



**Traffic Management Report  
Proposed Aged Care Facility  
Lot 1 D.P.377679 & Lot 784 D.P.533494  
Marmong Street, Marmong Point**

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**Prepared on behalf of Empowered Living Support Services.**

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## 1.0 Introduction

ADW Johnson has been engaged by Empowered Living Support Services to complete a Traffic Management Report to accompany a development application of Lot 1 D.P.377679 & Lot 784 D.P.533494. The proposed development is for a 94 unit aged care facility and accompanying community buildings and infrastructure.



(Source: [www.googlemaps.com.au](http://www.googlemaps.com.au))

Figure 1: Site Location.

The site is bounded to the north by Marmong Creek and Lake Macquarie and east, south and west by existing residential development. The subject site is approximately 33 ha in size.

The conceptual design for the development has identified that the importation of fill to the site will be required. It is proposed that the importation of fill will be undertaken on a staged basis as required, and will be sourced from various locations in the general locality of Lake Macquarie and Newcastle regions.

The access to the subject site during construction phase is off Marmong Street. The construction traffic will utilise the existing public roads from Marmong Street for the transportation of imported fill material. The construction route is expected to head north from access location on Marmong Street and utilise existing Marmong Street, and First Street before connecting to Main Road/Toronto Road. From there the construction traffic will be distributed at the existing roundabout to the appropriate material source location.

The posted speed limit from Marmong Street access to Toronto Road is 50 km/h, with the section of First Street to Toronto Road being 60km/h. There is one school zone restricted to 40km/h during morning and afternoon located on Marmong Street.

The construction route to Toronto Road provides a single lane of travel for the majority of its length, with variable width. The minimum width of total pavement is 6m and is situated between Nanda Street and the existing school, the adjacent land for this section of road is public reserve with minimal access off it. The remaining sections of Marmong Street and First Street are in excess of 9m wide. A detail assessment of the local roads can be found in Traffic Assessment Report prepared by BJ Bradley and Associates dated 12 April 2012.

The intersection from site access from Marmong Street and Toronto Road are simply priority controlled intersection with priority to the construction route on all but two intersections.

## 2.0 Construction Activity

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The client, Empowered Living Support Services has advised that the construction of the development will be staged. With the construction of the entry road being stage 1 and subsequent construction of units and amenity building to follow in 6 stages, generally of equal size.

It has been identified that the importation of fill will be required to raise the level of the existing ground to facilitate the proposed construction layout. The importation of fill is to be in the order of approximately 40,000m<sup>3</sup>. The importation of other building materials for construction of services and roads pavements etc, will also be required for the development, however the frequency of these importation activities are not considered significant.

### 2.1 IMPORTATION OF FILL - METHODOLOGY

The importation of fill activity will be required for the completion of part stages 1, 3, 4 and 5, it is expected that the majority of the required fill will be required during the construction of stage 3, with approximately 60% of total fill required.

The fill will be imported to the site from yet to sourced external location, due to economic reasons it is expected that the fill will be sourced locally from the Lake Macquarie or Newcastle Area.

The fill will be imported to the site using truck and dog combination; this will reduce the number of truck movements. With 40,000m<sup>3</sup> of fill required for the completed development, adopted 40 tonnes per delivery and material with bulk density of 1.5tonnes/m<sup>3</sup> it is estimated that 1500 truck loads will be delivered to the site over the duration of the project. This is expected to peak at approx 900 loads for Stage 3.

Advice from engineering team indicate the construction requirement for the placement of fill and the expected construction machines would limit the number of truck loads entering the site in the order of 30 per day, delivering approximately 1800m<sup>3</sup> of fill per day.

On this basis it is estimated that during the construction of the complete project delivery of fill material will take place for a total of approximately 50 days. This delivery frequency is expected to spike during the construction of Stage 3 at 30 working days or 6 weeks at a rate of approximately 4 per hour or 15 minute intervals.

Depending on the availability of material sources the delivery of fill material may be staggered throughout a longer period, and therefore the frequency of deliveries would reduce significantly.

It is expected that during the fill importation stage of construction that minimal site personnel will be required on site with an estimated maximum number of 5 days.

## **2.2 TIMING AND WORKING HOURS**

The importation of fill will be staggered throughout the construction stage, it is estimated that each stage of the development would occur between 9-12 months apart. It therefore cannot be predicted at which time of the year the importation of material is likely.

Normal working hours would be between 7.00am and 6.00pm Monday to Friday and 7.00am to 1.00pm on Saturdays, with no construction activities for Sundays, night time of public holidays.

## **2.3 TRAFFIC CONTROL PLAN**

A traffic control plan (TCP) will be prepared prior to any works commencing on site. This TCP will be prepared to meet the requirements of the Roads and Maritime Services (RMS) "Roads and Traffic Authority - Traffic Control at Work Sites" manual June 2010 Edition. The plan is to cover the access requirements to the site and the safe passage of vehicles in and out of the subject site; this is to detail the control of vehicles, pedestrian and cyclists at the site access. It is also to consider the following requirements:-

- Parking associated with employees, contractors and site personnel to be contained within the site limits;
- No loading/delivery to be completed on Marmong Street all deliveries to occur within the site;
- Access to/from the work site;
- Timing of works; and
- Safety of road users and site personnel.

### 3.0 Conclusion

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The proposed development of Lot 1 D.P.377679 & Lot 784 D.P.533494 for a 94 unit aged care facility and accompanying community buildings and infrastructure by Empowered Living Support Services will generate minimal additional traffic on the adjoining local roads for the purposes of importation of fill.

Based on the need for the procurement of the fill and the frequency of deliveries the additional traffic to accommodate the importation of fill is expected to be in the order of 30 deliveries per day, or 4 deliveries per hour, this is expected to stagger through the development for a total of 50 days, or 10 weeks. This is expected to peak during the construction of Stage 3 for a continuous period of 6 weeks. The remaining 4 weeks of deliveries will be staggered through the construction of stages 1, 4 and 5.

Whilst a minor increase in construction traffic will occur on Marmong Street and adjoining road network during the importation of fill operation for the proposed development, this is only temporary in nature and will have little if any impact upon the existing traffic movement at the site access or construction access route.

It is recommended that this development proposal be approved in terms of its traffic and access arrangements associated with the construction phase, in particular the importation of fill.