

***Multiquip Quarries***

ABN: 44 101 930 714

# ***Ardmore Park Quarry***

## **Traffic Management Plan**

Prepared by

**Christopher Hallam & Associates Pty Ltd**

**September, 2010**

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ABN: 44 101 930 714

## ***Ardmore Park Quarry***

### **Traffic Management Plan**

Prepared by:

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## 1. INTRODUCTION

Project Approval (PA) 07\_0155 was granted on 20 September 2009 to Multiquip Quarries for the development and operation of a quarry on the "Ardmore Park" property, Oallen Ford Road, Bungonia NSW ("the Ardmore Park Quarry"). *Condition 3(27)* of PA 07\_0155 requires the preparation of a Traffic Management Plan for the Ardmore Park Quarry to the satisfaction of the Director-General. This Traffic Management Plan is to be prepared in consultation with Goulburn Mulwaree Council and the Roads & Traffic Authority. Comments on this Draft Traffic Management Plan are being sought.

This Traffic Management Plan has been prepared by Christopher Hallam BE MEngSc FIEAust CPEng, principal of Christopher Hallam & Associates Pty Ltd.

This Traffic Management Plan is set out in the following Sections, which are based on the planned and approved stages of road construction and upgrade for the transport route between the Ardmore Park Quarry ("the quarry") and the Hume Highway.

- Section 2 discusses the tasks to be undertaken in the Project Inception phase, prior to the start of Stage 1 works.
- Section 3 details the Stage 1 works and the procedures to be followed prior to and during the undertaking of these works.
- Section 4 details the Stage 2 works and the procedures to be followed prior to and during the undertaking of these works.
- Section 5 discusses transport operations to and from the quarry during Stage 2, with particular regard to a management plan for the use of the Bungonia Bypass, a Driver Code of Conduct and protocols to be followed firstly with school bus operations and secondly with complaints by the public.
- Section 6 details the Stage 3 works, their details and undertaking.
- Section 7 discusses Stage 3 transport operations, with regard to protocols to be followed.
- Section 8 details the Stage 4 works and their implementation.

**Annexures B, C and E** provide a summary of the works to be completed for Stages 1, 2 and 3.

## 2. PROJECT INCEPTION

### 2.1 PREPARATION OF ROAD DESIGN PLANS

The Road Design Plans for the each stage of road works are first required. With the exception of plans for the Bungonia Bypass, these have been completed and the drawings considered satisfactory by Goulburn Mulwaree Council, in a letter of advice dated 27 July 2010. These Road Design Plans are separately reproduced in **Annexure A**. The works to be undertaken in Stages 1, 2 and 3 are listed in **Annexures B, C** and **E** respectively.

### 2.2 ROAD SAFETY AUDIT OF ROAD DESIGN PLANS

A Road Safety Audit of the Stage 1 works (see **Annexure B**) is to be undertaken by an accredited road safety auditor in accordance with the Roads & Traffic Authority's *Accident Reduction Guide Part 2: Road Safety Audits* (August 2005). This Audit will be undertaken by an independent auditor, rather than a Council auditor.

This Audit is to consider the road design plans in the context of the development consent and the road design standards adopted in the Consent, as detailed in the May 2008 report by Christopher Hallam & Associates Pty Ltd titled *Modified "Ardmore Park" Quarry Project Traffic Assessment*.

It is noted that as the Bungonia Bypass will be a private road, this (works item 5.2 of **Annexure B**) will not be included in the Road Safety Audit. Notably, the intersections of the Bungonia Bypass with Oallen Ford Road and Mountain Ash Road (works item 5.3 of **Annexure B**) will be included in the Road Safety Audit.

### 2.3 REVIEW OF ROAD SAFETY AUDIT ISSUES

If the Road Safety Audit identifies any road safety issue of concern, an Action Plan is to be prepared covering each item of concern and detailing any changes required to the plans or ameliorative actions to be taken to address the issues. The preparation of the Action Plan, if required, is to be undertaken by the authors of the Traffic Management Plan or a suitably qualified independent expert.



### **3. STAGE 1 WORKS**

#### **3.1 APPOINTMENT OF CONTRACTOR**

Prior to the commencement of the Stage 1 works (see **Annexure B**), tenders will be called for contractors. The tender documents are to include the plans and all environmental safeguards and constraints imposed by PA 07\_0155.

A Contractor for the Stage 1 works will then be appointed.

#### **3.2 PREPARATION OF CONSTRUCTION PROGRAM**

The Contractor is to prepare a Construction Program, detailing when each works item (5.1 to 5.8 of **Annexure B**) is to be constructed.

#### **3.3 PREPARATION OF TRAFFIC CONTROL PLANS**

Following from the preparation of the Construction Program, localised Traffic Control Plans (TCPs) are to be prepared for each road section to be worked on. The TCPs are to be prepared by the Contractor or their representative in accordance with RTA guidelines and procedures. Liaison and consultation with Goulburn Mulwaree Council is to be maintained during the preparation of the TCPs and during the subsequent works.

The Stage 1 Construction Program and the associated Traffic Control Plans are to be provided to Council for their information.

#### **3.4 STAGE 1 WORKS CONSTRUCTION**

The Stage 1 works are to be undertaken in accordance with the design plans, environmental safeguards and TCPs.

## 4. STAGE 2 WORKS

### 4.1 PREPARATION OF ROAD DESIGN PLANS

The plans of the road design works for Stage 2 have been finalised and are included as **Annexure A**. Goulburn Mulwaree Council, in a letter of advice dated 27 July 2010, has confirmed that the drawings are satisfactory. The works to be undertaken in Stage 2 are listed in **Annexure C**.

### 4.2 ROAD SAFETY AUDIT OF ROAD DESIGN PLANS

A Road Safety Audit of the Stage 2 works is to be undertaken by an accredited road safety auditor in accordance with the Roads & Traffic Authority's *Accident Reduction Guide Part 2: Road Safety Audits* (August 2005). This Audit is to consider the road design plans in the context of the development consent and the road design standards adopted in the Consent, as detailed in the May 2008 report by Christopher Hallam & Associates Pty Ltd titled *Modified "Ardmore Park" Quarry Project Traffic Assessment*.

If the Road Safety Audit identifies any road safety issue of concern, an Action Plan is to be prepared covering each item of concern detailing any changes required to the plans or ameliorative actions to be taken to address the issues. The preparation of the Action Plan, if required, is to be undertaken by the authors of the Traffic Management Plan or a suitably qualified independent expert.

### 4.3 PREPARATION OF CONSTRUCTION PROGRAM

The Contractor is to prepare a Construction Program, detailing when each works item (5.9 to 5.12 of **Annexure C**) is to be constructed.

### 4.4 PREPARATION OF TRAFFIC CONTROL PLANS

Following from the preparation of the Construction Program, localised Traffic Control Plans (TCP) are to be prepared for each road section to be worked on. The TCPs are to be prepared by the Contractor or their representative in accordance with RTA guidelines and procedures. Liaison and consultation with Goulburn Mulwaree Council is to be maintained during the preparation of the TCPs and during the subsequent works.

The Stage 2 Construction Program and the associated TCPs are to be provided to Council for their information.

### 4.5 STAGE 2 WORKS CONSTRUCTION

The Stage 2 works are to be undertaken in accordance with the design plans, environmental safeguards and TCPs.

## 5. STAGE 2 OPERATIONS

### 5.1 OVERVIEW

During the construction of the Stage 1 works, there would be no transport of quarry products from the quarry site for sale, although a limited number of trucks would be used to transfer overburden and crushed basalt products required to construct the roads, creek crossings and intersections.

Following the completion of Stage 1 works, and during the construction of the Stage 2 works, Multiquip Quarries will commence the sale and despatch of quarry products from the quarry. The transport of quarry products during the Stage 2 works construction period will be limited to 10 truckloads per day (20 movements) until the completion of the Stage 2 works. Ancillary movement of plant and equipment, supplies and fuel would be additional.

### 5.2 DRIVER CODE OF CONDUCT

The Driver Code of Conduct is set out in **Annexure D**. It requires drivers to:

- *Comply with all RTA regulations regarding speed, load weight limits and driving hours*
- *Strictly follow the Ardmore Park Speed Limit of 80 km/hr on Jerarra and Oallen Ford Roads*
- *When driving on the Bungonia Bypass road, a speed of 60 km/hr is not to be exceeded*
- *When driving on Jerrara Road or Oallen Ford Road, if you are in close proximity to another quarry truck, allow adequate space between trucks to permit other traffic to pass, one truck at a time*
- *When passing a stopped school bus during the school day periods of 7.00-9.30am and 3.00-5.30pm, drivers must decelerate so that the speed of the truck when it passes the stopped bus does not exceed 60 km/hr*
- *Comply with all rules and regulations such as speed restrictions when in the quarry or customer properties*
- *Ensure that all loads are correctly covered and sealed*
- *Limit the use of the engine brake and other noisy driving practices in built up areas*
- *Ensure that you comply with all time restrictions and curfews relating to the Ardmore Park Quarry or customers sites*
- *You must use the truck wash or wheel wash when provided*
- *Show courtesy to all customers and all road users at all times*
- *Make yourself familiar with the Personal Protection Equipment requirements for each customer or depot and strictly adhere to them*
- *Ensure that your actions bring credit upon yourself, our company and the transport industry in general*

All drivers are to be inducted to the quarry site and required to review and sign a copy of the Driver Code of Conduct before being authorised to transport any quarry product from the quarry.

### **5.3 BYPASS ROAD MANAGEMENT PLAN**

Traffic on the Bungonia Bypass will be managed as follows.

- a) The Bungonia Bypass between Mountain Ash Road and Oallen Ford Road is to be kept open during the approved operating hours of transport from the quarry, as well as an additional hour at the start and finish of each work day. Excluding any public holidays or days when the quarry operators choose to not transport any quarry material, the Bungonia Bypass is to be open as follows:
  - Weekdays 6.00am to 7.00pm
  - Saturdays 6.00am to 2.00pm
- b) Drivers shall not stop on the Bypass Road unless in an emergency situation.
- c) Drivers shall not stop on Mountain Ash Road on the approach to the Bungonia Bypass, or on Oallen Ford Road on the approach to the Bungonia Bypass.
- d) Drivers shall not exceed a speed of 60 km/hr whilst driving on the Bungonia Bypass.

### **5.4 PROTOCOLS FOR INTERACTION WITH SCHOOL BUSES**

Oallen Ford Road, Mountain Ash Road and Jerrara Road are all used by local school bus service(s). Depending on the residential address of the children using the local school bus service(s), the bus stop locations can vary and it is at the discretion of the bus driver to decide where it is safe and appropriate to stop. For this reason, specific bus bays are not proposed.

The hours of school bus operation on Jerrara, Mountain Ash and Oallen Ford Roads are between 7.00am to 9.30am and 3.00 to 5.30pm on school days. There is generally only one bus service in the morning period and one in the afternoon period.

Truck drivers are to be instructed to be aware of possible school bus movements in these periods, and if they see a school bus stopped beside the road, to decelerate so that the truck does not travel past the stopped bus at a speed exceeding 60 km/hr. This forms part of the Driver Code of Conduct, which all drivers will be required to review, understand and sign (once only) prior to exiting the quarry site and transporting quarry product.

In addition, Multiquip Quarries will provide a UHF radio to each bus service operator (if they don't already have one) and instruct the driver on the use and protocol for use of the radio to notify other drivers of presence on the transport route roads. The protocol is likely to involve the bus driver notifying of entry onto, and exit from the section of Jerrara or Oallen Ford Road which forms part of the transport route, along with the number of stops to be made, e.g. "*bus service travelling south of Jerrara road making 6 stops*".

## **5.5 PROTOCOLS FOR DEALING WITH COMPLAINTS**

A Complaints Register will be established by Multiquip Quarries, and will be advertised in the local telephone directory. When initially established, a Public Notice will be placed in one edition of the local newspaper, advising of the Complaints Register, its intended use and the procedure for making a complaint.

At the entrance to the quarry on Oallen Ford Road a sign shall provide the telephone number that can be used to make a complaint about any issue associated with the transport of quarry product. This telephone number will be part of the Complaints Register procedure.

## **6. STAGE 3 WORKS**

### **6.1 PREPARATION OF PLANS AND WORKS PROGRAM**

The road design and engineering plans for the Stage 3 works are to be finalised. The works to be undertaken in Stage 3 are listed in **Annexure E**. The Stage 3 works are essentially culvert works, and do not require a Road Safety Audit.

The Contractor is to prepare a Construction Program, detailing when each works item (5.13 of **Annexure C**) is to be constructed.

### **6.2 PREPARATION OF TRAFFIC CONTROL PLANS**

Following from the preparation of the Construction Program, localised Traffic Control Plans (TCP) are to be prepared for each road section to be worked on. The TCPs are to be prepared by the Contractor or their representative in accordance with RTA guidelines and procedures. Liaison and consultation with Goulburn Mulwaree Council is to be maintained during the preparation of the TCPs and during the subsequent works.

The Stage 3 Construction Program and the associated TCPs are to be provided to Council for their information.

### **6.3 STAGE 3 WORKS CONSTRUCTION**

The Stage 3 works are to be undertaken in accordance with the design plans, environmental safeguards and TCPs.

## **7. STAGE 3 OPERATIONS**

On the completion of the Stage 2 works, the number of truck loads from the quarry will be permitted to increase to 28 loads per day, or 56 truck movements. Ancillary movement of plant, equipment, supplies and fuel will be additional.

The management of the use of the Bungonia Bypass, the protocols for interaction with school buses and the protocols for the handling of complaints will remain the same as those nominated for Stage 2 will equally apply to Stage 3 and ongoing transport operations following the completion of all road works.

## **8. POST ROAD WORKS TRANSPORT OPERATIONS**

Following the completion of the Stage 3 works, ongoing rehabilitation of the pavement of public roads used by quarry vehicles will be required. This work will be undertaken by Multiquip Quarries, with the funds provided by the Section 94 contribution plan established with Goulburn Mulwaree Council.

With the completion of the Stage 3 works, the upper limit of truckloads of quarry product will be increased to 44 loads per day or 88 truck movements. Ancillary movement of plant, equipment, supplies and fuel will be additional.

The management of the use of the Bungonia Bypass, the protocols for interaction with school buses and the protocols for the handling of complaints will remain the same as those nominated for Stage 2 and Stage 3.



# Annexure A

## ROAD DESIGN PLANS

- Note 1: The engineering plans for the proposed upgrades to Jerrara Road, Mountain Ash Road and Oallen Ford Road are provided as separate pdf files on the CD provided on the inside cover of this document (*Road Engineering Plans for Jerrara Road and Mountain Ash Road.pdf* & *Road Engineering Plans for Oallen Ford Road.pdf*)
- Note 2: The engineering plans provided by *Road Engineering Plans for Jerrara Road and Mountain Ash Road.pdf* & *Road Engineering Plans for Oallen Ford Road.pdf* have been submitted to Goulburn Mulwaree Council for consideration. Correspondence from Goulburn Mulwaree Council dated 27 July 2010 confirmed Council considered these drawings to be of a satisfactory standard.

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## Refer to CD

The engineering plans for the proposed upgrades to Jerrara Road, Mountain Ash Road and Oallen Ford Road are provided as separate pdf files on the CD provided on the inside back cover of this document. The file references are as follows.

1. Road Engineering Plans for Jerrara Road and Mountain Ash Road.pdf
2. Road Engineering Plans for Oallen Ford Road.pdf

Please note that the engineering plans included as files *Road Engineering Plans for Jerrara Road and Mountain Ash Road.pdf* and *Road Engineering Plans for Oallen Ford Road.pdf* were originally prepared as A1 scale plans. Viewing these plans at A4 size layout will result in a font size reduction of approximately 400%. It is recommended that these plans are viewed digitally, rather than as A4 or A3 print outs.

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# **Annexure B**

## **STAGE 1 WORKS**

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The completion of the construction of the Bungonia Bypass and the completion of specified intersection upgrades, to provide for a minimum 7.0 metre sealed carriageway along the entire transport route (comprising 2 x 3.0 metre lanes and 2 x 0.5 metre shoulders, plus 2 x 0.5 metre unsealed shoulders), apart from the bypass road and the bridge crossings identified as the Stage 2 and Stage 3 road upgrade works, unless otherwise agreed by Council.

- 5.1 Construct the Project Site entrance with Oallen Ford Road.
- 5.2 Construct the Bungonia Bypass, including the crossing of Bungonia Creek, as follows:
  - \* Two 2.5m lanes with 0.5m shoulder between Oallen Ford Road and the Crown land.
  - \* Single lane bridge spanning Bungonia Creek.
  - \* A single lane of 3.0m, with 0.5m shoulder on both sides, through the Crown land. A pass-by bay would be included over already cleared land at both the Northern and Southern ends of this section of the by-pass.
- 5.3 Construct the intersection of the Bungonia Bypass with Oallen Ford Road and Mountain Ash Road.
- 5.4 Upgrade the Mountain Ash Road-Jerrara Road intersection.
- 5.5 Upgrade Water Course Crossing I as part of the Mountain Ash Road-Jerrara Road intersection upgrade.
- 5.6 Widen the carriageway of Jerrara Road at Water Course Crossings E (5.94km from the Hume Highway to accommodate an 8m sealed pavement).
- 5.7 Install "Give Way" signs on the southbound approach to Water Course Crossing's:
  - \* B (3.16km from the Hume Highway);
  - \* C (3.43km from the Hume Highway);
  - \* D (5.12km from the Hume Highway); and
  - \* G (9.72km from the Hume Highway).
- 5.8 Install other road signage as required by Goulburn Mulwaree Council.

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# **Annexure C**

## **STAGE 2 WORKS**

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The completion of pavement widening and public road upgrades, to provide for a minimum 8.0 metre sealed carriageway along the entire transport route (comprising 2 x 3.5 metre lanes and 2 x 0.5 metre shoulders, plus 2 x 0.5 metre unsealed shoulders), apart from the bypass road and the bridge crossings identified as the Stage 3 road upgrade works, unless otherwise agreed by Council.

5.9 The widening and minor realignment of the public roads of proposed transport route between the Project Site and the Hume Highway.

5.10 The upgrade of Water Course Crossings A, F and H.

5.11 Rehabilitate those sections of pavement identified as having a pavement life of less than 10 years.

5.12 Complete centreline and edge marking over the entire length of the transport route.

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# **Annexure D**

## **DRIVER CODE OF CONDUCT**

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### **DRIVER CODE OF CONDUCT**

The Multiquip Quarries Transport Code of Conduct has been established to minimise the impact of our operations on the environment and the members of the public and to provide our customers with a high quality, reliable and safe service.

***To fulfil your role in regards to this Code of Conduct you must:***

- Comply with all RTA regulations regarding speed, load weight limits and driving hours.
- Strictly follow the Ardmore Park speed limit of 80 km/hr on Jerrara and Oallen Ford Roads.
- When driving on the Bungonia Bypass road, a speed limit of 60 km/hr is not to be exceeded. Drivers should not stop on the Bungonia Bypass road except in an emergency situation.
- When driving on Jerrara road or Oallen Ford Road, if you are in close proximity to another quarry truck, allow adequate space between trucks to permit other traffic to pass, one truck at a time.
- When passing a stopped bus during the school day periods of 7.00-9.30am and 3.00-5.30pm, drivers must decelerate so that the speed of the truck when it passes the stopped bus does not exceed 60 km/hr.
- Comply with all rules and regulations such as speed restrictions when in the quarry or customer properties.
- Ensure that all loads are correctly covered and sealed.
- Limit the use of the engine brake and other noisy driving practices in built up areas.
- Ensure that you comply with all time restrictions and curfews relating to the Ardmore Park Quarry or customers sites.
- You must use the truck wash or wheel wash when provided.
- Show courtesy to all customers and all road users at all times.
- Make yourself familiar with the Personal Protection Equipment requirements for each customer or depot and strictly adhere to them.
- Ensure that your actions bring credit upon yourself, our company and the transport industry in general.

***Disciplinary action will be taken against drivers who do not adhere to this Code of Conduct.***

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# **Annexure E**

## **STAGE 3 WORKS**

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The completion of the remaining water course crossing upgrades.

5.13 Upgrade Water Course Crossings:

- \* B (3.16km from the Hume Highway);
  - \* C (3.43km from the Hume Highway);
  - \* D (5.12km from the Hume Highway); and
  - \* G (9.72km from the Hume Highway);
- to provide a sealed pavement crossing of 8.0m.

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