and functions as a Local Road and near the site, is a two-way road aligned in a north-south direction. The road can be accessed via Yarrabung Road at two locations, with one intersection near Carcoola Road, and the other at Catherine Street.

College Crescent is configured with one travel lane in each direction and a carriageway width of approximately eight metres. Along the site frontage, unrestricted parking is permitted on the western side of the road, and the eastern side of the road has two-hour time-restricted parking between 8:00am to 4:00pm, Monday to Friday.

College Crescent has a default urban speed limit of 50 kilometres per hour and carries approximately 50-90 vehicles in the network peak hours².

4.3.2 Parking Demand

Urbis conducted spot counts of parking demand on College Crescent across two school days on both Thursday 26 March 2026 and Friday 27 March 2026 at 11:00am and 2:00pm. In total, there are around 103 on-street parking spaces on College Crescent, with 65 of these spaces being unrestricted. It is noted however that parking on both sides of College Crescent results in traffic being reduced to one lane.

The results of the parking data collected are summarised below in Table 6.

Table 6 On-Street Parking Demand on College Crescent (school hours)

Date and Time	Unrestricted Parking	2 Hour Parking	Total
Thursday 26 March 2026 – 11am	30 / 65 (46%)	6 / 38 (16%)	36 / 103 (35%)
Thursday 26 March 2026 – 2pm	29 / 65 (45%)	5 / 38 (13%)	34 / 103 (33%)
Friday 27 March 2026 – 11am	28 / 65 (43%)	2 / 38 (5%)	30 / 103 (29%)
Friday 27 March 2026 – 2pm	29 / 65 (45%)	3 / 38 (8%)	32 / 103 (31%)

Source: Urbis

As shown in Table 6, there are typically 35-37 unrestricted parking spaces available on College Crescent during school hours.

Further to the above surveys, Urbis commissioned on-street parking occupancy surveys on College Crescent over two consecutive Friday afternoons and Saturdays to understand any parking impacts from the local synagogue at 27 College Crescent. The times of these parking surveys were between the following hours:

- Friday 20 March 2026 1:00pm – 6:00pm
- Saturday 21 March 2026 10:00am – 8:00pm
- Friday 27 March 2026 1:00pm – 6:00pm
- Saturday 28 March 2026 10:00am – 8:00pm.

The results of the parking data collected are summarised below in Table 7.

¹ 'Link Road, St Ives' – Ku-ring-gai Traffic Committee, 17 October 2019

² Traffic surveys undertaken by Austraffic on 11 November 2025

Table 7 On-Street Parking Demand on College Crescent (Fridays and weekend)

Date	Time of Peak Parking Occupancy	Peak Parking Occupancy (unrestricted)	Peak Parking Occupancy (2P)	Peak Parking Occupancy (total)
Friday 20 March	2:00pm	21 / 65 (32%)	7 / 38 (18%)	28 / 103 (27%)
Saturday 21 March	11:00am	36 / 65 (55%)	26 / 38 (68%)	62 / 103 (60%)
Friday 27 March	1:00pm	28 / 65 (43%)	5 / 38 (13%)	33 / 103 (32%)
Saturday 28 March	12:00pm	30 / 65 (46%)	14 / 38 (37%)	44 / 103 (43%)

Data source: Matrix

As shown in Table 7, on-street parking in College Crescent peaks around the middle of the day on Saturdays. At the peak time, there is still more than adequate on-street parking availability, with the peak occupancy only some 43–60 percent of the overall parking capacity on College Crescent. It is noted however that parking on both sides of College Crescent results in traffic being reduced to one lane.

4.3.3 Traffic Volumes and Conditions

To understand the existing traffic volumes near the subject site, Urbis commissioned traffic movement surveys at the following locations:

- Killeaton Street/ Dainton Avenue/ Yarrabung Road
- Yarrabung Road/ Carcoola Road/ College Crescent
- Yarrabung Road/ Catherine Street/ College Crescent
- Yarrabung Road/ Stanley Street
- Link Road/ Horace Street/ Stanley Street.

The surveys were conducted on Tuesday 11 November 2025 between 7:00am – 10:00am and 2:30pm – 6:30pm. This day was chosen to represent a typical school day.

The surveys revealed that the AM network peak hour was 8:00am – 9:00am and PM network peak hour was 3:30pm – 4:30pm.

The peak hour traffic movements at the surveyed locations are presented in Appendix B.

4.3.4 Existing Intersection Performance

The operation of key intersections within the study area has been assessed using SIDRA INTERSECTION (SIDRA), a modelling software package that calculates intersection performance.

The commonly used measure of intersection performance, as defined by Transport for NSW, is vehicle delay. SIDRA determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 8 shows the criteria that SIDRA adopts in assessing the level of service.

Table 8 Level of Service Criteria for Intersection

Level of Service	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop signs
A	0-14	Good operation	Good operation
B	15-28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29-42	Satisfactory	Satisfactory, but accident study required
D	43-56	Operating near capacity	Near capacity and accident study required
E	57-70	At capacity	At capacity, requires other control mode
F	>70	Over capacity	Over capacity

Source: TS 05461 Traffic Modelling Guidelines (Transport for NSW)

Table 9 presents a summary of the existing operation of the intersections, with full results presented in Appendix C of this report.

Table 9 Existing Operating Conditions

Intersection	AM Peak				PM Peak			
	DOS	Delay (s)	95% Queue (m)	LOS	DOS	Delay (s)	95% Queue (m)	LOS
Killeaton St/ Dainton Ave/ Yarrabung Rd	0.33	7	11	A	0.254	6	8	A
Yarrabung Rd/ Carcoola Rd/ College Cres	0.06	9	2	A	0.033	7	1	A
Yarrabung Rd/ Catherine St/ College Cres	0.07	11	2	A	0.025	8	1	A
Yarrabung Rd/ Stanley St	0.27	19	7	B	0.075	9	2	A
Link Rd/ Horace St/ Stanley St	0.82	23	46	B	0.50	13	17	A

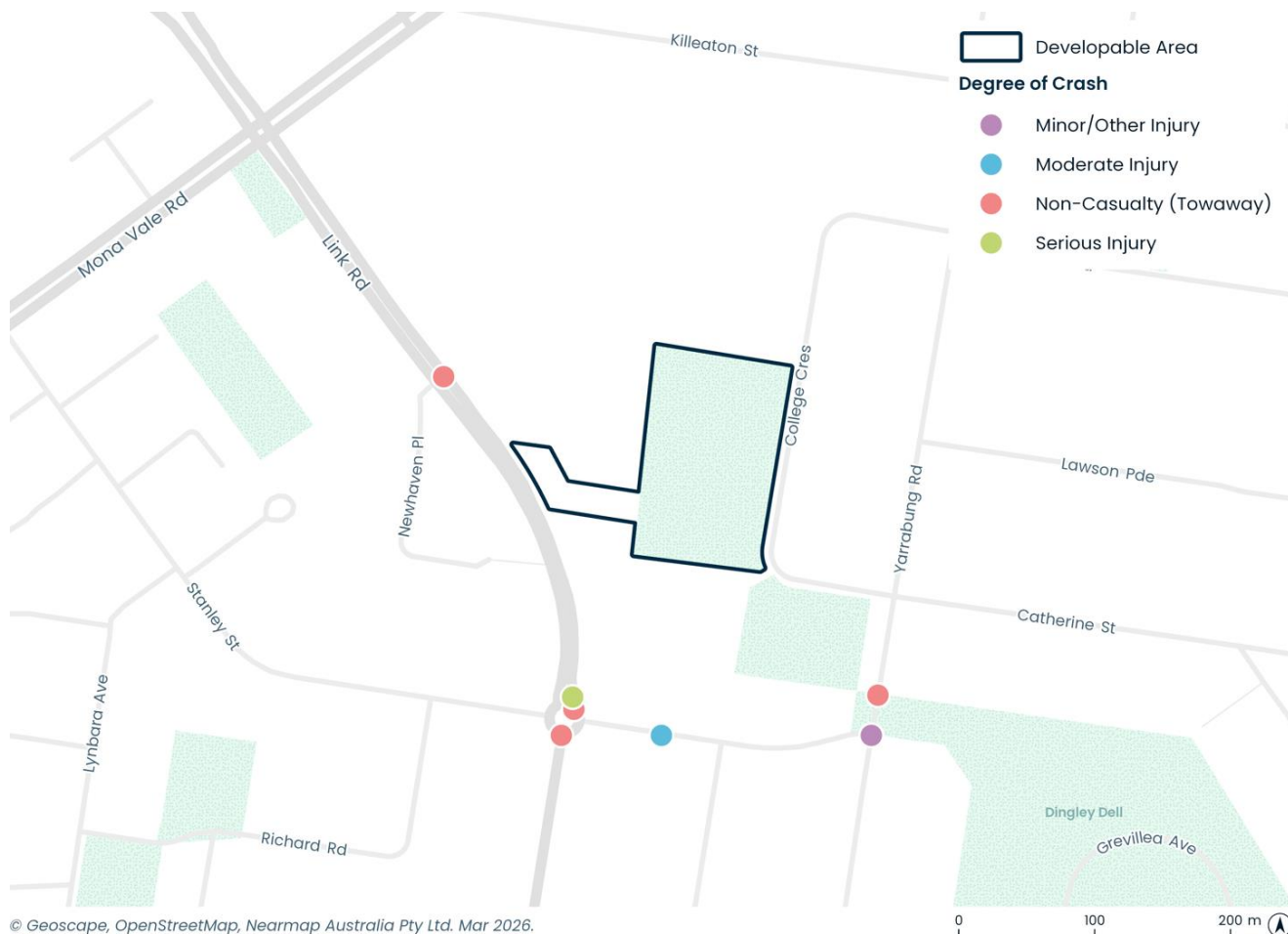
Note: For priority-controlled intersections and roundabouts, reporting is based on the worst performing movement

Overall, all intersections currently operate well with minimal queues and delays on all approaches.

4.4 Crash History

An analysis of the most recent five-year period of available crash data (2020 – 2024) has been undertaken based on crash data obtained from the Transport for NSW Centre for Road Safety in the vicinity of the subject site. The locations and severity of the crashes for the five-year period recorded are shown in Figure 10 and summarised in Table 10.

Figure 10 Map of Crash History (2020–2024)



Source: Transport for NSW Centre for Road Safety prepared by Urbis

Table 10 Crash History (2020 – 2024)

Location	Reporting Year	Crash ID	Degree of Crash	RUM Code	Description	Vehicles
Link Rd/ Horace St/ Stanley St	2020	1246782	Non-casualty	64	Permanent obstruction	Car (south) dark, wet, island signpost
	2021	1279682	Non-casualty	31	Left rear	Car (north) / car (north), wet
	2023	1312990	Serious injury	11	Right far	Car (south) / cyclist (east)
Link Rd/ Newhaven Pl	2021	1264160	Non-casualty	39	Other same direction	Car (south) / light truck (south)
Yarrabung Rd/ Stanley St	2023	1338994	Minor injury	13	Right near	Car (east) / car (north), wet
Stanley St (at #49)	2024	1350668	Moderate injury	71	Off road left into object	Car (west) / car (west)
Yarrabung Rd, 30m north of Stanley St	2024	1357937	Non-casualty	71	Off road left into object	Van (unknown) dark

A total of seven crashes were recorded within proximity to the site in the most recent five-year reporting period at the following locations:

- Three crashes at the intersection of Link Road/ Horace Street/ Stanley Street, with one resulting in a serious injury.
- Four further crashes at varying locations on Link Road, Stanley Street and Yarrabung Road.

A number of these crashes were single vehicle crashes or occurred in dark and/or wet conditions. The majority were also non-casualty crashes.

Overall, the incidents appear to be varied in nature, the crash data does not indicate any recurring safety issues or trends that would suggest the proposed development is likely to increase crash risk on the surrounding road network.

5 Parking Provision and Design

5.1 Car Parking

Subject Site

The car parking requirements for seniors housing developments are typically sourced from the State Environmental Planning Policy (Housing) 2021 (Clauses 107, 108 and Schedule 4 Part 1).

For comparative purposes, a review of the Ku-ring-gai DCP 2024 parking rates has also been included in Table 11 for the proposed development schedule. As can be seen, the SEPP parking rate results in a higher parking requirement when compared to the Ku-ring-gai DCP.

Table 11 DCP and SEPP Car Parking Requirements Comparison

Land Use	Size	DCP		SEPP		Proposed Provision
		Car Parking Rate	Car Parking Requirement	Car Parking Rate	Car Parking Requirement	
RACF (visitor)	48 beds	1 space per 10 beds	5	1 space per 15 beds	3	15¹
RACF (staff)	26 employees	1.5 spaces per 2 employees	20	1 space per 2 employees	13	39²
ILU (resident)	126 units (302 bedrooms)	2 spaces per 3 units ³	84	0.5 spaces per bedroom ⁴	151	181⁵
ILU (visitor)		1 space per 5 units ³	25	1 space per 5 units ⁶	25	25
			134			260
				192		

¹ This visitor parking provision of 15 spaces includes RACF visitor parking, allied health visitor parking and 1 ambulance space

² This staff parking provision of 39 spaces includes parking for RACF staff as well as ILU staff and allied health staff

³ This parking rate is for a resident funded development as opposed to a subsidised development

⁴ This parking rate is for applicants that are not categorised as a social housing provider

⁵ This ILU resident parking provision of 181 spaces includes 3 shared spaces for EV charging

⁶ Although not specified in the SEPP, it is recommended to provide visitor parking for ILU visitors using the DCP rate

Based on the SEPP requirement, the proposed development should provide a minimum of 192 car parking spaces. The development proposes 260 car parking spaces and therefore complies with the SEPP car parking requirements.

The parking supply is based on Montefiore's previous experience with other seniors living developments. Most notably, the following has been allowed for:

- In addition to providing the required visitor parking for RACF visitors, additional visitor parking has been included for visitors of the allied health services (physio and hydrotherapy), given that both will be available to the general public.
- In addition to providing the required staff parking for RACF staff, additional staff parking has been included for administration staff, ILU staff and allied health staff.
- ILU resident parking has been provided at a rate of 1 space per 1-bed unit and 2-bed unit, with 2 spaces provided for every 3-bed unit.
- Three shared spaces for EV charging have been included for ILU residents.

Furthermore, specific car park design requirements for seniors housing developments identified in the Ku-ring-gai DCP and/or Housing SEPP are analysed below in Table 12.

Table 12 Specific Car Park Design Requirements

Design Requirement	Source	Parking Requirement	Supply
For a group of eight or more parking spaces for ILU residents, at least 15 per cent must comply with AS2890.6 (i.e. be designed as accessible spaces with shared areas) and another 50 per cent must be at least 3.2m wide	Housing SEPP (Schedule 4 Part 1)	Accessible resident spaces: 27 3.2-metre-wide spaces: 89	Accessible resident spaces: 27 3.2-metre-wide spaces: 89
Five per cent of the ILU visitor spaces must comply with AS2890.6	Housing SEPP (Schedule 4 Part 1)	Accessible visitor spaces: 2	Accessible visitor spaces: 2
At least one parking space should be provided for the purpose of ambulance parking	Ku-ring-gai DCP (Part 22R) Housing SEPP (Clause 107)	Ambulance: 1	Ambulance: 1

The DCP and SEPP do not specify any accessible parking requirements for the RACF component. For the RACF, it is suggested that the supply of accessible parking spaces be based on the National Construction Code (formerly Building Code of Australia). The accessible parking requirements indicate that for the proposed residential care use (Class 9C), one accessible space is required for every 100 car spaces provided.

Based on a RACF and allied health visitor car parking provision of 15 parking spaces, one additional accessible parking space would be required to support the RACF and allied health use. Two accessible spaces for RACF and allied health visitors has been provided.

The proposed car park meets all these seniors housing design requirements discussed above.

The decision to provide a parking supply above the minimum requirement also seeks to address community concerns from residents in College Crescent to ensure that any parking demand can be contained on site and is not reliant on on-street parking.

Masada College

Masada College currently has a maximum of 110 staff and 45 Year 12 students on-site at any one time and provides 116 on-site parking spaces to accommodate for this demand. It is acknowledged that the proposed access road between Link Road and the development will impact some of these parking spaces, however any shortfall will be considered in the future Masada College Site Masterplan which is currently being prepared.

It should also be noted that some neighbouring DCP's (e.g. Ryde Council) consider one parking space per two staff members to be satisfactory, which would continue to be comfortably achieved on-site.

5.2 Car Share

In Urbis' pre-DA consultation meeting with Ku-ring-gai Council held on Monday 2 February 2026, Council raised the possibility of considering car share spaces as part of the proposed development.

After considering this request, it has been decided not to propose a car share scheme with this development for the following reasons:

- Given the older demographic, it is anticipated that a number of future residents may choose to/ not be able to drive or would prefer to use their own private vehicles.

- The development proposes a number of secure access points, and it is generally best practice to locate car share spaces in publicly accessible and highly visible locations such as on street. This maximises the number of potential users of a car share vehicle.
- Further to the above, it is considered unlikely that a car share company (such as GoGet) would support car share in this location given it is not publicly accessible and therefore may not be economically viable.

5.3 Bicycle and Motorcycle Parking

Neither the State Environmental Planning Policy (Housing) 2021 nor the Ku-ring-gai DCP 2024 contain bicycle or motorcycle parking requirements for seniors housing developments. Consequently, no formal bicycle or motorcycle parking spaces have been proposed.

Given the age demographic of residents, it is considered unlikely that there would be a high demand for bicycle and/or motorcycle parking spaces.

If, however, there was a future need to install bicycle parking rack/s for residents, visitors or staff, there is space on-site in the open space communal areas to add one or more bicycle parking racks to accommodate any future demand.

5.4 Loading and Waste Collection

Loading and waste collection is proposed to occur in the loading dock located in the south-western corner of the site, with an 8.8m Medium Rigid Vehicle (MRV) as the largest vehicle to access the loading dock. Loading vehicles would be able to enter and exit the site in a forward direction to and from Link Road via the proposed driveway.

Access to the loading dock is from Link Road. Drivers would need to use an intercom system to access the loading dock.

5.5 Drop-Off/ Pick-Up

A short-stay drop-off/ pick-up facility is also proposed in the south-western corner of the site. The drop-off/ pick-up parking space would be time-restricted to approximately 10 minutes, with the intention of being used to drop-off or pick-up residents or visitors, as well as for short-stay deliveries.

Access to the drop-off/ pick-up facility is from the Link Road driveway, where drivers would need to use an intercom system to access the drop-off/ pick-up space.

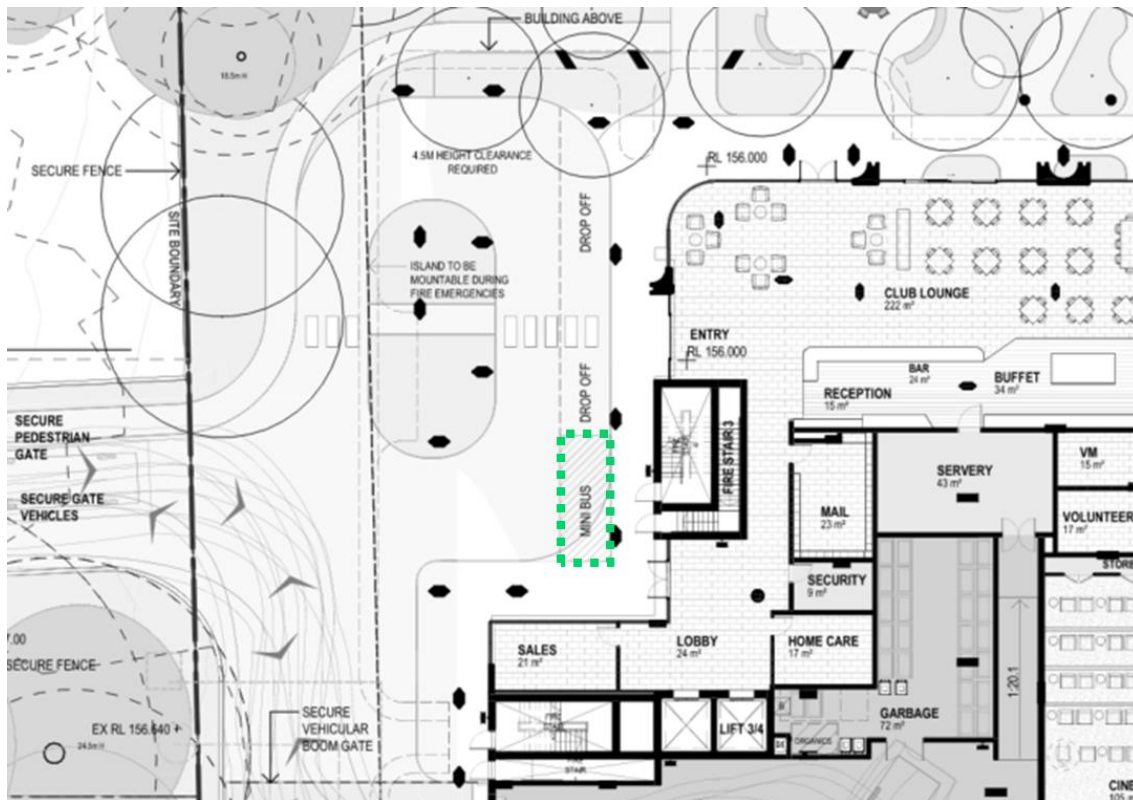
5.6 Mini-Bus

The development proposes to operate two mini-bus services – one for future ILU residents and one for RACF residents.

The drop-off/ pick-up location for the ILU resident mini-bus service is proposed to be located just south of the short-stay drop-off/ pick-up facility in the south-western corner of the site. When not in use, the minibus will be parked in the same location that it uses to drop-off/ pick-up, as shown below in Figure 11.

The RACF mini-bus will be stored and accessed via the RACF visitor basement car park.

Figure 11 Location of ILU Mini-Bus Parking



Base image source: Jackson Teece (dated 15 May 2026)

5.7 Emergency Vehicles

There is an Ambulance Bay located in the RACF visitor section of the basement car park. The most efficient access to this bay is from the southern access driveway off College Crescent.

Typically, NSW Ambulance requests that the minimum height clearance for ambulance access to car parks should be 3.8 metres, to accommodate roof mounted radio aerials on the largest ambulance vehicle size. The largest ambulance is a bariatric specialist vehicle, which has a height of 3.2 metres (inclusive of the aerial) and a stretcher capable of carrying loads up to 500 kilograms. Currently, there are 12 bariatric ambulance vehicles in NSW.

The RACF vehicle access off College Crescent has been designed with a height clearance of only 3.2 metres. This height clearance is sufficient for the standard NSW Ambulance fleet. However in the unlikely event that a bariatric ambulance is required, it would need to access the site via Link Road and use the drop-off/ pick-up facility instead.

It is recommended that NSW Ambulance be consulted post-development approval to confirm the exact operational procedure in the unlikely event that a bariatric specialist vehicle is required. It is also suggested that a procedure, such as the one proposed below, be included in an Operational Management Plan:

- RACF staff to advise NSW Ambulance in the initial call-out that they have a patient requiring a bariatric specialist ambulance.
- RACF staff to advise NSW Ambulance in the initial call-out that the bariatric specialist ambulance must use Link Road to access the site, not College Crescent.

5.8 Car Park Design Review

The proposed access arrangements and car parking layout have been designed in accordance with the requirements of Australian Standard AS2890. This included an assessment of the following aspects:

- aisle widths
- blind aisle turning bays
- clearance to adjacent structures
- height clearances
- internal queuing
- parking for persons with disabilities
- parking space dimensions and grades
- ramp grades
- security access
- site access arrangements.

Vehicular site access is proposed from both Link Road and College Crescent. The benefits of providing access from both roads are outlined below:

- Reduces traffic volume added to College Crescent, which maintains residential amenity for neighbours.
- Removes the need for service and delivery vehicles to access the site from College Crescent, which also maintains residential amenity for neighbours.
- Minimal impact to the existing peak period traffic flow on Link Road given proposed left-in/ left-out arrangement.

To confirm support for vehicle access from both Link Road and College Crescent, Urbis consulted with both Transport for NSW and Ku-ring-gai Council. Both agencies confirmed support for this arrangement, with evidence of this consultation included in Appendix A.

The addition of two access driveways and two short No Stopping zones to provide passing opportunities on College Crescent would result in the loss of approximately six on-street parking spaces on the western side of College Crescent (on the development side of the road).

Two access driveways on College Crescent is supported given the length of the site (approximately 150 metres), various land uses (for ILU's, RACF and allied health), greater operational efficiency for the site's car park, and more passing opportunities for through traffic on College Crescent.

The car park itself has been designed as a parking facility to cater for the different users of a seniors housing development, including 15 per cent accessible spaces for residents and another 50 per cent of spaces being 3.2 metres wide. 2.4 x 5.4 metre shared zones have been incorporated next to accessible parking spaces as required.

The circulation aisles and internal ramps have been designed in accordance with AS2890.1, with all designed to accommodate 99th percentile vehicles throughout. Ramps within public car parks should have a maximum gradient of 1:5 (20 per cent) with maximum 1:8 (12.5 per cent) transitions over two metres.

Two-way passing of a B85 vehicle and B99 vehicle is shown on the swept paths in Appendix D.

The full car park design review is attached to this report in Appendix D. Overall, the design review indicates that the proposed car parking layout is expected to operate satisfactorily.

6 Traffic Impacts and Mitigation

6.1 Traffic Generation

To determine the traffic generation estimates for the proposed development, two existing seniors living developments have been surveyed to determine an average rate for both the RACF and ILU components of the development.

Traffic surveys were commissioned at all vehicle entrances and exits to the following two sites:

- Estia Health at 1 Yarrabung Road, St Ives (Wednesday 25 March 2026)
 - consisting of 118 RACF beds only (i.e. no ILU component).
- Montefiore Randwick at 36 Dangar Street, Randwick (Thursday 26 March 2026)
 - consisting of 276 RACF beds and 79 ILU units.

The surveys were conducted on Wednesday 25 March 2026 and Thursday 26 March 2026 respectively between 6:00am – 6:00pm. In order to understand the network peak hour traffic generation rates, only the network peak hours between 8:00am – 9:00am and 3:30pm – 4:30pm have been analysed for the purpose of this assessment.

From the survey results, the following trip generation rates were deduced:

- RACF:
 - Network AM Peak: 0.15 trips per bed
 - Network PM Peak: 0.21 trips per bed.
- ILU:
 - Network AM Peak: 0.20 trips per unit
 - Network PM Peak: 0.20 trips per unit.

These trip generation rates are comparable to those listed in the 2024 Guide to Transport Impact Assessment (GTIA) for a senior housing development, which identifies a combined RACF and ILU rate of 0.17 vehicle trips per hour per dwelling in the PM peak hour, and are therefore appropriate to use for this assessment. The survey rates have also been adopted for the purpose of a conservative assessment when compared to the Guide to Transport Impact Assessment.

It is noted that this rate is lower than the site peak of a seniors housing development which is 0.30 trips per hour per dwelling and typically occurs towards midday. Furthermore, these traffic generation estimates are inclusive of residents, visitors and/or staff.

Estimates of the traffic volume generated by the proposal in the AM and PM network peak hours are calculated in Table 13.

Table 13 Estimated Network Peak Hour Traffic Generation

Land Use	Size	Traffic Generation Rate (vehicle trips per hour)		Traffic Generation Estimate (vehicle trips per hour)	
		AM	PM	AM	PM
RACF	48 beds	0.15 trips per hour per bed	0.21 trips per hour per bed	7	10
ILU	126 units	0.20 trips per hour per unit	0.20 trips per hour per unit	25	26
		Total		32	36

Therefore, the site could potentially generate approximately 32 trips in the AM peak hour and 36 trips in the PM peak hour.

6.2 Cumulative Traffic Generation

For the purpose of a cumulative traffic assessment, the projects listed in Table 14 have been identified as having potential to cumulatively contribute to the traffic generated on the road network.

Table 14 Projects with a Potential Cumulative Traffic Impact

Site	Development Application Reference	Development Description	Current Status
5-9 Cowan Road, St Ives	SSD-88948458	Construction of a new 9-storey residential flat building including both market and in-fill affordable housing (total 77 new apartments).	Response to Submissions
46 Cowan Road, St Ives	eDA0485/25 PPSSNH-729	Construction of a new 7 storey residential flat building, basement carparking and associated works (total 75 new apartments).	Under Assessment
126 Rosedale Road, St Ives	eDA0006/26	Construction of a six-storey residential flat building comprising 28 units, basement parking, and associated works.	Under Assessment
3-5 Memorial Avenue, St Ives	eDA0181/26	Construction of a 6 storey residential flat building with 33 units, basement carpark and associated works.	Under Assessment
114 Rosedale Road & 35 Putarri Avenue, St Ives	eDA0268/26	Demolition of structures and construction of a three-storey residential flat building containing 18 units over basement parking and associated works.	Under Assessment
36 Ayres Road, St Ives	eDA0262/26	Demolition of existing structures and construction of a two-storey seniors housing development delivering 8 independent living units.	Under Assessment
14-18 Richard Road, St Ives	eDA0218/26	Demolition of existing structures and construction of 16 two-storey townhouses incorporating infill affordable housing.	Under Assessment
285-289 Mona Vale Road & 1 Flinders Avenue, St Ives	SSD-48028209	Construction of a new 3 storey Residential Care Facility (RCF) consisting of 145 beds, communal facilities, basement car parking off Mona Vale Road and associated landscaping works. A modification application is currently being assessed which seeks consent for 62 additional RCF beds through site expansion (adding 293 & 295 Mona Vale Rd to the site area).	Approved – 31/07/2025 Modification application currently under assessment.

Source: DPHI Major Projects

The majority of these projects are located more than one kilometre away. As a result, the traffic generated by these projects are unlikely to have a cumulative impact on the key intersections analysed as part of this assessment.

One of the closer sites is 14–18 Richard Road, where traffic would be expected to use the Link Road/ Horace Street/ Stanley Street roundabout to access the site. However, the Traffic and Parking Statement (Transport Strategies Alliance, 2026) concludes that the peak net trip generation from this project would only be 10 vehicles per hour, which is not expected to compromise the safety or function of the surrounding road network.

The only formally approved site in Table 14 is 285–289 Mona Vale Road & 1 Flinders Avenue. However the Transport Impact Assessment (PTC, 2024) for the development confirms that the peak net trip generation would be approximately 14–19 vehicles per hour, and that vehicle access will be left-in/ left-out only from Mona Vale Road. Based on the proposed small increase in traffic and expected traffic distribution, any increase to traffic on Link Road would be minimal and can be easily accommodated.

6.3 Trip Distribution and Assignment

The directional distribution and assignment of traffic generated by the proposed development will be influenced by a number of factors, including the:

- configuration of the arterial road network near the site
- existing operation of intersections providing access between the local and arterial road network
- surrounding retail centres in relation to the site
- likely distribution of employee’s residences in relation to the site
- configuration of access points to the site.

Therefore, the trips generated by the proposed development can be expected to be assigned to the external road network based on the directional distribution splits from the survey data.

The estimated distribution splits between both College Crescent and Link Road are shown in Table 15. Given the proposed left-in/ left-out arrangement at the Link Road access (i.e. unable to turn right into or right out of the site to/from Link Road), the number of vehicles travelling via College Crescent are anticipated to be slightly higher than Link Road.

For the purposes of estimating vehicle movements into and out of the site, the following splits of inbound and outbound peak hour trips have been sourced from the traffic survey data of the two existing seniors living developments:

- AM Peak – 75% inbound/ 25% outbound.
- PM Peak – 50% inbound/ 50% outbound.

Table 15 Estimated Traffic Distribution between two Access Roads

Access Road	AM Peak			PM Peak		
	In	Out	Total	In	Out	Total
College Crescent	15	4	19	12	10	22
Link Road	9	4	13	6	8	14
Total Traffic Generation			32			36

6.4 Forecasted Mode Split

The anticipated mode share split for the proposed development has been forecast based on data contained in the 2024 Guide to Transport Impact Assessment.

The forecasted travel mode share shown in Table 16 assumes an average split based on data from various seniors housing developments in Sydney on a weekday between 10:00am – 8:00pm.

Notably, cycling and public transport are not identified as typical travel modes used by seniors housing residents.

Table 16 Forecast Travel Mode Share

Transport Mode	Mode Share
Car	91%
Walk	9%

Source: TfNSW Guide to Transport Impact Assessment

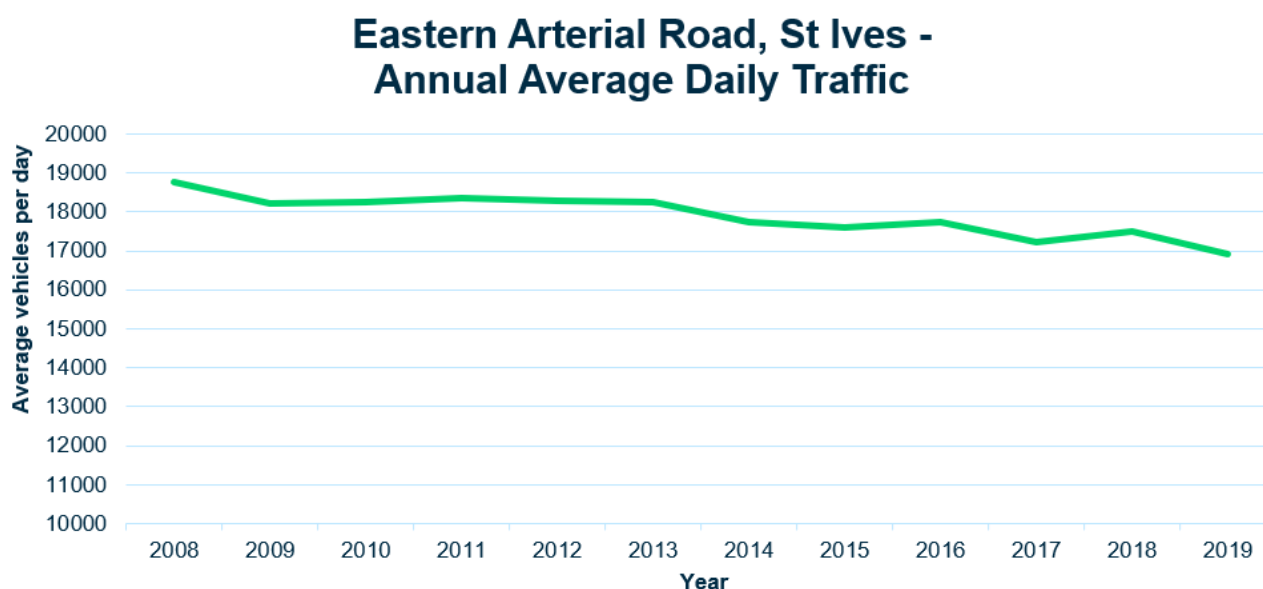
As per Section 5.6, it is also recognised that Montefiore will be providing two mini-buses for future residents, which will be beneficial to reducing the car mode share percentage identified above.

6.5 Background Growth

The nearest Transport for NSW Traffic Volume counter on Eastern Arterial Road has been analysed (Station ID: 53053) to determine background traffic growth. The growth rate trends on Eastern Arterial Road are assumed to be similar to those on the surrounding local road network.

The analysis showed no clear increase trends in the average annual growth rate from 2008 through to 2019 (which excludes Covid-affected years post 2020). Given this, an assumed background traffic growth rate of one per cent per year is considered appropriate for the area.

Figure 12 Annual Average Daily Traffic on Eastern Arterial Road, St Ives



Data source: Transport for NSW Traffic Volume Viewer

6.6 Future Intersection Performance

A future opening year scenario in 2030 has been assumed for the purpose of this traffic assessment. As part of the future intersection performance analysis, the following scenarios have been assessed:

- 2030 future year without development traffic (AM and PM peak hours)

- 2030 future year with development traffic (AM and PM peak hours).

Given the anticipated low traffic generation and distribution of the traffic between Link Road and College Crescent and good existing operation of all surrounding intersections (either LOS A or B), modelling of any future horizon scenarios (e.g. 10-year future horizon) is not considered necessary.

2030 Without Development

Table 17 presents a summary of the anticipated operation of key intersections for the future year scenario without development traffic.

Table 17 2030 Intersection Performance Without Development

Intersection	AM Peak				PM Peak			
	DOS	Delay (s)	95% Queue (m)	LOS	DOS	Delay (s)	95% Queue (m)	LOS
Killeaton St/ Dainton Ave/ Yarrabung Rd	0.35	7	12	A	0.27	6	8	A
Yarrabung Rd/ Carcoola Rd/ College Cres	0.07	10	2	A	0.04	7	1	A
Yarrabung Rd/ Catherine St/ College Cres	0.08	11	2	A	0.03	8	1	A
Yarrabung Rd/ Stanley St	0.3	21	8	B	0.08	9	2	A
Link Rd/ Horace St/ Stanley St	0.91	33	66	C	0.55	14	19	A

Note: For priority-controlled intersections and roundabouts, reporting is based on the worst performing movement

Overall, all intersections will continue to operate well with minimal queues and delays on all approaches.

2030 With Development

Table 18 presents a summary of the anticipated operation of key intersections for the opening year scenario with development traffic.

Table 18 2030 Intersection Performance With Development

Intersection	AM Peak				PM Peak			
	DOS	Delay (s)	95% Queue (m)	LOS	DOS	Delay (s)	95% Queue (m)	LOS
Killeaton St/ Dainton Ave/ Yarrabung Rd	0.35	7	12	A	0.27	6	8	A
Yarrabung Rd/ Carcoola Rd/ College Cres	0.07	10	2	A	0.04	7	1	A
Yarrabung Rd/ Catherine St/ College Cres	0.09	11	2	A	0.04	8	1	A
Yarrabung Rd/ Stanley St	0.31	22	8	B	0.08	9	2	A
Link Rd/ Horace St/ Stanley St	0.93	36	70	C	0.56	14	20	A

Note: For priority-controlled intersections and roundabouts, reporting is based on the worst performing movement

After the development traffic has been added, all intersections are still anticipated to operate very similar to conditions without the development. It is also noted that Level of Service at all intersections remains consistent in both the 2030 With Development and 2030 Without Development scenarios.

6.7 Impact Mitigation

The above intersection analysis confirm that the additional traffic generated by the proposed development is not expected to compromise the safety or function of the adjacent road network. Therefore, no mitigations measures are required to accommodate the traffic generated by the development.

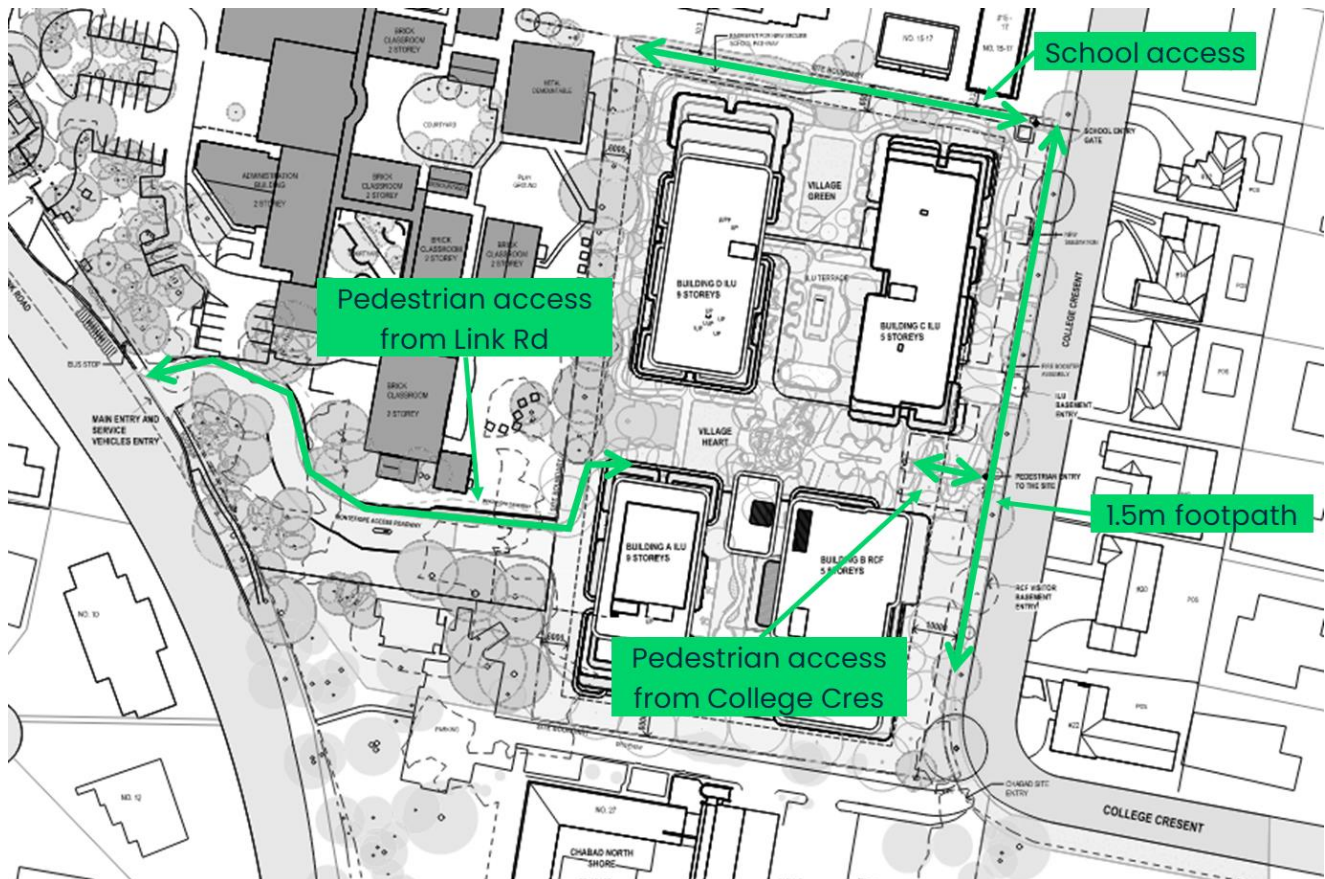
7 Operational Transport Impacts

7.1 Pedestrian Access

Accessible entry points to the development from Link Road and College Crescent (including a ramp) will allow pedestrians to freely walk to and from the development. The pedestrian access to Link Road will also facilitate pedestrian access to/from the nearest bus stop on Link Road.

Pedestrian access between Masada College and College Crescent will be maintained for staff, students and parents of Masada College along the northern boundary of the site.

Figure 13 Pedestrian Links to, from and around the Site



Base image source: Jackson Teece

An external pedestrian footpath along the site's eastern boundary (approximately 1.5 metres in width) is proposed on the western side of College Crescent to improve pedestrian connectivity. In the future, it is envisioned that Council would extend this footpath on College Crescent through to Yarrabung Road, subject to prioritisation in Council's long-term capital works program.

7.2 Bus Stop

The vehicle access from Link Road is proposed to be located after an existing bus stop outside Masada College. As identified in Section 4.2, this bus stop is primarily serviced by only one public bus route, in addition to school bus routes in the morning drop-off period and afternoon pick-up period on school days.

Given that the proposed site access does not impede on the existing bus stop, there are no changes proposed to this bus stop in its current location and layout.

8 Preliminary Construction Traffic Management Plan

8.1 Overview

The purpose of a Construction Traffic Management Plan (CTMP) is to explore the impacts of construction work on the transport network and to ensure mitigation measures have been considered.

Although the project is in the pre-approval stage, a preliminary CTMP has been included to provide an initial overview of initiatives and strategies to manage potential interruptions to regular vehicle, pedestrian and cycle routes.

This section seeks to provide an overview of the CTMP initiatives to be implemented as part of the construction works associated with the proposed development. A detailed CTMP will be prepared in the future by the appointed contractor.

8.2 Temporary Traffic Management

Temporary Traffic Management (TTM) is generally required at all construction sites which impact the road network and should be designed and implemented in accordance with TS 05492 Traffic Control at Work Sites.

The core principles of temporary traffic management are:

- Construction workers must be able to work safely (including entering and exiting the site)
- All road users must be able to travel around or past the work site safely, including:
 - Vehicle drivers
 - Public transport users
 - Pedestrians
 - Cyclists
- Construction activity and road users are separated wherever possible
- Delays and impacts to road users are minimised as much as practically possible.

Travel demand management strategies can also be used to adjust construction activities to minimise the temporary construction impacts on the transport network. This could include retiming and/or rerouting construction vehicle movements or changing modes and reducing journeys to and from the construction site.

For example, tools and materials could be stored on-site in holding areas to allow workers to travel to and from the site via public transport. This has a positive effect on both reducing the traffic generation and reducing the car parking impact.

8.3 Work Hours

The works will be carried out during Council's standard construction hours unless otherwise permitted. Indicative work hours are as follows:

- Weekdays: 7:00am – 5:00pm
- Saturdays: 8:00am – 12:00pm
- Sundays and public holidays: no work permitted.

Workers would be advised of the approved work hours during induction.

Any works outside of the approved work hours would be subject to approval from the appropriate authorities prior to the work commencing. Such works could include delivery of cranes, large plant or equipment required on the site that require oversize vehicle access.

In addition to regular work hours, there will be occasions where specific out-of-hours works are required. The Principal Contractor will be responsible for instructing and controlling all subcontractors regarding the hours of work. Any work outside the approved construction hours would be subject to specific prior approval from Council.

The actual duration and staging of the works is currently unknown and will be scheduled once the contractor is appointed.

8.4 Site Access and Loading

Construction vehicle access and egress is anticipated to primarily be provided from Link Road via the proposed easement, with a secondary access on College Crescent. All loading is expected to take place within the bounds of the site, and queuing should be avoided in the local road network, especially in College Crescent.

If required, it is expected that construction vehicles would be able to queue within the proposed easement off Link Road, eliminating the need for an on-street Works Zone.

As part of the future detailed CTMP, Traffic Guidance Schemes (previously referred to as Traffic Control Plans) will be prepared in accordance with the principles contained in TS 05492 Traffic Control at Work Sites (Transport for NSW, 2022).

Access to the neighbouring sites by emergency vehicles would not be affected by the works as the road and footpath frontages would be unaffected. Emergency protocols on the site would include a requirement for site personnel to assist with emergency access from the street. All truck movements to the site and/or incident point would be suspended and cleared.

Staging and access arrangements will be confirmed once a contractor is appointed.

8.5 Construction Worker Parking

It is assumed that on average, there will be approximately 50-100 workers on-site each day. During peak construction activities, this would increase up to approximately 100-150 workers on-site at any given time.

At this stage, the extent of available construction worker parking on-site has not been confirmed, this will be confirmed once a contractor is appointed. Should worker parking not be provided, a construction worker parking strategy would need to be prepared as part of a future detailed CTMP.

Workers will be encouraged to carpool wherever feasible to access the site and informed of the available public transport services during site induction. Appropriate arrangements will be made for any equipment/tool storage and drop-off requirements.

8.6 Heavy Vehicles Traffic Generation

A range of construction vehicles will access the site during the construction period. The largest vehicle types are expected to include concrete agitators, mobile cranes, excavators, piling rigs, bulldozers, and rigid trucks, including truck and dog combinations.

The majority of construction traffic will be associated with spoil removal, concrete pours, and the delivery of materials and equipment.

Construction vehicles generated by the site would be confirmed by the appointed contractor, however as a guide generally include vehicles up to 19 metre B-Double vehicles. On average, there are expected to be approximately 10-12 trucks (20-24 movements) per day. It is expected that the peak construction vehicle activity will result in up to 20 trucks (40 two-way movements) in and out of the site per day.

Conservatively assuming 20 per cent of the daily generation arriving within the network peak periods, approximately four trucks may occur within the network peak hour during peak construction.

Construction vehicle movements will be minimised/ avoided during peak hours where possible. Given the proximity to Masada College, construction vehicle movements should also be avoided in drop-off and pick-up hours between 8:00am – 9:30am and 2:30pm – 4:00pm on school days.

Given the expected low construction traffic volumes within peak periods, it is anticipated that the construction traffic will not have a significant impact on the surrounding road network.

8.7 Haulage Routes

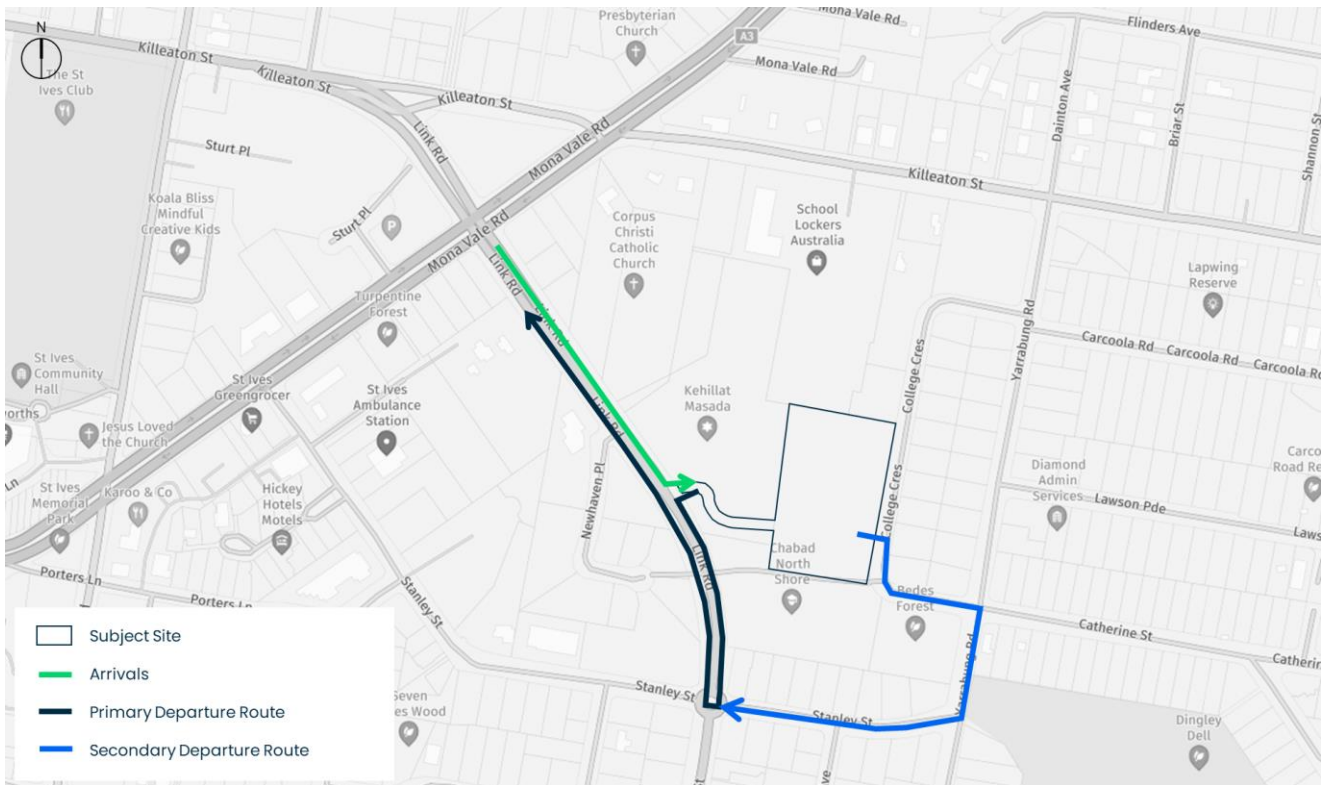
Heavy vehicle movements would be restricted to designated routes and confined to the arterial road network wherever feasible, noting that Mona Vale Road is the nearest State Road. Truck routes to/ from the site have been identified with the aim of providing the most direct routes to/ from the site as well as minimising the impact of heavy vehicles on local roads.

Figure 14 provides a summary of the anticipated construction vehicle routes to/ from the site. Truck drivers will be advised of the designated truck routes.

Based on the above considerations, heavy vehicles are expected to access the site from the north via Link Road and also depart the site via Link Road whenever possible during construction. Given the centre median island on Link Road, heavy vehicles would need to turn left out of the site and use the roundabout at Stanley Street to turn around and travel back towards Mona Vale Road.

It is anticipated that during certain stages of construction, egress via Link Road may not be possible and therefore a secondary departure route via College Crescent, Yarrabung Road and Stanley Street is proposed. This egress route is not to be used between 8:00am – 9:30am and 2:30pm – 4:00pm on school days.

Figure 14 Proposed Haulage Routes



Base image source: Nearmap

8.8 Pedestrian and Cyclist Access

Impacts to pedestrian and cyclist routes should be minimised throughout the construction period where possible.

Minor impacts could be expected during the public domain works where footpath restoration may be occurring. Alternative pedestrian routes would be established to divert pedestrians/ cyclists to use alternative footpaths on the other side of the road if and as required.

8.9 Public Transport Access

During construction, trucks and other construction vehicles should not be permitted to stop at the bus stop on Link Road.

Given that a vehicle crossover already exists at the proposed Link Road site access, no impacts are expected to bus services on Link Road.

8.10 Future CTMP Requirements

Once a construction contractor has been appointed, this preliminary CTMP should be used to develop a more detailed CTMP in consultation with the contractor. The detailed CTMP should be completed by a qualified traffic consultant prior to any construction works commencing.

This detailed CTMP should include the following information:

- Description of construction activities, staging and duration
- Approved construction work hours

- Detailed assessment of construction traffic impacts including any cumulative impacts
- Construction worker parking strategy
- Swept path analysis of heavy vehicle access to the site and works zone, if required
- Detailed assessment of on-street parking impacts
- Emergency vehicle access and impacts to public transport services
- Traffic Guidance Scheme(s)
- Contact details of key project personnel.

9 Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- The proposed senior housing development's peak activity is anticipated between 10:00am and 2:30pm, which is outside the external road network peak periods.
- The surrounding road network currently operates well, with all assessed intersections operating well with spare capacity.
- Based on the State Environmental Planning Policy (Housing) 2021 requirements, the proposed development should provide a minimum of 192 car parking spaces. Based on Montefiore's previous experience and site-specific needs, the development conservatively proposes 260 spaces to ensure residents, staff and visitors can be accommodated on site.
- Site access from both Link Road and College Crescent is appropriate and supported by Transport for NSW and Ku-ring-gai Council and will minimise impacts on local residential streets.
- Servicing, waste, drop-off, emergency access and mini-bus operations have been appropriately accommodated within the site design.
- An operational management procedure should be developed, in consultation with NSW Ambulance, to identify how a driver of a bariatric ambulance would know to use Link Road to access the site and not College Crescent.
- The development is expected to generate approximately 32 one-way trips in the AM peak hour and 36 one-way trips in the PM peak hour.
- Traffic modelling for the future design year of 2030 has shown there is adequate capacity in the surrounding road network to cater for the traffic generated by the proposed development, and therefore no traffic infrastructure upgrades are required. There is also no change in Level of Service at all modelled intersections.
- A detailed Construction Traffic Management Plan should be prepared for the development prior to the commencement of work.

Overall, the proposed development can be supported from a traffic and transport perspective.

Disclaimer

This report is dated 5 June 2026 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Montefiore (**Instructing Party**) for the purpose of supporting a development application with a Transport Impact Assessment (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

Appendix A Agency Consultation

Minutes

Meeting	Montefiore St Ives – Traffic Meeting
Location	Microsoft Teams Meeting
Date	Monday 2 February 2026
Time	3:00pm – 3:30pm
Attendees	Peter Strudwick (Urbis) Karen McNatty (Urbis) Belinda Thomas (Urbis) Chris White (Urbis) Joseph Piccoli (Council) Selwyn Segall (Council) Sarah Fitzgerald (Jackson Teece) Kristy Chan (Jackson Teece)
Apologies	-

Item #	Minute/Action	Responsibility	Due Date
1.	Council advised to include the following in the Transport Impact Assessment: - Traffic distribution between the access points - Peak times of the ILU and RCF - Operation details of the mini-bus.	Urbis	N/A
2.	Urbis to request information from Jackson Teece regarding typical staff shift times for RCF.	Urbis/ Jackson Teece	9 February
3.	Council raised the possibility of including car share. Urbis to consider/ investigate feasibility.	Urbis	N/A
4.	Council recommended that the proposed car parking supply be supported with evidence of demand from similar development/s. Urbis to investigate.	Urbis	N/A
5.	Jackson Teece to confirm there is provision for a mini-bus parking space when mini-bus not in use.	Jackson Teece	N/A

6.	Council raised that if Link Road access is the main access point, this should be reflected on maps and in navigation apps, as the current address is for College Crescent.	Note	N/A
7.	Council <u>confirmed support for vehicle access from both Link Road (left-in/ left-out only) and College Crescent</u> and conveyed the importance of managing how residents use each site access. A site access from Link Road takes traffic pressure off College Crescent. Council also <u>supported separate access points for ILUs and RCF from College Crescent</u> .	Note	N/A

Chris White

From: Rachel Davis <Rachel.Davis@transport.nsw.gov.au>
Sent: Friday, 5 December 2025 1:11 PM
To: Chris White
Cc: Karen McNatty
Subject: SSD-98363228: Seniors Housing Proposal at 19-25 College Crescent, St Ives

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Hi Chris,

Following a preliminary review of the submitted information, TfNSW offers the following comments:

- It is noted that the subject site has frontage to College Crescent (local road). TfNSW current practice is to limit the number of vehicular conflict points (access points) along the classified road network in accordance with Section 7.3.1 of TfNSW's current publication: Guide to Transport Impact Assessment. This practice aligns with the principles of Clause 2.119(2a) of State Environmental Planning Policy (Transport and Infrastructure) 2021, which states that "where practicable and safe, vehicular access to the land is provided by a road other than the classified road."

TfNSW's preference is that all vehicular access is obtained via the local road network where practicable and safe. However, as Link Road is a classified regional road under the care and control of Council as the relevant road authority, please direct your request to Council in the first instance. Justification should be provided for the proposed access on Link Road, to the satisfaction of Council.

- Should Council endorse the proposed vehicular access to Link Road, TfNSW would recommend that the access is restricted to left-turn movements only (as you've proposed). To enforce this restriction, the required traffic management measures must be designed and constructed to the satisfaction of Council. TfNSW's preferred measure is the installation of a central raised concrete median island on Link Road, subject to a compliant median being able to be accommodated.
- Any driveway works and associated traffic management measures on Link Road would need to be designed and constructed to Council's satisfaction. Any works in the road reserve of Link Road would also require concurrence from TfNSW under section 138 of the *Roads Act 1993*.

TfNSW would be willing to meet to discuss this matter further, however it is strongly recommended that you first obtain the agreement of Council.

Note: It is emphasised that the comments provided above are informal and of a pre-lodgement nature. They are not to be interpreted as binding upon TfNSW and may change following formal assessment of a submitted development application from the appropriate consent authority.

Kind regards
Rachel

Rachel Davis

Senior Land Use Planner
Transport Planning | Planning, Integration and Passenger
Transport for NSW

M 0408 689 720 **T** (02) 8849 2702

transport.nsw.gov.au

Level 4, 4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150



**Transport
for NSW**



I acknowledge the Aboriginal people of the country on which I work, their traditions, culture and a shared history and identity. I also pay my respects to Elders past and present and recognise the continued connection to country.

OFFICIAL

From: Chris White <cwhite@urbis.com.au>
Sent: Monday, 1 December 2025 2:54 PM
To: Development Sydney <Development.Sydney@transport.nsw.gov.au>
Cc: Karen McNatty <kmcnatty@urbis.com.au>
Subject: SSD-98363228: Seniors Housing Proposal at 19-25 College Crescent, St Ives

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Hi Transport for NSW Development Sydney team,

Urbis are the transport consultant engaged on a State Significant Development Application (SSD-98363228) for a new proposed seniors housing development at 19-25 College Crescent, St Ives, comprising of 143 independent living units and 52 residential care beds.

Given that the development proposes access from a classified road, we wish to organise a pre-lodgement consultation meeting with TfNSW to discuss the initial plans and seek feedback on the draft proposal. A right-of-way access through Masada College is proposed to connect the development to Link Road (a classified regional road) via an existing driveway crossover, located approximately 50 metres south of the main vehicle access to Masada College. The right-of-way access would be restricted to left-in/ left-out at Link Road to minimise impacts to the classified road network.

Please find attached a copy of the Scoping Report and Scoping Plans submitted to DPHI, which are also available on the Major Projects website: <https://www.planningportal.nsw.gov.au/major-projects/projects/montefiore-seniors-housing-st-ives>

Could you please advise on availability to hold an online meeting to further discuss the proposal at your earliest convenience.

Kind regards,

Chris White he/him/his
Senior Consultant

d. +61 2 8424 5125
e. cwhite@urbis.com.au



Angel Place, Level 8, 123 Pitt Street
Sydney NSW 2000 Australia (Gadigal Country)
Direct. +61 2 8233 9900
urbis.com.au | [LinkedIn](#) | [Instagram](#)

Urbis recognises the traditional owners of the land on which we work.
Learn more about our [Reconciliation Action Plan](#).

Nominated architects: Kate Paterson – NSW reg 8582, QLD reg 6148, TAS reg 1929, Vic reg VIC00200, and Caroline Stokes – WA reg 1520

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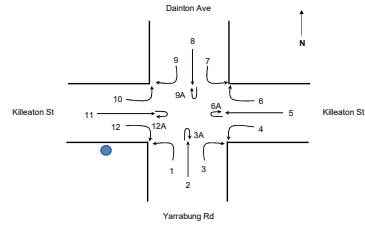
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Appendix B Transport Data and Surveys



Client : Urbis
Job : St Ives Intersection Counts
Day/Date : Tuesday, 11 November 2008
Survey Location : Killealeen St & Dainton Ave & Yarrabung Rd
Weather : Fine



HOURLY FLOW

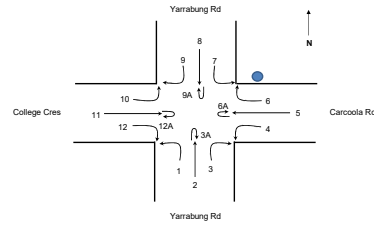
TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
7:00 - 8:00	45	0	45	5	1	6	99	1	100	0	0	0	170	5	175	30	0	30	0	0	0	0	0	0	1	1	0	1	3	0	3	0	0	0	1	0	1	29	0	29	56	0	56	0	0	0	440	7	447		
7:15 - 8:15	53	0	53	5	2	7	138	1	139	0	0	0	203	5	208	28	2	30	0	0	0	0	0	0	2	0	2	2	1	3	4	0	4	0	0	1	0	1	22	0	22	67	0	67	0	0	0	525	11	536	
7:30 - 8:30	70	0	70	9	1	10	168	1	169	0	0	0	237	3	240	34	2	36	0	0	0	0	0	0	2	0	2	4	1	5	3	0	3	0	0	0	2	0	2	27	0	27	90	0	90	0	0	0	646	8	654
7:45 - 8:45	91	0	91	11	1	12	187	1	188	0	0	0	255	3	258	30	2	32	0	0	0	0	0	0	1	0	1	4	1	5	2	0	2	0	0	0	2	0	2	34	0	34	100	0	100	0	0	0	717	8	725
8:00 - 9:00	111	0	111	12	1	13	187	1	188	0	0	0	215	2	217	27	2	29	0	0	0	0	0	0	1	0	1	5	1	6	1	0	1	0	0	0	2	0	2	31	1	32	96	1	97	0	0	0	688	9	697
8:15 - 9:15	113	2	115	10	0	10	161	1	162	0	0	0	178	1	179	32	0	32	1	0	1	0	0	0	1	0	1	8	0	8	3	0	3	0	0	0	2	0	2	31	1	32	81	1	82	0	0	0	621	6	627
8:30 - 9:30	106	3	109	11	0	11	129	1	130	0	0	0	126	1	127	25	0	25	1	0	1	0	0	0	1	0	1	7	0	7	4	0	4	0	0	0	1	0	1	23	1	24	58	1	59	0	0	0	492	7	499
8:45 - 9:45	96	3	99	13	0	13	108	1	109	0	0	0	97	1	98	21	0	21	1	0	1	0	0	0	1	0	1	6	0	6	6	0	6	0	0	1	0	1	14	1	15	33	2	35	0	0	0	397	8	405	
9:00 - 10:00	94	3	97	14	0	14	77	2	79	0	0	0	82	1	83	15	0	15	1	0	1	0	0	0	2	0	2	6	0	6	9	0	9	0	0	0	0	0	0	12	0	12	17	1	18	0	0	0	329	7	336

HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
14:30 - 15:30	96	2	98	6	0	6	131	2	133	0	0	0	88	1	89	21	0	21	1	0	1	0	0	0	4	0	4	6	0	6	5	1	6	0	0	0	1	0	1	24	0	24	48	3	51	1	0	1	432	9	441
14:45 - 15:45	91	2	93	6	0	6	150	2	152	1	0	1	104	1	105	23	0	23	1	0	1	0	0	0	3	0	3	4	0	4	2	1	3	0	0	0	0	0	0	19	0	19	46	3	49	1	0	1	451	9	460
15:00 - 16:00	87	1	88	9	0	9	161	2	163	2	0	2	113	1	114	34	0	34	1	0	1	0	0	0	4	0	4	3	0	3	2	1	3	0	0	0	0	0	0	16	0	16	40	2	42	1	0	1	475	7	482
15:15 - 16:15	75	0	75	11	0	11	155	5	160	2	0	2	111	2	113	38	0	38	1	0	1	0	0	0	3	0	3	5	0	5	0	0	0	0	0	0	0	0	21	0	21	38	1	39	0	0	0	460	8	468	
15:30 - 16:30	73	0	73	11	0	11	173	3	176	2	0	2	96	3	99	35	0	35	0	0	0	0	0	0	2	0	2	4	0	4	0	0	0	0	0	0	1	0	1	21	0	21	39	1	40	0	0	0	457	7	464
15:45 - 16:45	67	1	68	8	1	9	153	3	156	1	0	1	89	3	92	31	0	31	1	0	1	0	0	0	2	0	2	5	0	5	4	0	4	0	0	0	2	0	2	21	0	21	41	1	42	0	0	0	425	9	434
16:00 - 17:00	72	2	74	9	1	10	146	4	150	0	0	0	82	3	85	25	0	25	1	0	1	0	0	0	1	0	1	4	0	4	4	0	4	0	0	0	2	0	2	18	0	18	39	1	40	0	0	0	403	11	414
16:15 - 17:15	83	2	85	10	1	11	141	1	142	0	0	0	80	3	83	22	0	22	2	0	2	0	0	0	0	0	0	4	0	4	4	0	4	0	0	0	3	0	3	13	0	13	54	0	54	0	0	0	416	7	423
16:30 - 17:30	86	2	88	18	1	19	139	2	141	0	0	0	74	2	76	20	0	20	2	0	2	0	0	0	0	0	0	6	0	6	4	0	4	0	0	0	2	0	2	11	0	11	51	0	51	0	0	0	413	7	420
16:45 - 17:45	90	1	91	22	0	22	157	2	159	0	0	0	71	1	72	25	0	25	1	0	1	0	0	0	1	0	1	5	0	5	3	0	3	0	0	0	2	0	2	12	0	12	55	0	55	0	0	0	444	4	448
17:00 - 18:00	79	0	79	23	0	23	161	2	163	0	0	0	72	2	74	22	0	22	1	0	1	0	0	0	1	0	1	6	0	6	3	0	3	0	0	0	4	0	4	11	0	11	58	0	58	0	0	0	441	4	445
17:15 - 18:15	83	0	83	22	1	23	164	2	166	0	0	0	64	2	66	23	0	23	0	0	0	0	0	0	1	0	1	7	0	7	3	0	3	0	0	0	4	0	4	10	0	10	44	0	44	0	0	0	425	5	430
17:30 - 18:30	85	1	86	13	1	14	148	2	150	0	0	0	68	3	71	25	0	25	0	0	0	0	0	0	1	0	1	5	0	5	3	0	3	0	0	0	5	0	5	9	0	9	38	1	39	0	0	0	400	8	408



Client : Urbis
Job : St Ives Intersection Counts
Day/Date : Tuesday, 11 November 2008
Survey Location : Yarrabung Rd & Caroola Rd & College Cres
Weather : Fine



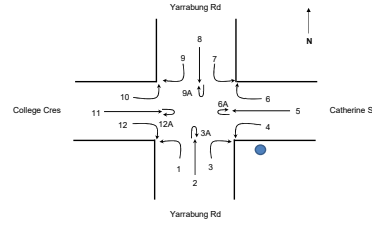
HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
7:00 - 8:00	4	0	4	144	2	146	4	0	4	0	0	0	11	0	11	0	0	0	0	0	0	0	0	0	1	0	1	229	5	234	4	0	4	1	0	1	7	0	7	0	0	0	11	0	11	0	0	0	416	7	423
7:15 - 8:15	6	0	6	181	3	184	7	0	7	0	0	0	11	0	11	0	0	0	2	0	2	0	0	0	1	0	1	271	6	277	11	0	11	0	0	0	14	0	14	0	0	0	22	0	22	0	0	0	526	9	535
7:30 - 8:30	6	0	6	228	2	230	8	0	8	0	0	0	12	0	12	0	0	0	3	0	3	0	0	0	1	0	1	319	4	323	14	0	14	0	0	0	17	0	17	0	0	0	29	0	29	0	0	0	637	6	643
7:45 - 8:45	6	0	6	273	2	275	6	0	6	0	0	0	10	0	10	0	0	0	4	0	4	0	0	0	1	0	1	348	4	352	15	0	15	0	0	0	16	0	16	0	0	0	25	0	25	0	0	0	704	6	710
8:00 - 9:00	8	0	8	298	2	298	7	0	7	0	0	0	8	0	8	1	0	1	6	0	6	0	0	0	2	0	2	312	4	316	12	0	12	0	0	0	18	0	18	0	0	0	21	0	21	0	0	0	691	6	697
8:15 - 9:15	6	0	6	278	3	281	6	0	6	0	0	0	7	0	7	1	0	1	4	0	4	0	0	0	2	0	2	265	2	267	7	0	7	0	0	0	14	0	14	0	0	0	12	0	12	0	0	0	602	5	607
8:30 - 9:30	6	0	6	244	4	248	5	0	5	0	0	0	7	0	7	1	0	1	4	0	4	0	0	0	3	0	3	188	2	190	6	0	6	0	0	0	11	0	11	0	0	0	5	0	5	0	0	0	480	6	486
8:45 - 9:45	4	0	4	214	4	218	6	0	6	0	0	0	8	0	8	1	0	1	4	0	4	0	0	0	3	0	3	132	3	135	5	0	5	0	0	0	9	0	9	0	0	0	3	0	3	0	0	0	389	7	396
9:00 - 10:00	0	0	0	188	5	193	4	0	4	0	0	0	6	0	6	0	0	0	2	0	2	0	0	0	2	0	2	100	2	102	5	0	5	1	0	1	4	0	4	0	0	0	4	0	4	0	0	0	316	7	323

HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total			
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total										
14:30 - 15:30	6	0	6	222	2	224	7	0	7	0	0	0	4	1	5	0	0	0	3	0	3	0	0	0	1	0	1	141	4	145	7	0	7	0	0	0	8	1	9	0	0	0	5	0	5	0	0	0	404	8	412	
14:45 - 15:45	8	0	8	229	2	231	5	0	5	0	0	0	3	1	4	0	0	0	3	0	3	0	0	0	0	0	0	157	4	161	7	0	7	0	0	0	15	1	16	0	0	0	11	0	11	0	0	0	438	8	446	
15:00 - 16:00	7	0	7	246	2	248	6	0	6	0	0	0	3	1	4	0	0	0	3	0	3	0	0	0	0	0	0	157	3	160	6	0	6	0	0	0	15	0	15	0	0	0	13	0	13	0	0	0	456	6	462	
15:15 - 16:15	4	0	4	230	5	235	7	0	7	0	0	0	3	1	4	0	0	0	2	0	2	0	0	0	0	0	0	150	2	152	6	0	6	0	0	0	15	0	15	0	0	0	14	0	14	0	0	0	431	8	439	
16:30 - 16:30	3	0	3	242	3	245	12	0	12	0	0	0	3	0	3	0	0	0	2	0	2	0	0	0	0	0	0	138	4	142	4	0	4	0	0	0	17	0	17	0	0	0	12	0	12	0	0	0	433	7	440	
15:45 - 16:45	2	0	2	219	5	224	11	0	11	0	0	0	4	0	4	0	0	0	2	0	2	0	0	0	0	0	0	133	4	137	5	0	5	0	0	0	10	0	10	0	0	0	7	0	7	0	0	0	393	9	402	
16:00 - 17:00	1	0	1	214	7	221	12	0	12	0	0	0	5	0	5	0	0	0	1	0	1	0	0	0	0	0	0	123	4	127	6	0	6	0	0	0	9	0	9	0	0	0	7	0	7	0	0	0	378	11	389	
16:15 - 17:15	1	0	1	219	4	223	12	0	12	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	135	4	139	9	0	9	0	0	0	12	0	12	0	0	0	6	0	6	0	0	0	399	8	407	
16:30 - 17:30	1	0	1	234	5	239	9	0	9	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	129	2	131	8	0	8	0	0	0	8	0	8	0	0	0	5	0	5	0	0	0	400	7	407	
16:45 - 17:45	1	0	1	264	3	267	13	0	13	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	0	1	127	1	128	7	0	7	0	0	0	6	0	6	0	0	0	5	0	5	0	0	0	428	4	432
17:00 - 18:00	2	0	2	260	2	262	15	0	15	1	0	1	5	0	5	0	0	0	0	0	0	0	0	0	2	0	2	132	2	134	6	0	6	0	0	0	6	0	6	0	0	0	2	0	2	0	0	0	431	4	435	
17:15 - 18:15	4	0	4	262	3	265	15	0	15	1	0	1	6	0	6	0	0	0	2	0	2	0	0	0	3	0	3	116	2	118	3	0	3	0	0	0	3	0	3	0	0	0	6	0	6	0	0	0	421	5	426	
17:30 - 18:30	4	0	4	241	4	245	15	0	15	1	0	1	4	0	4	0	0	0	3	0	3	0	0	0	3	0	3	114	4	118	2	0	2	0	0	0	4	0	4	0	0	0	6	0	6	0	0	0	397	8	405	

Client : Urbis
Job : St Ives Intersection Counts
Day/Date : Tuesday, 11 November 2008
Survey Location : Yarrabung Rd & Catherine St & College Cres
Weather : Fine



HOURLY FLOW

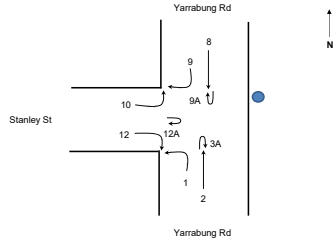
TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
7:00 - 8:00	22	1	23	128	2	130	24	0	24	0	0	0	37	0	37	3	0	3	14	0	14	0	0	0	2	0	2	268	4	272	3	0	3	0	0	0	7	0	7	1	0	1	20	0	20	0	0	0	529	7	536
7:15 - 8:15	36	1	37	175	3	178	21	0	21	0	0	0	37	0	37	5	0	5	10	0	10	0	0	0	4	0	4	318	6	324	6	0	6	0	0	0	10	0	10	1	0	1	26	0	26	0	0	0	649	10	659
7:30 - 8:30	47	0	47	221	2	223	16	0	16	0	0	0	45	0	45	7	0	7	10	0	10	0	0	0	7	0	7	367	4	371	7	0	7	0	0	0	13	0	13	1	0	1	30	0	30	0	0	0	771	6	777
7:45 - 8:45	47	0	47	272	2	274	16	0	16	0	0	0	44	0	44	4	0	4	12	0	12	0	0	0	5	0	5	388	4	392	7	0	7	0	0	0	10	0	10	0	0	0	32	0	32	0	0	0	837	6	843
8:00 - 9:00	44	0	44	312	2	314	22	0	22	0	0	0	42	0	42	5	0	5	7	0	7	0	0	0	9	0	9	348	5	353	7	0	7	0	0	0	7	0	7	0	0	0	27	0	27	0	0	0	830	7	837
8:15 - 9:15	29	0	29	290	3	293	19	0	19	0	0	0	44	0	44	3	0	3	4	0	4	0	0	0	7	0	7	294	2	296	6	0	6	0	0	0	4	0	4	0	0	0	23	0	23	0	0	0	723	5	728
8:30 - 9:30	18	0	18	258	4	262	22	0	22	0	0	0	36	0	36	1	0	1	5	0	5	0	0	0	5	0	5	211	2	213	5	0	5	0	0	0	0	0	0	0	0	22	0	22	0	0	0	583	6	589	
8:45 - 9:45	10	0	10	226	4	230	23	0	23	0	1	1	29	0	29	1	0	1	4	0	4	0	0	0	7	0	7	151	3	154	3	0	3	0	0	0	0	0	0	0	0	14	0	14	0	0	0	468	8	476	
9:00 - 10:00	8	0	8	195	5	200	19	0	19	0	1	1	31	0	31	0	0	0	4	0	4	0	0	0	5	0	5	110	2	112	2	0	2	0	0	0	1	0	1	1	0	1	15	0	15	0	0	0	391	8	399

HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
14:30 - 15:30	18	0	18	233	2	235	32	0	32	0	0	0	23	2	25	1	0	1	5	0	5	0	0	0	5	2	7	156	3	159	3	0	3	1	0	1	4	0	4	1	0	1	9	0	9	0	0	0	491	9	500
14:45 - 15:45	28	0	28	249	2	251	33	0	33	0	0	0	19	2	21	0	0	0	8	0	8	0	0	0	6	2	8	173	3	176	4	0	4	1	0	1	4	0	4	2	0	2	10	0	10	0	0	0	537	9	546
15:00 - 16:00	28	0	28	261	2	263	33	0	33	0	0	0	22	2	24	0	0	0	11	0	11	0	0	0	5	1	6	171	3	174	3	0	3	1	0	1	6	0	6	2	0	2	13	0	13	0	0	0	556	8	564
15:15 - 16:15	28	0	28	250	5	255	38	0	38	0	0	0	23	1	24	0	0	0	8	0	8	0	0	0	5	0	5	172	3	175	3	0	3	0	0	0	6	0	6	2	0	2	15	0	15	0	0	0	550	9	559
15:30 - 16:30	27	0	27	264	3	267	41	0	41	0	0	0	30	0	30	0	0	0	8	0	8	0	0	0	5	1	6	158	3	161	3	0	3	0	0	0	4	0	4	1	0	1	12	0	12	0	0	0	553	7	560
15:45 - 16:45	20	0	20	231	4	235	43	0	43	0	0	0	31	0	31	0	0	0	7	1	8	0	0	0	6	1	7	149	3	152	3	0	3	0	0	0	5	0	5	0	0	0	18	0	18	0	0	0	513	9	522
16:00 - 17:00	19	0	19	229	5	234	46	2	48	0	0	0	26	1	27	0	0	0	4	2	6	0	0	0	7	1	8	143	3	146	3	0	3	0	0	0	5	0	5	0	0	0	17	0	17	0	0	0	499	14	513
16:15 - 17:15	18	0	18	237	2	239	45	2	47	0	0	0	27	1	28	0	0	0	4	2	6	0	0	0	6	1	7	154	3	157	4	0	4	0	0	0	4	0	4	0	0	0	18	0	18	0	0	0	517	11	528
16:30 - 17:30	18	0	18	249	3	252	42	3	45	0	0	0	25	2	27	0	0	0	5	2	7	0	0	0	6	0	6	144	2	146	3	0	3	0	0	0	6	0	6	0	0	0	20	0	20	0	0	0	518	12	530
16:45 - 17:45	17	0	17	289	2	291	47	3	50	0	0	0	29	2	31	0	0	0	4	1	5	0	0	0	7	0	7	136	1	137	3	0	3	0	0	0	4	0	4	1	0	1	15	0	15	0	0	0	552	9	561
17:00 - 18:00	19	0	19	290	2	292	42	1	43	0	0	0	37	1	38	0	0	0	4	0	4	0	0	0	7	0	7	137	2	139	4	0	4	0	0	0	2	0	2	1	0	1	12	0	12	0	0	0	555	6	561
17:15 - 18:15	16	0	16	298	3	301	37	1	38	0	0	0	38	1	39	1	0	1	4	0	4	0	0	0	9	0	9	124	2	126	3	0	3	0	0	0	2	0	2	1	0	1	10	0	10	0	0	0	543	7	550
17:30 - 18:30	13	0	13	281	4	285	33	0	33	0	0	0	33	0	33	2	0	2	4	0	4	0	0	0	7	0	7	125	4	129	4	0	4	0	0	0	1	0	1	1	0	1	8	0	8	0	0	0	512	8	520



Client : Urbis
Job : St Ives Intersection Counts
Day/Date : Tuesday, 11 November 2025
Survey Location : Yarrabung Rd & Stanley St
Weather : Fine



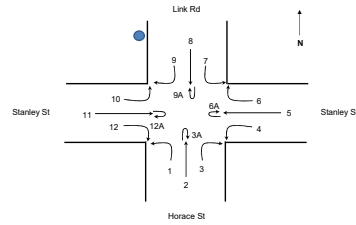
HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3A			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
7:00 - 8:00	63	0	63	32	1	33	0	0	0	63	1	64	258	3	261	0	0	0	145	2	147	16	1	17	0	0	0	577	8	585
7:15 - 8:15	64	0	64	51	1	52	0	0	0	104	1	105	278	5	283	0	0	0	181	3	184	22	1	23	0	0	0	700	11	711
7:30 - 8:30	69	0	69	66	0	66	0	0	0	160	1	161	280	4	284	0	0	0	221	2	223	32	1	33	0	0	0	828	8	836
7:45 - 8:45	88	0	88	88	0	88	0	0	0	216	1	217	252	3	255	0	0	0	249	2	251	50	0	50	0	0	0	943	6	949
8:00 - 9:00	93	2	95	118	0	118	0	0	0	216	1	217	210	4	214	0	0	0	262	2	264	63	0	63	0	0	0	962	9	971
8:15 - 9:15	98	2	100	111	1	112	0	0	0	179	1	180	184	1	185	0	0	0	231	2	233	56	0	56	0	0	0	859	7	866
8:30 - 9:30	90	2	92	98	1	99	0	0	0	124	1	125	151	1	152	0	0	0	202	3	205	48	0	48	0	0	0	713	8	721
8:45 - 9:45	58	4	62	75	2	77	0	0	0	57	2	59	138	2	140	0	0	0	186	3	189	33	0	33	0	0	0	547	13	560
9:00 - 10:00	49	2	51	37	2	39	0	0	0	18	1	19	138	2	140	0	0	0	185	4	189	19	0	19	0	0	0	446	11	457

HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3A			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
14:30 - 15:30	69	1	70	57	0	57	0	0	0	42	1	43	145	4	149	0	0	0	229	2	231	39	0	39	0	0	0	581	8	589
14:45 - 15:45	74	1	75	50	0	50	0	0	0	54	1	55	147	4	151	0	0	0	260	2	262	39	0	39	0	0	0	624	8	632
15:00 - 16:00	85	1	86	59	0	59	0	0	0	54	1	55	152	4	156	0	0	0	266	2	268	34	1	35	0	0	0	650	9	659
15:15 - 16:15	64	1	65	45	0	45	0	0	0	54	1	55	157	3	160	0	0	0	274	5	279	29	1	30	0	0	0	623	11	634
15:30 - 16:30	71	0	71	44	0	44	0	0	0	48	0	48	152	3	155	0	0	0	290	3	293	33	1	34	0	0	0	638	7	645
15:45 - 16:45	71	0	71	47	0	47	0	0	0	43	0	43	155	3	158	0	0	0	251	5	256	37	1	38	0	0	0	604	9	613
16:00 - 17:00	65	0	65	42	0	42	0	0	0	40	0	40	144	4	148	0	0	0	255	7	262	32	0	32	0	0	0	578	11	589
16:15 - 17:15	61	0	61	44	0	44	0	0	0	43	0	43	153	4	157	0	0	0	258	4	262	31	0	31	0	0	0	590	8	598
16:30 - 17:30	60	0	60	43	0	43	0	0	0	41	0	41	149	4	153	0	0	0	270	6	276	32	0	32	0	0	0	595	10	605
16:45 - 17:45	55	0	55	41	0	41	0	0	0	37	0	37	146	3	149	0	0	0	312	4	316	36	0	36	0	0	0	627	7	634
17:00 - 18:00	53	0	53	37	0	37	0	0	0	39	0	39	152	3	155	0	0	0	314	3	317	45	0	45	0	0	0	640	6	646
17:15 - 18:15	52	0	52	29	0	29	0	0	0	34	1	35	141	2	143	0	0	0	321	4	325	51	1	52	0	0	0	628	8	636
17:30 - 18:30	58	0	58	27	1	28	0	0	0	38	2	40	130	2	132	0	0	0	299	3	302	52	1	53	0	0	0	604	9	613

Client : Urbis
Job : St Ives Intersection Counts
Day/Date : Tuesday, 11 November 2025
Survey Location : Link Rd & Horace St & Stanley St
Weather : Fine



HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
7:00 - 8:00	62	3	65	402	16	418	68	0	68	4	1	5	187	3	190	87	0	87	78	0	78	1	0	1	55	2	57	875	29	904	15	3	18	14	0	14	20	0	20	48	1	49	119	1	120	0	0	0	2035	59	2094
7:15 - 8:15	82	5	87	459	12	471	101	0	101	6	1	7	201	5	206	91	0	91	80	1	81	1	0	1	44	2	46	879	28	907	26	1	27	28	0	28	25	0	25	63	1	64	133	1	134	0	0	0	2219	57	2276
7:30 - 8:30	91	4	95	463	14	477	128	1	129	5	0	5	195	3	198	100	0	100	77	1	78	2	0	2	50	2	52	825	23	848	48	0	48	44	0	44	20	0	20	80	0	80	149	2	151	0	0	0	2277	50	2327
7:45 - 8:45	97	4	101	494	18	512	130	1	131	6	1	7	176	2	178	97	0	97	85	1	86	2	0	2	69	1	70	770	21	791	64	0	64	61	0	61	24	0	24	105	0	105	159	4	163	1	0	1	2340	53	2393
8:00 - 9:00	112	2	114	515	22	537	130	1	131	5	1	6	133	3	136	108	0	108	80	3	83	1	0	1	85	1	86	741	16	757	83	0	83	81	0	81	25	0	25	113	0	113	169	4	173	1	0	1	2382	53	2435
8:15 - 9:15	102	1	103	487	26	513	99	1	100	2	1	3	101	1	102	113	0	113	89	2	91	1	0	1	93	0	93	677	15	692	81	0	81	73	0	73	32	0	32	104	1	105	164	3	167	1	0	1	2219	51	2270
8:30 - 9:30	96	1	97	457	28	485	74	1	75	3	1	4	81	1	82	103	0	103	82	2	84	0	0	0	90	1	91	593	18	611	60	0	60	56	0	56	38	0	38	95	1	96	148	2	150	1	0	1	1977	56	2033
8:45 - 9:45	82	1	83	413	24	437	70	1	71	2	0	2	72	1	73	89	1	90	64	4	68	0	0	0	84	1	85	484	18	502	49	0	49	46	0	46	33	0	33	81	1	82	132	0	132	0	0	0	1701	52	1753
9:00 - 10:00	59	1	60	355	20	375	58	3	61	4	0	4	81	1	82	59	1	60	61	2	63	0	0	0	86	1	87	403	16	419	36	0	36	29	0	29	33	0	33	76	1	77	107	1	108	0	0	0	1447	47	1494

HOURLY FLOW

TIME PERIOD	Movement 1			Movement 2			Movement 3			Movement 3A			Movement 4			Movement 5			Movement 6			Movement 6A			Movement 7			Movement 8			Movement 9			Movement 9A			Movement 10			Movement 11			Movement 12			Movement 12A			Grand Total		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total						
14:30 - 15:30	85	0	85	558	18	576	103	1	104	5	0	5	65	3	68	83	1	84	73	1	74	0	0	0	77	1	78	375	13	388	54	0	54	65	0	65	25	1	26	97	0	97	91	2	93	2	0	2	1758	41	1799
14:45 - 15:45	90	0	90	583	19	602	111	1	112	5	0	5	65	2	67	91	1	92	69	2	71	0	0	0	74	1	75	411	16	427	72	0	72	86	0	86	26	1	27	113	0	113	98	2	100	2	0	2	1896	45	1941
15:00 - 16:00	113	0	113	564	20	584	118	1	119	3	0	3	67	2	69	100	1	101	72	2	74	0	0	0	79	1	80	410	18	428	74	1	75	95	1	96	27	0	27	106	1	107	103	2	105	1	0	1	1932	50	1982
15:15 - 16:15	132	0	132	568	18	586	125	3	128	3	0	3	68	2	70	97	0	97	67	2	69	0	0	0	77	2	79	404	15	419	71	1	72	87	2	89	27	0	27	107	1	108	98	1	99	0	0	0	1931	47	1978
15:30 - 16:30	157	0	157	578	16	594	125	2	127	3	0	3	74	2	76	91	0	91	64	1	65	0	0	0	89	1	90	457	14	471	67	1	68	77	2	79	24	0	24	113	1	114	110	0	110	0	0	0	2029	40	2069
15:45 - 16:45	184	0	184	583	12	595	116	3	119	2	0	2	75	3	78	88	0	88	70	0	70	0	0	0	92	1	93	462	13	475	57	1	58	60	2	62	28	1	29	99	2	101	103	0	103	0	0	0	2019	38	2057
16:00 - 17:00	186	0	186	612	11	623	114	4	118	3	0	3	72	3	75	86	0	86	59	1	60	0	0	0	88	2	90	479	8	487	57	0	57	54	1	55	29	1	30	111	1	112	89	0	89	1	0	1	2040	32	2072
16:15 - 17:15	179	0	179	635	11	646	115	2	117	2	0	2	76	3	79	88	0	88	56	1	57	0	0	0	85	1	86	484	9	503	55	0	55	40	0	40	33	1	34	112	1	113	87	0	87	1	0	1	2058	29	2087
16:30 - 17:30	150	0	150	678	9	687	130	4	134	1	0	1	69	2	71	91	1	92	56	1	57	0	0	0	85	1	86	474	7	481	37	0	37	38	0	38	35	1	36	114	1	115	82	0	82	1	0	1	2041	27	2068
16:45 - 17:45	130	0	130	659	7	666	148	3	151	4	0	4	72	1	73	86	1	87	52	1	53	0	0	0	95	1	96	446	6	452	35	0	35	35	0	35	31	0	31	127	0	127	94	0	94	1	0	1	2015	20	2035
17:00 - 18:00	129	0	129	648	4	652	152	3	155	3	0	3	76	2	78	80	1	81	58	0	58	1	0	1	97	0	97	431	5	436	32	0	32	38	0	38	38	1	39	126	1	127	114	0	114	1	0	1	2024	17	2041
17:15 - 18:15	116	0	116	636	3	639	159	3	162	4	0	4	69	2	71	74	1	75	63	0	63	1	0	1	101	0	101	406	3	409	23	0	23	30	0	30	38	1	39	130	2	132	122	0	122	3	0	3	1975	15	1990
17:30 - 18:30	112	0	112	598	2	600	143	1	144	4	0	4	66	2	68	69	0	69	68	0	68	1	0	1	91	0	91	354	3	357	25	0	25	27	0	27	39	1	40	128	2	130	111	0	111	3	0	3	1839	11	1850

Appendix C SIDRA Results

MOVEMENT SUMMARY



Site: [1] Link Rd/ Horace St/ Stanley St (Base AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Horace St															
1	L2	All MCs	120	1.8	120	1.8	0.467	3.5	LOS A	3.7	26.6	0.75	0.52	0.75	31.6
2	T1	All MCs	565	4.1	565	4.1	0.467	3.6	LOS A	3.7	26.6	0.75	0.54	0.75	33.0
3	R2	All MCs	138	0.8	138	0.8	0.467	5.3	LOS A	3.6	26.1	0.75	0.56	0.75	27.2
3u	U	All MCs	6	16.7	6	16.7	0.467	6.5	LOS A	3.6	26.1	0.75	0.56	0.75	32.4
Approach			829	3.3	829	3.3	0.467	3.9	LOS A	3.7	26.6	0.75	0.54	0.75	31.9
East: Stanley St															
4	L2	All MCs	143	2.2	143	2.2	0.817	19.2	LOS B	6.5	46.0	0.91	1.20	1.59	38.2
5	T1	All MCs	114	0.0	114	0.0	0.817	19.0	LOS B	6.5	46.0	0.91	1.20	1.59	35.7
6	R2	All MCs	87	3.6	87	3.6	0.817	23.2	LOS B	6.5	46.0	0.91	1.20	1.59	37.8
6u	U	All MCs	1	0.0	1	0.0	0.817	24.5	LOS B	6.5	46.0	0.91	1.20	1.59	29.4
Approach			345	1.8	345	1.8	0.817	20.2	LOS B	6.5	46.0	0.91	1.20	1.59	37.2
North: Link Rd															
7	L2	All MCs	91	1.2	91	1.2	0.644	7.3	LOS A	6.9	48.9	0.82	0.85	1.01	26.5
8	T1	All MCs	797	2.1	797	2.1	0.644	7.6	LOS A	6.9	48.9	0.82	0.87	1.02	31.9
9	R2	All MCs	87	0.0	87	0.0	0.644	9.6	LOS A	6.8	48.1	0.82	0.89	1.02	30.2
9u	U	All MCs	85	0.0	85	0.0	0.644	10.1	LOS A	6.8	48.1	0.82	0.89	1.02	31.5
Approach			1060	1.7	1060	1.7	0.644	7.9	LOS A	6.9	48.9	0.82	0.87	1.02	31.3
West: Stanley St															
10	L2	All MCs	26	0.0	26	0.0	0.625	10.5	LOS A	3.5	24.5	0.76	0.98	1.00	44.7
11	T1	All MCs	119	0.0	119	0.0	0.625	10.5	LOS A	3.5	24.5	0.76	0.98	1.00	39.8
12	R2	All MCs	182	2.3	182	2.3	0.625	14.6	LOS B	3.5	24.5	0.76	0.98	1.00	44.3
12u	U	All MCs	1	0.0	1	0.0	0.625	16.1	LOS B	3.5	24.5	0.76	0.98	1.00	41.8
Approach			328	1.3	328	1.3	0.625	12.8	LOS A	3.5	24.5	0.76	0.98	1.00	43.0
All Vehicles			2563	2.2	2563	2.2	0.817	8.9	LOS A	6.9	48.9	0.80	0.82	1.01	33.2

Site Level of Service (LOS) Method: Delay (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.
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.

MOVEMENT SUMMARY

Site: [2] Yarrabung Rd/ Stanley St (Base AM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] m				
			veh/h	%	veh/h	%									v/c
South: Yarrabung Rd															
1	L2	All MCs	100	2.1	100	2.1	0.111	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	46.5
2	T1	All MCs	124	0.0	124	0.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	47.7
Approach			224	0.9	224	0.9	0.111	2.1	NA	0.0	0.0	0.00	0.24	0.00	47.1
North: Yarrabung Rd															
8	T1	All MCs	228	0.5	228	0.5	0.272	0.7	LOS A	1.4	10.2	0.34	0.37	0.34	46.0
9	R2	All MCs	225	1.9	225	1.9	0.272	5.5	LOS A	1.4	10.2	0.34	0.37	0.34	39.9
Approach			454	1.2	454	1.2	0.272	3.1	NA	1.4	10.2	0.34	0.37	0.34	43.8
West: Stanley St															
10	L2	All MCs	278	0.8	278	0.8	0.189	5.0	LOS A	0.9	6.1	0.24	0.52	0.24	37.2
12	R2	All MCs	66	0.0	66	0.0	0.268	19.1	LOS B	1.0	7.1	0.75	0.92	0.86	35.7
Approach			344	0.6	344	0.6	0.268	7.7	LOS A	1.0	7.1	0.34	0.60	0.36	36.6
All Vehicles			1022	0.9	1022	0.9	0.272	4.4	NA	1.4	10.2	0.27	0.42	0.27	42.4

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

MOVEMENT SUMMARY

 **Site: [3] Yarrabung Rd/ College Cr/ Catherine St (Base AM)**
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	46	0.0	46	0.0	0.200	5.2	LOS A	0.3	2.0	0.10	0.16	0.10	46.2
2	T1	All MCs	331	0.6	331	0.6	0.200	0.2	LOS A	0.3	2.0	0.10	0.16	0.10	47.7
3	R2	All MCs	23	0.0	23	0.0	0.200	6.2	LOS A	0.3	2.0	0.10	0.16	0.10	46.6
Approach			400	0.5	400	0.5	0.200	1.1	NA	0.3	2.0	0.10	0.16	0.10	47.3
East: Catherine St															
4	L2	All MCs	44	0.0	44	0.0	0.063	5.9	LOS A	0.2	1.6	0.46	0.63	0.46	41.7
5	T1	All MCs	5	0.0	5	0.0	0.063	8.1	LOS A	0.2	1.6	0.46	0.63	0.46	44.8
6	R2	All MCs	7	0.0	7	0.0	0.063	10.1	LOS A	0.2	1.6	0.46	0.63	0.46	43.3
Approach			57	0.0	57	0.0	0.063	6.6	LOS A	0.2	1.6	0.46	0.63	0.46	42.4
North: Yarrabung Rd															
7	L2	All MCs	9	0.0	9	0.0	0.190	5.3	LOS A	0.1	0.6	0.03	0.04	0.03	48.1
8	T1	All MCs	372	1.4	372	1.4	0.190	0.0	LOS A	0.1	0.6	0.03	0.04	0.03	49.3
9	R2	All MCs	7	0.0	7	0.0	0.190	6.0	LOS A	0.1	0.6	0.03	0.04	0.03	47.8
Approach			388	1.4	388	1.4	0.190	0.3	NA	0.1	0.6	0.03	0.04	0.03	49.2
West: College Cr															
10	L2	All MCs	7	0.0	7	0.0	0.072	5.7	LOS A	0.2	1.7	0.57	0.76	0.57	40.7
11	T1	All MCs	1	0.0	1	0.0	0.072	7.9	LOS A	0.2	1.7	0.57	0.76	0.57	43.1
12	R2	All MCs	28	0.0	28	0.0	0.072	10.7	LOS A	0.2	1.7	0.57	0.76	0.57	38.3
Approach			37	0.0	37	0.0	0.072	9.6	LOS A	0.2	1.7	0.57	0.76	0.57	39.0
All Vehicles			882	0.8	882	0.8	0.200	1.5	NA	0.3	2.0	0.11	0.16	0.11	46.9

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

MOVEMENT SUMMARY



Site: [4] Yarrabung Rd/ College Cr/ Carcoola Rd (Base AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	8	0.0	8	0.0	0.162	5.3	LOS A	0.1	0.6	0.03	0.05	0.03	47.9
2	T1	All MCs	314	0.7	314	0.7	0.162	0.0	LOS A	0.1	0.6	0.03	0.05	0.03	49.3
3	R2	All MCs	7	0.0	7	0.0	0.162	5.8	LOS A	0.1	0.6	0.03	0.05	0.03	47.3
Approach			329	0.6	329	0.6	0.162	0.3	NA	0.1	0.6	0.03	0.05	0.03	49.2
East: Carcoola Rd															
4	L2	All MCs	8	0.0	8	0.0	0.021	5.7	LOS A	0.1	0.5	0.48	0.62	0.48	41.0
5	T1	All MCs	1	0.0	1	0.0	0.021	6.9	LOS A	0.1	0.5	0.48	0.62	0.48	43.2
6	R2	All MCs	6	0.0	6	0.0	0.021	9.2	LOS A	0.1	0.5	0.48	0.62	0.48	38.4
Approach			16	0.0	16	0.0	0.021	7.2	LOS A	0.1	0.5	0.48	0.62	0.48	40.3
North: Yarrabung Rd															
7	L2	All MCs	2	0.0	2	0.0	0.175	5.7	LOS A	0.1	0.8	0.04	0.05	0.04	46.6
8	T1	All MCs	333	1.3	333	1.3	0.175	0.1	LOS A	0.1	0.8	0.04	0.05	0.04	49.3
9	R2	All MCs	13	0.0	13	0.0	0.175	5.8	LOS A	0.1	0.8	0.04	0.05	0.04	47.1
Approach			347	1.2	347	1.2	0.175	0.3	NA	0.1	0.8	0.04	0.05	0.04	49.1
West: College Cr															
10	L2	All MCs	19	0.0	19	0.0	0.060	5.6	LOS A	0.2	1.4	0.49	0.66	0.49	40.3
11	T1	All MCs	1	0.0	1	0.0	0.060	7.0	LOS A	0.2	1.4	0.49	0.66	0.49	42.9
12	R2	All MCs	22	0.0	22	0.0	0.060	9.3	LOS A	0.2	1.4	0.49	0.66	0.49	42.0
Approach			42	0.0	42	0.0	0.060	7.6	LOS A	0.2	1.4	0.49	0.66	0.49	41.3
All Vehicles			735	0.9	735	0.9	0.175	0.9	NA	0.2	1.4	0.07	0.10	0.07	48.0

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

MOVEMENT SUMMARY

 **Site: [5] Killeaton St/ Yarrabung Rd/ Dainton Ave (Base AM)**
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Yarrabung Rd															
1	L2	All MCs	117	0.0	117	0.0	0.325	4.7	LOS A	1.5	10.7	0.24	0.51	0.24	42.5
2	T1	All MCs	14	7.7	14	7.7	0.325	5.3	LOS A	1.5	10.7	0.24	0.51	0.24	36.3
3	R2	All MCs	198	0.5	198	0.5	0.325	6.8	LOS A	1.5	10.7	0.24	0.51	0.24	42.4
Approach			328	0.6	328	0.6	0.325	6.0	LOS A	1.5	10.7	0.24	0.51	0.24	42.3
East: Killeaton Ave															
4	L2	All MCs	228	0.9	228	0.9	0.131	4.6	LOS A	0.0	0.1	0.00	0.47	0.00	44.1
5	T1	All MCs	31	6.9	31	6.9	0.131	0.0	LOS A	0.0	0.1	0.00	0.47	0.00	47.4
6	R2	All MCs	1	0.0	1	0.0	0.131	4.6	LOS A	0.0	0.1	0.00	0.47	0.00	44.5
Approach			260	1.6	260	1.6	0.131	4.0	NA	0.0	0.1	0.00	0.47	0.00	44.6
North: Dainton Ave															
7	L2	All MCs	1	0.0	1	0.0	0.010	4.6	LOS A	0.0	0.3	0.31	0.47	0.31	43.4
8	T1	All MCs	6	16.7	6	16.7	0.010	5.6	LOS A	0.0	0.3	0.31	0.47	0.31	36.0
9	R2	All MCs	1	0.0	1	0.0	0.010	6.0	LOS A	0.0	0.3	0.31	0.47	0.31	43.3
Approach			8	12.5	8	12.5	0.010	5.5	LOS A	0.0	0.3	0.31	0.47	0.31	39.0
West: Killeaton Ave															
10	L2	All MCs	2	0.0	2	0.0	0.090	5.5	LOS A	0.4	3.1	0.36	0.48	0.36	43.9
11	T1	All MCs	34	3.1	34	3.1	0.090	0.9	LOS A	0.4	3.1	0.36	0.48	0.36	46.8
12	R2	All MCs	102	1.0	102	1.0	0.090	5.5	LOS A	0.4	3.1	0.36	0.48	0.36	43.2
Approach			138	1.5	138	1.5	0.090	4.3	NA	0.4	3.1	0.36	0.48	0.36	44.4
All Vehicles			735	1.3	735	1.3	0.325	5.0	NA	1.5	10.7	0.18	0.49	0.18	43.5

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

MOVEMENT SUMMARY



Site: [1 (3)] Link Rd/ Horace St/ Stanley St (2030 Base AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh. veh	Dist] m				km/h
South: Horace St															
1	L2	All MCs	126	1.7	126	1.7	0.502	4.0	LOS A	4.2	30.1	0.78	0.57	0.80	31.5
2	T1	All MCs	594	4.1	594	4.1	0.502	4.1	LOS A	4.2	30.1	0.79	0.59	0.81	32.8
3	R2	All MCs	145	0.7	145	0.7	0.502	5.9	LOS A	4.2	30.0	0.79	0.61	0.82	27.0
3u	U	All MCs	6	16.7	6	16.7	0.502	7.2	LOS A	4.2	30.0	0.79	0.61	0.82	32.3
Approach			872	3.3	872	3.3	0.502	4.4	LOS A	4.2	30.1	0.79	0.59	0.81	31.8
East: Stanley St															
4	L2	All MCs	151	2.1	151	2.1	0.912	29.4	LOS C	9.3	66.2	0.96	1.42	2.19	33.3
5	T1	All MCs	119	0.0	119	0.0	0.912	29.2	LOS C	9.3	66.2	0.96	1.42	2.19	31.4
6	R2	All MCs	92	3.4	92	3.4	0.912	33.3	LOS C	9.3	66.2	0.96	1.42	2.19	33.0
6u	U	All MCs	1	0.0	1	0.0	0.912	34.7	LOS C	9.3	66.2	0.96	1.42	2.19	24.7
Approach			362	1.7	362	1.7	0.912	30.3	LOS C	9.3	66.2	0.96	1.42	2.19	32.5
North: Link Rd															
7	L2	All MCs	95	1.1	95	1.1	0.697	9.1	LOS A	8.3	59.2	0.86	0.98	1.14	26.1
8	T1	All MCs	837	2.1	837	2.1	0.697	9.4	LOS A	8.3	59.2	0.86	0.99	1.15	31.4
9	R2	All MCs	92	0.0	92	0.0	0.697	11.5	LOS A	8.2	58.0	0.86	1.01	1.16	29.7
9u	U	All MCs	89	0.0	89	0.0	0.697	12.0	LOS A	8.2	58.0	0.86	1.01	1.16	31.0
Approach			1113	1.7	1113	1.7	0.697	9.7	LOS A	8.3	59.2	0.86	0.99	1.15	30.8
West: Stanley St															
10	L2	All MCs	27	0.0	27	0.0	0.682	11.7	LOS A	4.0	28.6	0.80	1.02	1.11	44.1
11	T1	All MCs	125	0.0	125	0.0	0.682	11.7	LOS A	4.0	28.6	0.80	1.02	1.11	39.1
12	R2	All MCs	191	2.2	191	2.2	0.682	15.8	LOS B	4.0	28.6	0.80	1.02	1.11	43.7
12u	U	All MCs	1	0.0	1	0.0	0.682	17.3	LOS B	4.0	28.6	0.80	1.02	1.11	41.3
Approach			344	1.2	344	1.2	0.682	14.0	LOS A	4.0	28.6	0.80	1.02	1.11	42.3
All Vehicles			2691	2.2	2691	2.2	0.912	11.3	LOS A	9.3	66.2	0.84	0.92	1.17	32.4

Site Level of Service (LOS) Method: Delay (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.
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.

MOVEMENT SUMMARY



Site: [2 (3)] Yarrabung Rd/ Stanley St (2030 Base AM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand		Arrival		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			Flows		Flows					[Veh. Dist]					
			[Total HV] veh/h	%	[Total HV] veh/h	%				v/c	sec				
South: Yarrabung Rd															
1	L2	All MCs	105	2.0	105	2.0	0.117	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	46.5
2	T1	All MCs	131	0.0	131	0.0	0.117	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	47.7
Approach			236	0.9	236	0.9	0.117	2.1	NA	0.0	0.0	0.00	0.24	0.00	47.1
North: Yarrabung Rd															
8	T1	All MCs	240	0.4	240	0.4	0.288	0.8	LOS A	1.5	10.9	0.36	0.38	0.36	46.0
9	R2	All MCs	237	1.8	237	1.8	0.288	5.6	LOS A	1.5	10.9	0.36	0.38	0.36	39.8
Approach			477	1.1	477	1.1	0.288	3.2	NA	1.5	10.9	0.36	0.38	0.36	43.7
West: Stanley St															
10	L2	All MCs	292	0.7	292	0.7	0.200	5.0	LOS A	0.9	6.4	0.25	0.52	0.25	37.2
12	R2	All MCs	69	0.0	69	0.0	0.303	21.2	LOS B	1.2	8.1	0.78	0.94	0.93	34.7
Approach			361	0.6	361	0.6	0.303	8.1	LOS A	1.2	8.1	0.35	0.60	0.38	36.2
All Vehicles			1074	0.9	1074	0.9	0.303	4.6	NA	1.5	10.9	0.28	0.42	0.29	42.3

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

MOVEMENT SUMMARY

Site: [3 (3)] Yarrabung Rd/ College Cr/ Catherine St (2030 Base AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Yarrabung Rd															
1	L2	All MCs	48	0.0	48	0.0	0.210	5.3	LOS A	0.3	2.2	0.10	0.16	0.10	46.2
2	T1	All MCs	347	0.6	347	0.6	0.210	0.2	LOS A	0.3	2.2	0.10	0.16	0.10	47.6
3	R2	All MCs	24	0.0	24	0.0	0.210	6.3	LOS A	0.3	2.2	0.10	0.16	0.10	46.6
Approach			420	0.5	420	0.5	0.210	1.1	NA	0.3	2.2	0.10	0.16	0.10	47.3
East: Catherine St															
4	L2	All MCs	46	0.0	46	0.0	0.067	6.0	LOS A	0.2	1.7	0.47	0.64	0.47	41.6
5	T1	All MCs	5	0.0	5	0.0	0.067	8.5	LOS A	0.2	1.7	0.47	0.64	0.47	44.7
6	R2	All MCs	7	0.0	7	0.0	0.067	10.6	LOS A	0.2	1.7	0.47	0.64	0.47	43.2
Approach			59	0.0	59	0.0	0.067	6.8	LOS A	0.2	1.7	0.47	0.64	0.47	42.2
North: Yarrabung Rd															
7	L2	All MCs	9	0.0	9	0.0	0.199	5.4	LOS A	0.1	0.6	0.03	0.04	0.03	48.1
8	T1	All MCs	389	1.4	389	1.4	0.199	0.0	LOS A	0.1	0.6	0.03	0.04	0.03	49.4
9	R2	All MCs	7	0.0	7	0.0	0.199	6.2	LOS A	0.1	0.6	0.03	0.04	0.03	47.8
Approach			406	1.3	406	1.3	0.199	0.3	NA	0.1	0.6	0.03	0.04	0.03	49.2
West: College Cr															
10	L2	All MCs	7	0.0	7	0.0	0.079	5.7	LOS A	0.3	1.8	0.58	0.78	0.58	40.4
11	T1	All MCs	1	0.0	1	0.0	0.079	8.2	LOS A	0.3	1.8	0.58	0.78	0.58	42.8
12	R2	All MCs	29	0.0	29	0.0	0.079	11.2	LOS A	0.3	1.8	0.58	0.78	0.58	37.9
Approach			38	0.0	38	0.0	0.079	10.1	LOS A	0.3	1.8	0.58	0.78	0.58	38.7
All Vehicles			923	0.8	923	0.8	0.210	1.5	NA	0.3	2.2	0.11	0.16	0.11	46.8

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

MOVEMENT SUMMARY

Site: [4 (3)] Yarrabung Rd/ College Cr/ Carcoola Rd (2030 Base AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	8	0.0	8	0.0	0.170	5.3	LOS A	0.1	0.6	0.03	0.05	0.03	47.9
2	T1	All MCs	329	0.6	329	0.6	0.170	0.0	LOS A	0.1	0.6	0.03	0.05	0.03	49.3
3	R2	All MCs	7	0.0	7	0.0	0.170	5.9	LOS A	0.1	0.6	0.03	0.05	0.03	47.3
Approach			345	0.6	345	0.6	0.170	0.3	NA	0.1	0.6	0.03	0.05	0.03	49.2
East: Carcoola Rd															
4	L2	All MCs	8	0.0	8	0.0	0.022	5.8	LOS A	0.1	0.5	0.49	0.63	0.49	40.9
5	T1	All MCs	1	0.0	1	0.0	0.022	7.2	LOS A	0.1	0.5	0.49	0.63	0.49	43.1
6	R2	All MCs	6	0.0	6	0.0	0.022	9.6	LOS A	0.1	0.5	0.49	0.63	0.49	38.2
Approach			16	0.0	16	0.0	0.022	7.4	LOS A	0.1	0.5	0.49	0.63	0.49	40.2
North: Yarrabung Rd															
7	L2	All MCs	2	0.0	2	0.0	0.183	5.8	LOS A	0.1	0.9	0.04	0.05	0.04	46.6
8	T1	All MCs	349	1.2	349	1.2	0.183	0.1	LOS A	0.1	0.9	0.04	0.05	0.04	49.3
9	R2	All MCs	13	0.0	13	0.0	0.183	5.9	LOS A	0.1	0.9	0.04	0.05	0.04	47.1
Approach			364	1.2	364	1.2	0.183	0.3	NA	0.1	0.9	0.04	0.05	0.04	49.2
West: College Cr															
10	L2	All MCs	20	0.0	20	0.0	0.065	5.7	LOS A	0.2	1.6	0.50	0.68	0.50	40.1
11	T1	All MCs	1	0.0	1	0.0	0.065	7.3	LOS A	0.2	1.6	0.50	0.68	0.50	42.8
12	R2	All MCs	23	0.0	23	0.0	0.065	9.7	LOS A	0.2	1.6	0.50	0.68	0.50	41.8
Approach			44	0.0	44	0.0	0.065	7.8	LOS A	0.2	1.6	0.50	0.68	0.50	41.2
All Vehicles			769	0.8	769	0.8	0.183	0.9	NA	0.2	1.6	0.07	0.10	0.07	48.0

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

MOVEMENT SUMMARY

Site: [5 (3)] Killeaton St/ Yarrabung Rd/ Dainton Ave (2030 Base AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	123	0.0	123	0.0	0.346	4.7	LOS A	1.7	11.6	0.26	0.51	0.26	42.4
2	T1	All MCs	15	7.1	15	7.1	0.346	5.5	LOS A	1.7	11.6	0.26	0.51	0.26	36.2
3	R2	All MCs	207	0.5	207	0.5	0.346	6.9	LOS A	1.7	11.6	0.26	0.51	0.26	42.3
Approach			345	0.6	345	0.6	0.346	6.1	LOS A	1.7	11.6	0.26	0.51	0.26	42.2
East: Killeaton Ave															
4	L2	All MCs	240	0.9	240	0.9	0.138	4.6	LOS A	0.0	0.1	0.00	0.47	0.00	44.1
5	T1	All MCs	32	6.7	32	6.7	0.138	0.0	LOS A	0.0	0.1	0.00	0.47	0.00	47.4
6	R2	All MCs	1	0.0	1	0.0	0.138	4.6	LOS A	0.0	0.1	0.00	0.47	0.00	44.5
Approach			273	1.5	273	1.5	0.138	4.0	NA	0.0	0.1	0.00	0.47	0.00	44.6
North: Dainton Ave															
7	L2	All MCs	1	0.0	1	0.0	0.010	4.7	LOS A	0.0	0.3	0.32	0.47	0.32	43.3
8	T1	All MCs	6	16.7	6	16.7	0.010	5.7	LOS A	0.0	0.3	0.32	0.47	0.32	35.9
9	R2	All MCs	1	0.0	1	0.0	0.010	6.1	LOS A	0.0	0.3	0.32	0.47	0.32	43.2
Approach			8	12.5	8	12.5	0.010	5.6	LOS A	0.0	0.3	0.32	0.47	0.32	38.9
West: Killeaton Ave															
10	L2	All MCs	2	0.0	2	0.0	0.096	5.5	LOS A	0.5	3.3	0.38	0.48	0.38	43.9
11	T1	All MCs	36	2.9	36	2.9	0.096	0.9	LOS A	0.5	3.3	0.38	0.48	0.38	46.8
12	R2	All MCs	107	1.0	107	1.0	0.096	5.5	LOS A	0.5	3.3	0.38	0.48	0.38	43.2
Approach			145	1.4	145	1.4	0.096	4.4	NA	0.5	3.3	0.38	0.48	0.38	44.4
All Vehicles			772	1.2	772	1.2	0.346	5.0	NA	1.7	11.6	0.19	0.49	0.19	43.5

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

MOVEMENT SUMMARY



Site: [1 (5)] Link Rd/ Horace St/ Stanley St (2030 Proposed AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Horace St															
1	L2	All MCs	126	1.7	126	1.7	0.508	4.1	LOS A	4.3	30.9	0.79	0.59	0.82	31.5
2	T1	All MCs	594	4.1	594	4.1	0.508	4.2	LOS A	4.3	30.9	0.79	0.60	0.82	32.8
3	R2	All MCs	153	0.7	153	0.7	0.508	6.1	LOS A	4.3	30.7	0.79	0.63	0.83	27.0
3u	U	All MCs	6	16.7	6	16.7	0.508	7.3	LOS A	4.3	30.7	0.79	0.63	0.83	32.2
Approach			879	3.2	879	3.2	0.508	4.6	LOS A	4.3	30.9	0.79	0.61	0.82	31.7
East: Stanley St															
4	L2	All MCs	151	2.1	151	2.1	0.925	31.5	LOS C	9.9	70.4	0.96	1.46	2.31	32.4
5	T1	All MCs	119	0.0	119	0.0	0.925	31.4	LOS C	9.9	70.4	0.96	1.46	2.31	30.6
6	R2	All MCs	94	3.4	94	3.4	0.925	35.5	LOS C	9.9	70.4	0.96	1.46	2.31	32.1
6u	U	All MCs	1	0.0	1	0.0	0.925	36.9	LOS C	9.9	70.4	0.96	1.46	2.31	23.9
Approach			364	1.7	364	1.7	0.925	32.5	LOS C	9.9	70.4	0.96	1.46	2.31	31.7
North: Link Rd															
7	L2	All MCs	95	1.1	95	1.1	0.708	9.6	LOS A	8.6	61.5	0.87	1.01	1.18	25.9
8	T1	All MCs	840	2.1	840	2.1	0.708	10.0	LOS A	8.6	61.5	0.87	1.03	1.19	31.2
9	R2	All MCs	93	0.0	93	0.0	0.708	12.0	LOS A	8.5	60.2	0.87	1.05	1.20	29.6
9u	U	All MCs	89	0.0	89	0.0	0.708	12.6	LOS A	8.5	60.2	0.87	1.05	1.20	30.9
Approach			1117	1.7	1117	1.7	0.708	10.3	LOS A	8.6	61.5	0.87	1.03	1.19	30.7
West: Stanley St															
10	L2	All MCs	27	0.0	27	0.0	0.694	12.0	LOS A	4.2	29.5	0.81	1.03	1.13	43.9
11	T1	All MCs	128	0.0	128	0.0	0.694	12.0	LOS A	4.2	29.5	0.81	1.03	1.13	39.0
12	R2	All MCs	191	2.2	191	2.2	0.694	16.0	LOS B	4.2	29.5	0.81	1.03	1.13	43.6
12u	U	All MCs	1	0.0	1	0.0	0.694	17.6	LOS B	4.2	29.5	0.81	1.03	1.13	41.1
Approach			347	1.2	347	1.2	0.694	14.2	LOS A	4.2	29.5	0.81	1.03	1.13	42.1
All Vehicles			2707	2.1	2707	2.1	0.925	11.9	LOS A	9.9	70.4	0.85	0.95	1.21	32.2

Site Level of Service (LOS) Method: Delay (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.
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.

MOVEMENT SUMMARY

Site: [2 (5)] Yarrabung Rd/ Stanley St (2030 Proposed AM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	105	2.0	105	2.0	0.118	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	46.5
2	T1	All MCs	133	0.0	133	0.0	0.118	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	47.7
Approach			238	0.9	238	0.9	0.118	2.1	NA	0.0	0.0	0.00	0.24	0.00	47.1
North: Yarrabung Rd															
8	T1	All MCs	241	0.4	241	0.4	0.290	0.8	LOS A	1.6	11.1	0.36	0.38	0.36	45.9
9	R2	All MCs	239	1.8	239	1.8	0.290	5.6	LOS A	1.6	11.1	0.36	0.38	0.36	39.8
Approach			480	1.1	480	1.1	0.290	3.2	NA	1.6	11.1	0.36	0.38	0.36	43.7
West: Stanley St															
10	L2	All MCs	302	0.7	302	0.7	0.207	5.1	LOS A	1.0	6.7	0.26	0.52	0.26	37.2
12	R2	All MCs	69	0.0	69	0.0	0.307	21.5	LOS B	1.2	8.2	0.78	0.94	0.94	34.5
Approach			372	0.6	372	0.6	0.307	8.1	LOS A	1.2	8.2	0.36	0.60	0.38	36.2
All Vehicles			1089	0.9	1089	0.9	0.307	4.6	NA	1.6	11.1	0.28	0.42	0.29	42.2

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

MOVEMENT SUMMARY

▼ Site: [3 (5)] Yarrabung Rd/ College Cr/ Catherine St (2030 Proposed AM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	61	0.0	61	0.0	0.217	5.2	LOS A	0.3	2.2	0.10	0.17	0.10	46.1
2	T1	All MCs	347	0.6	347	0.6	0.217	0.2	LOS A	0.3	2.2	0.10	0.17	0.10	47.5
3	R2	All MCs	24	0.0	24	0.0	0.217	6.3	LOS A	0.3	2.2	0.10	0.17	0.10	46.5
Approach			433	0.5	433	0.5	0.217	1.2	NA	0.3	2.2	0.10	0.17	0.10	47.1
East: Catherine St															
4	L2	All MCs	46	0.0	46	0.0	0.067	6.0	LOS A	0.2	1.7	0.47	0.64	0.47	41.6
5	T1	All MCs	5	0.0	5	0.0	0.067	8.7	LOS A	0.2	1.7	0.47	0.64	0.47	44.7
6	R2	All MCs	7	0.0	7	0.0	0.067	10.6	LOS A	0.2	1.7	0.47	0.64	0.47	43.2
Approach			59	0.0	59	0.0	0.067	6.8	LOS A	0.2	1.7	0.47	0.64	0.47	42.2
North: Yarrabung Rd															
7	L2	All MCs	9	0.0	9	0.0	0.199	5.5	LOS A	0.1	0.7	0.03	0.05	0.03	48.1
8	T1	All MCs	389	1.4	389	1.4	0.199	0.1	LOS A	0.1	0.7	0.03	0.05	0.03	49.3
9	R2	All MCs	7	0.0	7	0.0	0.199	6.3	LOS A	0.1	0.7	0.03	0.05	0.03	47.8
Approach			406	1.3	406	1.3	0.199	0.3	NA	0.1	0.7	0.03	0.05	0.03	49.2
West: College Cr															
10	L2	All MCs	7	0.0	7	0.0	0.087	5.8	LOS A	0.3	2.0	0.59	0.79	0.59	40.2
11	T1	All MCs	1	0.0	1	0.0	0.087	8.3	LOS A	0.3	2.0	0.59	0.79	0.59	42.7
12	R2	All MCs	33	0.0	33	0.0	0.087	11.3	LOS A	0.3	2.0	0.59	0.79	0.59	37.8
Approach			41	0.0	41	0.0	0.087	10.3	LOS A	0.3	2.0	0.59	0.79	0.59	38.5
All Vehicles			939	0.8	939	0.8	0.217	1.6	NA	0.3	2.2	0.11	0.17	0.11	46.7

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

MOVEMENT SUMMARY

▼ Site: [4 (5)] Yarrabung Rd/ College Cr/ Carcoola Rd (2030
Proposed AM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Cycles	Number Rate to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh]	[Dist m]				km/h
South: Yarrabung Rd															
1	L2	All MCs	8	0.0	8	0.0	0.170	5.3	LOS A	0.1	0.6	0.03	0.05	0.03	47.9
2	T1	All MCs	329	0.6	329	0.6	0.170	0.0	LOS A	0.1	0.6	0.03	0.05	0.03	49.3
3	R2	All MCs	7	0.0	7	0.0	0.170	5.9	LOS A	0.1	0.6	0.03	0.05	0.03	47.3
Approach			345	0.6	345	0.6	0.170	0.3	NA	0.1	0.6	0.03	0.05	0.03	49.2
East: Carcoola Rd															
4	L2	All MCs	8	0.0	8	0.0	0.022	5.8	LOS A	0.1	0.5	0.49	0.63	0.49	40.8
5	T1	All MCs	1	0.0	1	0.0	0.022	7.2	LOS A	0.1	0.5	0.49	0.63	0.49	43.1
6	R2	All MCs	6	0.0	6	0.0	0.022	9.6	LOS A	0.1	0.5	0.49	0.63	0.49	38.2
Approach			16	0.0	16	0.0	0.022	7.4	LOS A	0.1	0.5	0.49	0.63	0.49	40.1
North: Yarrabung Rd															
7	L2	All MCs	2	0.0	2	0.0	0.186	5.8	LOS A	0.2	1.1	0.06	0.06	0.06	46.4
8	T1	All MCs	349	1.2	349	1.2	0.186	0.1	LOS A	0.2	1.1	0.06	0.06	0.06	49.1
9	R2	All MCs	17	0.0	17	0.0	0.186	5.9	LOS A	0.2	1.1	0.06	0.06	0.06	47.0
Approach			368	1.1	368	1.1	0.186	0.4	NA	0.2	1.1	0.06	0.06	0.06	48.9
West: College Cr															
10	L2	All MCs	21	0.0	21	0.0	0.066	5.7	LOS A	0.2	1.6	0.50	0.67	0.50	40.1
11	T1	All MCs	1	0.0	1	0.0	0.066	7.3	LOS A	0.2	1.6	0.50	0.67	0.50	42.8
12	R2	All MCs	23	0.0	23	0.0	0.066	9.7	LOS A	0.2	1.6	0.50	0.67	0.50	41.8
Approach			45	0.0	45	0.0	0.066	7.8	LOS A	0.2	1.6	0.50	0.67	0.50	41.1
All Vehicles			775	0.8	775	0.8	0.186	0.9	NA	0.2	1.6	0.08	0.10	0.08	47.9

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

MOVEMENT SUMMARY

Site: [5 (5)] Killeaton St/ Yarrabung Rd/ Dainton Ave (2030

Proposed AM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site

Site Category: (None)

Give-Way (Two-Way)

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	123	0.0	123	0.0	0.348	4.7	LOS A	1.7	11.7	0.26	0.51	0.26	42.4
2	T1	All MCs	15	7.1	15	7.1	0.348	5.5	LOS A	1.7	11.7	0.26	0.51	0.26	36.2
3	R2	All MCs	208	0.5	208	0.5	0.348	7.0	LOS A	1.7	11.7	0.26	0.51	0.26	42.3
Approach			346	0.6	346	0.6	0.348	6.1	LOS A	1.7	11.7	0.26	0.51	0.26	42.2
East: Killeaton Ave															
4	L2	All MCs	242	0.9	242	0.9	0.139	4.6	LOS A	0.0	0.1	0.00	0.47	0.00	44.1
5	T1	All MCs	32	6.7	32	6.7	0.139	0.0	LOS A	0.0	0.1	0.00	0.47	0.00	47.4
6	R2	All MCs	1	0.0	1	0.0	0.139	4.6	LOS A	0.0	0.1	0.00	0.47	0.00	44.4
Approach			275	1.5	275	1.5	0.139	4.0	NA	0.0	0.1	0.00	0.47	0.00	44.6
North: Dainton Ave															
7	L2	All MCs	1	0.0	1	0.0	0.010	4.7	LOS A	0.0	0.3	0.32	0.48	0.32	43.3
8	T1	All MCs	6	16.7	6	16.7	0.010	5.8	LOS A	0.0	0.3	0.32	0.48	0.32	35.8
9	R2	All MCs	1	0.0	1	0.0	0.010	6.1	LOS A	0.0	0.3	0.32	0.48	0.32	43.2
Approach			8	12.5	8	12.5	0.010	5.7	LOS A	0.0	0.3	0.32	0.48	0.32	38.9
West: Killeaton Ave															
10	L2	All MCs	2	0.0	2	0.0	0.097	5.5	LOS A	0.5	3.4	0.38	0.49	0.38	43.8
11	T1	All MCs	36	2.9	36	2.9	0.097	0.9	LOS A	0.5	3.4	0.38	0.49	0.38	46.8
12	R2	All MCs	108	1.0	108	1.0	0.097	5.5	LOS A	0.5	3.4	0.38	0.49	0.38	43.2
Approach			146	1.4	146	1.4	0.097	4.4	NA	0.5	3.4	0.38	0.49	0.38	44.4
All Vehicles			776	1.2	776	1.2	0.348	5.0	NA	1.7	11.7	0.19	0.49	0.19	43.5

Site Level of Service (LOS) Method: Delay (NSW). 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.

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Project: C:\Users\cwhite\Urbis Ltd\PO063225 Montefiore - St Ives - General\03_Workspace\03. Transport Advisory\01_Analysis\260506_montefiore_st_ives.sipx

MOVEMENT SUMMARY



Site: [1 (2)] Link Rd/ Horace St/ Stanley St (Base PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Horace St															
1	L2	All MCs	165	0.0	165	0.0	0.478	3.0	LOS A	3.9	27.5	0.71	0.47	0.71	31.7
2	T1	All MCs	625	2.7	625	2.7	0.478	3.1	LOS A	3.9	27.5	0.71	0.49	0.71	33.1
3	R2	All MCs	134	1.6	134	1.6	0.478	4.9	LOS A	3.8	27.2	0.71	0.51	0.71	27.3
3u	U	All MCs	3	0.0	3	0.0	0.478	5.4	LOS A	3.8	27.2	0.71	0.51	0.71	32.8
Approach			927	2.0	927	2.0	0.478	3.3	LOS A	3.9	27.5	0.71	0.49	0.71	32.1
East: Stanley St															
4	L2	All MCs	80	2.6	80	2.6	0.423	8.1	LOS A	2.1	14.9	0.69	0.81	0.77	45.4
5	T1	All MCs	96	0.0	96	0.0	0.423	8.0	LOS A	2.1	14.9	0.69	0.81	0.77	42.0
6	R2	All MCs	68	1.5	68	1.5	0.423	11.9	LOS A	2.1	14.9	0.69	0.81	0.77	45.0
6u	U	All MCs	1	0.0	1	0.0	0.423	13.5	LOS A	2.1	14.9	0.69	0.81	0.77	37.1
Approach			245	1.3	245	1.3	0.423	9.1	LOS A	2.1	14.9	0.69	0.81	0.77	43.9
North: Link Rd															
7	L2	All MCs	95	1.1	95	1.1	0.418	3.4	LOS A	3.0	21.4	0.66	0.50	0.66	27.6
8	T1	All MCs	496	3.0	496	3.0	0.418	3.5	LOS A	3.0	21.4	0.66	0.53	0.66	33.0
9	R2	All MCs	72	1.5	72	1.5	0.418	5.4	LOS A	3.0	21.2	0.66	0.56	0.66	31.2
9u	U	All MCs	83	2.5	83	2.5	0.418	5.9	LOS A	3.0	21.2	0.66	0.56	0.66	32.6
Approach			745	2.5	745	2.5	0.418	4.0	LOS A	3.0	21.4	0.66	0.53	0.66	32.2
West: Stanley St															
10	L2	All MCs	25	0.0	25	0.0	0.500	9.3	LOS A	2.4	16.9	0.71	0.92	0.86	45.7
11	T1	All MCs	120	0.9	120	0.9	0.500	9.3	LOS A	2.4	16.9	0.71	0.92	0.86	40.9
12	R2	All MCs	116	0.0	116	0.0	0.500	13.1	LOS A	2.4	16.9	0.71	0.92	0.86	45.3
12u	U	All MCs	1	0.0	1	0.0	0.500	14.8	LOS B	2.4	16.9	0.71	0.92	0.86	42.6
Approach			262	0.4	262	0.4	0.500	11.0	LOS A	2.4	16.9	0.71	0.92	0.86	43.6
All Vehicles			2180	1.9	2180	1.9	0.500	5.1	LOS A	3.9	27.5	0.69	0.59	0.72	33.9

Site Level of Service (LOS) Method: Delay (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.
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.

MOVEMENT SUMMARY

Site: [2 (2)] Yarrabung Rd/ Stanley St (Base PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	75	0.0	75	0.0	0.060	4.6	LOS A	0.0	0.0	0.00	0.33	0.00	45.9
2	T1	All MCs	46	0.0	46	0.0	0.060	0.0	LOS A	0.0	0.0	0.00	0.33	0.00	46.9
Approach			121	0.0	121	0.0	0.060	2.8	NA	0.0	0.0	0.00	0.33	0.00	46.2
North: Yarrabung Rd															
8	T1	All MCs	51	0.0	51	0.0	0.128	0.4	LOS A	0.6	4.5	0.24	0.41	0.24	45.3
9	R2	All MCs	163	1.9	163	1.9	0.128	5.0	LOS A	0.6	4.5	0.24	0.41	0.24	38.9
Approach			214	1.5	214	1.5	0.128	3.9	NA	0.6	4.5	0.24	0.41	0.24	41.1
West: Stanley St															
10	L2	All MCs	308	1.0	308	1.0	0.197	4.7	LOS A	0.9	6.5	0.14	0.50	0.14	37.8
12	R2	All MCs	36	2.9	36	2.9	0.075	8.6	LOS A	0.3	1.9	0.47	0.66	0.47	41.6
Approach			344	1.2	344	1.2	0.197	5.1	LOS A	0.9	6.5	0.17	0.52	0.17	38.5
All Vehicles			679	1.1	679	1.1	0.197	4.3	NA	0.9	6.5	0.16	0.45	0.16	41.3

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

MOVEMENT SUMMARY

Site: [3 (2)] Yarrabung Rd/ College Cr/ Catherine St (Base PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	28	0.0	28	0.0	0.178	5.0	LOS A	0.4	2.7	0.11	0.15	0.11	46.0
2	T1	All MCs	281	1.1	281	1.1	0.178	0.1	LOS A	0.4	2.7	0.11	0.15	0.11	47.3
3	R2	All MCs	43	0.0	43	0.0	0.178	5.2	LOS A	0.4	2.7	0.11	0.15	0.11	46.5
Approach			353	0.9	353	0.9	0.178	1.1	NA	0.4	2.7	0.11	0.15	0.11	47.0
East: Catherine St															
4	L2	All MCs	32	0.0	32	0.0	0.037	5.1	LOS A	0.1	1.0	0.31	0.53	0.31	42.4
5	T1	All MCs	1	0.0	1	0.0	0.037	6.0	LOS A	0.1	1.0	0.31	0.53	0.31	45.3
6	R2	All MCs	8	0.0	8	0.0	0.037	7.6	LOS A	0.1	1.0	0.31	0.53	0.31	43.9
Approach			41	0.0	41	0.0	0.037	5.6	LOS A	0.1	1.0	0.31	0.53	0.31	42.9
North: Yarrabung Rd															
7	L2	All MCs	6	16.7	6	16.7	0.088	5.0	LOS A	0.0	0.2	0.02	0.04	0.02	47.8
8	T1	All MCs	169	1.9	169	1.9	0.088	0.0	LOS A	0.0	0.2	0.02	0.04	0.02	49.4
9	R2	All MCs	3	0.0	3	0.0	0.088	5.4	LOS A	0.0	0.2	0.02	0.04	0.02	47.8
Approach			179	2.4	179	2.4	0.088	0.3	NA	0.0	0.2	0.02	0.04	0.02	49.2
West: College Cr															
10	L2	All MCs	4	0.0	4	0.0	0.025	5.4	LOS A	0.1	0.6	0.46	0.63	0.46	42.4
11	T1	All MCs	1	0.0	1	0.0	0.025	5.8	LOS A	0.1	0.6	0.46	0.63	0.46	44.4
12	R2	All MCs	13	0.0	13	0.0	0.025	7.8	LOS A	0.1	0.6	0.46	0.63	0.46	40.3
Approach			18	0.0	18	0.0	0.025	7.1	LOS A	0.1	0.6	0.46	0.63	0.46	41.2
All Vehicles			591	1.2	591	1.2	0.178	1.4	NA	0.4	2.7	0.11	0.16	0.11	46.8

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

MOVEMENT SUMMARY

▼ Site: [4 (2)] Yarrabung Rd/ College Cr/ Carcoola Rd (Base PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	3	0.0	3	0.0	0.135	4.9	LOS A	0.1	0.7	0.04	0.04	0.04	47.8
2	T1	All MCs	258	1.2	258	1.2	0.135	0.0	LOS A	0.1	0.7	0.04	0.04	0.04	49.2
3	R2	All MCs	13	0.0	13	0.0	0.135	5.0	LOS A	0.1	0.7	0.04	0.04	0.04	47.2
Approach			274	1.2	274	1.2	0.135	0.3	NA	0.1	0.7	0.04	0.04	0.04	49.0
East: Carcoola Rd															
4	L2	All MCs	3	0.0	3	0.0	0.006	5.0	LOS A	0.0	0.2	0.33	0.51	0.33	42.3
5	T1	All MCs	1	0.0	1	0.0	0.006	5.2	LOS A	0.0	0.2	0.33	0.51	0.33	44.3
6	R2	All MCs	2	0.0	2	0.0	0.006	7.0	LOS A	0.0	0.2	0.33	0.51	0.33	39.9
Approach			6	0.0	6	0.0	0.006	5.7	LOS A	0.0	0.2	0.33	0.51	0.33	42.1
North: Yarrabung Rd															
7	L2	All MCs	1	0.0	1	0.0	0.078	5.2	LOS A	0.0	0.3	0.03	0.03	0.03	46.7
8	T1	All MCs	149	2.8	149	2.8	0.078	0.0	LOS A	0.0	0.3	0.03	0.03	0.03	49.5
9	R2	All MCs	4	0.0	4	0.0	0.078	5.3	LOS A	0.0	0.3	0.03	0.03	0.03	47.2
Approach			155	2.7	155	2.7	0.078	0.2	NA	0.0	0.3	0.03	0.03	0.03	49.4
West: College Cr															
10	L2	All MCs	18	0.0	18	0.0	0.033	5.4	LOS A	0.1	0.8	0.38	0.57	0.38	41.6
11	T1	All MCs	1	0.0	1	0.0	0.033	5.2	LOS A	0.1	0.8	0.38	0.57	0.38	44.0
12	R2	All MCs	13	0.0	13	0.0	0.033	7.0	LOS A	0.1	0.8	0.38	0.57	0.38	43.1
Approach			32	0.0	32	0.0	0.033	6.0	LOS A	0.1	0.8	0.38	0.57	0.38	42.4
All Vehicles			466	1.6	466	1.6	0.135	0.7	NA	0.1	0.8	0.06	0.08	0.06	48.2

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

MOVEMENT SUMMARY

Site: [5 (2)] Killeaton St/ Yarrabung Rd/ Dainton Ave (Base PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	77	0.0	77	0.0	0.254	4.7	LOS A	1.1	7.6	0.22	0.52	0.22	43.0
2	T1	All MCs	12	0.0	12	0.0	0.254	4.2	LOS A	1.1	7.6	0.22	0.52	0.22	37.3
3	R2	All MCs	185	1.7	185	1.7	0.254	5.6	LOS A	1.1	7.6	0.22	0.52	0.22	42.8
Approach			274	1.2	274	1.2	0.254	5.3	LOS A	1.1	7.6	0.22	0.52	0.22	42.8
East: Killeaton Ave															
4	L2	All MCs	104	3.0	104	3.0	0.072	4.6	LOS A	0.0	0.1	0.00	0.40	0.00	44.6
5	T1	All MCs	37	0.0	37	0.0	0.072	0.0	LOS A	0.0	0.1	0.00	0.40	0.00	47.8
6	R2	All MCs	1	0.0	1	0.0	0.072	4.6	LOS A	0.0	0.1	0.00	0.40	0.00	45.0
Approach			142	2.2	142	2.2	0.072	3.4	NA	0.0	0.1	0.00	0.40	0.00	45.7
North: Dainton Ave															
7	L2	All MCs	2	0.0	2	0.0	0.006	4.6	LOS A	0.0	0.2	0.15	0.46	0.15	44.2
8	T1	All MCs	4	0.0	4	0.0	0.006	4.1	LOS A	0.0	0.2	0.15	0.46	0.15	38.6
9	R2	All MCs	1	0.0	1	0.0	0.006	5.4	LOS A	0.0	0.2	0.15	0.46	0.15	44.1
Approach			7	0.0	7	0.0	0.006	4.5	LOS A	0.0	0.2	0.15	0.46	0.15	42.0
West: Killeaton Ave															
10	L2	All MCs	1	0.0	1	0.0	0.038	5.0	LOS A	0.2	1.3	0.25	0.37	0.25	44.6
11	T1	All MCs	22	0.0	22	0.0	0.038	0.4	LOS A	0.2	1.3	0.25	0.37	0.25	47.4
12	R2	All MCs	42	2.5	42	2.5	0.038	5.0	LOS A	0.2	1.3	0.25	0.37	0.25	44.0
Approach			65	1.6	65	1.6	0.038	3.5	NA	0.2	1.3	0.25	0.37	0.25	45.5
All Vehicles			488	1.5	488	1.5	0.254	4.5	NA	1.1	7.6	0.16	0.46	0.16	44.1

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

MOVEMENT SUMMARY



Site: [1 (4)] Link Rd/ Horace St/ Stanley St (2030 Base PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Horace St															
1	L2	All MCs	174	0.0	174	0.0	0.511	3.3	LOS A	4.2	30.1	0.74	0.50	0.74	31.7
2	T1	All MCs	657	2.7	657	2.7	0.511	3.3	LOS A	4.2	30.1	0.74	0.52	0.74	33.0
3	R2	All MCs	140	1.5	140	1.5	0.511	5.2	LOS A	4.2	29.8	0.75	0.54	0.75	27.2
3u	U	All MCs	3	0.0	3	0.0	0.511	5.7	LOS A	4.2	29.8	0.75	0.54	0.75	32.8
Approach			974	2.1	974	2.1	0.511	3.6	LOS A	4.2	30.1	0.74	0.52	0.74	32.0
East: Stanley St															
4	L2	All MCs	84	2.5	84	2.5	0.459	8.6	LOS A	2.4	16.8	0.71	0.84	0.83	45.0
5	T1	All MCs	101	0.0	101	0.0	0.459	8.5	LOS A	2.4	16.8	0.71	0.84	0.83	41.7
6	R2	All MCs	72	1.5	72	1.5	0.459	12.4	LOS A	2.4	16.8	0.71	0.84	0.83	44.6
6u	U	All MCs	1	0.0	1	0.0	0.459	14.0	LOS A	2.4	16.8	0.71	0.84	0.83	36.6
Approach			258	1.2	258	1.2	0.459	9.7	LOS A	2.4	16.8	0.71	0.84	0.83	43.5
North: Link Rd															
7	L2	All MCs	99	1.1	99	1.1	0.449	3.6	LOS A	3.3	23.5	0.68	0.53	0.68	27.5
8	T1	All MCs	521	3.0	521	3.0	0.449	3.8	LOS A	3.3	23.5	0.69	0.55	0.69	32.9
9	R2	All MCs	75	1.4	75	1.4	0.449	5.7	LOS A	3.2	23.2	0.69	0.59	0.69	31.1
9u	U	All MCs	87	2.4	87	2.4	0.449	6.2	LOS A	3.2	23.2	0.69	0.59	0.69	32.5
Approach			782	2.6	782	2.6	0.449	4.2	LOS A	3.3	23.5	0.69	0.56	0.69	32.1
West: Stanley St															
10	L2	All MCs	26	0.0	26	0.0	0.547	10.0	LOS A	2.8	19.4	0.74	0.95	0.93	45.2
11	T1	All MCs	126	0.8	126	0.8	0.547	10.1	LOS A	2.8	19.4	0.74	0.95	0.93	40.4
12	R2	All MCs	122	0.0	122	0.0	0.547	13.9	LOS A	2.8	19.4	0.74	0.95	0.93	44.9
12u	U	All MCs	1	0.0	1	0.0	0.547	15.6	LOS B	2.8	19.4	0.74	0.95	0.93	42.3
Approach			276	0.4	276	0.4	0.547	11.8	LOS A	2.8	19.4	0.74	0.95	0.93	43.1
All Vehicles			2289	1.9	2289	1.9	0.547	5.5	LOS A	4.2	30.1	0.72	0.62	0.75	33.8

Site Level of Service (LOS) Method: Delay (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.

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.

MOVEMENT SUMMARY

▼ Site: [2 (4)] Yarrabung Rd/ Stanley St (2030 Base PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
South: Yarrabung Rd															
1	L2	All MCs	79	0.0	79	0.0	0.063	4.6	LOS A	0.0	0.0	0.00	0.33	0.00	45.9
2	T1	All MCs	48	0.0	48	0.0	0.063	0.0	LOS A	0.0	0.0	0.00	0.33	0.00	46.9
Approach			127	0.0	127	0.0	0.063	2.8	NA	0.0	0.0	0.00	0.33	0.00	46.2
North: Yarrabung Rd															
8	T1	All MCs	53	0.0	53	0.0	0.135	0.4	LOS A	0.7	4.8	0.25	0.41	0.25	45.2
9	R2	All MCs	172	1.8	172	1.8	0.135	5.0	LOS A	0.7	4.8	0.25	0.41	0.25	38.8
Approach			224	1.4	224	1.4	0.135	3.9	NA	0.7	4.8	0.25	0.41	0.25	41.0
West: Stanley St															
10	L2	All MCs	324	1.0	324	1.0	0.207	4.7	LOS A	1.0	6.9	0.14	0.50	0.14	37.7
12	R2	All MCs	38	2.8	38	2.8	0.081	8.9	LOS A	0.3	2.1	0.48	0.68	0.48	41.5
Approach			362	1.2	362	1.2	0.207	5.2	LOS A	1.0	6.9	0.18	0.52	0.18	38.5
All Vehicles			714	1.0	714	1.0	0.207	4.4	NA	1.0	6.9	0.17	0.45	0.17	41.2

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

MOVEMENT SUMMARY

Site: [3 (4)] Yarrabung Rd/ College Cr/ Catherine St (2030 Base PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	29	0.0	29	0.0	0.186	5.0	LOS A	0.4	2.9	0.11	0.15	0.11	46.0
2	T1	All MCs	295	1.1	295	1.1	0.186	0.1	LOS A	0.4	2.9	0.11	0.15	0.11	47.3
3	R2	All MCs	45	0.0	45	0.0	0.186	5.2	LOS A	0.4	2.9	0.11	0.15	0.11	46.4
Approach			369	0.9	369	0.9	0.186	1.2	NA	0.4	2.9	0.11	0.15	0.11	47.0
East: Catherine St															
4	L2	All MCs	34	0.0	34	0.0	0.039	5.1	LOS A	0.1	1.0	0.31	0.53	0.31	42.4
5	T1	All MCs	1	0.0	1	0.0	0.039	6.2	LOS A	0.1	1.0	0.31	0.53	0.31	45.2
6	R2	All MCs	8	0.0	8	0.0	0.039	7.8	LOS A	0.1	1.0	0.31	0.53	0.31	43.9
Approach			43	0.0	43	0.0	0.039	5.7	LOS A	0.1	1.0	0.31	0.53	0.31	42.9
North: Yarrabung Rd															
7	L2	All MCs	6	16.7	6	16.7	0.092	5.0	LOS A	0.0	0.2	0.02	0.04	0.02	47.8
8	T1	All MCs	178	1.8	178	1.8	0.092	0.0	LOS A	0.0	0.2	0.02	0.04	0.02	49.4
9	R2	All MCs	3	0.0	3	0.0	0.092	5.4	LOS A	0.0	0.2	0.02	0.04	0.02	47.8
Approach			187	2.2	187	2.2	0.092	0.3	NA	0.0	0.2	0.02	0.04	0.02	49.2
West: College Cr															
10	L2	All MCs	4	0.0	4	0.0	0.028	5.5	LOS A	0.1	0.6	0.47	0.64	0.47	42.2
11	T1	All MCs	1	0.0	1	0.0	0.028	6.0	LOS A	0.1	0.6	0.47	0.64	0.47	44.3
12	R2	All MCs	14	0.0	14	0.0	0.028	8.1	LOS A	0.1	0.6	0.47	0.64	0.47	40.1
Approach			19	0.0	19	0.0	0.028	7.4	LOS A	0.1	0.6	0.47	0.64	0.47	41.0
All Vehicles			619	1.2	619	1.2	0.186	1.4	NA	0.4	2.9	0.11	0.16	0.11	46.8

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

MOVEMENT SUMMARY

Site: [4 (4)] Yarrabung Rd/ College Cr/ Carcoola Rd (2030 Base PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
South: Yarrabung Rd															
1	L2	All MCs	3	0.0	3	0.0	0.142	5.0	LOS A	0.1	0.8	0.04	0.04	0.04	47.8
2	T1	All MCs	271	1.2	271	1.2	0.142	0.0	LOS A	0.1	0.8	0.04	0.04	0.04	49.2
3	R2	All MCs	14	0.0	14	0.0	0.142	5.0	LOS A	0.1	0.8	0.04	0.04	0.04	47.2
Approach			287	1.1	287	1.1	0.142	0.3	NA	0.1	0.8	0.04	0.04	0.04	49.0
East: Carcoola Rd															
4	L2	All MCs	3	0.0	3	0.0	0.007	5.0	LOS A	0.0	0.2	0.34	0.52	0.34	42.2
5	T1	All MCs	1	0.0	1	0.0	0.007	5.3	LOS A	0.0	0.2	0.34	0.52	0.34	44.2
6	R2	All MCs	2	0.0	2	0.0	0.007	7.1	LOS A	0.0	0.2	0.34	0.52	0.34	39.8
Approach			6	0.0	6	0.0	0.007	5.8	LOS A	0.0	0.2	0.34	0.52	0.34	42.0
North: Yarrabung Rd															
7	L2	All MCs	1	0.0	1	0.0	0.082	5.2	LOS A	0.0	0.3	0.03	0.03	0.03	46.7
8	T1	All MCs	157	2.7	157	2.7	0.082	0.0	LOS A	0.0	0.3	0.03	0.03	0.03	49.5
9	R2	All MCs	4	0.0	4	0.0	0.082	5.3	LOS A	0.0	0.3	0.03	0.03	0.03	47.2
Approach			162	2.6	162	2.6	0.082	0.2	NA	0.0	0.3	0.03	0.03	0.03	49.4
West: College Cr															
10	L2	All MCs	19	0.0	19	0.0	0.036	5.4	LOS A	0.1	0.9	0.39	0.58	0.39	41.5
11	T1	All MCs	1	0.0	1	0.0	0.036	5.4	LOS A	0.1	0.9	0.39	0.58	0.39	44.0
12	R2	All MCs	14	0.0	14	0.0	0.036	7.2	LOS A	0.1	0.9	0.39	0.58	0.39	43.0
Approach			34	0.0	34	0.0	0.036	6.1	LOS A	0.1	0.9	0.39	0.58	0.39	42.3
All Vehicles			489	1.5	489	1.5	0.142	0.8	NA	0.1	0.9	0.06	0.08	0.06	48.2

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

MOVEMENT SUMMARY

Site: [5 (4)] Killeaton St/ Yarrabung Rd/ Dainton Ave (2030 Base PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh.]	Dist]				km/h
South: Yarrabung Rd															
1	L2	All MCs	81	0.0	81	0.0	0.269	4.7	LOS A	1.2	8.2	0.23	0.52	0.23	42.9
2	T1	All MCs	13	0.0	13	0.0	0.269	4.2	LOS A	1.2	8.2	0.23	0.52	0.23	37.2
3	R2	All MCs	195	1.6	195	1.6	0.269	5.7	LOS A	1.2	8.2	0.23	0.52	0.23	42.8
Approach			288	1.1	288	1.1	0.269	5.3	LOS A	1.2	8.2	0.23	0.52	0.23	42.7
East: Killeaton Ave															
4	L2	All MCs	109	2.9	109	2.9	0.075	4.6	LOS A	0.0	0.1	0.00	0.39	0.00	44.6
5	T1	All MCs	39	0.0	39	0.0	0.075	0.0	LOS A	0.0	0.1	0.00	0.39	0.00	47.8
6	R2	All MCs	1	0.0	1	0.0	0.075	4.6	LOS A	0.0	0.1	0.00	0.39	0.00	45.0
Approach			149	2.1	149	2.1	0.075	3.4	NA	0.0	0.1	0.00	0.39	0.00	45.7
North: Dainton Ave															
7	L2	All MCs	2	0.0	2	0.0	0.006	4.6	LOS A	0.0	0.2	0.16	0.46	0.16	44.2
8	T1	All MCs	4	0.0	4	0.0	0.006	4.2	LOS A	0.0	0.2	0.16	0.46	0.16	38.5
9	R2	All MCs	1	0.0	1	0.0	0.006	5.5	LOS A	0.0	0.2	0.16	0.46	0.16	44.1
Approach			7	0.0	7	0.0	0.006	4.5	LOS A	0.0	0.2	0.16	0.46	0.16	42.0
West: Killeaton Ave															
10	L2	All MCs	1	0.0	1	0.0	0.040	5.0	LOS A	0.2	1.4	0.25	0.38	0.25	44.6
11	T1	All MCs	23	0.0	23	0.0	0.040	0.4	LOS A	0.2	1.4	0.25	0.38	0.25	47.4
12	R2	All MCs	44	2.4	44	2.4	0.040	5.0	LOS A	0.2	1.4	0.25	0.38	0.25	44.0
Approach			68	1.5	68	1.5	0.040	3.5	NA	0.2	1.4	0.25	0.38	0.25	45.5
All Vehicles			514	1.4	514	1.4	0.269	4.5	NA	1.2	8.2	0.17	0.46	0.17	44.1

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

MOVEMENT SUMMARY



Site: [1 (6)] Link Rd/ Horace St/ Stanley St (2030 Proposed PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh. veh	Dist] m				km/h
South: Horace St															
1	L2	All MCs	174	0.0	174	0.0	0.520	3.4	LOS A	4.4	31.0	0.75	0.52	0.76	31.7
2	T1	All MCs	657	2.7	657	2.7	0.520	3.6	LOS A	4.4	31.3	0.75	0.54	0.76	33.0
3	R2	All MCs	147	1.4	147	1.4	0.520	5.5	LOS A	4.4	31.3	0.76	0.56	0.77	27.2
3u	U	All MCs	3	0.0	3	0.0	0.520	6.0	LOS A	4.4	31.3	0.76	0.56	0.77	32.7
Approach			981	2.0	981	2.0	0.520	3.8	LOS A	4.4	31.3	0.75	0.54	0.76	32.0
East: Stanley St															
4	L2	All MCs	84	2.5	84	2.5	0.473	8.8	LOS A	2.5	17.7	0.72	0.85	0.85	44.8
5	T1	All MCs	101	0.0	101	0.0	0.473	8.7	LOS A	2.5	17.7	0.72	0.85	0.85	41.5
6	R2	All MCs	78	1.4	78	1.4	0.473	12.6	LOS A	2.5	17.7	0.72	0.85	0.85	44.4
6u	U	All MCs	1	0.0	1	0.0	0.473	14.2	LOS A	2.5	17.7	0.72	0.85	0.85	36.4
Approach			264	1.2	264	1.2	0.473	9.9	LOS A	2.5	17.7	0.72	0.85	0.85	43.4
North: Link Rd															
7	L2	All MCs	99	1.1	99	1.1	0.458	3.8	LOS A	3.4	24.0	0.69	0.54	0.69	27.5
8	T1	All MCs	526	3.0	526	3.0	0.458	3.9	LOS A	3.4	24.0	0.69	0.57	0.69	32.9
9	R2	All MCs	78	1.4	78	1.4	0.458	5.8	LOS A	3.3	23.7	0.70	0.60	0.70	31.1
9u	U	All MCs	87	2.4	87	2.4	0.458	6.4	LOS A	3.3	23.7	0.70	0.60	0.70	32.5
Approach			791	2.5	791	2.5	0.458	4.4	LOS A	3.4	24.0	0.69	0.57	0.69	32.1
West: Stanley St															
10	L2	All MCs	26	0.0	26	0.0	0.558	10.2	LOS A	2.9	20.0	0.75	0.95	0.95	45.1
11	T1	All MCs	128	0.8	128	0.8	0.558	10.3	LOS A	2.9	20.0	0.75	0.95	0.95	40.3
12	R2	All MCs	122	0.0	122	0.0	0.558	14.1	LOS A	2.9	20.0	0.75	0.95	0.95	44.8
12u	U	All MCs	1	0.0	1	0.0	0.558	15.8	LOS B	2.9	20.0	0.75	0.95	0.95	42.2
Approach			278	0.4	278	0.4	0.558	12.0	LOS A	2.9	20.0	0.75	0.95	0.95	43.0
All Vehicles			2314	1.9	2314	1.9	0.558	5.7	LOS A	4.4	31.3	0.73	0.64	0.77	33.8

Site Level of Service (LOS) Method: Delay (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.
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.

MOVEMENT SUMMARY

Site: [2 (6)] Yarrabung Rd/ Stanley St (2030 Proposed PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Yarrabung Rd															
1	L2	All MCs	79	0.0	79	0.0	0.064	4.6	LOS A	0.0	0.0	0.00	0.33	0.00	45.9
2	T1	All MCs	49	0.0	49	0.0	0.064	0.0	LOS A	0.0	0.0	0.00	0.33	0.00	46.9
Approach			128	0.0	128	0.0	0.064	2.8	NA	0.0	0.0	0.00	0.33	0.00	46.2
North: Yarrabung Rd															
8	T1	All MCs	54	0.0	54	0.0	0.140	0.4	LOS A	0.7	5.0	0.25	0.41	0.25	45.2
9	R2	All MCs	178	1.8	178	1.8	0.140	5.0	LOS A	0.7	5.0	0.25	0.41	0.25	38.8
Approach			232	1.4	232	1.4	0.140	3.9	NA	0.7	5.0	0.25	0.41	0.25	40.9
West: Stanley St															
10	L2	All MCs	334	0.9	334	0.9	0.213	4.7	LOS A	1.0	7.2	0.15	0.50	0.15	37.7
12	R2	All MCs	38	2.8	38	2.8	0.083	9.1	LOS A	0.3	2.1	0.49	0.69	0.49	41.3
Approach			372	1.1	372	1.1	0.213	5.2	LOS A	1.0	7.2	0.18	0.52	0.18	38.4
All Vehicles			732	1.0	732	1.0	0.213	4.4	NA	1.0	7.2	0.17	0.45	0.17	41.2

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

MOVEMENT SUMMARY

▼ Site: [3 (6)] Yarrabung Rd/ College Cr/ Catherine St (2030 Proposed PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Yarrabung Rd															
1	L2	All MCs	40	0.0	40	0.0	0.192	5.0	LOS A	0.4	3.0	0.11	0.16	0.11	45.9
2	T1	All MCs	295	1.1	295	1.1	0.192	0.1	LOS A	0.4	3.0	0.11	0.16	0.11	47.1
3	R2	All MCs	45	0.0	45	0.0	0.192	5.2	LOS A	0.4	3.0	0.11	0.16	0.11	46.3
Approach			380	0.8	380	0.8	0.192	1.3	NA	0.4	3.0	0.11	0.16	0.11	46.8
East: Catherine St															
4	L2	All MCs	34	0.0	34	0.0	0.039	5.1	LOS A	0.1	1.0	0.31	0.53	0.31	42.4
5	T1	All MCs	1	0.0	1	0.0	0.039	6.2	LOS A	0.1	1.0	0.31	0.53	0.31	45.2
6	R2	All MCs	8	0.0	8	0.0	0.039	7.8	LOS A	0.1	1.0	0.31	0.53	0.31	43.9
Approach			43	0.0	43	0.0	0.039	5.7	LOS A	0.1	1.0	0.31	0.53	0.31	42.9
North: Yarrabung Rd															
7	L2	All MCs	6	16.7	6	16.7	0.092	5.0	LOS A	0.0	0.3	0.02	0.04	0.02	47.8
8	T1	All MCs	178	1.8	178	1.8	0.092	0.0	LOS A	0.0	0.3	0.02	0.04	0.02	49.4
9	R2	All MCs	3	0.0	3	0.0	0.092	5.5	LOS A	0.0	0.3	0.02	0.04	0.02	47.8
Approach			187	2.2	187	2.2	0.092	0.3	NA	0.0	0.3	0.02	0.04	0.02	49.2
West: College Cr															
10	L2	All MCs	4	0.0	4	0.0	0.040	5.5	LOS A	0.1	0.9	0.48	0.67	0.48	42.0
11	T1	All MCs	1	0.0	1	0.0	0.040	6.1	LOS A	0.1	0.9	0.48	0.67	0.48	44.1
12	R2	All MCs	21	0.0	21	0.0	0.040	8.2	LOS A	0.1	0.9	0.48	0.67	0.48	39.8
Approach			26	0.0	26	0.0	0.040	7.7	LOS A	0.1	0.9	0.48	0.67	0.48	40.5
All Vehicles			637	1.2	637	1.2	0.192	1.5	NA	0.4	3.0	0.12	0.17	0.12	46.5

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

MOVEMENT SUMMARY

▼ Site: [4 (6)] Yarrabung Rd/ College Cr/ Carcoola Rd (2030 Proposed PM)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
South: Yarrabung Rd															
1	L2	All MCs	3	0.0	3	0.0	0.142	5.0	LOS A	0.1	0.8	0.04	0.04	0.04	47.8
2	T1	All MCs	271	1.2	271	1.2	0.142	0.0	LOS A	0.1	0.8	0.04	0.04	0.04	49.2
3	R2	All MCs	14	0.0	14	0.0	0.142	5.0	LOS A	0.1	0.8	0.04	0.04	0.04	47.2
Approach			287	1.1	287	1.1	0.142	0.3	NA	0.1	0.8	0.04	0.04	0.04	49.0
East: Carcoola Rd															
4	L2	All MCs	3	0.0	3	0.0	0.007	5.0	LOS A	0.0	0.2	0.35	0.52	0.35	42.2
5	T1	All MCs	1	0.0	1	0.0	0.007	5.3	LOS A	0.0	0.2	0.35	0.52	0.35	44.2
6	R2	All MCs	2	0.0	2	0.0	0.007	7.2	LOS A	0.0	0.2	0.35	0.52	0.35	39.8
Approach			6	0.0	6	0.0	0.007	5.8	LOS A	0.0	0.2	0.35	0.52	0.35	42.0
North: Yarrabung Rd															
7	L2	All MCs	1	0.0	1	0.0	0.082	5.4	LOS A	0.0	0.3	0.03	0.04	0.03	46.7
8	T1	All MCs	157	2.7	157	2.7	0.082	0.0	LOS A	0.0	0.3	0.03	0.04	0.03	49.4
9	R2	All MCs	5	0.0	5	0.0	0.082	5.5	LOS A	0.0	0.3	0.03	0.04	0.03	47.2
Approach			163	2.6	163	2.6	0.082	0.3	NA	0.0	0.3	0.03	0.04	0.03	49.3
West: College Cr															
10	L2	All MCs	22	0.0	22	0.0	0.038	5.4	LOS A	0.1	1.0	0.39	0.58	0.39	41.6
11	T1	All MCs	1	0.0	1	0.0	0.038	5.4	LOS A	0.1	1.0	0.39	0.58	0.39	44.0
12	R2	All MCs	14	0.0	14	0.0	0.038	7.2	LOS A	0.1	1.0	0.39	0.58	0.39	43.1
Approach			37	0.0	37	0.0	0.038	6.1	LOS A	0.1	1.0	0.39	0.58	0.39	42.3
All Vehicles			494	1.5	494	1.5	0.142	0.8	NA	0.1	1.0	0.07	0.09	0.07	48.1

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

MOVEMENT SUMMARY

Site: [5 (6)] Killeaton St/ Yarrabung Rd/ Dainton Ave (2030

Proposed PM)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

New Site

Site Category: (None)

Give-Way (Two-Way)

Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				km/h
South: Yarrabung Rd															
1	L2	All MCs	82	0.0	82	0.0	0.272	4.7	LOS A	1.2	8.3	0.23	0.52	0.23	42.9
2	T1	All MCs	13	0.0	13	0.0	0.272	4.2	LOS A	1.2	8.3	0.23	0.52	0.23	37.2
3	R2	All MCs	197	1.6	197	1.6	0.272	5.7	LOS A	1.2	8.3	0.23	0.52	0.23	42.8
Approach			292	1.1	292	1.1	0.272	5.3	LOS A	1.2	8.3	0.23	0.52	0.23	42.7
East: Killeaton Ave															
4	L2	All MCs	111	2.9	111	2.9	0.076	4.6	LOS A	0.0	0.1	0.00	0.40	0.00	44.6
5	T1	All MCs	39	0.0	39	0.0	0.076	0.0	LOS A	0.0	0.1	0.00	0.40	0.00	47.8
6	R2	All MCs	1	0.0	1	0.0	0.076	4.6	LOS A	0.0	0.1	0.00	0.40	0.00	45.0
Approach			151	2.1	151	2.1	0.076	3.4	NA	0.0	0.1	0.00	0.40	0.00	45.7
North: Dainton Ave															
7	L2	All MCs	2	0.0	2	0.0	0.006	4.6	LOS A	0.0	0.2	0.16	0.46	0.16	44.2
8	T1	All MCs	4	0.0	4	0.0	0.006	4.2	LOS A	0.0	0.2	0.16	0.46	0.16	38.5
9	R2	All MCs	1	0.0	1	0.0	0.006	5.5	LOS A	0.0	0.2	0.16	0.46	0.16	44.1
Approach			7	0.0	7	0.0	0.006	4.5	LOS A	0.0	0.2	0.16	0.46	0.16	42.0
West: Killeaton Ave															
10	L2	All MCs	1	0.0	1	0.0	0.040	5.0	LOS A	0.2	1.4	0.26	0.38	0.26	44.6
11	T1	All MCs	23	0.0	23	0.0	0.040	0.4	LOS A	0.2	1.4	0.26	0.38	0.26	47.4
12	R2	All MCs	44	2.4	44	2.4	0.040	5.0	LOS A	0.2	1.4	0.26	0.38	0.26	44.0
Approach			68	1.5	68	1.5	0.040	3.5	NA	0.2	1.4	0.26	0.38	0.26	45.5
All Vehicles			518	1.4	518	1.4	0.272	4.5	NA	1.2	8.3	0.17	0.46	0.17	44.0

Site Level of Service (LOS) Method: Delay (NSW). 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.

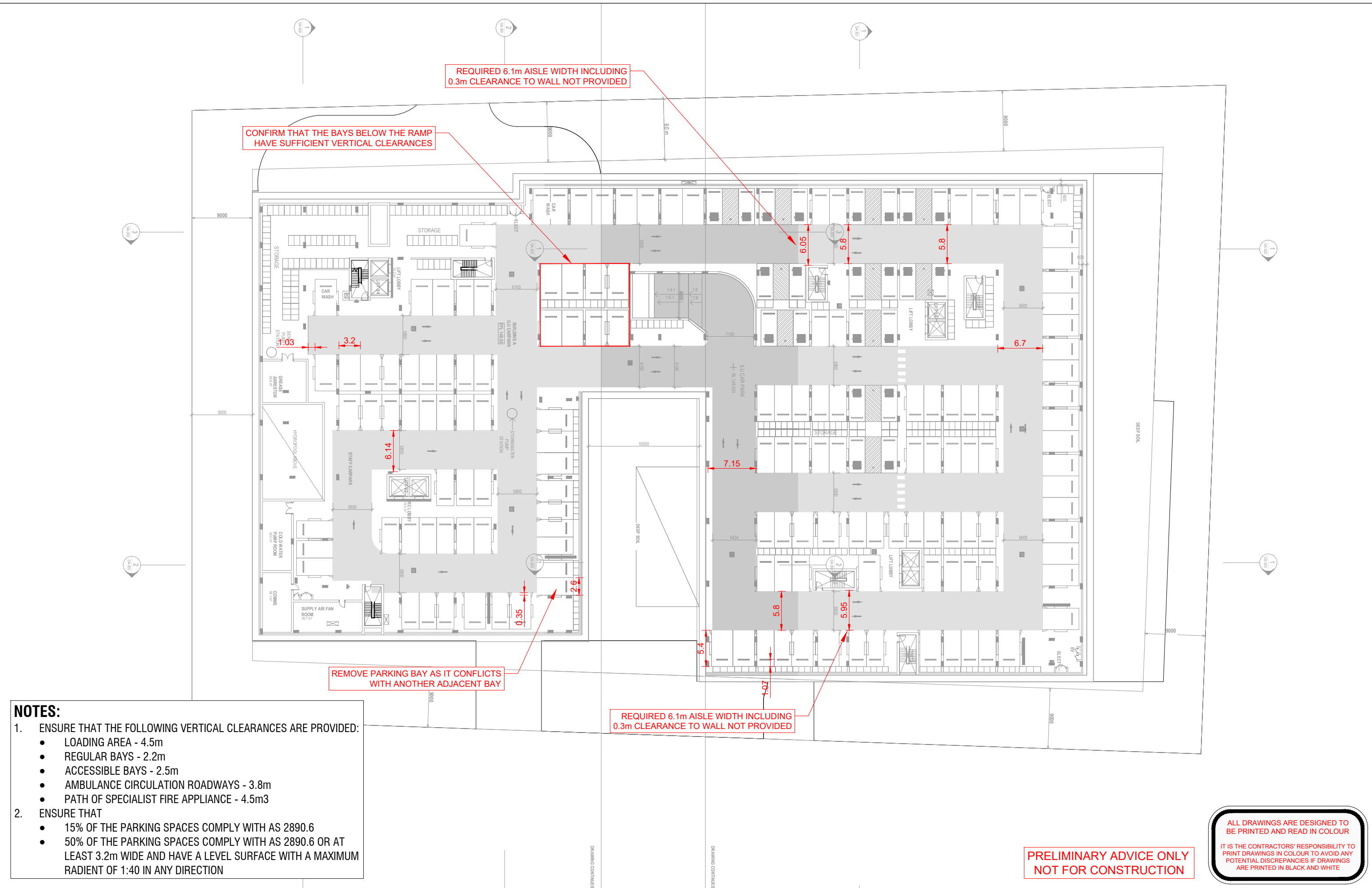
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\Users\cwhite\Urbis Ltd\P0063225 Montefiore - St Ives - General\03_Workspace\03. Transport Advisory\01_Analysis\260506_montefiore_st_ives.sipx

Appendix D Design Review and Swept Path Analysis



- NOTES:**
- ENSURE THAT THE FOLLOWING VERTICAL CLEARANCES ARE PROVIDED:
 - LOADING AREA - 4.5m
 - REGULAR BAYS - 2.2m
 - ACCESSIBLE BAYS - 2.5m
 - AMBULANCE CIRCULATION ROADWAYS - 3.8m
 - PATH OF SPECIALIST FIRE APPLIANCE - 4.5m
 - ENSURE THAT
 - 15% OF THE PARKING SPACES COMPLY WITH AS 2890.6
 - 50% OF THE PARKING SPACES COMPLY WITH AS 2890.6 OR AT LEAST 3.2m WIDE AND HAVE A LEVEL SURFACE WITH A MAXIMUM RADIENT OF 1:40 IN ANY DIRECTION

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MONTEFIORE MASADA DESIGN REVIEW BASEMENT 02

Angel Place, Level 8, 123 Pitt Street | Sydney NSW 2000 Australia | +61 2 8233 9900 | URBIS Pty Ltd | ABN 50 105 256 228

ARCHITECTURAL DRAWING REF
DWG NAME: DA-110-2
DATE:
NEARMAP IMAGE
DATE: 5/10/25

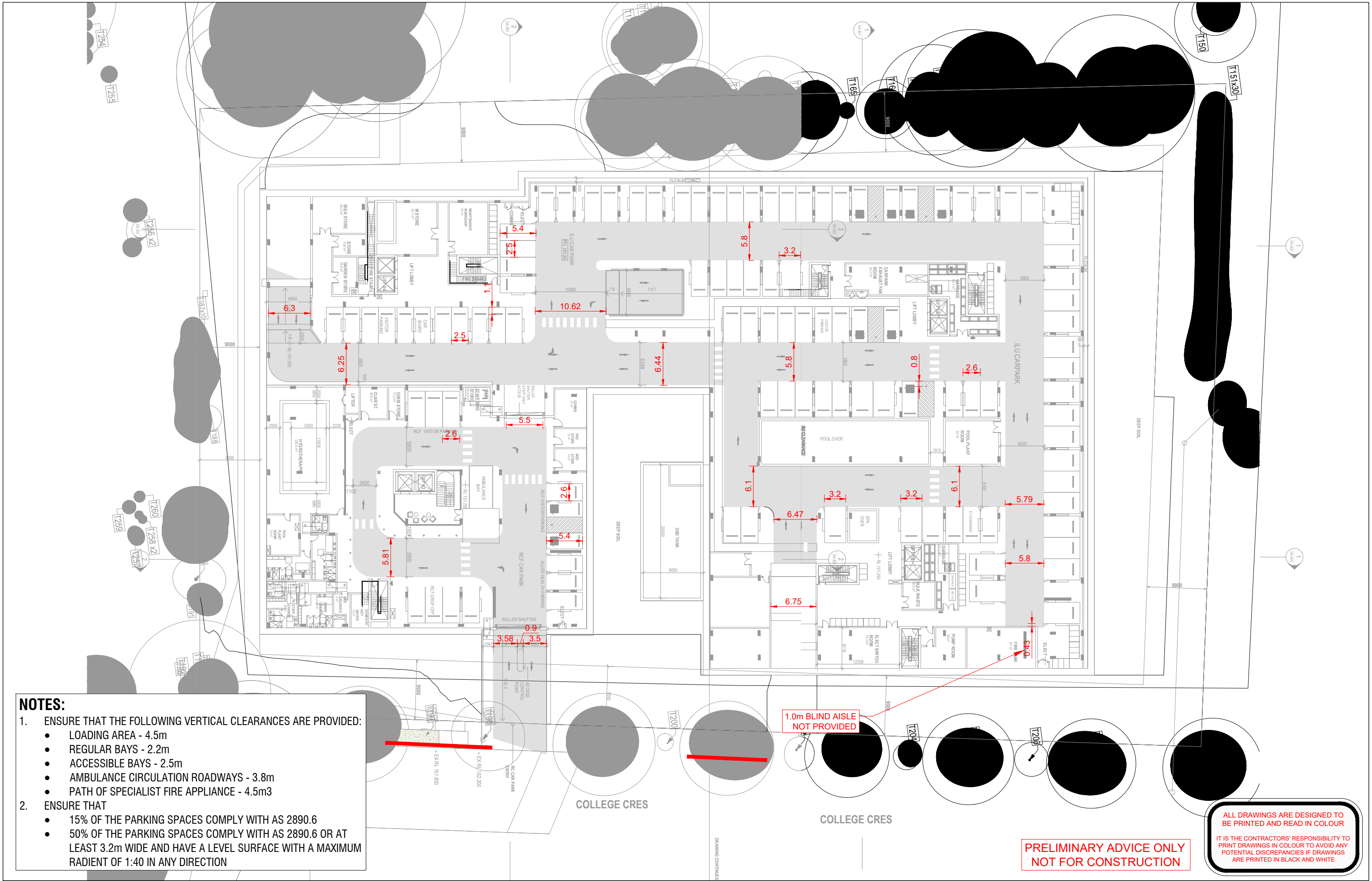
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C	SSDA PACKAGE	SA	KM	23/02/26
B	UPDATED DRAWINGS	SA	KM	07/11/25
A	DRAFT	SA	KM	10/10/25
REV	DESCRIPTION	DWN	CHK	DATE

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CLIENT
MONTEFIORE
36 DANGAR STREET
RANDWICK NSW 2031

1:500 @ A3
0 5 10m

PROJECT NO. P0063225
SHEET NO. 01 OF 10
DATE 04/05/26
REVISION D

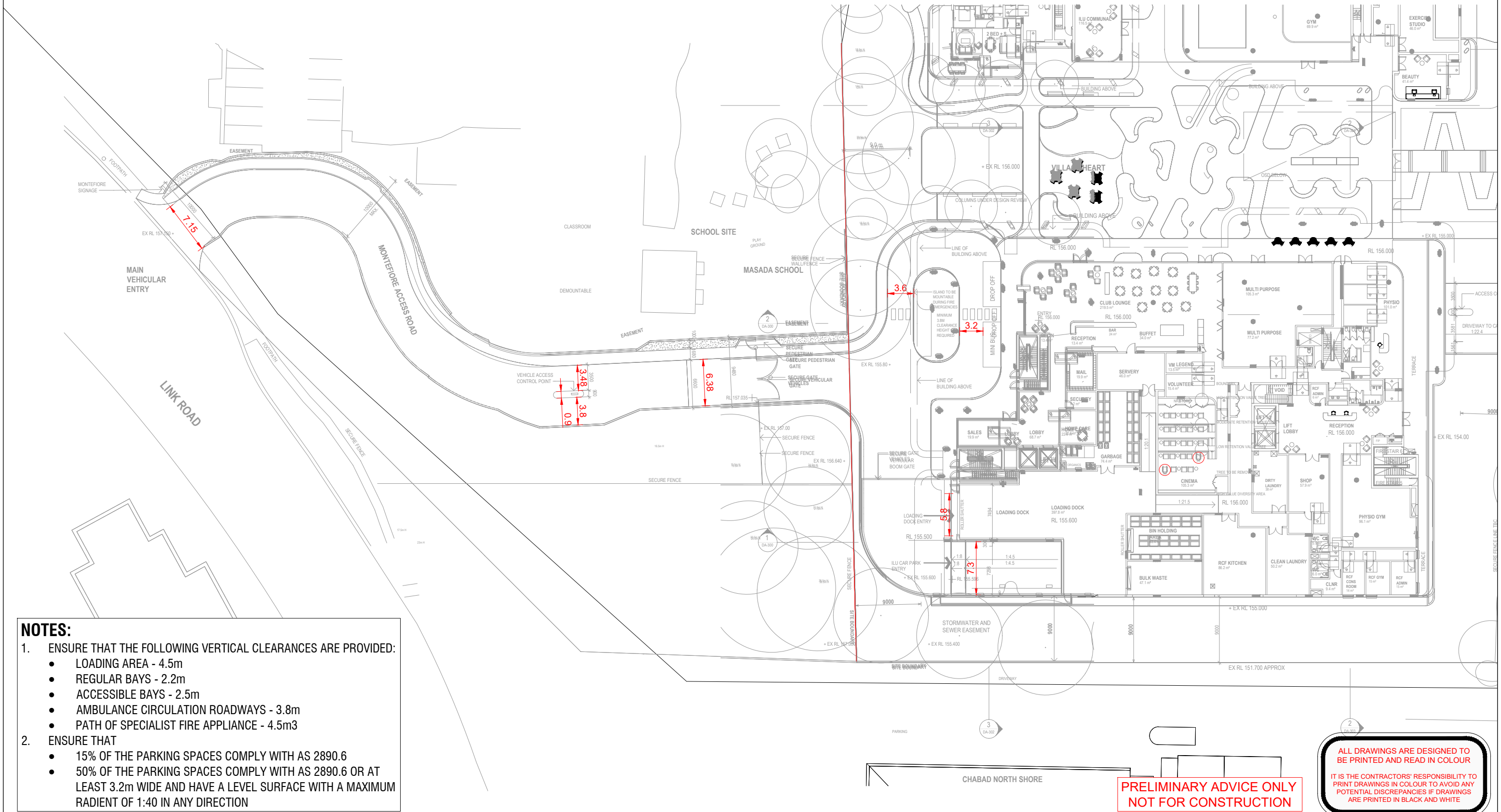


- NOTES:**
- ENSURE THAT THE FOLLOWING VERTICAL CLEARANCES ARE PROVIDED:
 - LOADING AREA - 4.5m
 - REGULAR BAYS - 2.2m
 - ACCESSIBLE BAYS - 2.5m
 - AMBULANCE CIRCULATION ROADWAYS - 3.8m
 - PATH OF SPECIALIST FIRE APPLIANCE - 4.5m3
 - ENSURE THAT
 - 15% OF THE PARKING SPACES COMPLY WITH AS 2890.6
 - 50% OF THE PARKING SPACES COMPLY WITH AS 2890.6 OR AT LEAST 3.2m WIDE AND HAVE A LEVEL SURFACE WITH A MAXIMUM RADIENT OF 1:40 IN ANY DIRECTION

1.0m BLIND AISLE
NOT PROVIDED

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ARE PRINTED IN BLACK AND WHITE



- NOTES:**
- ENSURE THAT THE FOLLOWING VERTICAL CLEARANCES ARE PROVIDED:
 - LOADING AREA - 4.5m
 - REGULAR BAYS - 2.2m
 - ACCESSIBLE BAYS - 2.5m
 - AMBULANCE CIRCULATION ROADWAYS - 3.8m
 - PATH OF SPECIALIST FIRE APPLIANCE - 4.5m
 - ENSURE THAT
 - 15% OF THE PARKING SPACES COMPLY WITH AS 2890.6
 - 50% OF THE PARKING SPACES COMPLY WITH AS 2890.6 OR AT LEAST 3.2m WIDE AND HAVE A LEVEL SURFACE WITH A MAXIMUM RADIENT OF 1:40 IN ANY DIRECTION

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MONTEFIORE MASADA DESIGN REVIEW GROUND LEVEL

Angel Place, Level 8, 123 Pitt Street | Sydney NSW 2000 Australia | +61 2 8233 9900 | URBIS Pty Ltd | ABN 50 105 256 228

ARCHITECTURAL DRAWING REF
DWG NAME: DA-110-2
DATE:
NEARMAP IMAGE
DATE: 5/10/25

D	SSDA PACKAGE	SA	KM	04/05/26
C	SSDA PACKAGE	SA	KM	23/02/26
B	UPDATED DRAWINGS	SA	KM	07/11/25
A	DRAFT	SA	KM	10/10/25
REV	DESCRIPTION	DWN	CHK	DATE

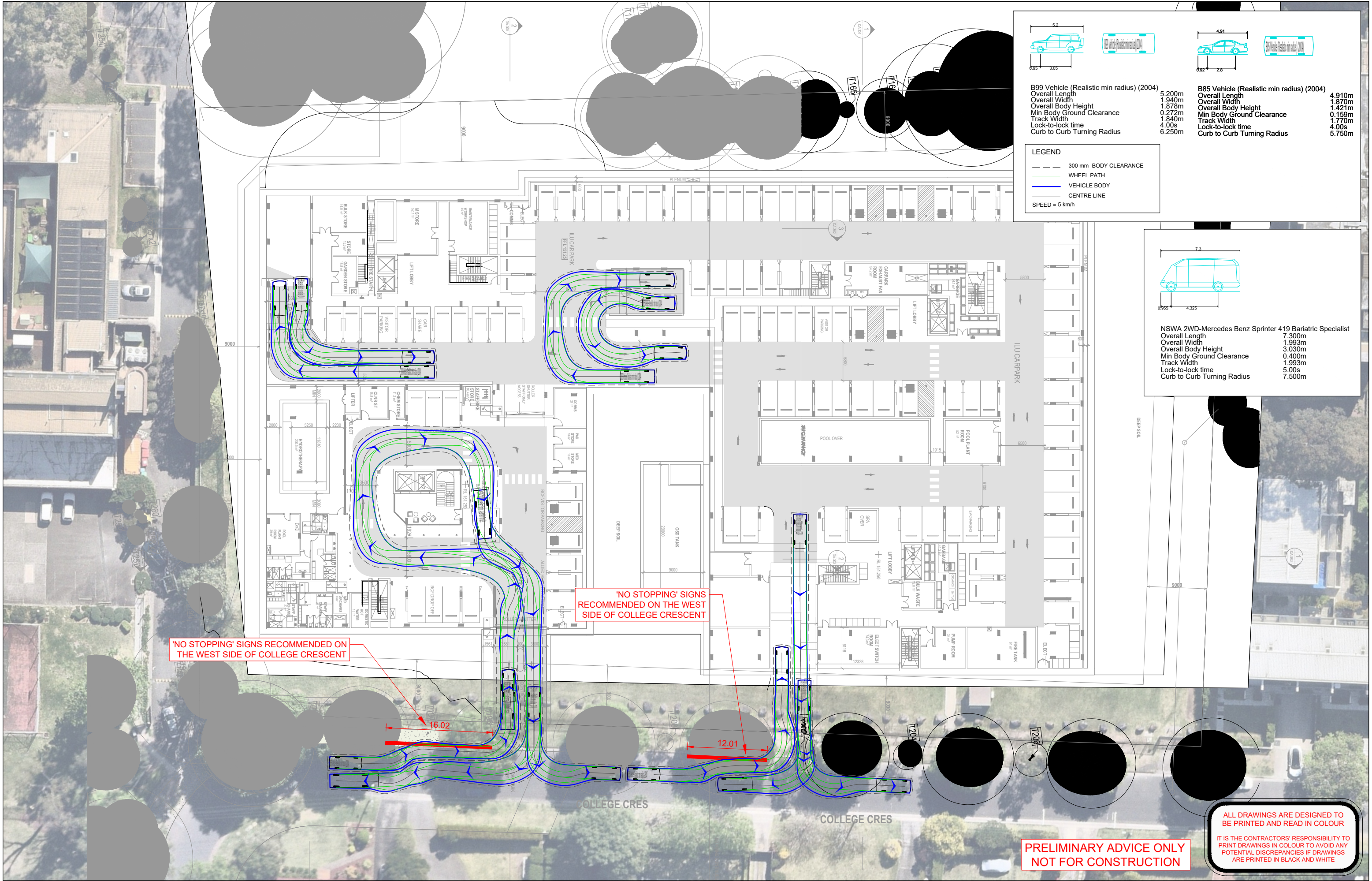
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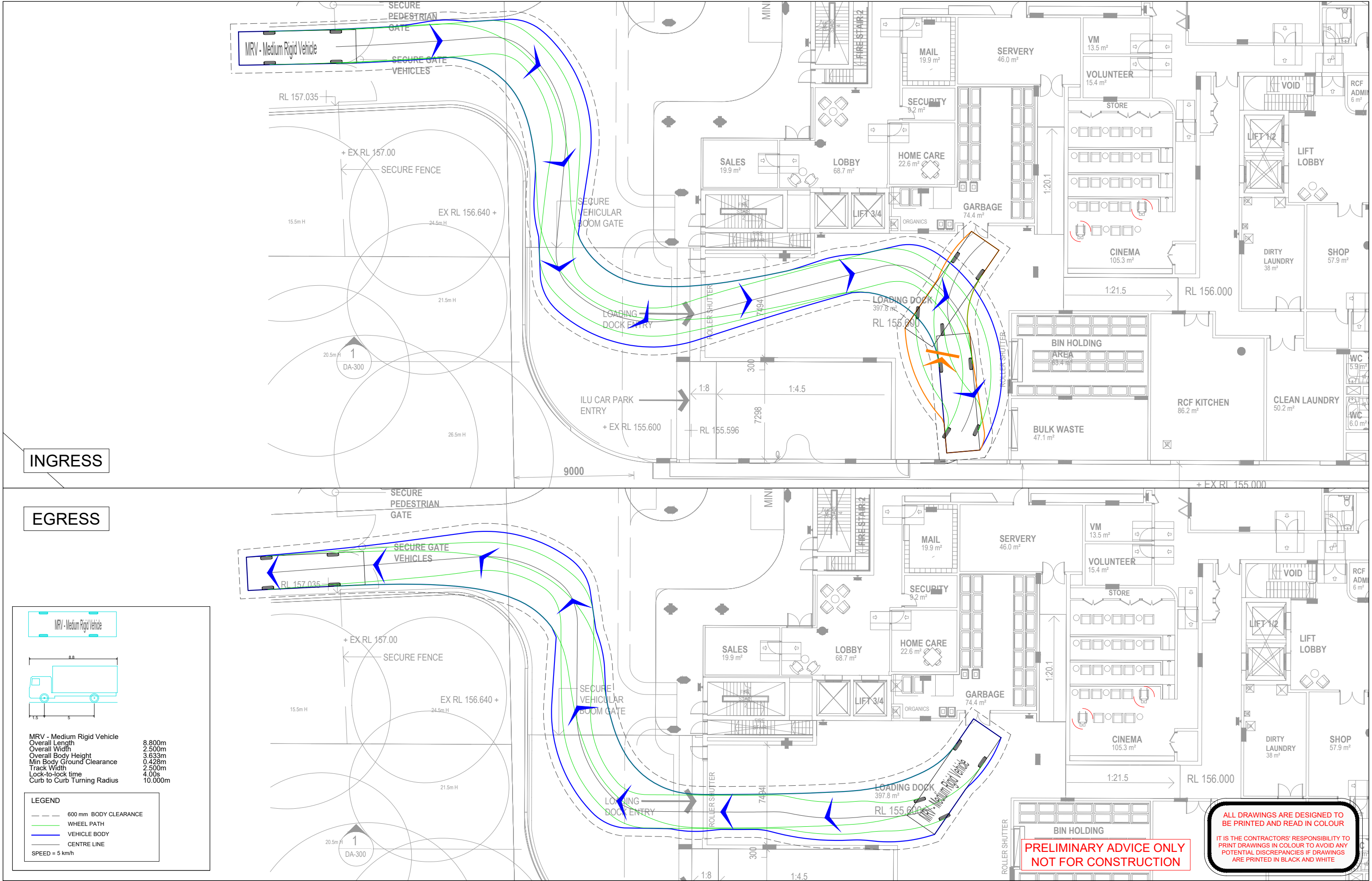
CLIENT
MONTEFIORE
36 DANGAR STREET
RANDWICK NSW 2031

1:500 @ A3
0 5 10m

PROJECT NO.
P0063225
SHEET NO.
03 OF 10

DATE
04/05/26
REVISION
D

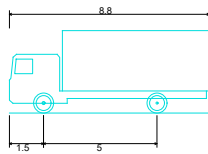




INGRESS

EGRESS

MRV - Medium Rigid Vehicle



MRV - Medium Rigid Vehicle
Overall Length 8.800m
Overall Width 2.500m
Overall Body Height 3.633m
Min Body Ground Clearance 0.428m
Track Width 2.500m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 10.000m

LEGEND
--- 600 mm BODY CLEARANCE
--- WHEEL PATH
--- VEHICLE BODY
--- CENTRE LINE
SPEED = 5 km/h

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MONTEFIORE MASADA DESIGN REVIEW LOADING DOCK

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ARCHITECTURAL DRAWING REF
DWG NAME: DA-110-2
DATE:
NEARMAP IMAGE
DATE: 5/10/25

REV	DESCRIPTION	DWN	CHK	DATE
D	SSDA PACKAGE	SA	KM	04/05/26
C	SSDA PACKAGE	SA	KM	23/02/26
B	UPDATED DRAWINGS	SA	KM	07/11/25
A	DRAFT	SA	KM	10/10/25

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36 DANGAR STREET
RANDWICK NSW 2031

1:250 @ A3
0 1 2 5m

PROJECT NO.
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D

6.2

0.95

3.05

DA-300

5.200m

1.940m

1.878m

0.272m

1.840m

4.00s

6.250m

B99 Vehicle (Realistic min radius) (2004)

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Track Width

Lock-to-lock time

Curb to Curb Turning Radius

LEGEND

300 mm BODY CLEARANCE

WHEEL PATH

VEHICLE BODY

CENTRE LINE

SPEED = 5 km/h

6.4

1.05

3.8

DA-302

6.400m

2.330m

3.500m

0.398m

2.330m

4.00s

7.100m

SRV - Small Rigid Vehicle

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Track Width

Lock-to-lock time

Curb to Curb Turning Radius

LEGEND

300 mm BODY CLEARANCE

WHEEL PATH

VEHICLE BODY

CENTRE LINE

SPEED = 5 km/h

URBIS

MONTEFIORE MASADA DESIGN REVIEW
DROP-OFF

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ARCHITECTURAL DRAWING REF
DWG NAME: DA-110-2
DATE:
NEARMAP IMAGE
DATE: 5/10/25

D	SSDA PACKAGE	SA	KM	04/05/26
C	SSDA PACKAGE	SA	KM	23/02/26
B	UPDATED DRAWINGS	SA	KM	07/11/25
A	DRAFT	SA	KM	10/10/25

REV | DESCRIPTION

DWN | CHK | DATE

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CLIENT

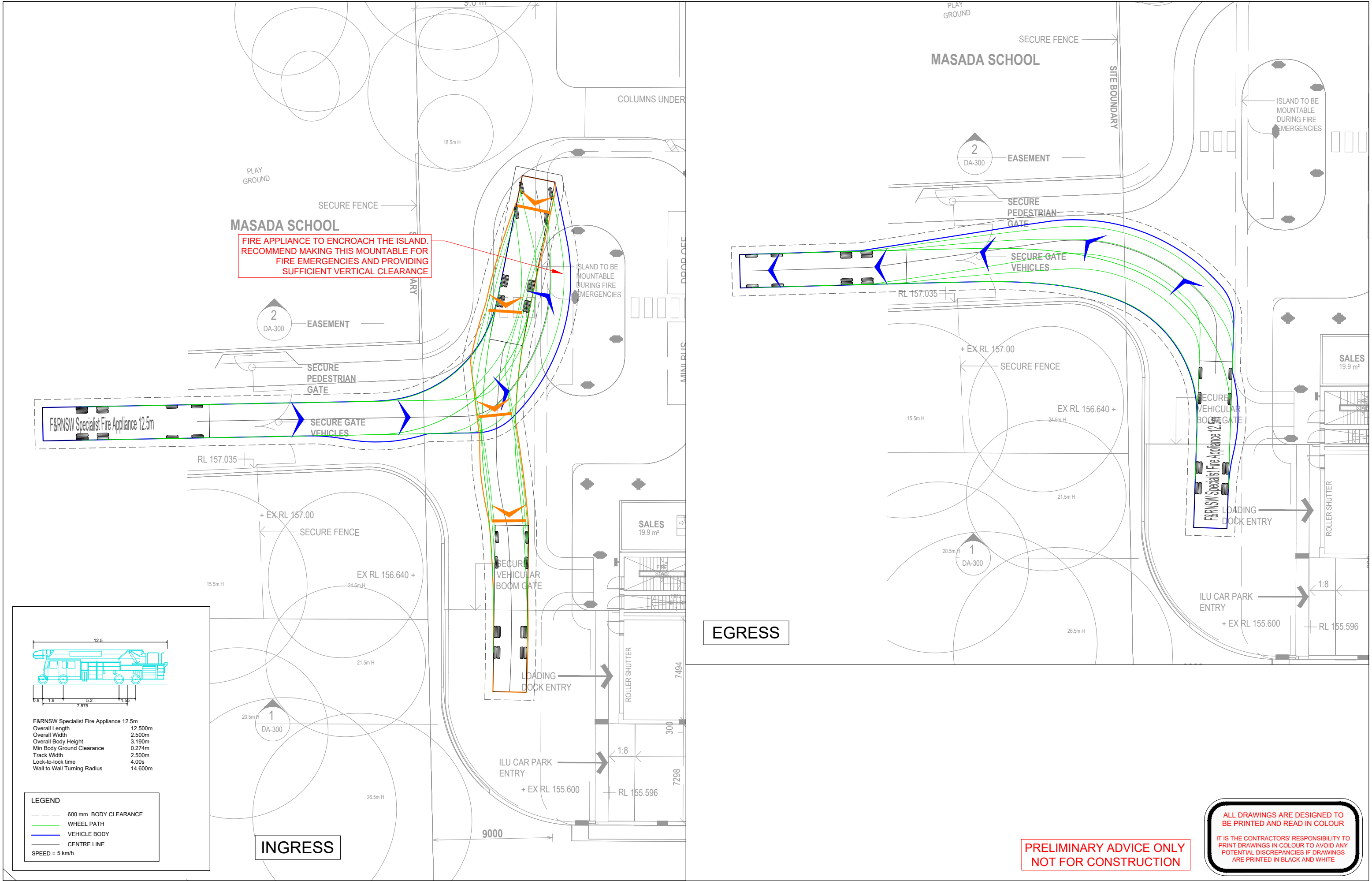
MONTEFIORE
36 DANGAR STREET
RANDWICK NSW 2031

PROJECT NO.
P0063225
SHEET NO.
07 OF 10

DATE
04/05/26
REVISION
D

1:250 @ A3

0 1 2 5m



12.5

F&RNSW Specialist Fire Appliance 12.5m

Overall Length12.500m

Overall Width2.500m

Overall Body Height4.300m

Min Body Ground Clearance0.274m

Track Width2.500m

Lock-to-lock time4.00s

Wall to Wall Turning Radius14.600m

LEGEND

600 mm BODY CLEARANCE

WHEEL PATH

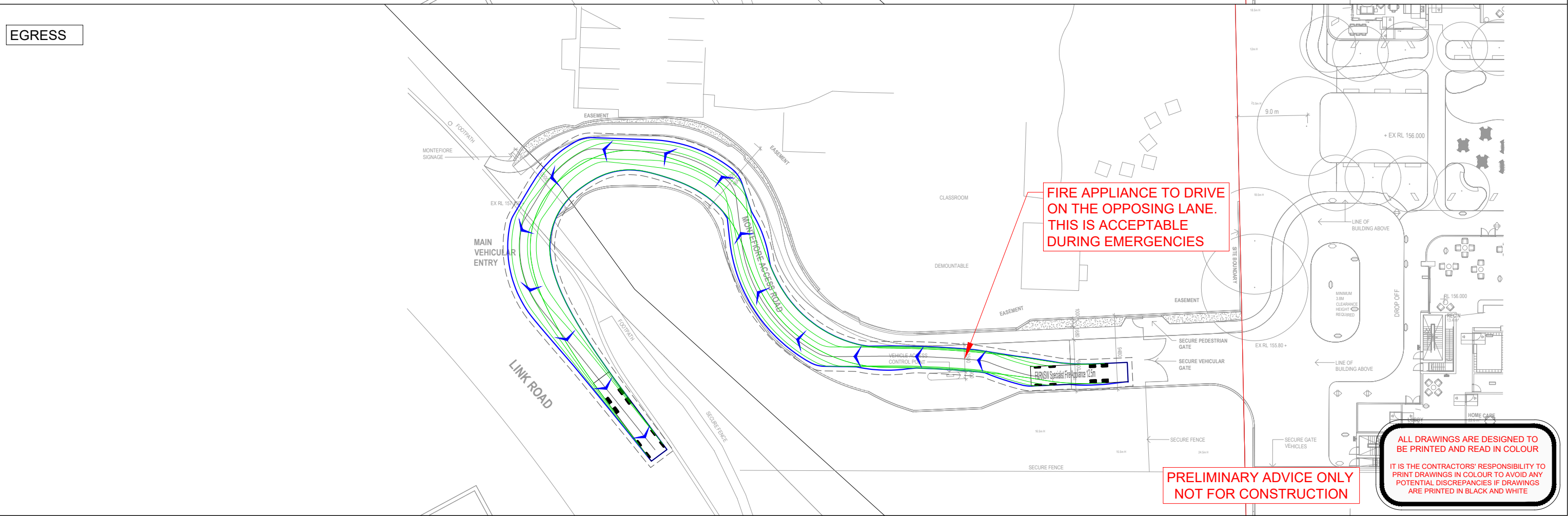
VEHICLE BODY

CENTRE LINE

SPEED = 5 km/h

INGRESS

EGRESS



MONTEFIORE MASADA DESIGN REVIEW

LINK ROAD ACCESS

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ARCHITECTURAL DRAWING REF
DWG NAME: DA-110-2
DATE:
NEARMAP IMAGE
DATE: 5/10/25

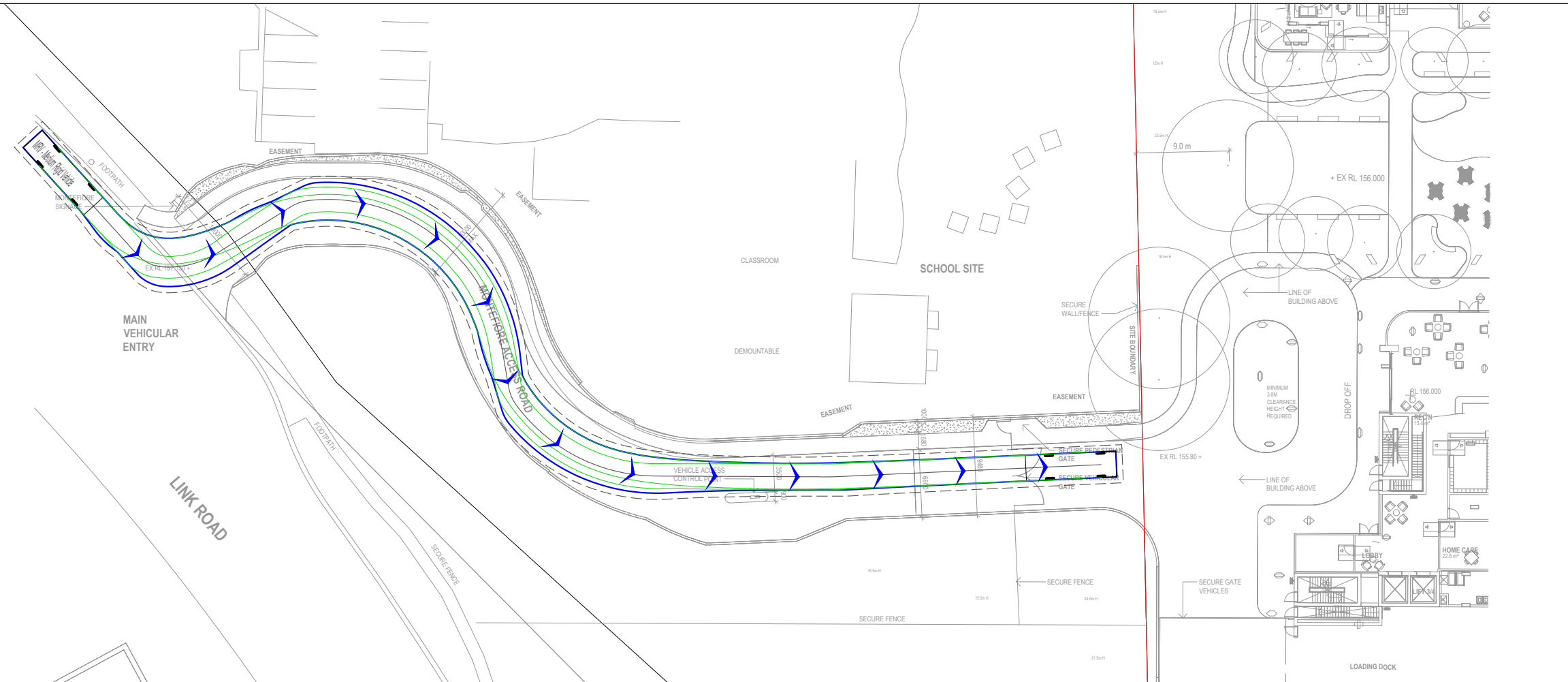
D	SSDA PACKAGE	SA	KM	04/05/26
C	SSDA PACKAGE	SA	KM	23/02/26
B	UPDATED DRAWINGS	SA	KM	07/11/25
A	DRAFT	SA	KM	10/10/25
REV	DESCRIPTION	DWN	CHK	DATE

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CLIENT
MONTEFIORE
36 DANGAR STREET
RANDWICK NSW 2031

1:250 @ A3
0 1 2 5m

PROJECT NO.
P0063225
SHEET NO.
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04/05/26
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D



MONTEFIORE SIGNAGE

EX RL 157.150

MAIN VEHICULAR ENTRY

LINK ROAD

FOOTPATH

EASEMENT

INTERFLORE ACCESS ROAD

CLASSROOM

DEMOUNTABLE

SCHOOL SITE

EASEMENT

VEHICLE ACCESS CONTROL POINT

EX RL 155.80

EX RL 156.000

SECURE PEDESTRIAN GATE

SECURE VEHICULAR GATE

SECURE FENCE

SECURE GATE VEHICLES

SECURE WALL FENCE

SITE BOUNDARY

LINE OF BUILDING ABOVE

MINIMUM 3.0M CLEARANCE HEIGHT REQUIRED

DROP OFF

EX RL 156.000

EX RL 155.80

HOME CARE

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