

Epping Park - Stage 1

Preferred Project Transport Report

2 July 2010

Prepared for
Meriton

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1 Introduction

This Transport Report has been prepared on behalf of Meriton who are the new owners of the Epping Park (former Channel 7) site at 61 Mobbs Lane, Epping.

The purpose of the report is to present the findings of an Environmental Assessment (transport) for the modified proposal for Stage 1 Residential development within the Epping Park site at Epping.

The Epping Park residential development project involves the construction of:

- residential dwellings;
- landscaped open space; and
- internal and external associated services and infrastructure such as roads, footpaths, resident facilities and a child care centre.

The Stage 1 Residential development represents the first stage of residential development on the site at 61 Mobbs Lane (former Seven Network site).

The *Stage 1 Residential Transport Report* (Halcrow MWT, April 2009) was prepared as part of the Stage 1 Part 3A Project Application. This report provided a response to the Director General Requirements (DGR) for the Stage 1 Residential Development.

Submissions regarding the Project Application have been received from parties including Parramatta City Council, the NSW Roads and Traffic Authority (RTA) and local residents and stakeholders. These submissions have been considered as part of this assessment.

The modified proposed Stage 1 Residential development includes the construction of the following:

- 2 residential flat building with a combined basement parking area;
- landscaping of the associated private domain.

The modified proposal will result in a reduction in dwelling yield for Stage 1 from 230 dwellings to 134 dwellings.

2 Stage 1 Residential Transport Implications

In accordance with the Director General Requirements, the traffic generation of modified Stage 1 Residential has been estimated and the implications assessed below.

The modified Stage 1 Residential development is estimated to generate the following traffic flows based on Roads and Traffic Authority guidelines (RTA Guidelines)¹:

Stage 1 Residential Development	Vehicles per Peak Hour
<i>Residential Flat Building</i>	
24 x1 bedroom @ 0.4 trips/hr (AM and PM)	= 10 veh/hr
56 x 2 bedroom @ 0.5 trips/hr (AM and PM)	= 28 veh/hr
54 x 3 bedroom @ 0.6 trips/hr (AM and PM)	= <u>32 veh/hr</u>
Total (vehicle trips during AM & PM peak hours)	= 70 veh/hr

It is noted that the above traffic generation rates are consistent with the rates used in the traffic assessments undertaken to date for the Epping Park development.

The peak hour traffic generation of the proposed Stage 1 Residential development is estimated to be 70 vehicles per hour. This is a reduction from 110 vehicles per hour for the previous Stage 1 Residential proposal.

The approved Concept Plan for the Epping Park site included the provision of a child care centre. The child care centre is part of the Early Works Package project application. The child care centre is the only use proposed in the Early Works Package that will generate operational traffic to and from the external road network. The proposed resident facilities in the Early Works Package may generate internal movements whether by vehicle, bicycle or foot.

As the child care centre and Stage 1 Residential may be constructed and occupied concurrently, the traffic generation potential of the child care centre has been included

¹ Roads and Traffic Authority of New South Wales (2002) *Guide to Traffic Generating Developments*.

in the traffic assessment of operational activities (i.e. a ‘worst case’ scenario has been considered).

Based on RTA guidelines the traffic generation for a 59 children long day care centre is estimated to be 47 and 41 vehicles per hour in the AM and PM Peak respectively.

Thus upon completion and occupation of Stage 1 Residential and the Early Works Package development proposals, the Epping Park site is estimated to generate approximately 117 and 111 vehicles per AM and PM peak hours respectively.

This potential site traffic generation is compared with the pre-development and ultimate development traffic generation characteristics in Table 2.1.

Table 2.1 - Comparison of Pre & Post Development Site Traffic Generation

Development Scenario	Peak Hour Site Traffic Generation	
	AM Peak Hour (veh/hr)	PM Peak Hour (veh/hr)
Seven Network Operation (Pre-development) ¹	159	123
Modified Stage 1 Residential + Early Works Package (Child Care Centre)	117	111

Sources: 1. Surveyed flows (2007) as reported in Modification Reporting, MWT (April 2008)
2. Modification Reporting, MWT (April 2008)

Table 2.1 indicates that the proposed modified Stage 1 Residential and Early Works Package development will generate less peak period traffic flows to those generated in the predevelopment conditions, namely with Seven Network operating on the site.

As such, with regard to traffic generation to and from the site it is considered that the proposed modified Stage 1 Residential development (and child care centre) would maintain pre development traffic conditions on the road network surrounding the site.

Therefore it is considered that there would be no significant net increase in traffic impacts associated with the modified Stage 1 Residential development compared with pre development conditions.

2.1 *Site Access (Vehicle) Intersection Operation*

The approved Concept Plan proposes to construct two site access road intersections at Mobbs Lane to provide access to the residential components of the Epping Park site. A separate entry / exit driveway for the child care centre was also proposed.

The location and design of the site access arrangements as developed through consultation with Parramatta City Council, Roads and Traffic Authority and the State Transit Authority remain unchanged by the modified Stage 1 Residential development.

The construction of the site accesses are included as part of the Early Works Package Project Application.

Due to the proposed construction staging, vehicle access to the modified Stage 1 Residential site will initially be provided solely via the eastern access intersection at Mobbs Lane.

It is envisaged that vehicle access from Stage 1 Residential to the western access will be provided when the remaining residential units (or at least a substantial amount thereof) are constructed.

The layout for the eastern access intersection is a sign controlled intersection with a westbound passing lane along Mobbs Lane. The design of the eastern site access intersection has been.

Previous modelling was based on 176 vehicles per hour in the AM and PM Peak entering and exiting via the eastern access. The estimated traffic generation of Stage 1 Residential is 70 vehicles per hour which is less than that previously reported in the modification reporting.

In this respect the layout of the eastern access intersection as previously nominated is considered appropriate for the traffic generation of the modified Stage 1 Residential development.

The cumulative implications of traffic generated by subsequent stages of residential development and its distribution to site access arrangements, whether temporary during construction or permanent, will be addressed in future Project Applications.

2.2 *Proposed On Site Car Parking*

In accordance with the Concept Plan approval, on site car parking for the Epping Park development is to be provided in accordance with RTA guidelines and/or Council's DCP.

The modified Stage 1 Residential development proposes a total provision of 223 on site car parking spaces. These spaces will be provided in a combination of:

- Residential basement parking areas; and
- On street parking spaces along the site's internal roads for visitors.

2.2.1 *Resident Car Parking*

Car parking for Stage 1 residential tenants of the residential flat buildings (Buildings 4 and 5) will be provided within a combined basement parking areas under the buildings.

Table 2.2 shows that the proposed provision of 200 on site resident car parking spaces for the modified Stage 1 Residential complies with the minimum parking requirements of Council and the RTA.

Table 2.2 Resident Car Parking Allocation and Guidelines

Dwelling Type	Number of Dwellings	RTA Guidelines (Minimum Spaces Required)	Council DCP (Minimum Spaces Required)	Proposed Resident Car Spaces
1 bedroom unit	24	24	24	
2 bedroom unit	56	67	70	
3 bedroom unit	54	81	81	
Total	134	172	175	200

2.2.2 *Visitor Car Parking*

Stage 1 Residential visitor car parking is proposed to be provided on the internal road network surrounding the Stage 1 buildings.

A total of 23 car parking spaces have been provided on street in close proximity to the respective buildings. The visitor parking allocation meets the minimum visitor parking requirements (20 spaces) of the RTA guidelines as per the concept plan for the modified Stage 1 residential units (1 space per 7 units).

2.2.3 *Bicycle Parking Provision*

Stage 1 Residential provides a total of 45 dedicated secure bicycle parking spaces for Buildings 4 and 5.

The allocation of dedicated bicycle spaces (45 spaces) for the modified Stage 1 Residential development is 1 bicycle space for every 3 units in accordance with DCP requirements. It is considered that the proposed bicycle parking area is appropriate for the proposed development.

2.2.4 *Parking Layout and Design*

The proposed vehicle access arrangements to the basement parking area and on street parking spaces have been designed in accordance with relevant Australian Standard (AS2890) and RTA guidelines. Compliance with these standards will facilitate efficient vehicle circulation to, from and within the parking areas.

Furthermore, all car and service vehicle parking areas have been designed in accordance with AS2890.1/2 with regard to space widths, lengths and headroom requirements (including accessible parking spaces).

Bicycle parking provisions have also been designed to comply with Australian Standard requirements (AS2890.3).

In summary the proposed parking arrangements for the modified Stage 1 Residential development is considered satisfactory for the Stage 1 residential development.

2.3 Service Vehicles

It is proposed that refuse removal and service vehicle access will occur on kerbside of the internal road network.

A dedicated indented service vehicle bay is proposed adjacent to the garbage room.

2.4 Pedestrian, Cyclist and Public Transport

Pedestrian, bicycle and public transport connections were previously examined as part of the approved Concept Plan and were considered adequate.

The modified Stage 1 Residential development will not alter the provision of pedestrian, cyclist and public transport services and facilities including the pedestrian and bicycle improvements to be provided as part of the Early Works Package.

3 Construction Traffic Implications

The purpose of this chapter is to provide an overview of the likely construction traffic impacts associated with the modified Stage 1 Residential development, and proposed mitigation measures.

It is noted that the following principles are consistent with the previous Stage 1 Residential development application but have been reiterated as part of this report.

Detailed assessment of construction traffic impacts and management measures will be undertaken once the detailed construction methodology is developed. This detailed assessment will form part of a detailed Construction Site Management Plan (CSMP) for the works. This will be undertaken prior to construction certification in consultation with the construction contractors and the relevant approval authority.

3.1 Detailed CSMP and Requirements for Compliance

The following information is general in nature as a detailed CSMP will be developed by the construction contractor as required. At that time, the contractor will need to amend any details herein should changes be required.

Standard RTA Traffic Control Plans (as required) are recommended in accordance with RTA Guidelines². This details the locations of signs, bollards, safety barriers, etc. in accordance with the RTA's Manual ("Traffic Control at Worksites, Version 3, September 2003"). Additional details will be provided by the contractor to Parramatta City Council and RTA Traffic Management Centre prior to any traffic control for each stage of work affecting Mobbs Lane.

² Traffic Control at Worksites, NSW Roads and Traffic Authority, 2003

3.2 Estimated Truck Volumes and Truck Routes

It is estimated that Stage 1 Residential works would generate around 2 - 10 truck trips on average per hour for the majority of the works based on estimated quantities and work.

The estimated construction traffic volumes are based on prior experience with sites of this magnitude.

The volumes of truck traffic would be relatively low and would not have any significant impact on traffic conditions although the extent of any road and footpath closures will affect traffic flow along Mobbs Lane.

It is noted that the Seven Network operations will have relocated elsewhere and that the volumes of construction traffic would be well below the volumes generated by the Seven Network traffic.

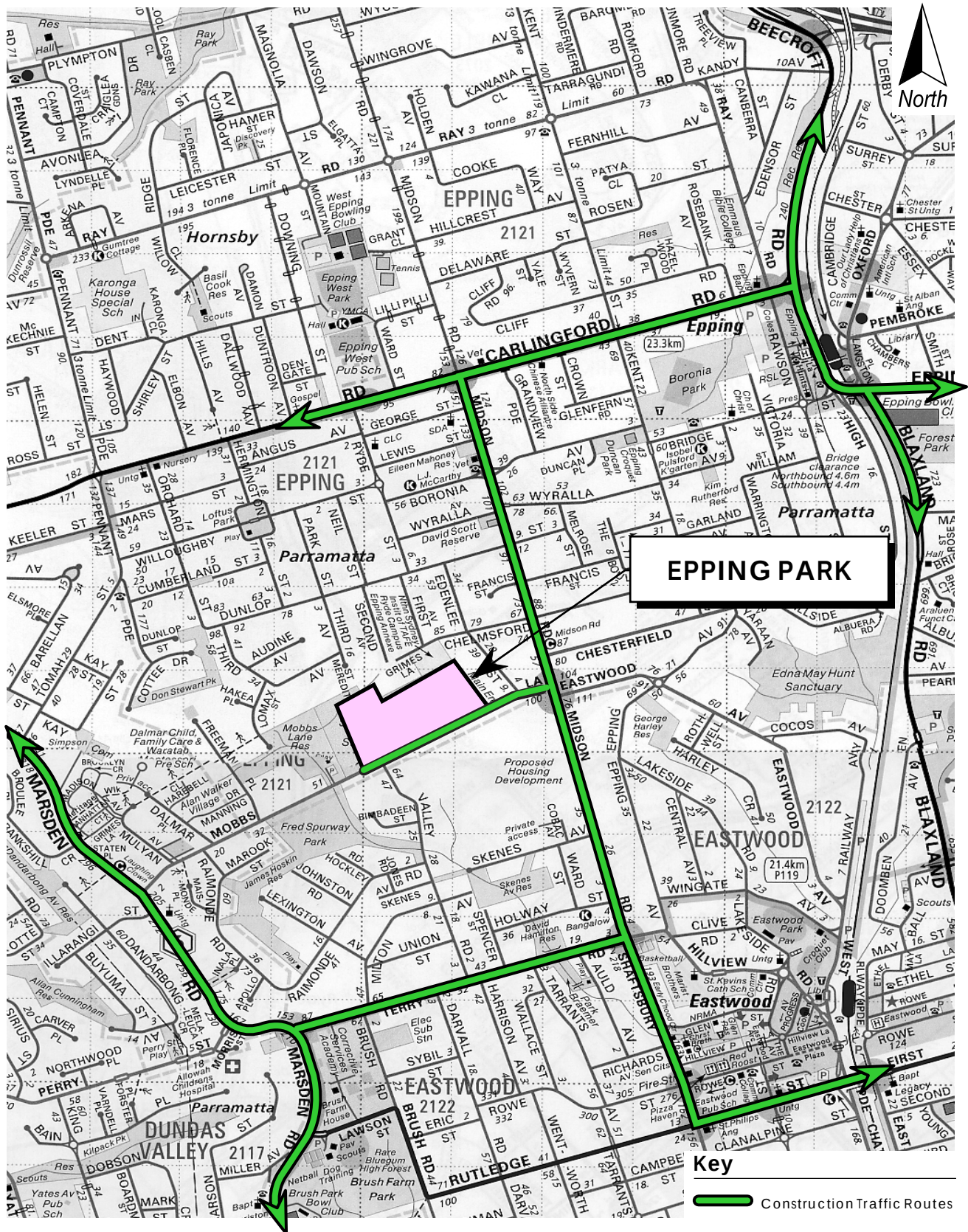
During the construction period, truck access will occur from Mobbs Lane as this is the only road frontage available to the site. It is noted that an existing 3 tonne load limit exists on Mobbs Lane. The regulations regarding load limits allow vehicles heavier than the restricted weight to use the load limit road where no other access is available. As such, heavy vehicle access to and from the development site is permissible via Mobbs Lane, both from the east and the west.

Notwithstanding the above, it is understood that heavy vehicles associated with the Seven Network operations on the site do not travel west of the site along Mobbs Lane to Marsden Road. Similarly construction traffic associated with the Brickworks site on the southern side of Mobbs Lane do not travel west along Mobbs Lane to Marsden Road.

It is proposed that the same construction traffic route utilised for the Brickworks site and the arrangements for the former Seven Network operations would be used for heavy construction traffic (over 3 tonnes) associated with the development. These routes for vehicles in excess of 3 tonnes are shown in Figure 1.

PROPOSED CONSTRUCTION TRAFFIC ROUTES

EPHING PARK



The main access points for heavy vehicles during construction will be on Mobbs Lane. Sight distances at Mobbs Lane are excellent and in this respect the access will be adequate for construction access.

Any proposed temporary driveways will be constructed in accordance with RTA requirements and approved separately by others.

All movements from existing or temporary driveways will occur in a forward direction to minimise the disruption to through traffic.

It is intended that adequate on site car parking facilities will be provided to accommodate construction worker parking and vehicle deliveries to and from the site. The detailed CSMP will detail the location of the site office and facilities including the location and number of staff car parking spaces.

4 Response to Submissions

Authority and community submissions have been received in response to the Stage 1 Residential Development (April 2009).

The following provides a response to these submissions with regard to the modified Stage 1 Residential Development Proposal.

4.1 Roads and Traffic Authority (Sydney Regional Development Advisory Committee – SRDAC)

The SRDAC provided a submission which jointly considered the Stage 1 Residential and Early Works Project Application.

The majority of the comments related to external road works which have been considered as part of the Early Work application.

With regard to the timing of the proposed signalisation of the Marsden Road / Mobbs Lane, the SRDAC indicated that signals should be installed and operating when development exceeds 150 dwellings with a child care centre or 225 dwellings without a childcare centre.

The proposed modified Stage 1 Residential development (134 dwellings) would not exceed the SRDAC threshold for signalisation.

4.2 Sydney Buses

Like the SRDAC, Sydney Buses provided a submission which jointly considered the Early Works and Stage 1 Residential development. The comments relate to external road network issues which have been addressed as part of the Concept Plan and Early Works applications.

4.3 *Parramatta City Council (Council)*

Council has provided a submission addressing Stage 1 Residential development separate to the Early Works application.

Council's comments under the traffic section relate to parking provision and parking area design.

It is noted that the proposed on site parking provision for Stage 1 Residential has been reduced in accordance with the reduced dwelling yield. The proposed provision of 200 residential and 23 visitor spaces complies with the minimum required rates set out in the concept plan and is consistent with RTA and DCP requirements.

The proposed car parking facilities have been designed in accordance with AS2890.1-2004 and AS2890.2-2002 as requested in Council's submission and DCP.

It is noted that a detailed construction traffic management plan will be prepared and submitted to Council for approval for Stage 1 works. This is consistent with the Council's comments to the Early Works application.

4.4 *Community Submissions*

The community submissions have been reviewed. Generally the comments relate to the overall Concept Plan development and the provision of road network improvements (ie. Early Works).

Issues relating to the capacity of Mobbs Lane and timing of intersection signalisation have been addressed by the various authorities in their requirements for infrastructure provision.

5 Conclusion

This report has provided details on the transport impacts of the modified Stage 1 Residential development of Epping Park.

The modified development will reduce the dwelling yield as part of Stage 1 from 230 dwellings to 134 dwellings.

The proposed development is considered to:

- provide adequate on site car parking, bicycle parking and service vehicle facilities;
- mitigate potential impacts to the surrounding network, and
- provide access for residents to available public transport and non car modes.

In summary, the proposed modified Stage 1 Residential development is consistent with the traffic and transport aspects of the approved Concept Plan for the Epping Park site and the submissions to the Stage 1 Residential development.