



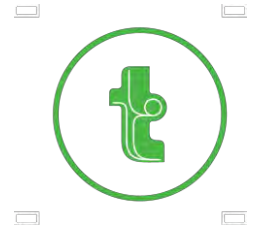
## Preliminary Construction Traffic Management Plan

### Proposed Development of South Kellyville Public School, Kellyville






Reference: 15.582r01v05 TRAFFIX CTMP Report  
Date: December 2016

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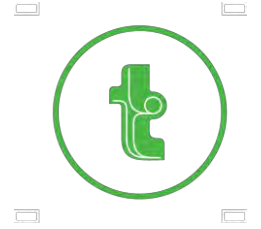
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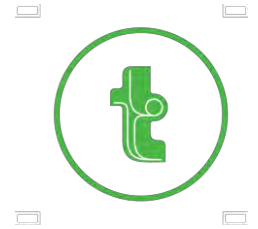
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# 1. Introduction

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TRAFFIX has been commissioned by Tanner Kibble Denton Architects on behalf of the Department of Education to prepare a preliminary Construction Traffic Management Plan (CTMP) which is required by Council prior to the commencement of works. This CTMP relates to the construction of a new junior school located at 21 and 23 Fairway Drive (Lot 11 DP 247442 and Lot 501 DP 1130020), Kellyville.

The site is currently occupied by two residential properties. The site is bound by Fairway Drive to the east, a proposed (Free Settlers Drive) to the north and a proposed road (Ernesta Place) to the south. The western property boundary is approximately 185 metres in length and borders a residential subdivision development.

A Location Plan is presented in **Figure 1**, for ease of reference.

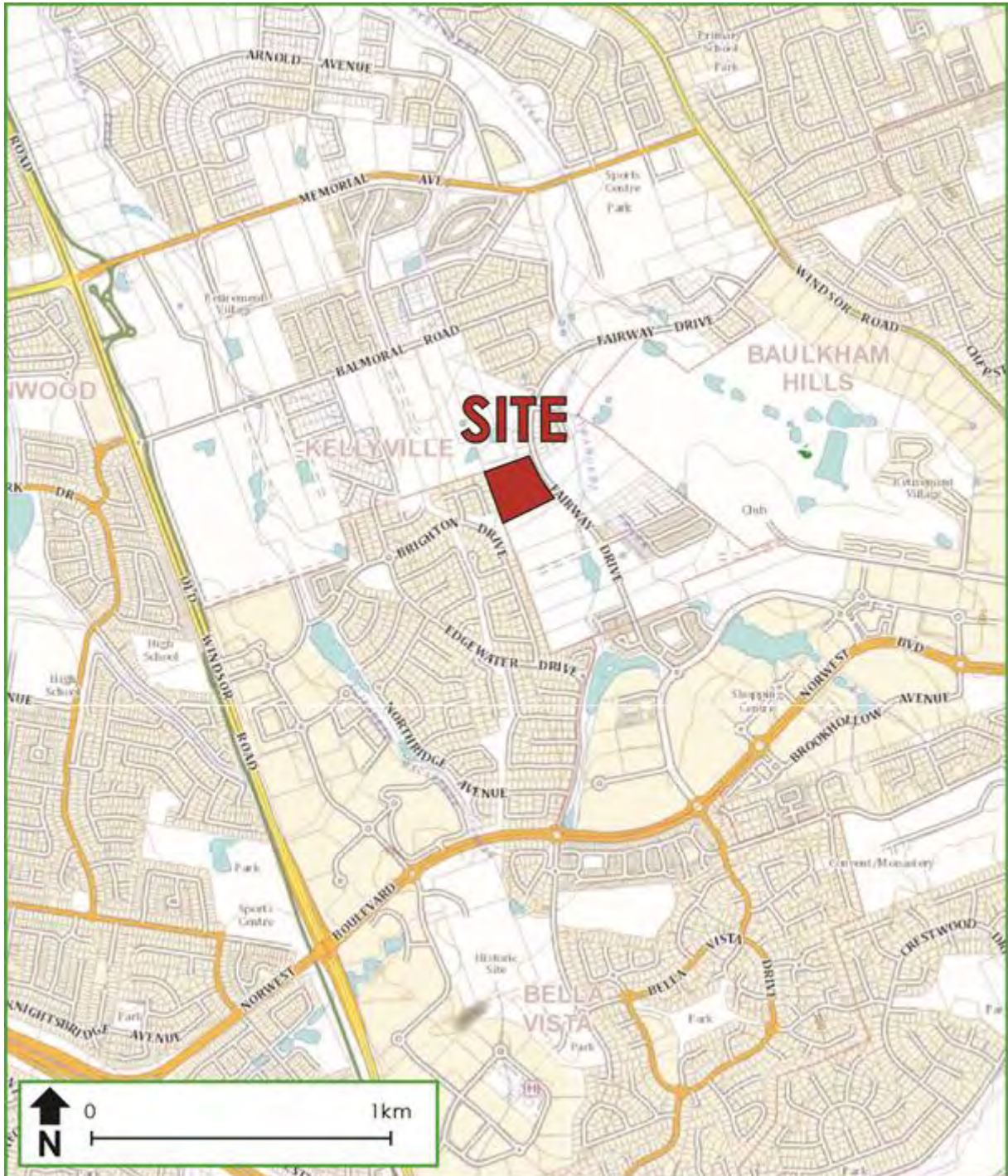


Figure 1: Location Plan



## 2. Implementation

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The Traffic Control Plans (TCPs) that are included in this report, should be implemented taking due account of on-site conditions as will occur over the construction period. Accordingly, construction crew are expected to respond in a pro-active manner to ensure that these plans are implemented to maximum effect and with no obvious safety issues being overlooked. In particular, the following matters are considered noteworthy:

- All signs are to be placed where clear visibility is available.
- Installations should be checked intermittently during the course of the day/s, and
- A minimum of one RMS certified Traffic Controllers shall be on-site at all times during work hours to supervise truck movements.

It is noted that TRAFFIX is responsible for the preparation of these TCPs only and not for their implementation, which is the responsibility of the project manager/builder.



## 3. Existing Conditions

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### 3.1 Location and Site

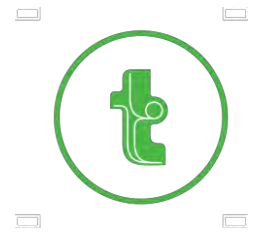
The site is situated within Kellyville and is bound by the existing Fairway Road to the East, the proposed extension of Free Settlers Drive to the north, residential property to the West and proposed Ernesta Place to the south. It is located approximately 1 km east of the proposed Bella Vista Railway Station and 38 kilometres north-west of the Sydney CBD.

The site is irregular in configuration having a total site area of approximately 39,221 m<sup>2</sup>. Access to the site is provided via two (2) vehicular crossings which serve two existing residential properties.

A Site Plan is provided in **Figure 2** which provides a more detailed appreciation of the site in the context of neighbouring properties.



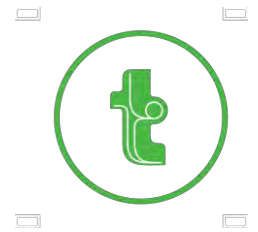
Figure 2: Site Plan



### 3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- Old Windsor Road: an RMS main road (MR635) that traverses in a north-south direction between the Cumberland Highway in the south and Windsor Road in the north. Old Windsor Road is subject to an 80km/h speed limit. It has a divided four lane carriageway, carrying two lanes of traffic in each direction and a 35 metre divided carriageway.
- Windsor Road: an RMS main road (MR184) that traverses in a north-east / south-west direction between Macquarie Street in the north east and Church Street in the south-west. Windsor road is subject to a 60 km/h speed limit, however, is subject to a 40km/h 8:00am – 9:30am, 2:30pm – 4:00pm on School Days. Windsor Road has a divided four lane carriageway, carrying two lanes of traffic in each direction within close proximity to the site. Windsor Road has a 25 metre wide carriageway.
- Memorial Avenue: a sub-arterial road which traverses in an east-west direction between Old Windsor Road and Windsor Road. Memorial Avenue is subject to a 60km/h speed limit. The road carries two traffic lanes with one lane of traffic in each direction. Memorial Avenue has an 11 metre wide carriageway.
- Norwest Boulevard: a sub-arterial road which traverses in an east-west direction between Old Windsor Road and Windsor Road. Norwest Boulevard is subject to a 70km/h speed limit. The road carries four traffic lanes, with two lanes of traffic in each direction. Norwest Boulevard has a 26 metre divided carriageway.
- Fairway Drive: a local road to the east of the site that runs in a north-south direction. The total road reserve is 20 metres and will be upgraded by The Hills Shire Council to an enhanced collector road over the next two years. Currently, the road carries two lanes of traffic, one in each direction.
- Free Settlers Drive: a proposed enhanced collector road which will run in an east-west direction. The road is currently a no through road in the west and



intersects with Fairway Drive in the east. According the Hills Shire DCP Part D Section 7- Balmoral Road Release Area enhanced collector roads have carriageway widths of 12.0 metres a verge width of 3.5-4.5 metres and require a 1.5 metre footpath on both sides. The total road reserve is 20 metres and is to be constructed by The Hills Shire Council. Completion is expected in 2018 prior to the proposed school opening in 2019.

➤ Ernesta Place:

a proposed access street which runs in an east-west direction. According the Hills Shire DCP Part D Section 7- Balmoral Road Release Area Access Streets have a carriageway of 8.5 metres with a 3.5 metre verge and a requirement of a 1.2 metre footpath on both sides. The total road reserve is 15.5 metres and will be constructed by a private developer with completion expected in 2017, prior to the school opening in 2019.

It can be seen from **Figure 3** that the site is conveniently located with respect to the arterial and local road systems serving the region. It is therefore able to effectively distribute traffic onto the wider road network, minimising traffic impacts.

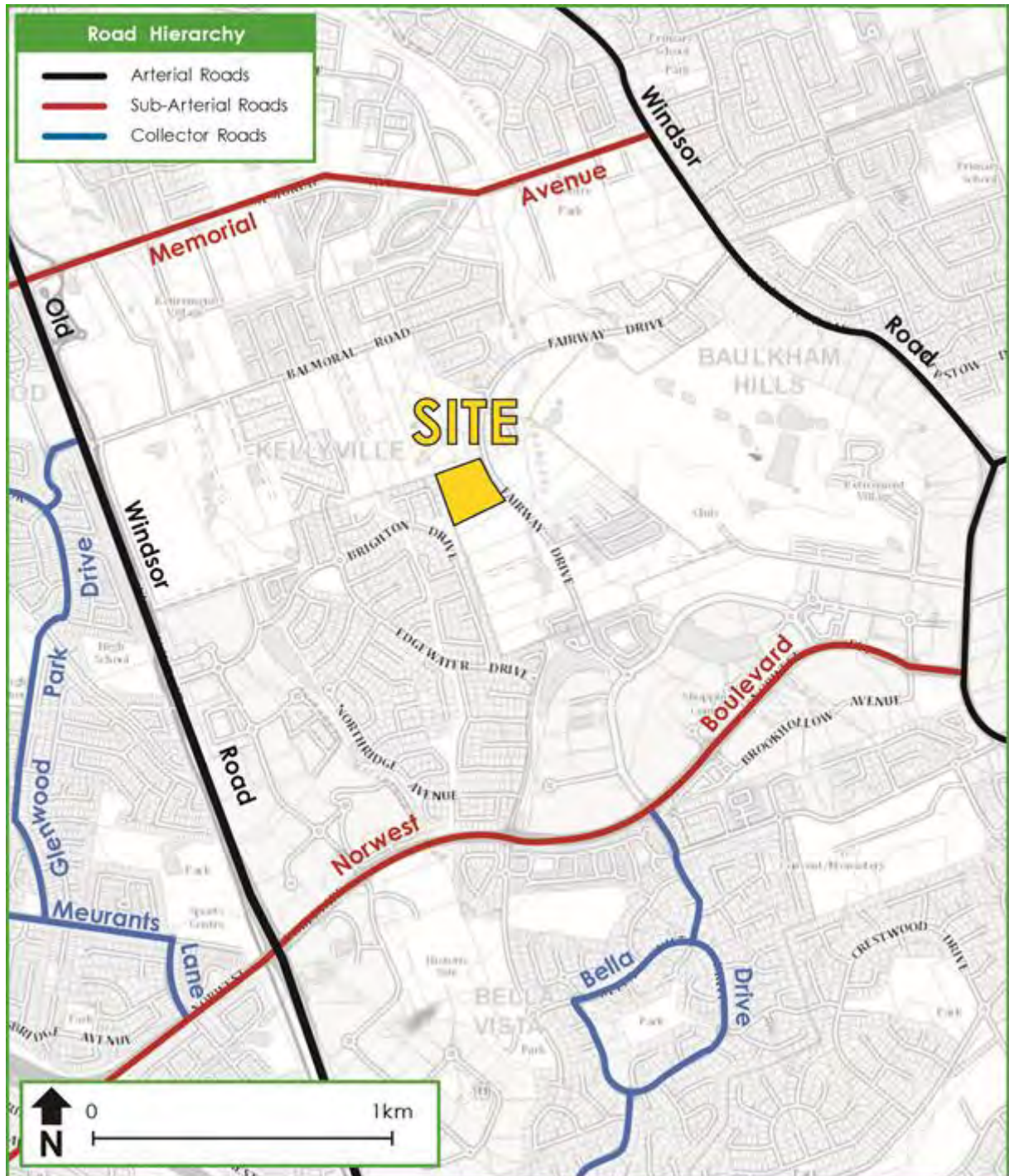


Figure 3: Road Hierarchy



## 3.2 Public Transport

Due to the low density rural nature of the Area 20 precinct, public transport to the area is currently limited. The site is not currently serviced by any Public Transport routes.



## 4. Traffic Management Plan

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### 4.1 Truck Routes

The proposed truck routes as shown in **Figure 4** seek use of the arterial road network as much as possible with the use of local streets only where required. All truck drivers shall be provided with a copy of the route prior to accessing the site. These can be summarised as follows:

- Routes to the Site: Trucks will arrive at the site from the A2 from the north via Windsor Road and Fairway Drive.
- Routes from the Site: Trucks will depart from the site to the south via Fairway Drive, turning left onto Solent Circuit and left onto Norwest Boulevard to access Windsor Road and connections to the A2 motorway.

### 4.2 Truck Size

For the purposes of this preliminary Construction Traffic assessment the following three typical truck sizes have been considered:

- A 19.5m 'Truck and Dog' combination - typically used during demolition and excavation stages;
- A 19m Articulated Vehicle – Typically the largest truck used during a construction programme
- A 12.5m Heavy Rigid Vehicle – A typical sized delivery truck used during a construction programme

A swept path assessment has been undertaken for each of these vehicle sizes with the results presented in **Appendix A**.

It can be seen from the assessment that the proposed truck routes are suitable for access by a Heavy Rigid Vehicle and a Truck and Dog combination, however the intersection of Fairway Drive and Solent Circuit is not able to accommodate movements by a 19m Articulated Vehicle. In addition, the intersection of Fairway Drive and Windsor Road is considered unsuitable for regular use by heavy vehicles due to the narrow road width and difficulties/restrictions for right turn movements.

As such it is recommended the truck routes identified in Figure 4 be adopted utilising a truck and dog or HRV design vehicle for regular construction works.

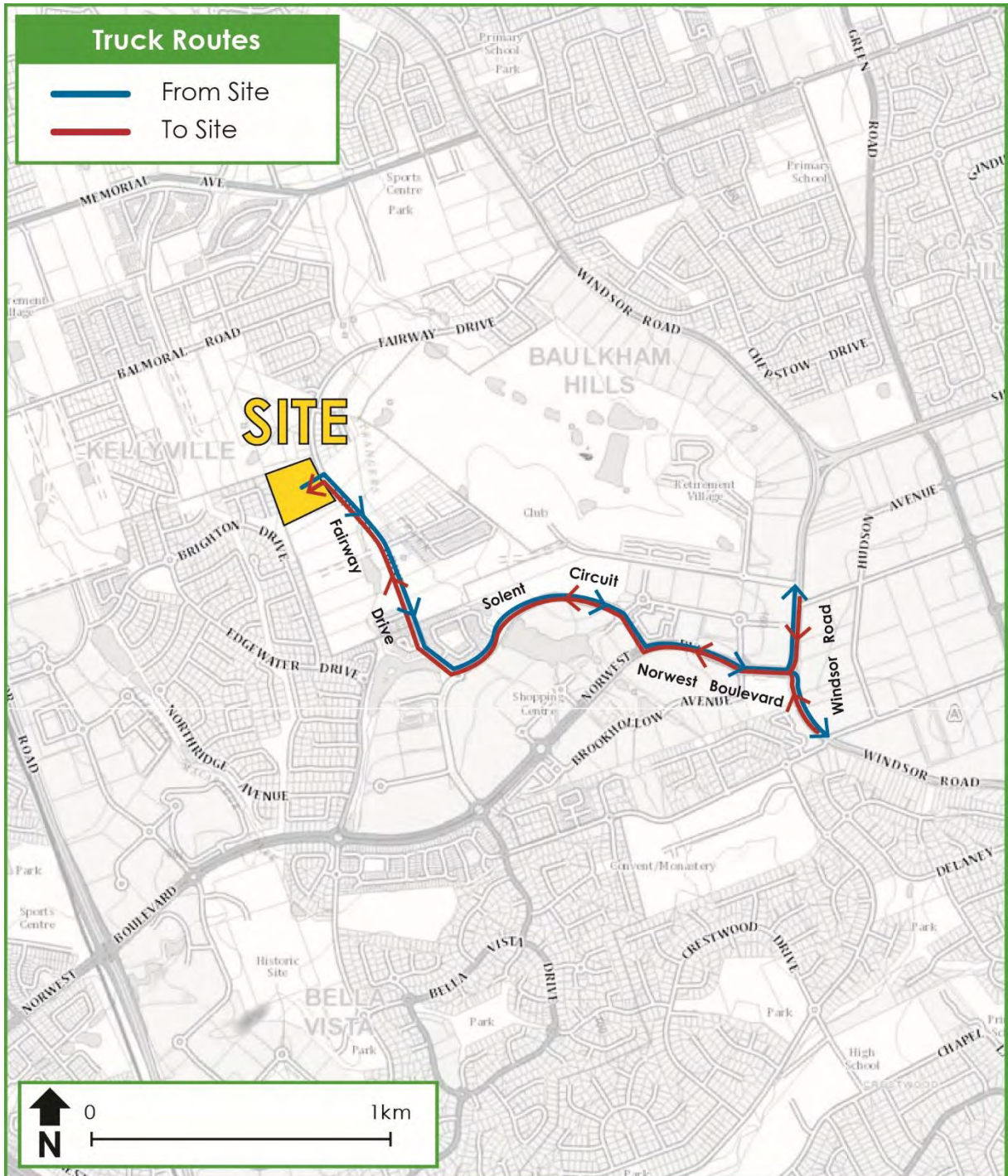


Figure 4: All Stages - Truck Routes



### 4.3 Vehicular Access

Construction vehicle access to the site will be required for all stages and will be provided via the existing driveway crossovers on Fairway Drive. These shall comprise 9 metre wide access driveways allowing entry and exit to the site. The vehicles will make use of the existing accesses, temporarily modifying the width to accommodate the 9 metre width required as indicated in the swept path analysis included in **Appendix A**, demonstrating satisfactory access to the site.

### 4.4 Pedestrian Control

The site is located within a quiet vacant area and experiences minimal pedestrian activity. It is therefore considered that the erection of fencing around the property boundary (in particular along Fairway Drive) will provide an acceptable level of pedestrian safety at all times. It is noted that all work will be carried out within the confines of the site and therefore the proposed development will have minimal effect on pedestrian activity in the area.

In addition, a traffic controller shall be positioned at the site accesses to ensure pedestrian safety when a vehicle enters and exits site.

### 4.5 Traffic Control Plans

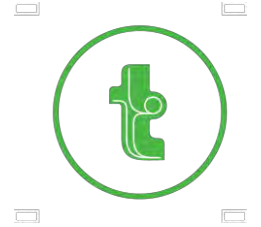
It is noted that all construction works will be carried out from within the site. Notwithstanding this, a Traffic Control Plan (TCP) has been prepared and is included in **Appendix B**, which demonstrates the signage required along Fairway Drive throughout all stages of construction.

The TCP included in **Appendix B** has been designed in accordance with the RMS *Traffic Control at Work Sites Manual* and is considered acceptable for implementation.

### 4.6 Employee Vehicles

Contractors will be encouraged to ride share to/ from the site noting that the current layout of the school would allow for some off-street parking until future buildings are erected. This parking would of course be restricted for construction employees who car pool to reduce both traffic and parking impacts. In addition, some on-site parking spaces are also provided in the vicinity of the site for all stages of the construction of the school.

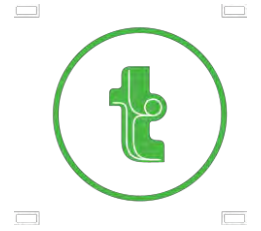
It is noted that at no time will contractors be allowed to park their private vehicles within the proposed loading areas, which are for the sole purpose of the loading / unloading of materials and equipment on site.



## 5. Conclusions

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The plan outlined above is considered satisfactory and will minimise any disruptions to residents / tenants of neighbouring developments, as well as pedestrians in the area. This plan meets all requirements of AS 2890.2, AS 1742.3, *RMS Traffic Control at Work Sites Manual* and is recommended for adoption.



# Appendix A

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## Swept Path Analysis



**Notes**

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (AS/NZS 2890.1-2004 *Parking facilities - Off-street car parking*, and/or AS 2890.2-2002 *Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

no.	revision note	by.	date

**Swept Path Legend:**

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

**architect**  
Tanner Kibble Denton Architects Pty Ltd

**client**  
Department of Education

**scale**  
1:500 @ A3

**project**  
South Kellyville Public School

**drawing prepared by**  
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**drawing title**  
Swept Path - 12.5m HRV Access and Egress

drawn: LK	checked: GH	date: 07-10-2016
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15.582	-	TX.01	A
project no.	drawing phase.	drawing no.	rev



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no.	revision note	by.	date

**Swept Path Legend:**

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)


**architect**  
Tanner Kibble Denton Architects Pty Ltd

**client**  
Department of Education

**scale**  
1:400 @ A3  
0m 4 8 12 16

**project**  
South Kellyville Public School

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**drawing title**  
Demolition Stage - HRV

drawn: LK	checked: GH	date: 08-03-2016
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project no.	drawing phase.	drawing no.	rev



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**Swept Path Legend:**

- Wheel Path
- - - Vehicle Body Envelope
- / / / Clearance Envelope (300mm)

**architect**  
Tanner Kibble Denton Architects Pty Ltd

**client**  
Department of Education

**scale**  
1:500 @ A3

**project**  
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**drawing title**  
Demolition Stage -  
HRV (Solent Circuit / Norwest Boulevard)

drawn: LK    checked: GH    date: 21-12-2016

15.582	-	TX.03	B
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no.	revision note	by.	date

**Swept Path Legend:**

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

**architect**  
Tanner Kibble Denton Architects Pty Ltd

**client**  
Department of Education

**scale**  
1:400 @ A3

**project**  
South Kellyville Public School

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**drawing title**  
Demolition Stage -  
19.5 m Long Truck and Dog (Site Access)

drawn: LK    checked: GH    date: 07-10-2016

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no.	revision note	by.	date

**Swept Path Legend:**

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

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**client**  
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**drawing title**  
Demolition Stage -  
Fairway Drive / Solent Circuit

drawn: LK    checked: GH    date: 07-10-2016

15.582	-	TX.05	A
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no.	revision note	by.	date

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- Wheel Path
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- Clearance Envelope (300mm)

**architect**  
Tanner Kibble Denton Architects Pty Ltd

**client**  
Department of Education

**scale**  
1:500 @ A3

**project**  
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**drawing title**  
Demolition Stage -  
19.5 m Truck and Dog (Solent Circuit / Norwest Boulevard)

drawn: LK    checked: GH    date: 21-12-2016

15.582	-	TX.06	B
project no.	drawing phase.	drawing no.	rev




---

## Appendix B

### Traffic Control Plans



Traffic Control Plan (TCP)	Date:	11.10.2016	TRAFFIX traffic and transport planners Suite 2/08, 50 Holt Street Surry Hills NSW 2011 PO Box 1124 Surry Hills NSW 1335 t: +61 2 8324 8700 f: +61 2 9380 4481 e: info@trafix.com.au	 traffix traffic & transport planners
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