

1 Introduction

Northrop Consulting Engineers have prepared a Preliminary Construction Management Plan (CMP) for the 0.37Ha development site located at 42 Honeysuckle Dr, Newcastle (Lot 22 DP 1072217), herein known as 'the site'.

This preliminary CMP has been designed as a document that sets out the broad and preliminary parameters for the management of the construction site, including traffic, noise and vibration, waste, dust, soil and water and the overall impact to adjacent sites. This document is not meant to be a comprehensive Management Plan, but rather is intended to fill the void of providing sufficient management information for the purposes of approval (to satisfy clauses 6 and 7 of the Secretary's Environmental Assessment Requirements SSD 8440) prior to the engagement of a suitably qualified contractor. It will be the responsibility of the successful contractor to prepare, disseminate and implement an appropriate and comprehensive Management Plan during construction.

This plan is specific to the work detailed by the Civil Engineering Drawings (Northrop Job Number: NL171278).

2 Overall Site Management

2.1 General Site Management

The successful Contractor shall be responsible for the day to day site management, operation and protection of all aspects during the construction of the works. The Contractor shall ensure the following are adequately achieved and implemented:

- The Site Manager (Contractor) will be contactable at all times while work is being carried out. The Site Manager will also be contactable via a messaging system outside of approved work hours. A sign will be placed on the site enclosure fence in a prominent position clearly indicating the name and contact numbers of the Site Manager and indicating that the Site Manager will receive calls in relation to handling of complaints;
- During construction, a copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification are to be kept on the site for each stage of work and made available for review by authorised personnel;
- A complaints handling log will be kept and shall record all complainants. At a minimum, the register shall record the name and phone number, the nature of the complaint and any / all action taken to resolve each complaint. This register shall be made available upon request, to any authorised personnel; and
- The proposed work shall be managed as efficiently as possible to ensure completion occurs as quickly as possible (taking into consideration the availability of materials and the need to conduct work safely and having due regard to the environment), acknowledging that the shortest timetable will likely be appreciated by nearby residents and businesses.

2.2 Safety and Security

- The Contractor shall execute the works and ensure that the work of sub-contractors is executed in a thoroughly and safe manner and the Contractor shall be responsible for injury resulting from unsafe conditions. Furthermore, the Contractor shall execute the works in a manner which provides for a safe working environment for all construction personnel working on the site for the duration of the contract;
- All works are to comply with all of the latest requirements of the Work Health and Safety Act for NSW including Work Cover and all other legislation in terms of installation, operation,

maintenance, and exposure to the public of all items of equipment supplied and installed in the Project;

- Advise the Superintendent of any component of the work which contravenes the requirements of the NSW Work Cover Authority. Where necessary, provide signage alerting operators and maintenance personnel to any WHS requirements, or danger to site personnel or the general public; and
- The Contractor shall organise and implement arrangements to provide a safe site (including after hours) and working environment for all site personnel, Superintendent, Superintendent Representatives and all visitors. The site shall be left in a safe manner at the end of each day's work in case of unwanted persons entering the site after hours. It shall be the responsibility of the Contractor to implement and maintain such measures.

2.3 Site Protection

- The Contractor shall provide, erect and maintain all barricades, guards, fencing, hoardings, temporary roadways, footpaths, signs and lighting and provide and maintain all watching and traffic flagging lawfully and as required by Council and the RMS; or as necessary for the protection of the works, the public, or other properties. The Contractor shall remove them when no longer required;
- Perimeter fencing shall be provided around the extent of the development site (1.8m high secured temporary construction fence). It is the responsibility of the Contractor to maintain the integrity of such fencing and protect against unlawful entry for the duration of construction. Where necessary the Contractor is to provide additional fencing to adequately protect the site; and
- The Contractor shall prevent nuisance to the owners, tenants or occupiers of properties adjacent to the site, adjoining rights of way and to the public generally.

3 Traffic Management

Construction traffic and pedestrian movements should be undertaken in accordance with the preliminary Traffic Management Plans (TMP's) attached in Appendix A.

The Contractor should further develop the TMP's, prepared by an accredited professional, for all works associated with vehicular and pedestrian access and egress. These plans should extend both internal to the site (i.e., movements within the bounds of the site), as well as external to the site (i.e., encompassing access points and transport routes for material delivery). Implementation, review and update of the TMP will be the responsibility of the Contractor.

The Contractor shall undertake training for all site personnel (preferably delivered as part of the general induction or site induction) to ensure the TMP is implemented safely and with the knowledge of all site personnel. All traffic control personnel shall have relevant accreditations, skills and be equipped with adequate protective and operational equipment:

- The management of traffic to and from the site will be the responsibility of the Site Manager. Only vehicles contracted to or associated with the proposed work will be permitted access to the site. Site access will not be permitted to vehicles outside of the approved work hours;
- Access points and egress routes will need to be reinstated to existing condition on the commencement of maintenance works. Damage to all existing landscaping, stormwater devices, pathways etc. shall be reinstated and made good to existing conditions immediately after the completion of that section of works; and

- Further to the TMP the following traffic management items will need to be maintained/implemented:
 - All vehicles must enter and leave the site in a forward direction;
 - All vehicles must observe the speed limit and be cautious of vehicles and pedestrians when driving along the local roads;
 - Council officers reserve the right to alter this approval at any time if required for the safety or amenity of exiting residents;
 - All construction traffic will enter the site (or the loading zone in the road reserve) before loading or unloading;
 - No construction works shall be undertaken between the times of 6:00pm and 7:00am;
 - Consideration will be made to the peak traffic times generally 8:00am to 9:00am and 4:30pm to 5:00pm;
 - Non-critical deliveries will be scheduled outside peak traffic periods;
 - All loading and unloading operations are to comply with Work Cover Requirements;
 - Relevant statutory signage shall be erected at the site entry and exit points to alert pedestrians and other drivers to the movement of construction traffic. Signage shall also be provided to define the vehicle entry and exit points during all stages of construction, as well as internal access routes and speed limits;
 - Traffic control personnel will be utilised, when necessary, to control the movement of significant vehicles to and from the site and they will ensure the safety of pedestrians;
 - Visitors to the site will be provided with a clearly defined entry path from the entry point to the site office; and
 - Construction traffic will not be permitted to travel over 10km/h once within site boundaries.

4 Noise and Vibration Management

Noise emissions and vibration need to be managed during the course of the works in order to protect and maintain the health and wellbeing of people who are involved in the construction works and the amenity of those that work in areas adjacent to the site.

To ensure that noise and vibrations are reduced where possible and practical, all site operations shall be undertaken with consideration given to their potential to produce noise and vibrations. A management strategy of *avoid > minimise > control* shall be developed and implemented.

4.1 Noise Sources and Management

Earthmoving equipment has the potential to cause nuisance noise, especially if large numbers of machinery are used that are in poor operating condition (i.e., noisy mufflers). Therefore, the transport, filling and removal activities associated with the works have the potential to create a social disturbance as a result of generating nuisance noise. Noise will be generated from various sources including (but not limited to) vibrating machinery, movement of trucks, operation of excavators, cranes, piling rigs and other large machinery, vehicle reversing alarms and general construction noise.

Noise management will comply with Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites (AS 2436-2010), Protection of the Environment Operations Act (1997), SafeWork NSW and Environmental Protection Authority (Noise) Regulations. This includes:

- Adhering to the hours of normal operation, with work conducted between 7 am and 6 pm on Monday to Friday's, and 8am to 1pm on Saturday's, with no work on Sunday's or a public holiday's;
- All plant equipment and vehicles' being fitted with appropriate noise suppression equipment to reduce noise levels as far as is practicable;
- The Contractor will need to demonstrate and have procedures in place to ensure that all equipment is operating in good condition;
- A list of all proposed machinery is to be provided with the expected noise levels at the operator position and an estimate provided as to the noise hazard;
- All site workers to be trained in noise reduction (such as proper use of machinery and the use of hearing protection) and informed of locations requiring the use of such equipment (this training shall form part of the general or site induction);
- All outside workers must wear appropriate hearing protection if in close proximity to machinery for extended periods. Workers exposed to elevated noise levels above occupational limits to have hearing tests;
- Warning signs should be set up in active work areas, prohibiting entry to persons without hearing protection (where necessary);
- Prior warnings are to be provided to potentially effected premises where noise levels are expected to be in excess of the nominated levels in AS/NZS2107:2000 including how long the activity is expected to last;
- All non-conformances and noise related complaints will be reported to the Superintendent and will be documented in an up to date logbook; and
- Following complaints the source of any excessive noise will be identified and work practices modified or re-scheduled to reduce or eliminate the risk of future events, where possible.

Noise levels will be monitored from time to time to ensure that noise generated as a result of the works does not disturb local commercial and retail residents and that WHS guidelines are complied with. Monitoring will be in the form of regular checks by the Environmental Supervisor and in response to any complaints. Where the Environmental Supervisor believes that regulations are being exceeded or in response to valid complaints, independent noise monitoring will be undertaken.

4.2 Vibration Sources and Management

Vibration can occur as a result of construction activities, which if excessive can cause damage to nearby buildings and structures and cause discomfort to nearby residents. In addition, those mentioned in the preceding section, the proponent will need to comply with Australian Standard AS 2670.2 – Evaluation of Human Exposure to Whole Body Vibration (1990). The following procedures will be undertaken:

- Adhering to the hours of normal operation, with work conducted between 7 am and 6 pm on Monday to Friday's, and 8am to 1pm on Saturday's, with no work on Sunday's or public holidays;
- Prior warnings are to be provided to potentially affected premises where vibration levels are expected to be in excess of the nominated levels in Annexes of AS2670.2-1990 including how long the activity is expected to last;

The first step to ensure the dust minimisation is successfully achieved, is awareness. It is therefore vital that all site personnel, including: engineers, foreman, leading hands, site managers, machinery operators, labours and administration personnel are aware of the dust minimisation strategy. To achieve this site-wide awareness, the contractor shall undertake dust minimisation awareness and education as part of the site induction or general induction for all personnel.

The Contractor shall instigate measures to minimise and control generation of dust from the site. These measures shall include, but not be limited to:

- Program works around periods of significant and adverse meteorological conditions;
- Install wind fences around stockpiles with significant amount of fine particulates;
- Maintain vegetation across the site where possible, otherwise establish vegetation or seal disturbed site areas as soon as practical; and
- Provide water trucks or sprinkling devices during construction as required to suppress dust, specifically for site vehicular traffic or dumping and filling operations.

7 Soil and Water Management

In general, the Contractor shall be responsible for adequately managing/ controlling site stormwater runoff with the aim of preventing erosion and deposition, specifically within water ways or stormwater drains.

The general principles for management are to eliminate, isolate, minimise or control erosion, and therefore the potential for sediment deposition to have an effect on downstream environments.

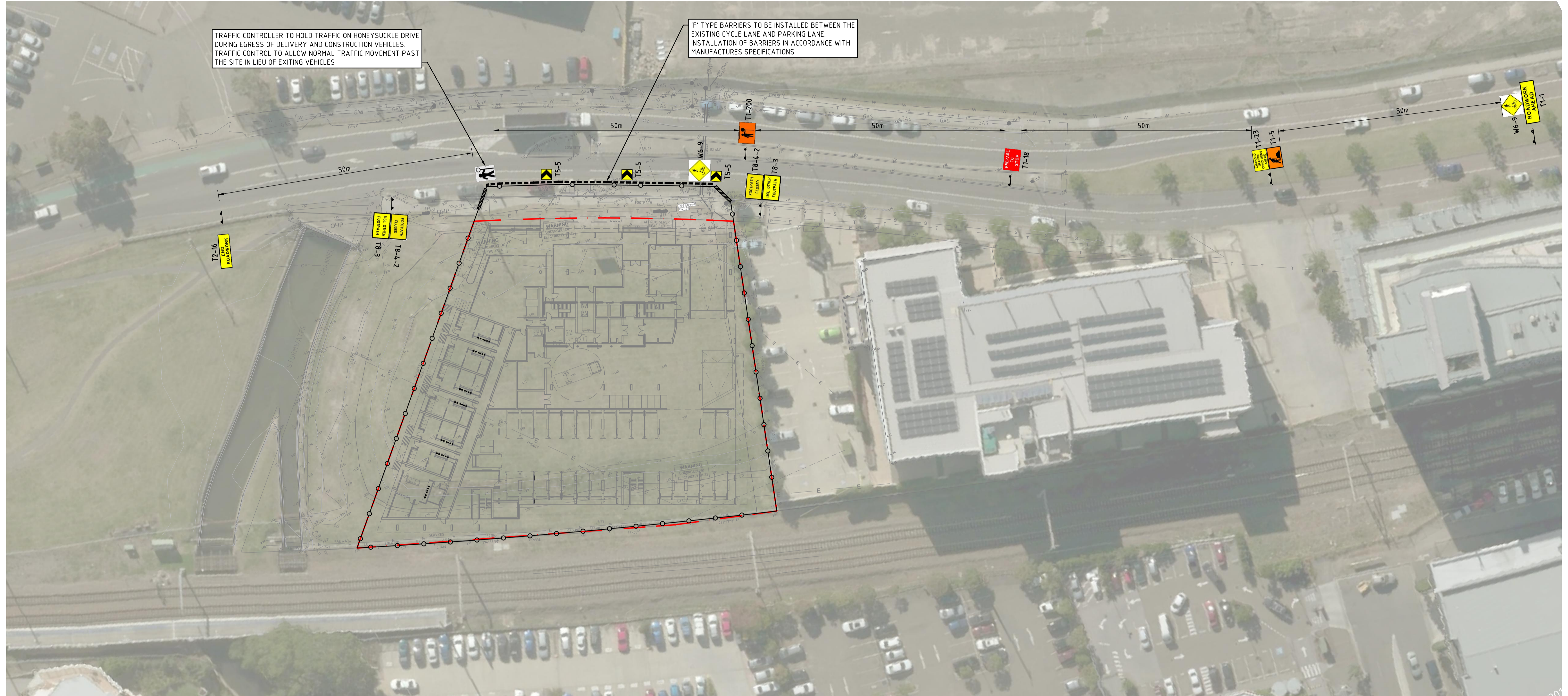
The first step to ensure the sediment and erosion control strategy is successfully adopted, is awareness. It is therefore vital that all site personnel, including: engineers, foreman, leading hands, site managers, labours, machinery operators and administration personnel are aware of the sediment and erosion control plan. To achieve this site-wide awareness, the contractor shall undertake sediment and erosion control awareness and education as part of the site induction or general induction for all personnel.

All work is to be carried out in accordance with relevant ordinances and regulations; note in particular the requirements of Landcom's 'Managing Urban Stormwater, Soils and Construction' (the 'blue book'). The Contractor shall be responsible for adequately implementing the measures in these documents.

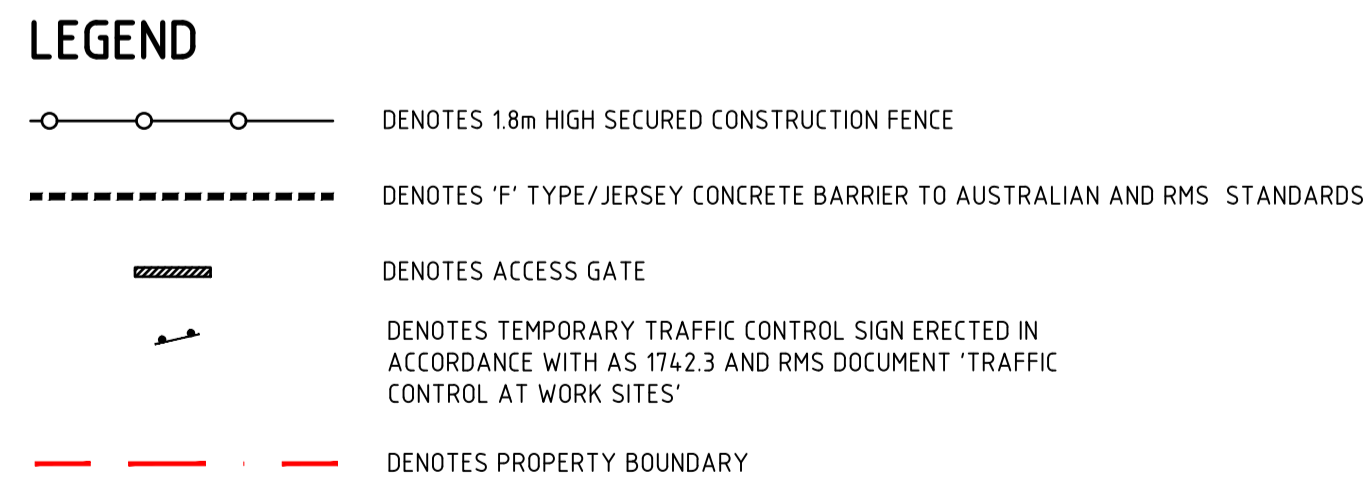
Specific requirements for implementation on this site include:

- Install sediment protection filters on all new and existing stormwater inlet pits in accordance with the typical detail of the 'blue book', including stormwater pits located within Honeysuckle Drive;
- All stormwater devices in the designated route of vehicular access shall be protected from damage. All damage to stormwater devices during the works shall be repaired or replaced immediately, otherwise an interim drainage system installed until the full repair or replacement can be undertaken. In any event, all repair and replacement shall be undertaken prior to the completion of works;
- Sediment and Erosion Control measures shall be installed prior to the commencement of construction and regularly maintained in accordance with the Engineering drawings and specifications;
- Install a 'rumble strip' or 'shakedown' at all vehicle exist points to reduce the likelihood of sediment being trafficked offsite. Manually remove (by means other than washing into stormwater drains)

APPENDIX A – TRAFFIC MANAGEMENT PLAN



- GENERAL TRAFFIC CONTROL NOTES:**
- SIGNS & DELINEATORS TO BE POSITIONED IN ACCORDANCE WITH AS1742.3-2009 AND RMS DOCUMENT 'TRAFFIC CONTROL AT WORK SITES'
 - ENSURE SAFE PEDESTRIAN ACCESS AND PATHWAYS AROUND THE SITE IS AVAILABLE AT ALL TIMES.
 - WORKMEN TO WEAR HIGH VISIBILITY VESTS.
 - A MINIMUM 3.2m TRAVEL LANE IS TO BE PROVIDED ON HONEYSUCKLE DRIVE ADJACENT TO THE 'F' TYPE CONCRETE BARRIERS.
 - T1-200, T1-18 AND T1-5 SIGNS ARE TO BE COVERED OR REMOVED WHEN THERE IS NO TRAFFIC CONTROLLER IN PLACE AND/OR AT THE END OF EACH DAILY ACTIVITY.
 - SIGNS & TRAFFIC MANAGEMENT DEVICES ARE TO BE MADE FROM REFLECTIVE MATERIALS.
 - NON-REFLECTIVE SIGNS TO HAVE DIAMOND GRADE REFLECTORS ATTACHED.
 - NOTIFICATION MUST BE GIVEN TO RESIDENCE AND BUSINESS WHICH REQUIRE ACCESS WITH IN TCP SIGNS OF WORKING TIMES AND ACTIVITIES.
 - CONTRACTOR TO COORDINATE THIS TRAFFIC CONTROL PLAN WITH ANY OTHER WORKS IN THE VICINITY TO PREVENT SIGN AND WORKS CONFLICTS



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FOR APPROVAL

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	PRELIMINARY	AG	KS	JK	03.10.17
A	ISSUED FOR DA APPROVAL	JP	KS	CS	05.10.17

CLIENT

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PROJECT

**PROPOSED DEVELOPMENT
42 Honeysuckle Drive,
Newcastle. NSW.**

DRAWING TITLE

**TEMPORARY TRAFFIC
CONTROL PLAN**

JOB NUMBER
NL171278

DRAWING NUMBER C100DA	REVISION A
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DRAWING SHEET SIZE = A1

