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Killester College Transport Impact Assessment



210218TIA001C-F

15 June 2021

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DOCUMENT INFORMATION

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1 INTRODUCTION

onemilegrid has been requested by McIldowie Partners to undertake a Transport Impact Assessment for the proposed building expansion at Killester College at 427-441 Springvale Road, Springvale.

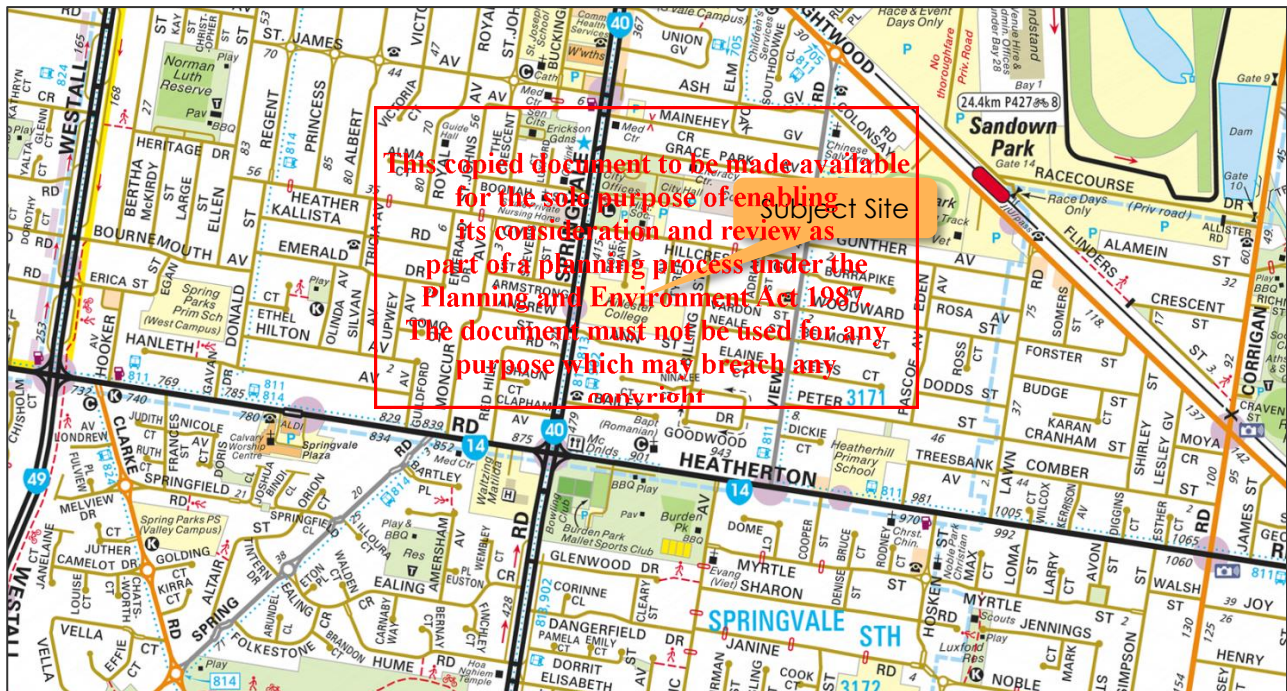
As part of this assessment the subject site has been inspected with due consideration of the development proposal, traffic data has been sourced and relevant background reports have been reviewed.

2 EXISTING CONDITIONS

2.1 Site Location

Killester College is located on the eastern side of Springvale Road and is irregular in shape with road frontages to Ann Street, Rosemary Avenue and Tyree Avenue, as shown in Figure 1.

Figure 1 Site Location



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The main school campus has a total site area of 2.66 ha, with the two adjoining properties (owned by Killester College) having a combined area of 1,085m². Combined, Killester College has a total site area of 2.77 ha.

Access to the school is available from multiple points across the Springvale Road and Rosemary Avenue frontages. Of note, the Rosemary Avenue frontage includes access to a parent drop off and pick up area away from Springvale Road. The Springvale Road access points are used by staff which separates movements away from the main arterial road. A set of pedestrian operated traffic signals is located at the site frontage to Springvale Road.

Land use in the immediate vicinity of the site is generally residential in nature, with the Springvale shopping 'strip' located approximately 500 metres to the north.

An aerial view of the subject site is provided in Figure 2.

Figure 2 Site Context (10 March 2021)

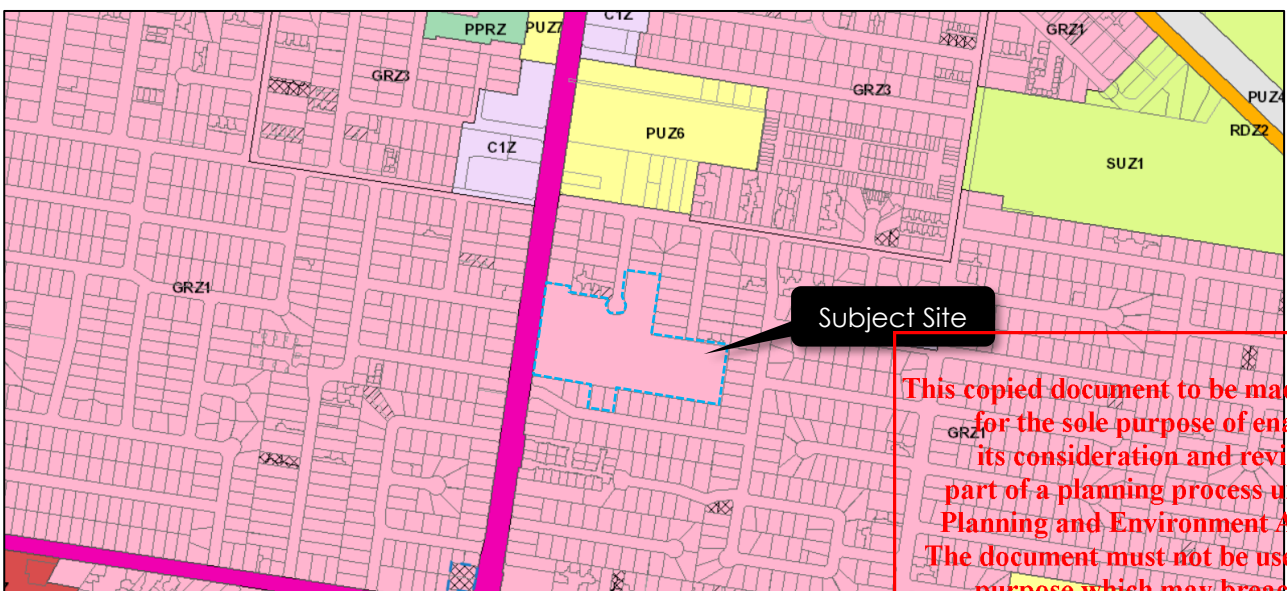


Copyright Nearmap

2.2 Planning Zones and Overlays

It is shown in Figure 3 that the site is located within a General Residential Zone – Schedule 1 (GRZ1). Additionally, the site abuts Springvale Road, which is within a Road Zone – Category 1 (RDZ1).

Figure 3 Planning Scheme Zones



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Furthermore, the site falls within the Principal Public Transport Network Area, as shown in Figure 4.

Figure 4 Principal Public Transport Network Area Map



2.3 Road Network

2.3.1 Springvale Road

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Springvale Road is an arterial road that runs along the frontage of the site. Springvale Road provides three traffic lanes separated by a central median adjacent to the site. Median breaks are provided to allow access to some side roads, with auxiliary right turn lanes provided to assist with any movements. Where breaks are not provided, access is restricted to left turn movements only.

'No Stopping' restrictions apply to both sides of the road at the site's frontage prohibiting any on-street parking opportunities.

A signed 60km/h speed limit applies to Springvale Road in the vicinity of the site, except on school days between 8:00am and 9:30am, and 2:30pm and 4:00pm, where a 40km/h school zone speed limit applies.

The cross-section of Springvale Road at the frontage of the site is shown in Figure 5.

Figure 5 Springvale Road, looking south from the subject site



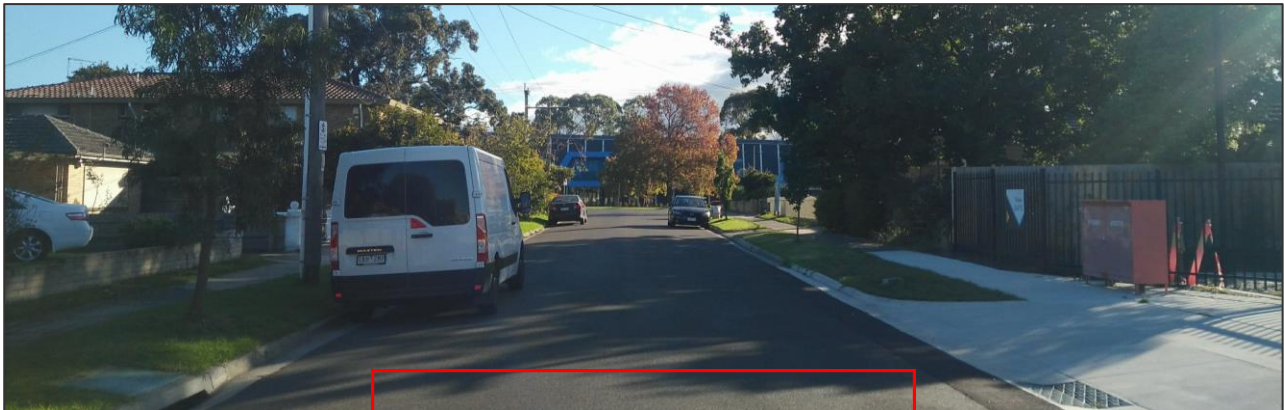
2.3.2 Rosemary Avenue

Rosemary Avenue is a local road which runs south from Hillcrest Grove and terminates at the site's frontage. Rosemary Avenue has a 7.3 metre carriageway which allows for traffic in both directions.

Kerbside parking is provided on both sides of the road, with the western side having 'No Stopping' restrictions in place between 7:30am – 9:30am and 2:45pm – 4:00pm, on school days. Whilst the eastern side of Rosemary Avenue has 'No Stopping' restrictions in place between 7:00am – 4:00pm, on school days.

The cross-section of Rosemary Avenue at the frontage of the site is shown in Figure 6.

Figure 6 Rosemary Avenue, looking north from the subject site



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2.3.3 Ann Street

Ann Street is a local road generally aligned east-west, running between Springvale Road and Billing Street. Ann Street provides a single traffic lane each direction adjacent to the site.

Kerbside parking is provided on both sides of the road, with the northern side generally being split into two parking restrictions, with the western portion having 'No Stopping' restrictions in place between 8:30am – 9:30am and 2:30pm – 4:00pm, on school days and the eastern portion having 2-hour parking restrictions between 9:00am – 4:00pm, on school days. The southern side of Ann Street is generally unrestricted.

At the intersection with Springvale Road, full turning movements are permitted with a turn lane provided within the central median for right turn movements.

The cross-section of Ann Street at the frontage of the site is shown in Figure 7.

Figure 7 Ann Street, looking west

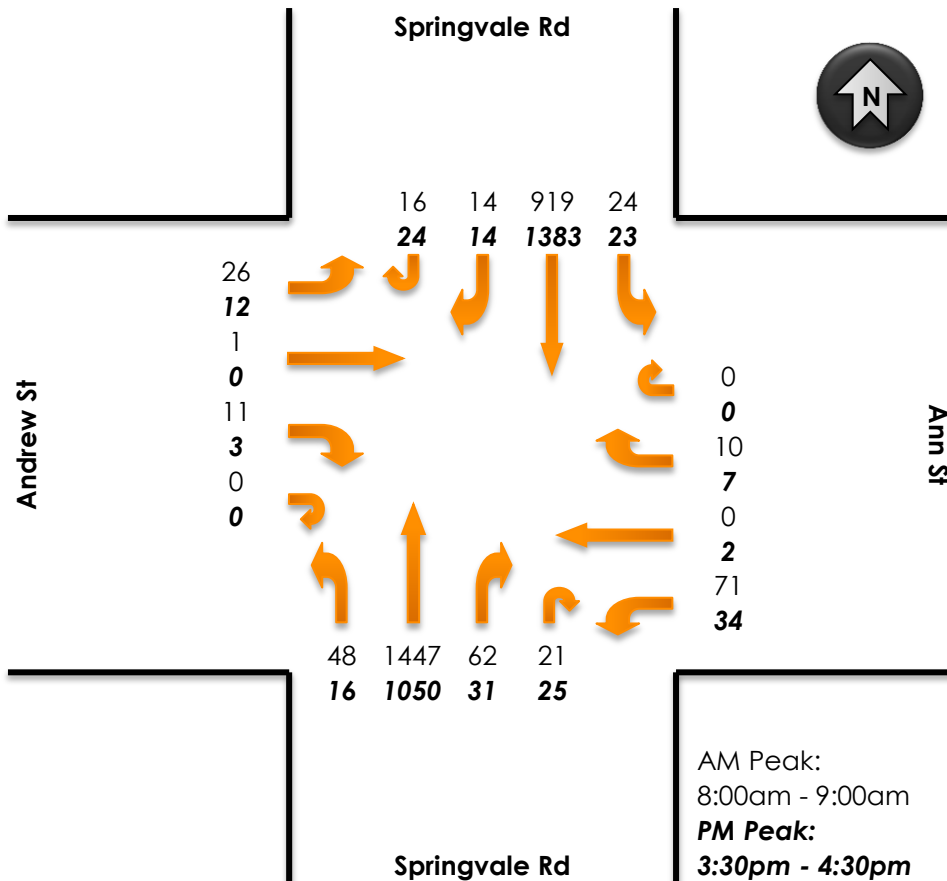


2.4 Traffic Volumes

Traffic volume surveys were undertaken by Trans Traffic Survey on behalf of **onemilegrid** at the intersection of Springvale Road / Andrew Street / Ann Street on Tuesday 20th April 2021, between 7:30am and 9:30am, and between 2:30pm and 6:00pm.

The peak hour results of the surveys are shown in Figure 8.

Figure 8 Existing Traffic Volumes – 20 April 2021



The traffic counts indicate that Springvale Road carries a high level of traffic in line with its classification and cross section.

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2.4.1 Intersection Capacity Assessment

To assess the operation of the Springvale Road / Andrew Street / Ann Street intersection the traffic volumes have been input into SIDRA Intersection, a traffic modelling software package.

The SIDRA Intersection software package has been developed to provide information on the capacity of an intersection with regard to a number of parameters. Those parameters considered relevant are, Degree of Saturation (DoS), 95th Percentile Queue, and Average Delay as described below.

Table 1 SIDRA Intersection Parameters

| Parameter | Description | | | | | | | | | | | | | | |
|--|---|----------------------|--------|------------|-----------|-------------|-----------|-------------|------|-------------|------|-------------|------|------------|-----------|
| Degree of Saturation (DoS) | The DoS represents the ratio of the traffic volume making a particular movement compared to the maximum capacity for that particular movement. The value of the DoS has a corresponding rating depending on the ratio as shown below. | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Degree of Saturation</th> <th>Rating</th> </tr> </thead> <tbody> <tr> <td>Up to 0.60</td> <td>Excellent</td> </tr> <tr> <td>0.61 – 0.70</td> <td>Very Good</td> </tr> <tr> <td>0.71 – 0.80</td> <td>Good</td> </tr> <tr> <td>0.81 – 0.90</td> <td>Fair</td> </tr> <tr> <td>0.91 – 1.00</td> <td>Poor</td> </tr> <tr> <td>Above 1.00</td> <td>Very Poor</td> </tr> </tbody> </table> | Degree of Saturation | Rating | Up to 0.60 | Excellent | 0.61 – 0.70 | Very Good | 0.71 – 0.80 | Good | 0.81 – 0.90 | Fair | 0.91 – 1.00 | Poor | Above 1.00 | Very Poor |
| | Degree of Saturation | Rating | | | | | | | | | | | | | |
| | Up to 0.60 | Excellent | | | | | | | | | | | | | |
| | 0.61 – 0.70 | Very Good | | | | | | | | | | | | | |
| | 0.71 – 0.80 | Good | | | | | | | | | | | | | |
| | 0.81 – 0.90 | Fair | | | | | | | | | | | | | |
| 0.91 – 1.00 | Poor | | | | | | | | | | | | | | |
| Above 1.00 | Very Poor | | | | | | | | | | | | | | |
| It is noted that whilst the range of 0.91 – 1.00 is rated as 'poor', it is acceptable for critical movements at an intersection to be operating within this range during high peak periods, reflecting actual conditions in a significant number of suburban signalised intersections. | | | | | | | | | | | | | | | |
| Average Delay (seconds) | Average delay is the time delay that can be expected for all vehicles undertaking a particular movement in seconds. | | | | | | | | | | | | | | |
| 95th Percentile (95%ile) Queue | 95%ile queue represents the maximum queue length in metres that can be expected in 95% of observed queue lengths in the peak hour | | | | | | | | | | | | | | |

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The results of the analysis are below.

Table 2 Springvale Road / Ann Street / Andrew Street – Existing Conditions

| Approach | DoS | Avg. Delay (sec) | Queue (m) |
|-------------------------|-------|------------------|-----------|
| AM Peak | | | |
| Springvale Road - South | 0.292 | 11.5 | 8 |
| Ann Street - East | 0.280 | 38 | 4.5 |
| Springvale Road - North | 0.280 | 27.6 | 6.4 |
| Andrew Street - West | 0.439 | 77.1 | 11.4 |
| PM Peak | | | |
| Springvale Road - South | 0.326 | 22.7 | 8.2 |
| Ann Street - East | 0.213 | 34.7 | 5.2 |
| Springvale Road - North | 0.261 | 12.3 | 3.9 |
| Andrew Street - West | 0.326 | 38.9 | 1.4 |

The above analysis indicates that the existing intersection is operating under 'excellent' conditions with manageable queues and delays experienced by motorists. The right turn movements into and out of the side roads are occurring with a small level of delay to be expected of an intersection of this nature on a major arterial road during peak periods.

2.5 Sustainable Transport

The site has very good public transport accessibility, with several bus services provided along the site's frontage to Springvale Road. In addition, Springvale train station is located 1.1km north of the subject site which provides Metropolitan rail services providing access to Melbourne's southern-eastern suburbs and the CBD.

The full public transport provision in the vicinity of the site is shown in Figure 9 and detailed in Table 3.

Figure 9 Public Transport Provision

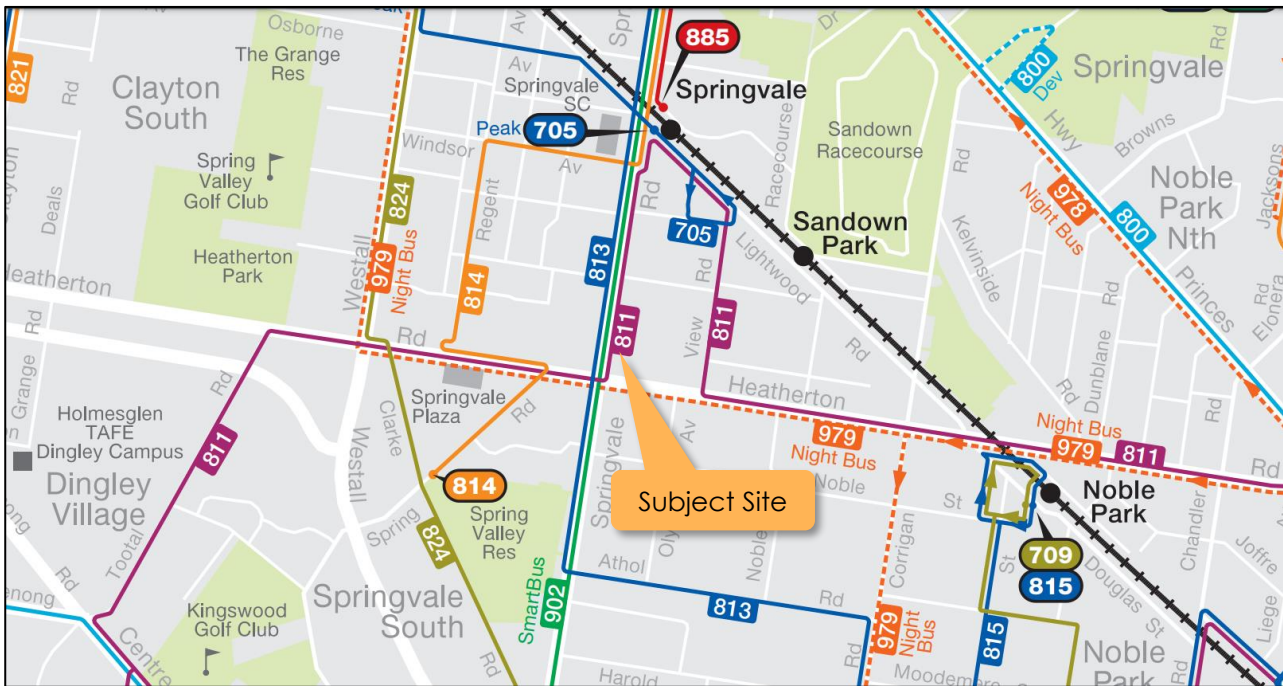


Table 3 Public Transport Provision

| Mode | Route No. | Route Description | Nearest Stop/Station |
|-------|-----------|--|----------------------|
| Train | | Craigieburn Line | Springvale Station |
| | | Pakenham Line | |
| Bus | 811 | Dandenong - Brighton via Heatherton Road & Springvale | Springvale Road |
| | 813 | Dandenong - Waverley Gardens SC | |
| | 814 | Springvale South - Dandenong via Waverley Gardens Shopping Centre & Springvale | Heatherton Road |
| | 902 | Chelsea - Airport West (SMARTBUS Service) | Springvale Road |
| | 979 | Night Bus - Elsternwick - Bentleigh - Clarinda - Keysborough - Dandenong | Heatherton Road |

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3 EXISTING SCHOOL

3.1 General

The site currently operates as Killester College which offers education from Year 7 to Year 12. The school current has 990 students enrolled at the secondary school. In addition, a total of 94 staff are employed by the college which includes both administration and teaching staff, with a maximum of 90 staff anticipated to be on-site at any time.

3.2 Vehicular Access & Car Parking

Access to the site is available from multiple points across the Springvale Road and Rosemary Avenue frontages which are summarised below:

- Left-in/Left-out to Springvale Road via a single crossover located towards the southern end of the frontage – This crossover facilitates access to a staff car park referred to as the Kildare Car Park;
- Left-in/Left-out to Springvale Road via a double crossover (separated by pedestrian refuge / landscaped median) located towards the northern end of the site frontage – This crossover facilitates access to the shared car park and school minibus parking;
- Fully-directional crossover to Rosemary Avenue – This crossover facilitates access to a staff car park; and
- Separate entry and exit crossovers to Rosemary Avenue – These crossovers provide access to a one-way loop road where student drop-off/pick-up is facilitated.

A total of 101 parking spaces are provided on-site which includes 22 parking spaces in the Rosemary Avenue staff carpark, 19 spaces in the Springvale Road staff carpark (Kildare Car Park), and 60 parking spaces in the Springvale Road shared car park.

An internal road connects the Springvale Road shared carpark and the student drop-off loop road.

The two staff car parks are restricted by an automatic gate with access granted via a remote control.

In addition, the two properties along Ann Street (no. 5 and no. 7) are both provided with single width crossovers to Ann Street.

3.3 Loading

All loading (including waste collection) is currently facilitated via the existing loading yard which is located adjacent to the drop-off/pick-up area along the loop road. Access to the loading yard is provided via the internal road from Springvale Road and Rosemary Avenue (limited access only).

An aerial view of the subject site is provided in Figure 2, which shows the vehicular access, car parking provision and loading areas for the subject site.

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Figure 10 Site Context (10 March 2021)



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4 DEVELOPMENT PROPOSAL

It is proposed to redevelop the north-western portion of the site which includes refurbishing the existing 'Kennedy Hall' and constructing a new two-storey building to the west of Kennedy Hall.

No changes are proposed to the existing number of students or staff on-site, and instead the refurbishment / construction of buildings is to improve the existing facilities provided on site.

The construction of the two-storey building will require the partial demolition and then reconfiguration of the shared car park toward the northern end of the site. The proposal will result in a total of 35 car parking spaces being provided at this location, which is a net loss of 25 car parking spaces. The existing site access arrangements to this car park will remain unchanged (left-in/left-out to Springvale Road). In relation to the existing internal road between the Springvale Road and Rosemary Avenue access points, this will be modified to be single width only, used primarily for service vehicles and to access 4 car spaces to the north of the admin building.

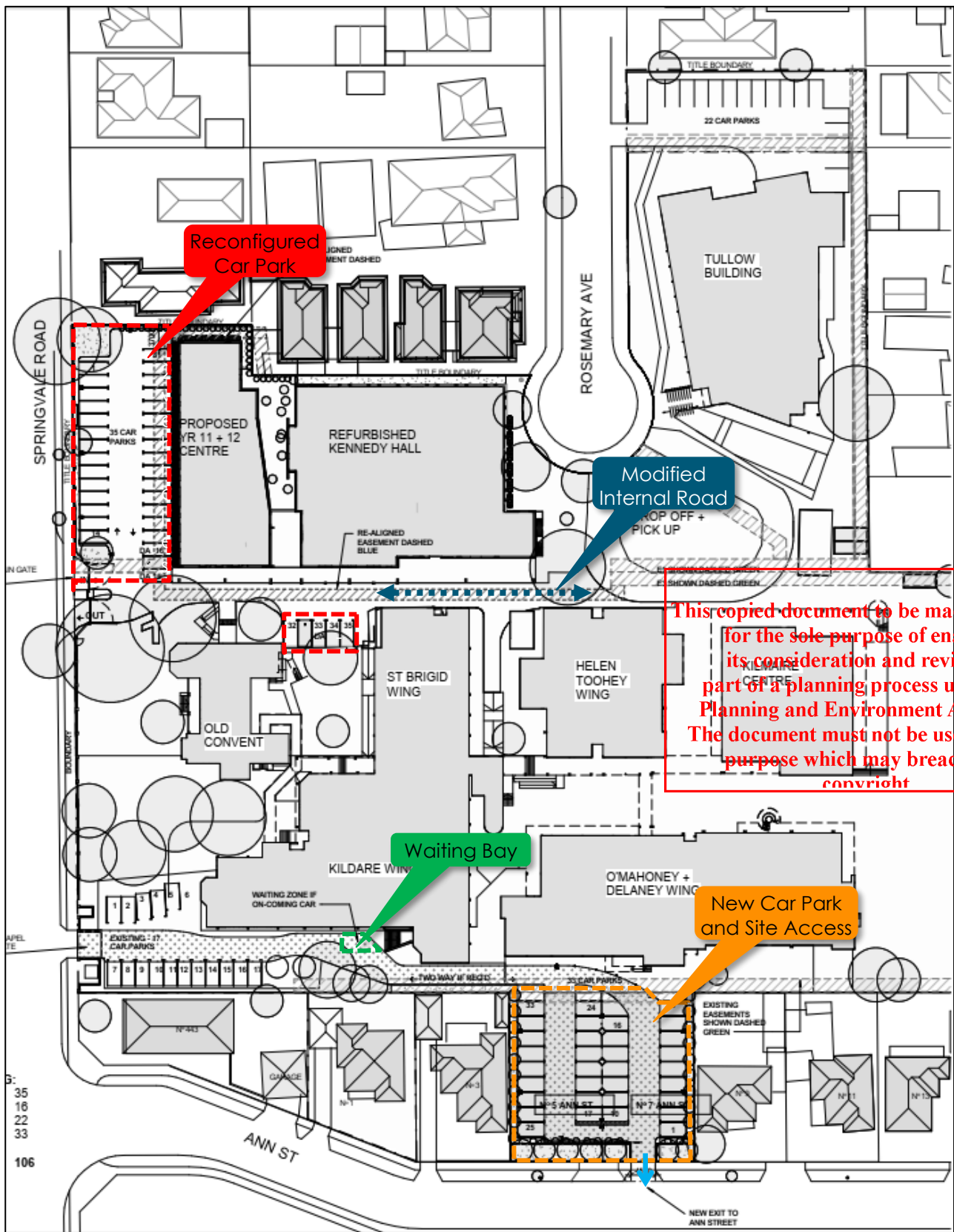
In addition, it is proposed to demolish the existing two dwellings located at 5 and 7 Ann Street, and construct a new staff car park accommodating 33 parking spaces. Vehicular access to this car park will be provided via the southern left-in/left-out Springvale Road access (controlled by gates) and via a new exit-only access to Ann Street. Removal of three of the existing staff spaces are required between the existing Springvale Road staff car park and the new Ann Street car park, which will provide opportunities for passing between westbound and eastbound vehicles via the provision of a dedicated waiting bay.

A total of 106 car parking spaces will be provided on-site at the completion of works, an increase of five (5) parking spaces.

A view of the updated site layout is provided in Figure 11.

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Figure 11 Proposed Site Layout



5 DESIGN ASSESSMENT

5.1 Greater Dandenong Planning Scheme – Clause 52.06

onemilegrid has undertaken an assessment of the new and reconfigured car parking layouts and the proposed Ann Street site access with due consideration of the Design Standards detailed within Clause 52.06-9 of the Planning Scheme. A review of those relevant Design Standards is provided in the following section.

5.1.1 Design Standard 1 – Accessways

A summary of the assessment of the Ann Street site access for Design Standard 1 is provided in Table 4.

Table 4 Clause 52.06-9 Design Assessment – Design Standard 1

| Requirement | Comments |
|---|---|
| Be at least 3 metres wide | Satisfied – minimum width of access is 4.5 metres |
| Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide | N/A – no change in direction along accessway |
| Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre | Satisfied |
| Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres | Satisfied – no overhead obstructions |
| If the accessway serves four or more car spaces or connects to a road in a Road Zone, the accessway must be designed so that cars can exit the site in a forward direction. | Satisfied |
| Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Road Zone | N/A – does not connect to a road zone |
| Have a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height. | Generally satisfied – It is expected that the new trees proposed along the Ann Street frontage may impact sight distances when matured. Nevertheless, vehicles are expected to exit the site centrally along the crossover which will effectively provide a corner splay in excess of the minimum requirements. |
| If an accessway to four or more car parking spaces is from land in a Road Zone, the access to the car spaces must be at least 6 metres from the road carriageway. | Satisfied |

5.1.2 Design Standard 2 – Car Parking Spaces

All car spaces within the Ann Street car park are proposed with a minimum width of 2.8 metres, length of 4.9 metres and are accessed from aisles of no less than 5.8 metres.

All car spaces within the reconfigured public car park have been designed with a length of 5.4 metres, a minimum width of 2.4 metres and are accessed from aisles of 6.4 metres in excess of requirement within the Australian Standard for Off-Street Car Parking AS2890.1. It is noted that Design Standard 2 recommends the use of the Planning Scheme dimensions in preference to the Australian Standard however the Australian Standard dimensions still provides for safe and efficient access to car spaces and is considered acceptable.

The accessible bays are provided with a length of 5.4 metres and a width of 2.4 metres, and an adjacent shared area of the same dimensions, in accordance with the Australian Standard for Off-Street Parking for People with Disabilities AS2890.6.

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5.2 Waiting Bay

A waiting bay is proposed between the existing Springvale Road car park and the new Ann Street car park and therefore swept paths have been prepared to demonstrate the operation of this area. The swept paths show that a 99th percentile passenger vehicle (B99) vehicle may approach concurrently from both the east and west, with the eastbound vehicle utilising the waiting bay without encroaching either of the B99 vehicles 300mm clearance envelope. It is noted that this is expected to be an unlikely occurrence as all car parking will be allocated to staff who will arrive in the morning and depart in the afternoon. Furthermore, as exit movements are designed to Ann Street, there is no practical need for a staff member to travel back toward the existing parking area.

Nevertheless, swept paths demonstrating the operation of the waiting bay are attached in Appendix A.

5.3 Clause 52.29 – Land Adjacent to a Road Zone, Category 1

The development proposal is subject to the requirements of Clause 52.29 of the Greater Dandenong Planning Scheme which applies to land adjacent to a Road Zone Category 1 (Springvale Road) and aims to ensure appropriate access is provided to identified roads.

Relevant to the proposed development, the Clause states that a permit is required to create or alter access to a road in a Road Zone, Category 1, and that the proposal is to be referred to the relevant referral authority (in this case the Department of Transport (VicRoads)).

Before deciding on the appropriateness or otherwise of an application to alter access to the Road Zone, the responsible authority must consider the following:

- The Municipal Planning Strategy and the Planning Policy Framework.
- The views of the relevant road authority.
- The effect of the proposal on the operation of the road and on public safety.
- Any policy made by the relevant road authority pursuant to Schedule 2, Clause 3 of the Road Management Act 2004 regarding access between a controlled access road and adjacent land.

The proposal seeks to provide a redistribution of parking currently provided on the site with a modest increase of 4 spaces. The reconfiguration of the parking will see a relocation of 33 spaces toward Ann Street with a new access provided to Ann Street which is designed as an exit only. As there is no increase in students or staff as a result of the proposal, there will be no additional traffic generated across the site and as such there is not expected to be an impact on the road network. Nevertheless, a SIDRA analysis of post conditions at Ann Street indicates that the intersection will still operate under excellent conditions, and a queuing assessment of the existing Springvale Road car park access indicates that there will be no queuing generated to Springvale Road.

The proposal is therefore not expected to impact on the operation of the surrounding road network or on public safety.

6 LOADING

Clause 65 (Decision Guidelines) of the Greater Dandenong Planning Scheme identifies that "Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate: The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts."

No changes are proposed to the existing loading operations of the subject site, with all loading (including waste collection) being accommodated via the existing loading yard located adjacent to the drop-off/pick-up area along the loop road.

The provision for loading is therefore considered appropriate for the proposed use.

7 BICYCLE PARKING

The bicycle parking requirements for the subject site are identified in Clause 52.34 of the Greater Dandenong Planning Scheme, noting that Clause 52.34-1 indicates that "A new use must not commence or the floor area of an existing use must not be increased until the required bicycle facilities and associate signage has been provided on the land".

Further, Clause 52.34 states "Where the floor area occupied by an existing use is increased, the requirement for bicycle facilities only applies to the increased floor area of the use." The bicycle parking requirements therefore only apply to the proposed increase in floor area.

Whilst it is acknowledged that the floor area of the secondary school is to increase as part of the redevelopment, it is noted that Table 1 of Clause 52.34 identifies the appropriate measure for a secondary school is based on the increase of students and staff.

With no increase in the number of students or staff proposed, it is considered that no additional bicycle facilities are required as part of the proposed building expansion.

Noting the above, the provision of no additional bicycle parking is appropriate for the redevelopment.

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8 CAR PARKING

8.1 Statutory Car Parking Requirements

8.1.1 Car Parking Requirements – Clause 52.06

The car parking requirements for the subject site are identified in Clause 52.06 of the Greater Dandenong Planning Scheme. Furthermore, Clause 52.06 also specifies that:

'Where an existing use is increased by the measure specified in Column C of Table 1 for that use, the car parking requirement only applies to the increase, provided the existing number of car parking spaces currently being provided in connection with the existing use is not reduced'

The relevant 'measure' for the Secondary School is the number of staff. As the Secondary School is not proposing to operate with any additional staff and the number of parking spaces are not being reduced, the Planning Scheme requirements for the subject site do not apply.

Notwithstanding the above, it is noted that the application seeks to provide 5 additional parking spaces on-site.

8.2 Accessible Car Parking

The Building Code of Australia (BCA) specifies the minimum requirements for provision of accessible car parking.

The existing school, classified as a Class 9B building, requires provision of one accessible car spaces for every 100 car parking spaces or part thereof.

Noting the proposed provision of 106 car spaces on-site, the BCA requires at least two accessible car space on-site.

The proposed provision of two spaces thus satisfies the BCA requirements.

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9 TRAFFIC

9.1 Traffic Generation

The proposed school expansion does not involve an increase to either staff or students. Therefore, it is not expected that there will be an increase in traffic movements to or from the site. Nevertheless, the proposal will result in some staff exiting the site via the Ann Street car park and then onto Springvale Road via the Springvale Road / Ann Street / Andrew Street intersection.

Conservatively assuming that 50% of staff parked within the Ann Street car park depart during the PM peak period results in a total of 17 outbound movements during the PM peak. It is again noted that the Ann Street site access only allows for exit movements, and therefore no changes in traffic movements are expected during the AM peak.

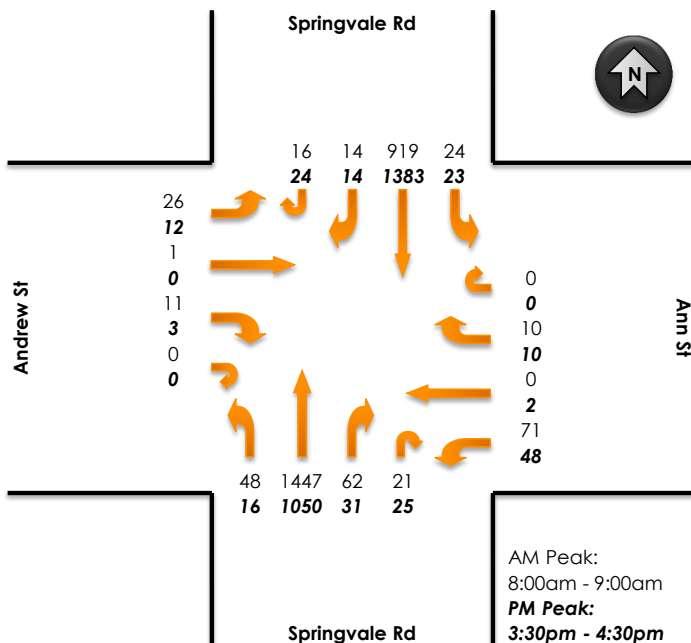
9.2 Traffic Distribution

Analysis of the existing outbound movements at Ann Street during the PM peak shows that 80% of outbound movements are to the south and 20% of outbound movements are to the north.

9.3 Resultant Traffic Volumes

Applying the above traffic generation to the existing traffic directional splits for outbound movements at Ann Street, and superimposing these traffic volumes with the existing volumes results in the following future volumes.

Figure 12 Resultant Traffic Volumes



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9.4 Intersection Capacity Assessment

A SIDRA analysis has been undertaken for the Springvale Road / Ann Street / Andrew Street intersection during the PM peak to assess the operation of the intersection under future conditions. The results of the SIDRA analysis are provided in the table below.

Table 5 Springvale Road / Ann Street / Andrew Street – PM Peak

| Approach | DoS | | Avg. Delay (sec) | | Queue (m) | |
|-------------------------|----------|--------|------------------|--------|-----------|--------|
| | Existing | Future | Existing | Future | Existing | Future |
| Springvale Road - South | 0.326 | 0.326 | 22.7 | 22.7 | 9.5 | 8.1 |
| Ann Street - East | 0.213 | 0.288 | 34.7 | 36.7 | 5.2 | 7.9 |
| Springvale Road - North | 0.261 | 0.261 | 12.3 | 12.3 | 3.9 | 4.1 |
| Andrew Street - West | 0.326 | 0.326 | 38.9 | 38.9 | 1.4 | 1.4 |

As shown in the table above, the intersection is expected to operate with the same level of service that is currently provided, with negligible increases to the degree of saturation, queues and delays.

9.5 Queuing Assessment

To ensure the existing remote controlled gate system can accommodate the expected increase to inbound traffic volumes generated by the Ann Street car park, an analysis of the remote controlled gate has been undertaken to ensure that there is sufficient capacity to accommodate all queuing on-site.

Conservatively assuming that 60% of staff parking at the Springvale Road / Ann Street car park arrive during the AM peak hour results in a total of 30 inbound movements during the AM peak hour.

Adopting a service time of 15 seconds for the remote-controlled gate results in the gate having capacity to service approximately 240 second per hour. It's noted that if the gate was operating near its theoretical capacity, it will effectively operate as a free flow entry (as the gate won't need to close) and therefore service 600 vehicles per hour (AS 2890.1:2004).

With a conservative traffic generation in the AM peak of 30 inbound movements, the remote-controlled gate is expected to generate a 98th percentile queue of 0.88 vehicles, which can be comfortably accommodated within the site boundary.

It is again noted that on the rare occasion that another vehicle arrives at the site when another vehicle is driving through the opened gate, the second vehicle will enter with the first vehicle and eliminate the requirement of queuing within the site.

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10 CONCLUSIONS

It is proposed to redevelop the north-western portion of the site which includes refurbishing the existing 'Kennedy Hall' and constructing a new two-storey building to the west of the Kennedy Hall. An additional 5 parking spaces are proposed as part of the redevelopment.

Considering the analysis presented above, it is concluded that:

- The proposed car parking and access design is considered appropriate;
- There is no Planning Scheme requirement to provide additional bicycle or car parking, and therefore the additional five parking spaces is in excess of the Planning Scheme requirements;
- The anticipated traffic redistribution is not expected to have an impact on the operation of the Springvale Road / Ann Street / Andrew Street intersection or the surrounding road network; and
- There are no traffic engineering reasons which would preclude a permit from being issued for this proposal.

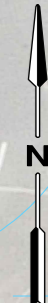
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Appendix A Swept Path Diagrams

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SPRINGVALE ROAD



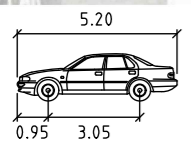
PROPOSED GIVEWAY LINEMARKING

PROPOSED LINEMARKING

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CAD File: \\auvic03\Company\Projects\2021\210218\Drawings\210218SPA100.dgn

Date Plotted: 15-06-2021 13:00:55



B99 meters
Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 33.9

SWEPT PATH LEGEND

- DESIGN VEHICLE SWEEP PATHS SHOWN DASHED
- 300mm CLEARANCE ENVELOPE SHOWN DOTTED

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Scale 1:400 @ A3
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Drawing Title
433 SPRINGVALE ROAD SPRINGVALE
SITE VEHICLE ACCESS
SWEPT PATH ANALYSIS

Designed MOB Approved VG Metway Ref 79 K11

Project Number 210218 Drawing Number SPA100 Revision B