



## M<sup>C</sup>LAREN TRAFFIC ENGINEERING

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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

10 July 2019

Reference: 190157.02FB

PMDL  
17/124 Walker Street,  
North Sydney,  
NSW 2060 Australia  
Attention: Tim Williams

### CONSTRUCTION TRAFFIC MANAGEMENT PLAN FOR THE PROPOSED SAINTS PETER AND PAUL ASSYRIAN PRIMARY SCHOOL AT 17 - 19 KOSOVICH PLACE, CECIL PARK

Dear Tim,

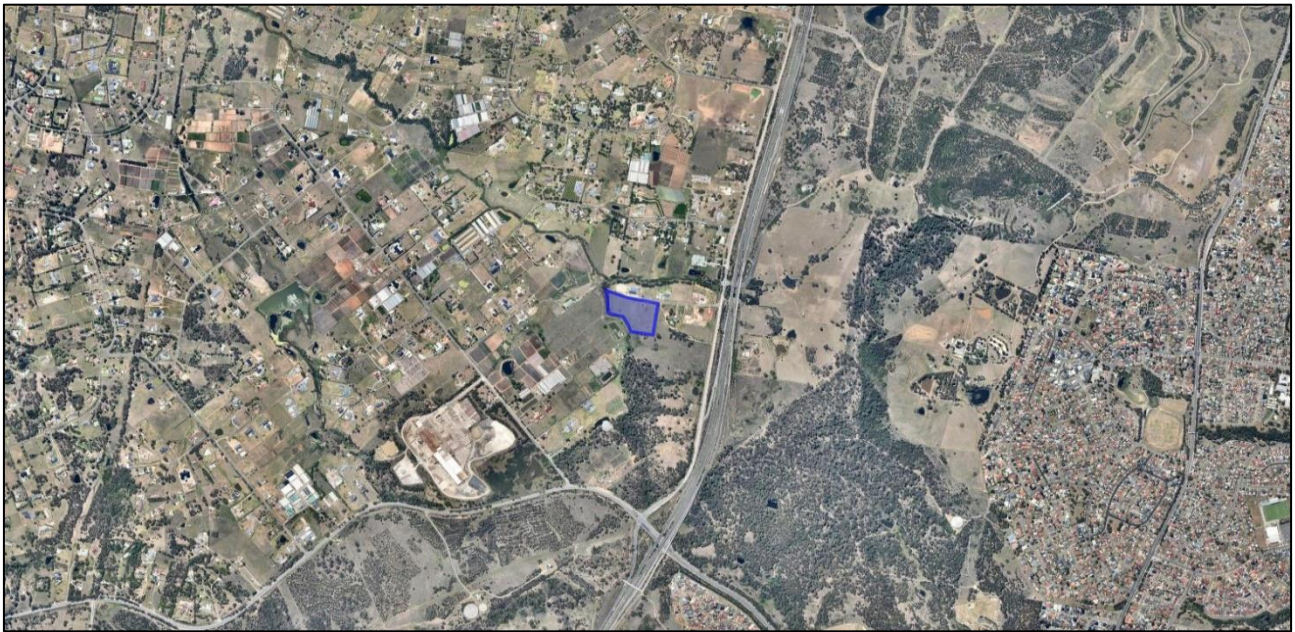
Reference is made to your request to provide a Construction Traffic Management Plan (CTMP) for the proposed primary school at 17 - 19 Kosovich Place, Cecil Park. The relevant construction staging plans are reproduced in **Annexure A** for reference. This CTMP is to address the Secretary's Environmental Assessment Requirements (SEARs) dated 13<sup>th</sup> April 2018. Specific responses to the items mentioned in the SEARs are provided in **Section 16** of this report.

#### **1** Site Location

The subject site is located within the Fairfield City Council Local Government Area and has a single street frontage to Kosovich Place. Wallgrove Road, a State Classified Road, is nearby approximately 300m to the east of the site.

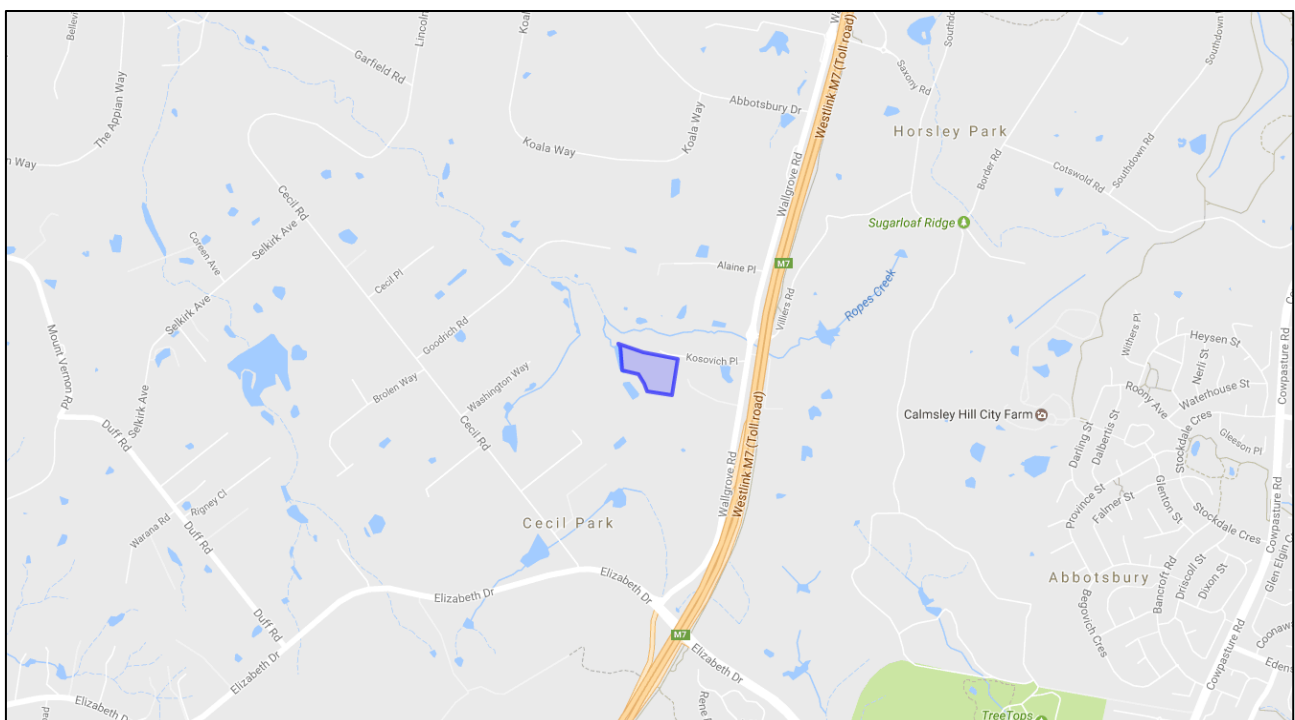
The school is zoned RU4 – Primary Production Small Lots under the Fairfield City Council Local Environmental Plan 2013 and is generally surrounded by rural properties and low-density residential dwellings.

The location of the site is shown on aerial imagery and a map in **Figure 1 & Figure 2** respectively.



Site Location

**FIGURE 1: SITE CONTEXT – AERIAL IMAGE**



Site Location

**FIGURE 2: SITE CONTEXT – MAP**

## **2 Road Hierarchy**

The relevant characteristics of the road network servicing the site are summarised below.

### **2.1.1 Wallgrove Road**

- Classified State Main Road No. 515;
- Approximately 11.5m in width facilitating one traffic and one parking lane in each direction;
- Signposted 80km/h carriageway;
- Unrestricted parking generally permitted along both sides of the road in line-marked shoulders.

### **2.1.2 Elizabeth Drive**

- Classified State Main Road No. 535;
- Approximately 21.5m in width to the east of Wallgrove Road, facilitating two traffic lanes in each direction and a 6m wide median;
- Approximately 13m wide to the west of Wallgrove Road, facilitating one traffic lane and one parking lane in each direction;
- Signposted 70km/h carriageway;
- No parking permitted to the east of Wallgrove Road, unrestricted parking generally permitted along both sides of the road to the west of Wallgrove Road in line-marked shoulders.

### **2.1.3 The Horsley Drive**

- Classified State Main Road No. 609;
- Approximately 13m wide to the east of Wallgrove Road, facilitating one traffic lane eastbound and two traffic lanes westbound and a 2m wide median;
- Approximately 11m wide to the west of Wallgrove Road, facilitating one traffic lane and a formalised shoulder in either direction;
- Signposted 70km/h carriageway to the east of Wallgrove Road, 50km/h to the west of Wallgrove Road;
- No parking permitted to the east of Wallgrove Road, unrestricted parking generally permitted along both sides of the road to the west of Wallgrove Road in line-marked shoulders.

### **2.1.4 Kosovich Place**

- Unclassified Local Road;
- Approximately 6.5m in width, providing for two-way passing of traffic;
- 50km/h speed limit applies;
- No kerbs are provided and some informal parking may occur on either side of the road, partially using the verge.

## 2.2 Existing Traffic Management

- Signalised intersection of Wallgrove Road/Elizabeth Drive;
- Signalised intersection of Wallgrove Road/The Horsley Drive;
- “GIVE WAY” controlled intersection of Kosovich Place/Wallgrove Road;
- Roundabout controlled intersection at Wallgrove Road/Villiers Road.

## 3 Proposed Development

The proposed Saints Peter and Paul Assyrian Primary School will be constructed and populated in multiple stages (as outlined in **Annexure A** for reference) and includes the following characteristics relevant to this Construction Traffic Management Plan (CTMP):

- Stage One
  - Total of 210 students (K – 6);
  - Total of 12 staff;
  - No Pre-school component;
  - 37 off-street car parking spaces for staff, plus two disabled parking spaces for staff and/or visitors;
  - Formalised internal kiss and ride facility for parents with 30 spaces + 1 emergency vehicle space.
- Final Development
  - Total of 630 students (K – 6);
  - Total of 35 school staff;
  - 37 off-street car parking spaces for staff, plus two disabled parking spaces for staff and/or visitors;
  - Formalised internal kiss and ride facility for parents with 30 spaces + 1 emergency vehicle space.

In addition to the construction of the school, some public works are proposed to improve Kosovich Place, including the following:

- Widening of the carriageway of Kosovich Place to 7m in width to provide for the two-way passing of buses;
- Widening of the carriageway of Kosovich Place to 10m width along the frontage of the site to facilitate a bus zone for school buses;
- Upgrades to the intersection of Kosovich Place and Wallgrove Road, including the addition of an auxiliary right-turn lane on Wallgrove Road and a “No Right Turn” restriction on Kosovich Place;
- Construction of a footpath along northern boundary of the site within Kosovich Place.

Decontamination works within Lot 2321 will be conducted simultaneously with the construction of Stage 1. The construction traffic impacts of any construction associated with the school are not expected to exceed those outlined in this report.



#### 4 Duration of Construction

Stage 1 of construction is expected to have a duration of approximately 11 months, with the final stage to take approximately 4 months. The construction activities undertaken in each stage will include earthworks, structure and fit-out and finishes. The expected duration of works in each of the stages addressed by the CTMP are summarised in **Table 1**.

**TABLE 1: STAGE ONE CONSTRUCTION DURATION BREAKDOWN**

<b>STAGE 1</b>	
<b>Activity</b>	<b>Duration</b>
Excavation and Earthworks	5 months
Structure	4 months
Fit-out	2 months
<b>FINAL STAGES</b> <i>(to be constructed in a further 4 stages based on population growth needs and grant funding)</i>	
<b>Activity</b>	<b>Duration</b>
Earthworks	4 months - 1 month for each stage
Structure	8 months - 2 months for each stage
Fit-out	4 months - 1 month for each stage
<b>Total</b>	<b>16 Months</b>

This timeframe is indicative only and can possibly change due to delays, weather and construction certification details. This CTMP addresses only the works undertaken in the first and final stages of construction. Intermediate construction stages will be undertaken under an updated CTMP, when the scale and nature of works to be undertaken during these stages is known.

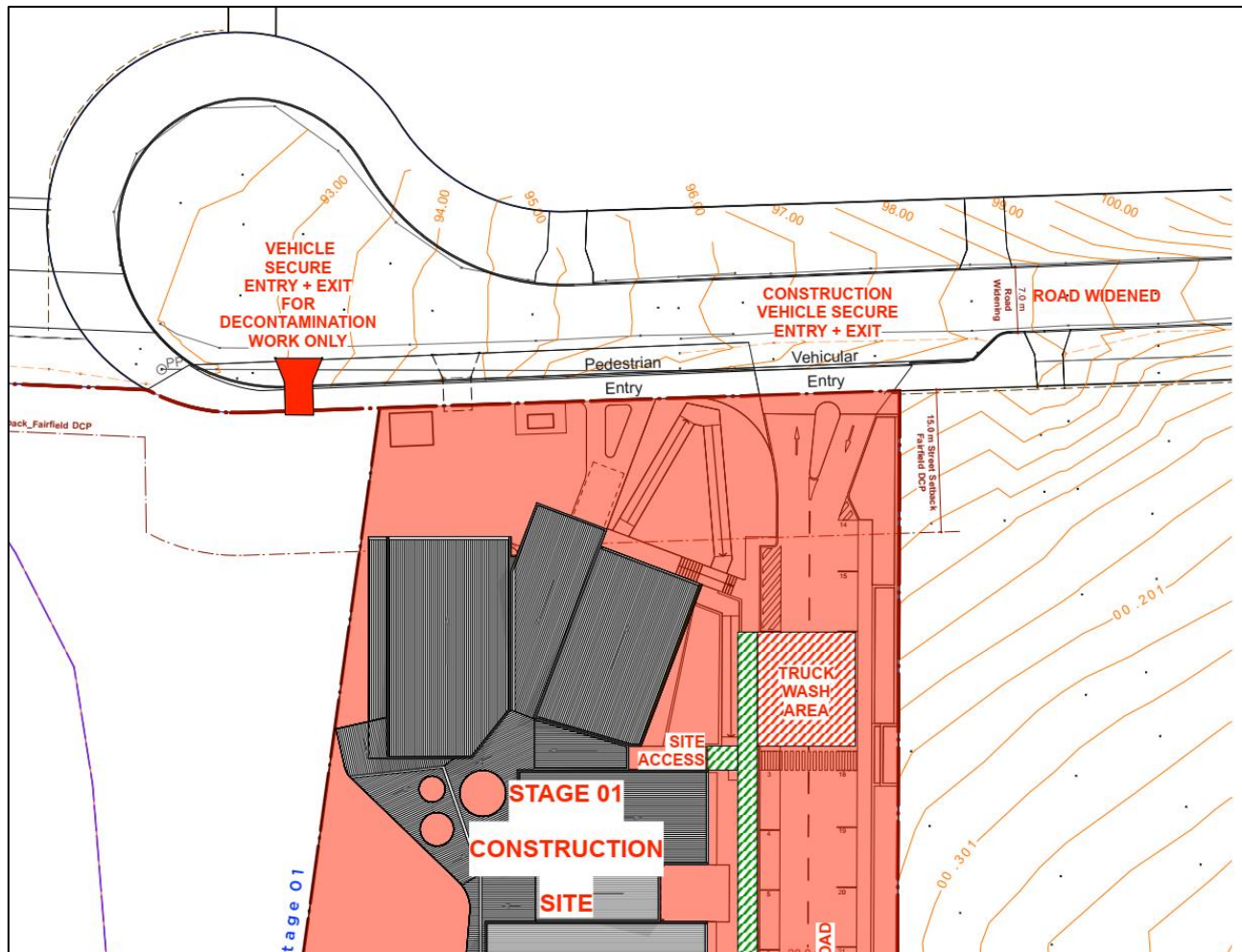
#### 5 Construction Hours of Work

The work associated with the construction of the development will be in accordance with Fairfield City Council regulations. The enforcement of these hours of work is the responsibility of the site contractor and any other delegated authority. All sub-contractors and associated workmen are to follow the hours of work as instructed by the site contractor. Any works outside of the approved hours of work must be approved by the relevant authority prior to carrying out the work.

## 6 Construction Site Access

### 6.1 Stage One

During Stage 1 vehicular access will be made via a two-way driveway from Kosovich Place at the north-east corner of the site as shown in **Figure 3**. The vehicular crossing shall be amended to accommodate the swept paths of a 12.5m length Heavy Rigid Vehicle (HRV). All vehicles will enter and exit the site in a forward direction, with sufficient turning area provided on-site.



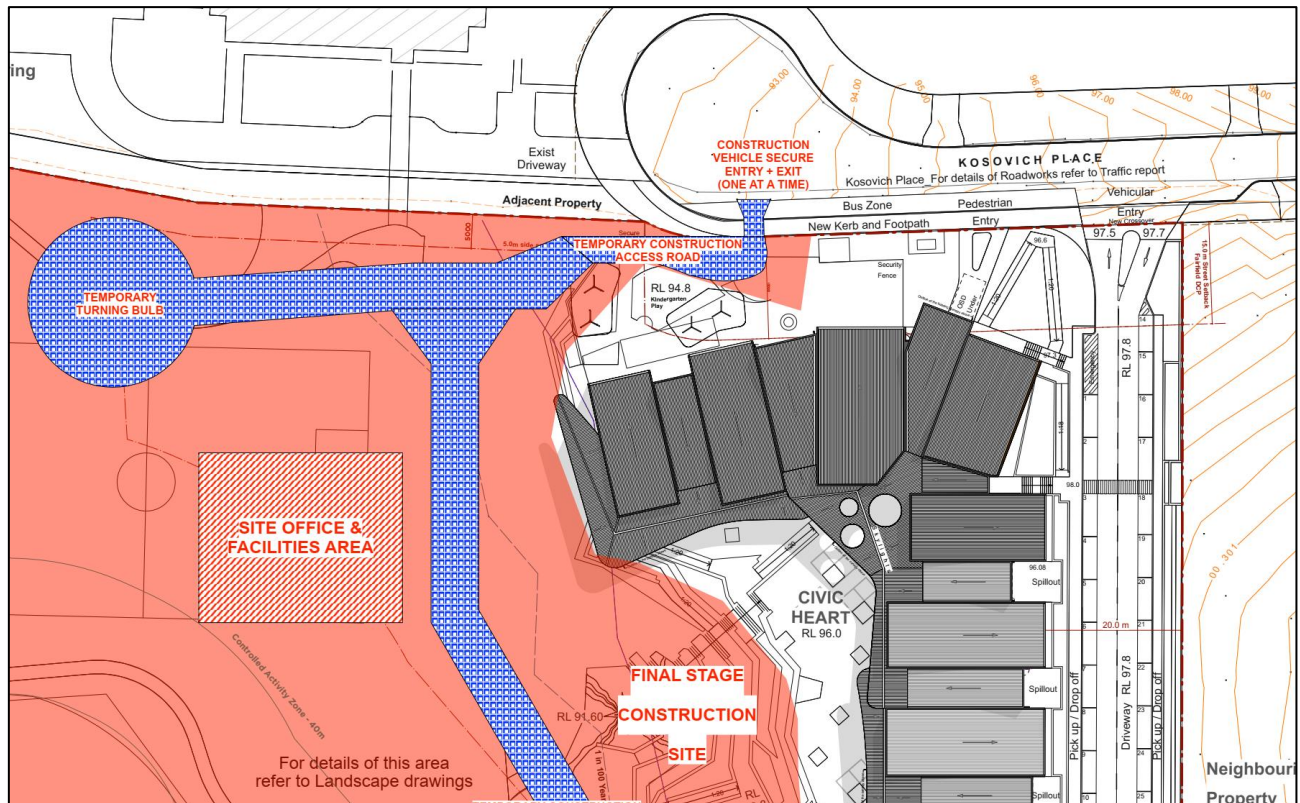
**FIGURE 3: CONSTRUCTION ACCESS: STAGE 1**

All deliveries and loading operations will be completed within the boundaries of the site, with no work zone needed or proposed.

A truck washing area will be provided to remove excess sediment from all vehicles prior to leaving the site to prevent the accumulation of sediment in Kosovich Place.

## 6.2 Final Development

For the final development, all vehicular access will be made via a two-way driveway from Kosovich Place off the southern end of the cul-de-sac as shown in **Figure 4**. The vehicular crossing shall be amended to accommodate the swept paths of a 12.5m Heavy Rigid Vehicle (HRV). All vehicles will enter and exit the site in a forward direction, with a temporary turning bulb to be provided on the site.



**FIGURE 4: CONSTRUCTION ACCESS: FINAL DEVELOPMENT**

All deliveries and loading operations will be completed within the boundaries of the site, with no work zone needed or proposed.

A truck washing area will be provided to remove excess sediment from all vehicles prior to leaving the site to prevent the accumulation of sediment in Kosovich Place.

## 7 Work Zones

All loading & unloading of deliveries/materials will be undertaken wholly on-site and no Works Zone will be required in Kosovich Place. If for unforeseen reasons a construction work zone is required, this is subject to a separate application and approval and appropriate amendment of this CTMP.

## 8 Construction Staff & Parking Requirements

It is expected that the number of construction staff required for each stage of construction will be determined at a later stage and reflected in an updated CTMP prior to the commencement of construction.

Sufficient area will be available on-site for the parking of all vehicles associated with the construction activities during all stages of construction.

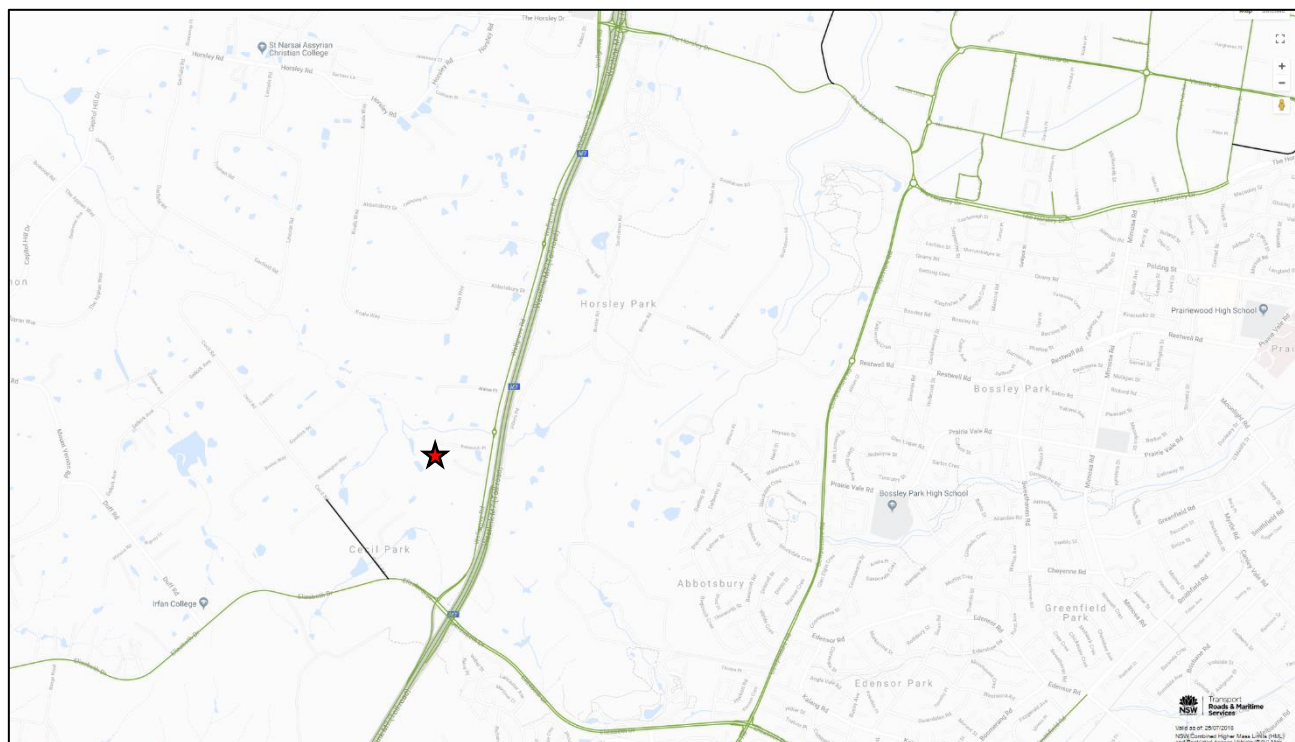
## 9 Construction Traffic

The site is well connected to the surrounding state network and minimal traversal of residential streets is required. Construction traffic generated by the development is relatively low, with 10-15 weekly deliveries by construction vehicles (12.5m HRV) & 1-10 daily waste truck arrivals.

The traffic generation associated with construction staff is unknown, however, considering the proximity of the site to the State Road network, it is not expected that the traffic generated by construction activities will exceed the capacity of the road network.

## 10 Construction Vehicle Haulage

The site is well placed in terms of restricted access vehicle routes, as illustrated in **Figure 5**.



★ Site Location      — Approved 25/26m B-Double Routes

**FIGURE 5: NSW RESTRICTED ACCESS VEHICLE ROUTE MAP**

Swept paths demonstrating access to Kosovich Place from Wallgrove Road are provided in **Annexure B**.

Considering the excellent access to the restricted access vehicle network, no difficulties with construction vehicle haulage are anticipated.



## **11 Pedestrian Management**

No footpaths currently exist along Kosovich Place and, considering the low scale of existing development along Kosovich Place, very few pedestrian movements are expected during construction hours, especially as there are no habitable properties beyond the site entrance on Kosovich Place.

The frontages on the outside of the construction fence are to be free of any waste, construction material or trip hazards associated with the development. Only authorised personnel are permitted on-site and must be inducted by the site manager/OH&S officer. Site fencing along the street-frontage should also be regularly inspected for potential trip hazards or encroachment onto the verge where pedestrians may walk.

Although not expected, if a construction work zone is required along the frontage, it may be necessary to implement a traffic controller to monitor pedestrian traffic across the temporary construction driveway and through the work zone, particularly if on-street loading is to be undertaken, although this is highly unlikely and not currently part of this CTMP.

Any damage to the existing Council verges or street tree planting that occurs as a result of construction activities will be repaired appropriately.

## **12 Traffic Control Plans**

The construction work and vehicle access addressed by this CTMP does not require the implementation of traffic control plans, as:

- Entry to and exit from the site will be completed in a forward direction;
- No work zone is required or proposed;
- The entry/exit points of the site are on a quiet road with very few traffic or pedestrian movements.

Therefore, Traffic Control Plans (TCPs) are not required for the subject construction.

## **13 Operation of Interim School**

Following the completion of the first stage of construction school operations will commence. Detailed CTMPs will be submitted for each stage of construction outlining the necessary management to ensure the safe operation of the school during all construction activities. Each of these CTMPs will include:

- The management of construction vehicle movements to avoid school pick-up and drop-off hours;
- Appropriate traffic control to separate construction vehicles and construction activities from vehicles and pedestrians associated with the school;
- Management of construction staff hours to prevent coincidence between peak construction traffic and peak school traffic.

#### **14 Interaction with Operation of Neighbouring Church**

The management of the existing Church located at 32-40 Kosovich Place, Cecil Park will be consulted throughout the construction process to ensure that no conflicts between the operations of the Church and the construction works occur. It is understood that the Church operates almost exclusively outside of weekday business hours (which typically approximately match construction hours) and that no conflict will occur.

Any works proposed on weekends will be undertaken in close consultation with the Church to ensure that construction vehicle arrivals do not coincide with the start or finish times of events at the Church.

#### **15 Traffic Management Plan (TMP) Checklist**

Reference is made to the RMS (previously RTA) *Procedures for Use in the Preparation of a Traffic Management Plan*, version 2.0 December 2001. The following list addresses the required TMP details.

- A. Description or detailed plan of proposed measures  
*Is the detailed plan of the proposed measures necessary?*  
**No**
- B. Identification and assessment of impact of proposed measures  
*Is a detailed assessment required?*  
**No** – The expected generated construction traffic is relatively low and is not expected to measurably increase expected delays or impacts on surrounding network performance.
- C. Measures to ameliorate the impact of re-assigned traffic  
*Is an assessment required?*  
**No** – The expected generated construction traffic is relatively low and is not expected to measurably increase expected delays or impacts on surrounding network performance. The site is located close to the arterial road of Wallgrove Road, therefore, minimising any infiltration to local streets.
- D. Assessment of public transport services affected  
*Is an assessment required?*  
**No** – There are no existing bus stops or other public transport services which will be affected by the proposed works.
- E. Details of provision made for emergency vehicles, heavy vehicles, cyclists and pedestrians  
*Are these details required?*  
**No** – The proposed works will not adversely impact the current on-street conditions, including access around the site for pedestrians.
- F. Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures  
*Is an assessment required?*  
**No** – The proposed construction will have little to no effect on the transport facilities in the vicinity of the site.
- G. Assessment of the effect of proposed measures on traffic movements in adjoining Council areas

Is an assessment required?

**No** – The expected generated construction traffic is relatively low and is not expected to measurably increase expected delays or impacts on surrounding network performance.

H. Public consultation process

Is a public consultation process required?

**No** – The current traffic flow conditions will remain unaltered and therefore no impact on existing traffic flows along local and arterial roads. However, existing residents of Kosovich Place will be notified in advance of the construction project commencing, as a matter of courtesy.

## **16 Response to SEARs**

Responses to the following items were specifically requested by the SEARs. Each item has been addressed in a sub-section below.

*In relation to construction traffic:*

- *assessment of cumulative impacts associated with other construction activities (if any);*
- *an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity;*
- *details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process;*
- *details of anticipated peak hour and daily construction vehicle movements to and from the site;*
- *details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle;*
- *details of temporary cycling and pedestrian access during construction; and*
- *traffic and transport impacts during construction, including cumulative impacts associated with other construction activities, and how these impacts will be mitigated for any associated traffic, pedestrian, cyclists, parking and public transport, including the preparation of a draft Construction Traffic Management Plan in line with Council's Construction Management Plan Checklist to demonstrate the proposed management of the impact.*

### **16.1 Cumulative Impacts**

Decontamination works will occur on Lot 2320 simultaneously with Construction Stage 01 of the proposed school, involving HRV vehicle movements on both sites. This may require a coordinated plan for managing the vehicle movements across both sites.

### **16.2 Road Safety Assessment**

The intersection of Kosovich Place and Wallgrove Road will provide for all access to and from the site for all vehicles associated with construction. The sight distances available at this intersection are depicted in **Figure 6** and **Figure 7**.

As shown, there are ample sight distances available in both directions from the intersection to meet the Safe Intersection Sight Distance of approximately 200m for an 80km/h speed restriction. Traffic tube surveys undertaken at the intersection indicate that during construction hours the 85<sup>th</sup> percentile



speeds at the intersection would be approximately 57km/h for traffic travelling north and 54km/h for traffic travelling south, significantly less than the 80km/h speed zoning along Wallgrove Road.

On the basis that sufficient sight distances are available at the intersection and the speeds at the intersection are reduced from the 80km/h speed restriction of Wallgrove Road, the use of the intersection by construction vehicles is of low risk.



**FIGURE 6: SIGHT DISTANCE LOOKING SOUTH**



**FIGURE 7: SIGHT DISTANCE LOOKING NORTH**

### **16.3 Construction Program**

See **Section 4** of this report.



#### **16.4 Peak Hour Construction Vehicle Movements**

See **Section 9** of this report.

#### **16.5 On-Site Parking/Access**

See **Section 6** of this report for a description of access facilities and **Section 8** of this report for an outline of parking on the site.

#### **16.6 Temporary Cycling/Pedestrian Facilities**

Existing cycling and pedestrian access along Kosovich Place will be maintained at all times during construction, despite the fact that there are currently no specific provisions for either of these.

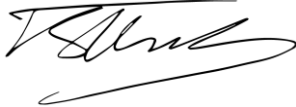
#### **16.7 Traffic and Transport Impacts during Construction**

As outlined in this CTMP, there will be insignificant impacts on the surrounding traffic and transport facilities as a result of the proposed construction activities.

Please contact the undersigned should you require further information or assistance.

Yours faithfully,

**McLaren Traffic Engineering**



**Tom Steal**

**Senior Traffic Engineer**

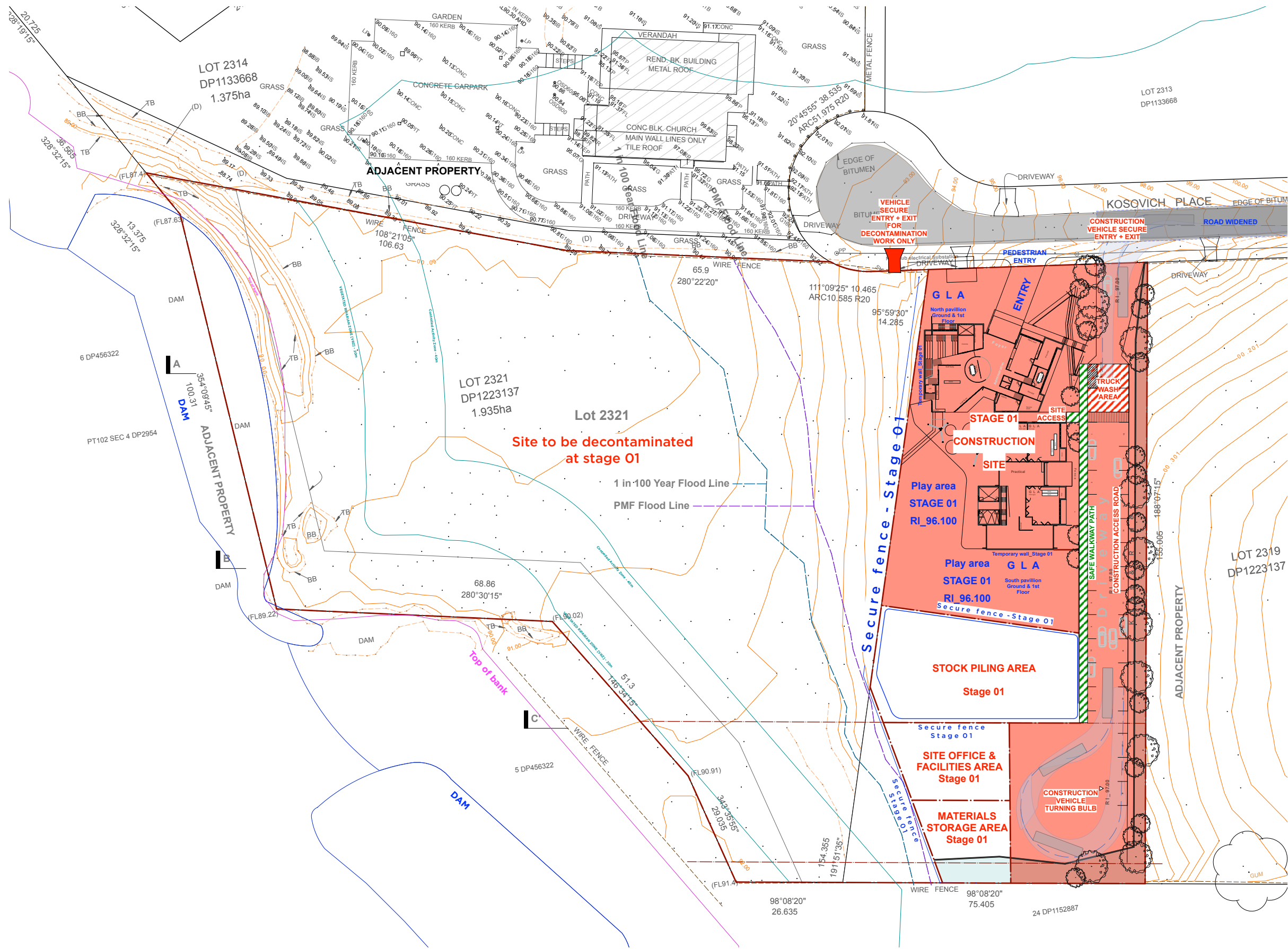
BE Civil AMAITPM GradIEAust

RMS Accredited Level 1 Road Safety Auditor

RMS Accredited Work Zone Traffic Management Plan Designer and Inspector



**ANNEXURE A: STAGING PLANS**



9 GLAs  
Administration  
Driveway  
Carpark  
Electrical substation  
RI 96.100 bench [Lot 2320]  
Decontamination [Lot 2321]  
Sewer Infrastructure  
Road widening  
**PRELIMINARY**

# Construction Traffic Management Plan

## CONSTRUCTION STAGE 01 - 10.07.2018



**PMDL** ARCHITECTURE  
INTERIORS  
MASTERPLANNING

ISSUE	DATE	REVISION	0mm	50mm	100mm
DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY. CHECK ALL DIMENSIONS ON SITE BEFORE MANUFACTURE OR CONSTRUCTION.					
PROJECT	Ss Peter & Paul Primary School		PROJECT # 2639		
CLIENT	Asyrian Schools Ltd		DRAWN BY		
DWG	Stage 01 - CTMP Masterplan		SK151		
CLIENT REF & CONTACT	Cecil Park		DATE: Mar 2018	DESIGN: KC	REVISION
	SCALE: 1:500 @ A1		CHD: TW		

Required Information for CTMP - **CONSTRUCTION PHASE 01**  
**Initial single-stream, Primary School (K - Year 6)**  
**210 students (max.) + 12 Staff**

Required Information	Stage of Construction				
	Demolition	Excavation + Infrastructure	Structure	Fitout	
Construction plan showing location of site sheds materials storage and amenities facilities, truck washing facilities (including shakedown area) and truck loading/unloading areas (including construction areas)		Refer "SK151 CTMP Site Plan - Construction Stage 01"			
Construction/stage duration of works (months)		5 Months	4 Months	2 Months	
Times of construction activity as per consent conditions					
Work zone requirements (length and times required). Note desired location if multiple frontages		-	-	-	
Largest vehicle to be used within the proposed works zone (refer to below for vehicle sizes)		Large	Large	Large	
Construction vehicle access points into the site		Kosovich Place N.E. corner of site	Kosovich Place N.E. corner of site	Kosovich Place N.E. corner of site	
Largest vehicle to enter the site (refer to below or vehicles sizes)		Large	Large	Large	
Truck types (sizes) i.e. Small(<6.4m), Medium (>6.4m, <8.8m), Large (>8.8m, <12.5m), Articulated vehicles (19m), truck and dog/combinations (>18.5m) Please list all that will be used		Large, Medium & Small	Large, Medium & Small	Large, Medium & Small	
Staff numbers – maximum on-site at any one time (peak times)		?	?	?	
Staff numbers – maximum on-site at any one time (average over stage)		?	?	?	
Construction truck arrivals per day		3	3	2	
Waste truck arrivals per day / <del>per week</del>		10	2	1	



## Required Information for CTMP

Peak truck movements (In and Out) per hour		?	?	?	
Number of concrete pours for construction, number of concrete trucks per pour. Also include expected number of concrete trucks per hour		?	80 concrete trucks @ 6 cu. m. per truck	?	

Crane requirements (including location, swing radius, times required for project, truck size for delivery and during which stage of construction the crane will be delivered)

**Crane requirements to be confirmed at CC Stage, if considered necessary, depending on construction methodology to be confirmed at that stage.**

Mobile crane location

**To be confirmed at CC Stage.**

Concrete pump, concrete truck locations and details of the operation of concrete pours

**Concrete pump for upper floor level to be located on driveway - details to be confirmed at CC Stage.**

Is any road (lane closures) occupancies required? Please specify location/duration of specific works

**No.**

Details regarding any proposed measures to limit contractor parking on-street in the vicinity of the site (i.e. parking on-site during different stages of construction)

**On-site parking only.**

Details of any proposed hoarding and pedestrian protection/control

**Security cyclone mesh fence (< 2.0m high) to site street-front and northern, southern and eastern boundaries, already exists and will be extended to close off the western (creek and dam) boundary prior to commencement of Stage 02 construction (following decontamination works on Lot 2321).**



Required Information for CTMP - CONSTRUCTION PHASES 02 - 05 - Masterplan  
3-stream, Primary School (K - Year 6)  
630 students (max.) + 35 Staff

Required Information	Stage of Construction				
	Demolition	Excavation + Infrastructure	Structure	Fitout	
Construction plan showing location of site sheds materials storage and amenities facilities, truck washing facilities (including shakedown area) and truck loading/unloading areas (including construction areas)		Refer "SK155 CTMP Site Plan - Masterplan"			
Construction/stage duration of works (months)		4 Months	9 Months	3 Months	
Times of construction activity as per consent conditions					
Work zone requirements (length and times required). Note desired location if multiple frontages		-	-	-	
Largest vehicle to be used within the proposed works zone (refer to below for vehicle sizes)		Large	Large	Large	
Construction vehicle access points into the site		Kosovich Place turning bulb	Kosovich Place turning bulb	Kosovich Place turning bulb	
Largest vehicle to enter the site (refer to below or vehicles sizes)		Large	Large	Large	
Truck types (sizes) i.e. Small(<6.4m), Medium (>6.4m, <8.8m), Large (>8.8m, <12.5m), Articulated vehicles (19m), truck and dog/combinations (>18.5m) Please list all that will be used		Large, Medium & Small	Large, Medium & Small	Large, Medium & Small	
Staff numbers – maximum on-site at any one time (peak times)		?	?	?	
Staff numbers – maximum on-site at any one time (average over stage)		?	?	?	
Construction truck arrivals per day		3 per stage	3 per stage	2-3 per stage	
Waste truck arrivals per day / per week		4 per stage	2 per stage	1 per stage	

## Required Information for CTMP

Peak truck movements (In and Out) per hour		?	?	?	
Number of concrete pours for construction, number of concrete trucks per pour. Also include expected number of concrete trucks per hour		?	110 concrete trucks @ 6 cu. m. per truck	?	

Crane requirements (including location, swing radius, times required for project, truck size for delivery and during which stage of construction the crane will be delivered)

**Crane requirements to be confirmed at CC Stage, if considered necessary, depending on construction methodology to be confirmed at that stage.**

Mobile crane location

**To be confirmed at CC Stage.**

Concrete pump, concrete truck locations and details of the operation of concrete pours

**Concrete pump for upper floor level to be located on driveway - details to be confirmed at CC Stage.**

Is any road (lane closures) occupancies required? Please specify location/duration of specific works

**No.**

Details regarding any proposed measures to limit contractor parking on-street in the vicinity of the site (i.e. parking on-site during different stages of construction)

**On-site parking only.**

Details of any proposed hoarding and pedestrian protection/control

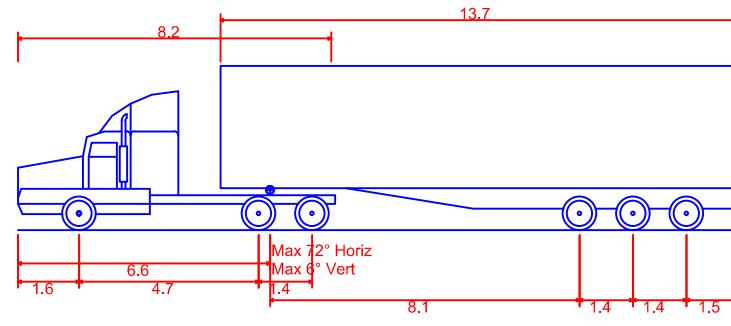
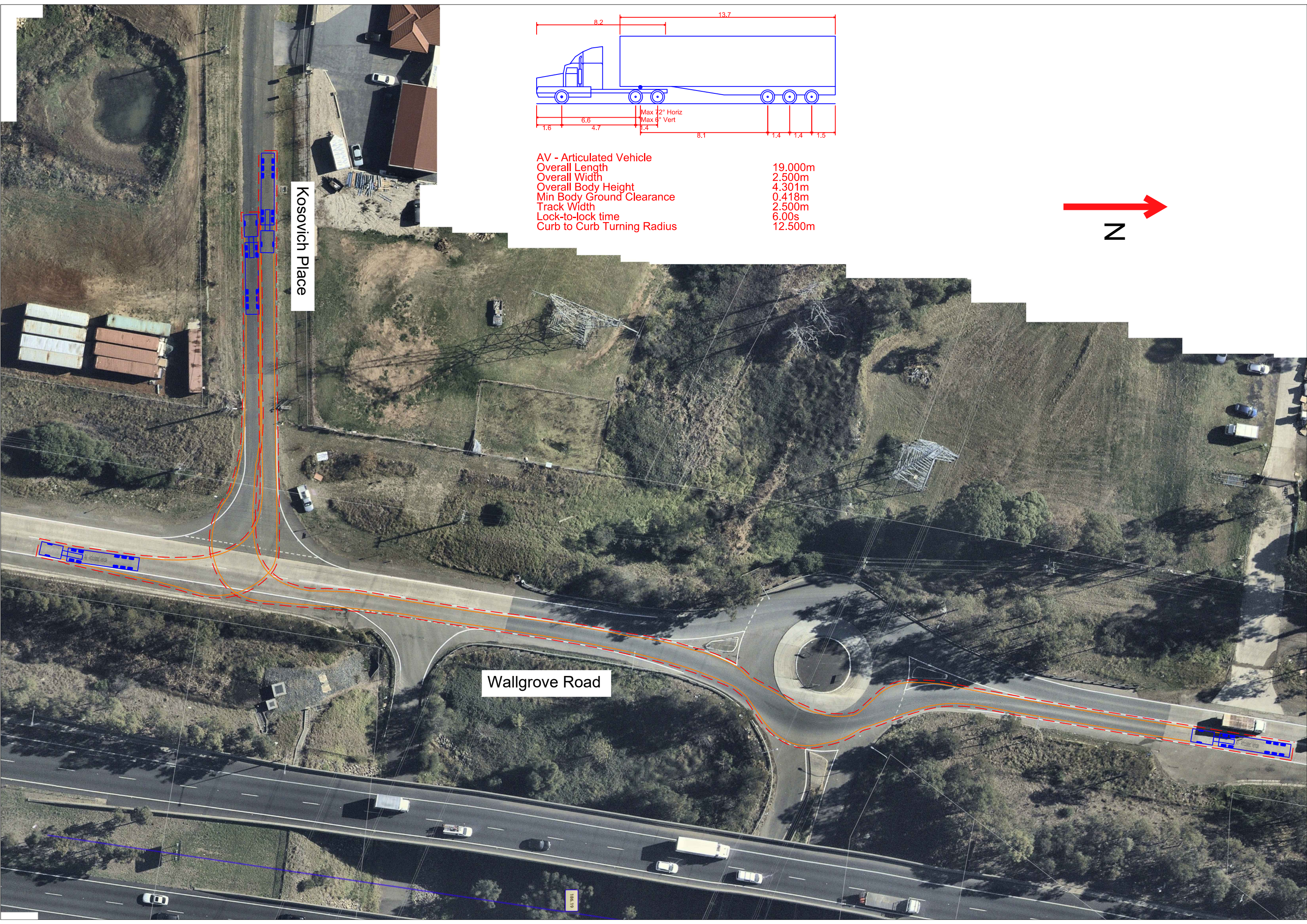
**Security cyclone mesh fence (< 2.0m high) to site street-front and northern, southern and eastern boundaries, already exists and will have been extended to close off the western (creek and dam) boundary upon completion of Stage 01 construction.**





## **ANNEXURE B: SWEPT PATHS**





AV - Articulated Vehicle	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m





