

FINAL

Construction Environmental Management Plan

Timber Processing Facility – Particle Board

124 Lowes Mount Road, Oberon NSW

Borg Construction Pty Ltd

31 May 2017

Revision History




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				Name / Position	Signature
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1 Introduction

1.1 Purpose of the CEMP

This Construction Environmental Management Plan (CEMP) details the environmental management and control measures which are to be implemented for construction activities associated with installation of the particle board manufacturing facility, and alterations and additions to the existing medium density fibreboard facility (the Project), to ensure the works are managed so as to reduce adverse impacts on the environment.

This CEMP has been prepared to satisfy the requirements of Conditions C1 and C2 of Schedule 2 in Development Consent SSD 7016 for the Project.

The CEMP specifies actions, responsibilities, conformance requirements and mitigation activities to be followed during the construction phase of the Project.

The mitigations and measures detailed in this plan are required to achieve compliance with the requirements of Development Consent SSD 7016 and commitments contained in the Environmental Impact Statement (EIS) and Response to Submissions (RTS) Report.

Prior to the commencement of construction, this CEMP is to be approved by the Secretary, Department of Planning and Environment (DP&E) and the Borg Construction Project Manager.

This CEMP is a live document and will be reviewed and updated where necessary to reflect changes introduced by the Project team, site specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits. Minor revisions will be endorsed by the Borg Construction Project Manager, however any major revisions will also require review and endorsement by the Secretary, DP&E.

This CEMP should be read in conjunction with other Project construction and operational plans including:

- Borg Panels Operational Environmental Management Plan (OEMP);
- Borg Panels Emergency Plan;
- Borg Work Health and Safety Management System;
- Fire Safety Study;
- Hazard and Operability Study;
- Final Hazard Analysis; and
- Construction Safety Study.

1.2 Objectives of the CEMP

The objectives for the Project CEMP are summarised in **Table 1**.

Table 1 – CEMP Objectives

Objectives	Targets	Execution
Compliance with Environmental Legislation	<ul style="list-style-type: none"> 100% compliance with all legal requirements 	<ul style="list-style-type: none"> Review of audit reports
Compliance with Development Consent Conditions	<ul style="list-style-type: none"> 100% compliance with consent conditions 	<ul style="list-style-type: none"> Review of audit reports
Avoidance of Environmental Harm	<ul style="list-style-type: none"> Compliance with CEMP and environmental procedures 	<ul style="list-style-type: none"> Installation and monitoring of environmental controls Environmental reporting, auditing and recording Awareness and education
Conformance with best practice environmental management procedures	<ul style="list-style-type: none"> Conduct environmental site inductions Achieve targets in plans and checklists Undertake environmental inspections Undertake audits as per audit program Report and log all environmental incidents and non-conformances Assign and complete corrective actions in designated timeframe 	<ul style="list-style-type: none"> Training of personnel in CEMP measures Environmental monitoring and audits Review of incidents and non-conformances register Review of environmental reports
Maintain commitments to stakeholders and community	<ul style="list-style-type: none"> Minimal complaints Respond to all complaints within 48 hour period 	Review of complaints register

1.3 Document Control

This CEMP will be issued to the Borg Construction Project Manager and relevant extracts to other parties as controlled copies. A distribution list of documents issued will be maintained by the Project Manager.

Revisions to this CEMP may be required during the Project to reflect changing circumstances. Revisions may result from:

- Management review;
- Audit (either internal or external);
- Complaints, incidents or non-conformance reports; and
- Changes in legislation.

As described in **Section 1.1**, minor revisions will be endorsed by the Borg Construction Project Manager, however any major revisions will also require review and endorsement by the Secretary, DP&E. The CEMP Management Review/Audit procedure is described in **Section 10.1**.

1.4 Records

The Borg Construction Project Manager shall maintain environmental records as part of the Project records. The following records (**Table 2**) will be maintained during construction.

Table 2 – Environmental Records

Record	Type	Minimum length of time to keep record from completion of construction
Daily diaries	Hard copy	4 years
Inspections	Electronic copy	4 years
Waste dockets (if any)	Hard/Electronic copy	4 years
Monitoring results (including test results as required)	Electronic copy	4 years
Audit reports	Electronic copy	4 years
Incident reports	Electronic copy	4 years
Training records (e.g. Induction)	Electronic copy	4 years
Complaints records	Electronic copy	4 years
Monthly environmental management reports	Electronic copy	4 years
Materials tracking documentation (VENM, ENM)	Hard/Electronic copy	4 years

1.5 Corporate Safety, Health and Environment Policy

Borg Construction is committed to the management of our business in an environmentally responsible manner, to care for the environment in which we live, work and to sustain its quality for the benefit of future generations.

We are committed to being a world-class leader in Safety, Health and Environmental Management.

Safety No job is so important and no task so urgent that we cannot take time to perform our work safely. The safety of people must come first.

Environment We will use resources efficiently, minimise waste and emissions, observe all relevant laws and respect the interests of the community.

Borg believes continuous development of our people and processes will ensure we are always using our finite resources in the most efficient way.

2 Compliance Requirements

2.1 Development Consent Conditions

The Development Consent SSD 7016 conditions relevant to the construction phase of the Project that have been considered in this Plan are detailed in **Table 1**. Refer to **Appendix A** for the full Development Consent SSD 7016 conditions.

Table 1 – Development Consent Conditions

No.	Requirement	Document Reference
	Construction Environmental Management Plan	
C1	The Applicant must prepare a Construction Environmental Management Plan (CEMP) to the satisfaction of the Secretary. The CEMP must:	This Plan
	a) be approved by the Secretary prior to the commencement of construction;	Appendix B
	b) identify the statutory approvals that apply to the Project;	Section 2.3
	c) outline all environmental management practices and procedures to be followed during construction works associated with the Project;	Section 7
	d) describe all activities to be undertaken on the site during construction of the Project, including a clear indication of construction stages;	Section 4
	e) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts;	Sections 7 & 8
	f) describe the roles and responsibilities for all relevant employees involved in construction works associated with the Project; and	Section 5
	g) include the management plans required under Condition C2 of this consent.	See below
C2	As part of the CEMP required under Condition C1 of this consent, the Applicant must include the following:	
	a) Traffic Management (Condition B34);	Section 7.8 Appendix F
	b) Dust Management (Condition B3);	Section 7.5
	c) Noise Management (Condition B15);	Section 7.4 Appendix E
	d) Mobile Wood Chipper Operation Management (Condition B24);	Section 7.11 Appendix H
	e) Erosion and Sediment Management (Condition B29);	Section 7.3
	f) Waste Management (Condition B50); and	Section 7.7
	g) Community Consultation and Complaints Handling (Condition B58).	Sections 2.5 & 11.4

2.2 Legislative Compliance

The environmental compliance requirements and legislative context of this Project are listed below and addressed in the Environmental Impact Statement for the Project. The primary statutory instruments applicable to this project include but are not limited to those listed in the following sub-sections.

2.2.1 Commonwealth Legislation

- *Environment Protection and Biodiversity Conservation Act 1999*

2.2.2 State Legislation

- *Environmental Planning and Assessment Act 1979*
- *Protection of the Environment Operations Act 1997*
- *Threatened Species Conservation Act 1995*
- *National Parks and Wildlife Act 1974*
- *Native Vegetation Act 2003*
- *Heritage Act 1977*

2.2.3 State Environmental Planning Policies

- State Environmental Planning Policy (State and Regional Development) 2011
- State Environmental Planning Policy 33 – Offensive and Hazardous Development
- State Environmental Planning Policy 55 – Remediation of Land

2.2.4 Regional Context

- Central West and Orana Regional Growth Plan

2.2.5 Local Planning Instruments and Controls

- Oberon Local Environmental Plan 2013
- Oberon Development Control Plan

2.3 Approvals, Licences and Permits

The following environmental approvals, licences or permits are associated with the Project:

- Environment Protection Licence 3035 (EPL 3035) issued under Section 55 of the *Protection of the Environment Operations Act 1997* applies to the premises for the scheduled activities chemical production and wood or timber milling or processing.
- In the event of an Aboriginal artefact or site being discovered during earthworks, excavation or disturbance, work in the immediate area must stop, and the Regional Operations Group of the OEH, Council and the Registered Aboriginal Parties are to be consulted. Under the *National Parks and Wildlife Act 1974*, a permit is required from the OEH for consent to disturb or destroy any Aboriginal artefact or site. An unexpected finds protocol for heritage items is included as **Appendix C**.
- If any archaeological relics are uncovered during the course of work, then all works shall cease immediately in that area and the OEH NSW Heritage Division contacted. Depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the *Heritage Act 1977* may be required before further works can continue in that area. An unexpected finds protocol for heritage items is included as **Appendix C**.
- Water Supply Works approval 80WA715797 issued under s87B of the Water Management Act 2000 for extraction of groundwater.

Note the above list is not necessarily comprehensive and Borg Construction shall ensure necessary approvals, licences and permits are obtained where applicable for all construction activities.

2.4 Consultation with Key Agencies

Consultation has been undertaken with key agencies throughout the design phase and environmental assessment of the Project, including:

- Department of Planning and Environment
- Roads and Maritime Services (RMS)
- Department of Premier and Cabinet
- Environmental Protection Authority
- Safework NSW
- Office of Water
- Oberon Shire Council
- Department of Primary Industries
- Office of Environment and Heritage
- NSW Fire Service

Issues raised by each of the above agencies are included in the EIS, Part F Section 9.

In addition, submissions were received following the exhibition of the EIS from OEH, NSW EPA, Oberon Shire Council, Safework NSW, RMS and Office of Water. Submissions were responded to in the *Response to Submissions Timber Processing Facility (Particle Board)* Reports dated 24 October 2016 and 6 December 2016.

2.5 Community Consultation

Condition B58 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

“B58. The Applicant must consult with the community as required under Conditions C1 and C4 for the Development, including consultation with the nearby sensitive receivers, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders.”

Close community liaison will be maintained to ensure local residents are kept up to date on the progress of the Project, and to provide an avenue for communication between the community and the Project team.

2.5.1 Community Consultative Committee

Borg has an established joint Community Consultative Committee (CCC) that meets quarterly to discuss environmental and operational aspects of the Borg Panels site. This existing CCC will be utilised to discuss and address general construction impacts and mitigation measures. The CCC meeting will also provide a forum for feedback to Borg in relation to the environmental management of the Project.

2.5.2 Opportunities for Information Exchange

Borg has in place the following avenues to register inquiries and complaints related to construction and operational activities:

- A 24-hour freecall community liaison line (1800 802 795)
- Postal address for written complaints (Borg Panels, Private Mail Bag 1, Oberon NSW 2787)
- Email address for electronic complaints (oberon_site@borgs.com.au)

The telephone number, postal and email address will be clearly displayed on a sign near the entrance to the construction site, in a position that is clearly visible to the public. This information will also be widely disseminated in the community and included on public information, which may include the website, local area advertisements, letterbox notifications and Project specific fact sheets.

3 Existing Environment

3.1 Existing Operations and Approval

The subject land is currently developed for the purposes of a manufacturing facility for Medium Density Fibre board (MDF) and its related products. This existing development includes:

- A number of large industrial scale buildings which contain various processes involved with the manufacture of MDF and value add MDF products;
- Concrete hard stand areas between the buildings;
- An existing two-storey administration/amenities building with associated staff car parking;
- Various necessary items of infrastructure including venting, conveyors and the like;
- Other facilities/buildings associated with the use of the land (including maintenance areas, security entry/exit gates, weigh bridges and the like); and
- Fencing, landscaping, drainage and other site facilities.

The current maximum output of the site is 380,000m³ of MDF board annually.

The site has operated under Development Consent 27/95, issued by the Department of Planning and Environment. This Consent covered the wider Oberon Timber Complex. Development Consent 27/95 was surrendered when Development Consent SSD 7016 was issued. In addition, Environmental Protection Licence 3035 (EPL 3035) applies to the site.

An aerial photograph of the proposed site is shown in **Figure 1** below.



Figure 1: Project Site

4 Project Description

4.1 General Description of the Project

The Project is the expansion of the existing Borg Panels timber processing facility. The components of the expansion are:

- Allow for the construction of a dedicated Particle Board Manufacturing Line to allow Borg to continue their growth and remain internationally competitive;
- Provide additional infrastructure within existing buildings to value add to existing product;
- Demolition of existing infrastructure to make way for new assets;
- Modernise the existing facility;
- Allow for expansion to Lot 1 and 2 DP 1085563 for the purposes of a wood flake preparation area;
- Construct a new automated storage warehouse part on Lot 24 DP 1148073 and part on Lot 26 DP 1200697;
- Construction of hardstand on Lot 24 DP 1148073;
- Allow for expansion to Lot 1 DP 1076346 for hardstand, water quality ponds and emergency catchment;
- Rationalise the current Conditions of Consent that apply to a number of different lots, all under fragmented ownership and operation;
- Allow for an increase in production by up to 500,000m³, with a commensurate increase in staff levels;
- Boundary adjustment of Lot 1 DP 1076346 to rectify the current split zoning, consolidating the IN1 zoned land into Lot 26, retaining all the RU1 zoned land under the current Lot and DP;
- Lot consolidation of all lots the subject of this application; and
- Surrender of the existing approval (DA 27/95) issued by the Department of Planning for the land identified as being the subject of this application.

4.2 Program of Construction Works

The Project is to be undertaken in four stages. This will be over a period of 24 months:

- Stage 1 – Demolition of office building and site works, construction of detention basin (required for erosion and sediment control for later stages) and hardstand areas. Within this stage the construction of the detention basin and drainage swales will be undertaken first in order to ensure that the appropriate erosion and sediment control measures can be implemented as support for following stages. Stage 1 is to commence upon approval and is estimated to take approximately 6 months.
- Stage 2 – construction of Particle Board Manufacturing Facility and installation of related plant and equipment, including modernisation of the existing plant. Stage 2 is to commence upon approval or slightly thereafter and is estimated to take up to 18-24 months, dependent on equipment and labour availability.
- Stage 3 – alterations and additions to existing MDF site and construction of new automated storage warehouse. Stage 3 is to commence post completion of Stage 2 and is estimated that this will take up to 9 months.

- Stage 4 – debarker chipper building and chip preparation area. Stage 4 may commence approximately six (6) months after approval and is estimated to take up to 12 months to complete.

These stages are not dependent on each other, and can be carried out independently and concurrently. As such, the staging plan is not indicative of the order in which stages 2, 3 and 4 will be carried out.

4.3 Outline of Main Construction Activities

The construction of the Project is to be undertaken in a number of stages as outlined above. These stages are generally not dependant on each other, and may be undertaken in a different order to the numerical order outlined above. However, the key construction activities are considered to be:

- Excavation and construction of new first flush and emergency basin in east of the site;
- Demolition of existing site infrastructure;
- Construction of new site access and hardstand;
- Installation of new services and support infrastructure;
- Construction of new industrial buildings to the south west and north west of the subject site to house new plant and equipment, as well as to provide storage; and
- Installation of new plant and equipment in existing industrial buildings.

These new buildings are generally as follows:

- Proposed debarker and chipping plants will be constructed to the south and east of the existing production building. The chippers will be contained in concrete and acoustic panel enclosures;
- A mill building with dimensions 24 x 7.5 metres will be constructed to the west of the proposed production hall. The building is to be fully enclosed with concrete panelling;
- A flaker building with dimensions 61 x 33 metres will be constructed to the west of the proposed production hall. The building is to be fully enclosed with acoustic panelling;
- Production building with dimensions 300 x 25 metres, which will facilitate the board pressing process. The building will be fully enclosed using sheet metal and concrete panelling; and
- Automated storage warehouse building with dimensions 100 x 40 metres located at the northern end of the site. The building will be fully enclosed using sheet metal.

4.4 Construction Site Facilities

Existing site facilities (offices, amenities, dry storage and any chemical storage) will be used where possible during construction activities. Where existing site facilities are insufficient, the following considerations will be made when selecting the location for the construction facilities:

- Within the footprint of the proposed Project;
- Away from natural surface drainage lines;
- Suitable vehicle access;
- Separate storage for fuels, chemicals and hazardous goods, inside bunded area(s);
- Minimise potential for work near dry vegetation which could cause fire; and
- If lighting is required for night-time security, lights will be installed to avoid nuisance to neighbours.

All site sheds and other facilities will present a neat appearance with safety signs erected as required. The construction areas will be regularly maintained and will be kept tidy and free of rubbish. Covered rubbish bins will be provided.

5 Structure and Responsibilities

The Project delivery team, as per the list presented below, shall manage the Project.

During the construction period, all personnel including the Project Manager, Environmental Officer, Safety Officer, Site Supervisor, Work Assistants, and engaged Contractors have general responsibilities in the development of a positive environmental management culture and for ensuring all activities are conducted in a manner that is consistent with the CEMP. Specific project responsibilities in relation to environmental management are shown below.

Borg Managing Director

The Borg Managing Director is responsible for:

- approving appointment of the Project Manager;
- periodic management review of the CEMP and its implementation; and
- investigating any serious incidents, complaints or non-conformances and ensuring necessary corrective action is implemented.

Borg Construction Project Manager

The Borg Construction Project Manager reports to the Borg Managing Director and is responsible for the day-to-day management of environmental performance on the project. The Project Manager is ultimately accountable for the implementation of the requirements contained within this CEMP. The Project Manager is responsible for:

- approving and implementing the CEMP;
- approving any revisions to the CEMP;
- instructing project personnel on how to comply with environmental policy and procedures;
- ensuring the Site Supervisor is aware of and complies with the environmental obligations as detailed within this CEMP;
- ensuring that employees, contractors and sub-contractors are aware of, and comply with, the conditions of consent and requirements of the CEMP relevant to their respective activities;
- tracking and compliance against the conditions of consent for the scope of works being performed;
- evaluation of how effectively environmental controls are performing;
- initiating remedial measures, as recommended by the Environment Officer, when environmental deficiencies are observed or in response to environmental complaints;
- engaging Borg Environment Officer and/or environmental consultants where required to provide support in relation to implementing the CEMP; and
- investigating any incidents or complaints and ensuring necessary corrective action is implemented (in consultation with Borg Managing Director for significant incidents / complaints).

Environment Officer

The Environment Officer will assist the Project Manager in meeting environmental performance targets for the project. The Environmental Officer is responsible for:

- preparing and updating the CEMP;
- assisting the Project Manager in implementing the CEMP;
- assisting in training project personnel on how to comply with environmental policy and procedures;
- undertaking, and/or arranging suitably trained personnel, for periodic monitoring and inspection;
- regular site inspections and the active pursuit of opportunities to enhance environmental outcomes;
- spot checks and general environmental compliance observations;
- tracking and reporting environmental performance;
- monthly evaluation of how effectively environmental controls are performing;
- recommending remedial measures when environmental deficiencies are observed or in response to environmental complaints;
- maintaining environmental performance records;
- investigating any incidents or complaints and ensuring necessary corrective action is implemented (in consultation with Borg Managing Director and Project Manager for significant incidents / complaints).

Safety Officer

The Safety Officer will assist the Project Manager in meeting safety and environmental performance targets for the project. The Safety Officer is responsible for:

- advising on all issues related to work health and safety;
- inducting employees, contractors and sub-contractors to the Project;
- maintaining the SDS register;
- maintaining the hazardous substances register;
- hazardous materials clearance prior to demolition of buildings.

Site Supervisor

The Site Supervisor will report to the Project Manager and is responsible for:

- Managing employees / contractors and construction activities on a daily basis to ensure the appropriate environmental controls are implemented and maintained in accordance with the requirements of the CEMP;
- Ensuring all staff are inducted into the site and undertake daily tool box talks;
- Undertake daily site inspections of environmental controls and maintain records of environmental actions;
- Reporting any environmental management concerns or incidents immediately to the Project Manager;
- Recommending improvements to the CEMP to the Project Manager; and
- Implementing any corrective actions issued as a result of any site inspections, audits or meetings.

Works Assistants and Contractors

The Work Assistants and Contractors will report to the Site Supervisor and are responsible for:

- Implementing the requirements of the CEMP as they conduct their works; and
- Reporting any environmental management concerns or incidents immediately to the Site Supervisor.

6 Environmental Risk Assessment

Environmental aspects and potential construction stage environmental impacts have been identified based on the Environmental Impact Statement and supporting studies, the Development Consent Conditions and Borg Construction general experience on construction projects as shown on **Table 5**.

The Risk Assessment Matrix in **Table 3** has been used to assess the unmitigated risk of each individual environmental aspect relevant to the construction of the Project.

The level of risk assessed from the matrix informs the level of mitigations required for that environmental aspect. These risks are to be mitigated through the application of measures identified in this CEMP.

Table 3 – Risk Assessment Matrix

	Probability					
		A	B	C	D	E
Consequence	1	H	H	H	H	M
	2	H	H	H	M	M
	3	H	H	M	M	L
	4	M	M	M	L	L
	5	M	L	L	L	L

Table 4 provides explanatory notes on the selection of the consequence and probability for each environmental aspect.

Table 4 – Risk Matrix Explanation

Probability			Consequence		
A	Almost Certain	Expected to occur, quite common	1	Major	<ul style="list-style-type: none"> Major environmental harm. e.g. major pollution incident causing significant damage or potential to health or the environment.
B	Likely	Will probably occur, has happened	2	Significant	<ul style="list-style-type: none"> Long term or serious environmental damage Numerous complaints received Potential for prosecution
C	Possible	Might occur at some time	3	Moderate	<ul style="list-style-type: none"> Moderate environmental impact Will cause complaints Possible fine
D	Unlikely	Could occur at some time although unlikely	4	Minor	<ul style="list-style-type: none"> Minimal environmental harm Potential for complaints Fine unlikely
E	Rare	Might occur at some time in exceptional circumstances	5	Insignificant	<ul style="list-style-type: none"> Little or no environmental harm Little potential for fines or complaints

Table 5 – Risk Matrix Explanation

Aspect	Potential Construction Stage Impact	Probability	Consequence	Risk Ranking	Controls
Site security and access	Entry of unauthorised persons or vehicles onto the site	D	4	Low	Refer Section 7.1
Sedimentation and erosion control and construction stormwater management	Erosion of sediments from stockpiles or exposed areas	B	3	High	Refer Section 7.3
	Discharge of sediment laden stormwater leading to potential impacts to downstream environment	B	3	High	
Noise	Excessive noise generated by construction activities, and/or truck and vehicle movements	C	3	Medium	Refer Section 7.4
	Excessive noise generated from simultaneous operation of mobile wood chippers and rock/ concrete breaking activities	B	3	High	Refer Section 7.11
Air quality and dust	Generation of dust from soil stockpiles and other exposed areas	B	3	High	Refer Section 7.5
	Generation of dust during handling of soil	B	3	High	
	Generation of dust from vehicle movements	C	4	Medium	
	Unacceptable emissions from vehicles / plant	D	4	Low	
Hazardous materials	Leaking or spillage of fuels or chemicals stored or used on the Site leading to potential impacts to soil, groundwater or surface water	C	1	High	Refer Section 7.6
	Explosion of fuels or chemicals stored or used on the Site	E	1	Medium	
Waste management	Inappropriate disposal of waste	D	2	Medium	Refer Section 7.7
	Not minimising generation of waste	D	4	Low	
Traffic management	Traffic causing congestion or damage on local roadways	D	3	Medium	Refer Section 7.8
	Traffic incident / accident	D	2	Medium	
Materials management	Unintended mixing of materials (clean vs yet to be validated etc)	C	2	High	Refer Section 7.9

Aspect	Potential Construction Stage Impact	Probability	Consequence	Risk Ranking	Controls
Contamination management	Covered in remedial action plan for fuel depot	B	2	High	Refer Section 7.9
Heritage	Disturbance of aboriginal artefacts or skeletal remains during excavation activities	E	2	Medium	Refer Section 7.10

7 Environmental Management and Controls

This section identifies the management measures which will be implemented during the construction of the Project to mitigate against the environmental aspects identified in **Table 5**. The Project Manager will ensure that personnel responsible for undertaking the works are aware of their roles and responsibilities as detailed in this CEMP.

The following sub-plans, which are attached as appendices to this CEMP, have been prepared:

- Construction Traffic Management Sub-Plan;
- Construction Noise Management Sub-Plan;
- Mobile Wood Chipper Operation Management Plan.

Where a sub-plan has been prepared for a particular aspect, the environmental management activities and management measures to be implemented are detailed in the sub-plan.

It is intended that this CEMP be a live document and that it be regularly reviewed for effectiveness, with procedures to be modified where considered beneficial. Procedures for review are discussed in **Section 10.1**.

7.1 Site Security and Access

7.1.1 Objectives

- Prevent entrance of unauthorised people to site during construction activities.

7.1.2 Management Measures

- 1) The site currently operates 24 hours per day 7 days per week and is security fenced. Access is provided via Gate 4, 5 and Gate 6, which are security controlled. Visitors and contractors to the site are required to complete a site induction prior to entry via the manned Gate 6 only.
- 2) As the site will continue to be operational during the construction phase, existing security measures will be maintained during the construction period.
- 3) All construction site personnel must undergo site contractor induction, including the requirements of this CEMP. For deliveries and visitors, a separate smaller induction will be undertaken.
- 4) If deemed necessary, the separation between the Woodchem operations and the rest of the site will be reinforced through additional fencing to clearly delineate the different operations and ensure that access can be achieved without any intrusion into areas of construction or storage.
- 5) Lighting is currently provided on site to allow the full 24-hour operation of the site in line with the current consent. Lighting is designed to project downwards to minimise impacts on the amenity of the area and to increase overall site safety.

7.1.3 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Visual check that perimeter fence in tact	Monthly	Site Supervisor / Environment Officer	Monthly Inspection Checklist
All visitors and contractors complete site induction	Daily	Project Manager / Safety Officer	WHSMS Audits

7.2 Hours of Operation

7.2.1 Objectives

- Prevent outside of hours noise and traffic impacts resulting from construction activities.

7.2.2 Applicable Conditions of Approval

Conditions B13 and B14 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

“B13. The Applicant must comply with the hours detailed in Table 1, unless otherwise agreed in writing by the Secretary.

Table 1: Hours of Work

Activity	Day	Time
Earthworks and Construction	Monday – Friday Saturday	7 am to 7 pm 8 am to 1 pm
Operation	Monday – Sunday	24 hours

B14. Works outside of the hours identified in Condition B13 may be undertaken in the following circumstances:

- (a) works that are inaudible at the nearest sensitive receivers;*
- (b) works agreed to in writing by the Secretary;*
- (c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or*
- (d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.”*

7.2.3 Management Measures

- 1) Construction work shall be conducted within the approved hours as per the above table in **Section 7.2.2**.
- 2) Construction work may be also undertaken outside these hours if work meets the circumstances in Condition B14.

7.2.4 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
No construction related complaints	24 hour complaints hotline	Project Manager / Environment Officer	Complaints Register

7.3 Soil and Water Management

7.3.1 Objectives

- The objective of the Soil and Water Management Plan (SWMP) is to set out strategies to control soil erosion and sediment generation close to the source and thereby minimise the potential for construction activities to adversely affect water quality leaving the site.
- Comply with the requirements of the latest version of the *Managing Urban Stormwater: Soils and Construction Guideline* (Landcom, 2004).

7.3.2 Applicable Conditions of Approval

Condition B29 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

“B29. Prior to the commencement of construction, the Applicant must install and maintain suitable erosion and sediment control measures on-site, in accordance with the relevant requirements in the latest version of the Managing Urban Stormwater: Soils and Construction Guideline and the Erosion and Sediment Control Plan included in the CEMP required by Condition C1.”

7.3.3 Responsible Officer(s)

An Environmental Officer will be assigned to the Project delivery team. The Environmental Officer will supervise soil and water management controls during construction, and respond to environmental incidents.

Borg construction staff have been trained in sediment and erosion control and know how to implement these control measures.

7.3.4 Design Criteria

Assumed Soil Hydrological Group and Type of Basin

It has been assumed that soils on the site are part of hydrological group C, fine clays with mildly dispersible particles that will result in runoff from most but not every rainfall event, i.e. the site soils possess some infiltration capacity. A type D basin would be required for these soil conditions. Some flocculation will be required to hasten settlement. Floc-blocs are to be used during construction.

Rainfall Data

Analysis of several local rainfall gauges indicate an annual average rainfall depth for calculation purposes of 800mm/year. This is based on rainfall at the Jenolan Caves Road gauge, as well as the Spring Bank gauge close to the site. Spring Bank has an annual average rainfall of 840mm and Jenolan Caves Road 745mm/year.

Design Rainfall Depth

A design rainfall depth of the 5 day 75th percentile event has been chosen in accordance with the Blue Book noting that Kings Stockyard Creek is not a sensitive waterway. For example a SEPP14 Wetland would be considered sensitive. A 5 day, 75th percentile rainfall depth for Oberon is 22.50mm.

7.3.5 Mitigation Measures

Localised Sediment Controls

Localised sediment controls shall be used to minimise and prevent sediment laden runoff from entering any waterway. Localised controls would include the use of:

- Sediment fences;
- Hay bales within channels;
- Rock check dams; and
- Filter sausages around the opening of all impacted stormwater pits.

Typical details for each of these controls is shown in **Appendix D**.

Figure 2 shows local sediment controls to be installed across the Project site. Where identified necessary, additional sediment controls will be installed by construction staff.

Work Site Access Controls

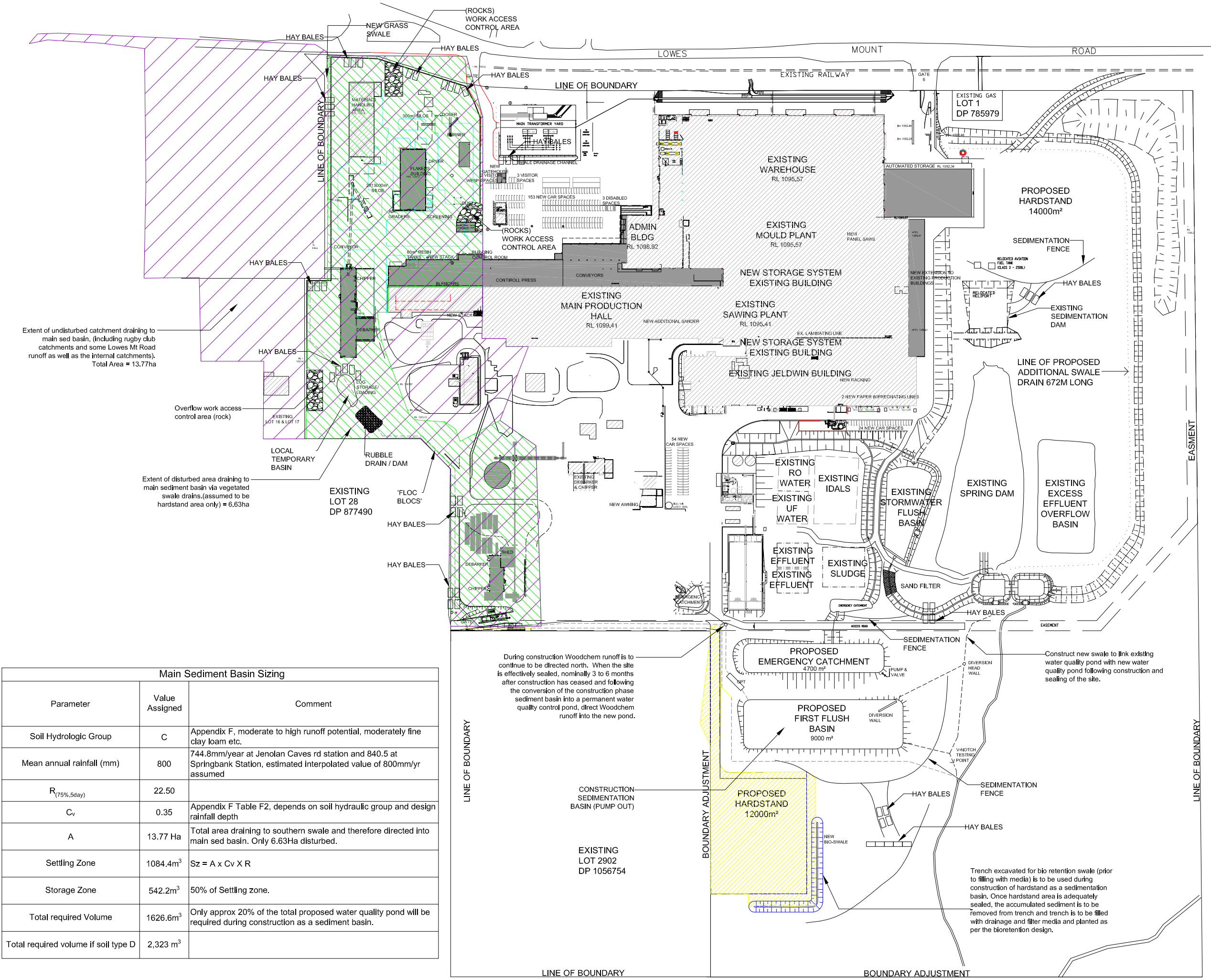
A minimum of 15m of railway ballast is to be placed at the point of access and egress to all areas with exposed earth works to facilitate the removal of mud from vehicles. The ballast shall be washed down weekly when the site is dry or when clogged.

Stockpiles

Topsoil stockpiles are to be limited to 2m in height to preserve soil microbes. Stockpiles shall be surrounded by a sediment fence and located away from waterways. If stockpiles are to be kept for more than 3 months it is suggested that stockpiles are sprayed with a bitumen emulsion to prevent erosion and promote grass growth.

NOTE:
LOT BOUNDARIES FOR CONSOLIDATION ARE NOT SHOWN ON THIS PLAN (FOR CLARITY) - REFER TO CONSOLIDATION PLAN FOR DETAIL
REFER TO KEY PLAN FOR REFERENCES TO DOCUMENTATION OF NEW WORKS

- LEGEND:
- EXISTING BUILDINGS
 - PROPOSED NEW BUILDINGS
 - NEW SWALE
 - NEW PIPE
 - VALVE



Main Sediment Basin Sizing		
Parameter	Value Assigned	Comment
Soil Hydrologic Group	C	Appendix F, moderate to high runoff potential, moderately fine clay loam etc.
Mean annual rainfall (mm)	800	744.8mm/year at Jenolan Caves rd station and 840.5 at Springbank Station, estimated interpolated value of 800mm/yr assumed
$R_{(75\%,5day)}$	22.50	
C_v	0.35	Appendix F Table F2, depends on soil hydraulic group and design rainfall depth
A	13.77 Ha	Total area draining to southern swale and therefore directed into main sed basin. Only 6.63Ha disturbed.
Settling Zone	1084.4m³	$S_z = A \times C_v \times R$
Storage Zone	542.2m³	50% of Settling zone.
Total required Volume	1626.6m³	Only approx 20% of the total proposed water quality pond will be required during construction as a sediment basin.
Total required volume if soil type D	2,323 m³	

CONSTRUCTION CERTIFICATE

28/04/17

JDG

TP

BORG

CONSTRUCTION

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Project

PROPOSED PARTICLE BOARD MANUFACTURING PLANT & ADDITIONAL WORKS

Location

124 LOWES MOUNT ROAD, OBERON
NEW SOUTH WALES

Drawing

EROSION & SEDIMENT CONTROL PLAN

Scale

1:1750 (@A1)

Stage

CC

Project Number

19

Drawing Number

CC 540

Issue

A

Sediment Control Basin

In accordance with the Water Cycle Impact Assessment (Sustainability Workshop, May 2016) and the Blue Book, which requires a basin where the disturbed area exceeds 1 Hectare, Borg propose to operate a construction phase sediment basin. The sediment basin will be located as shown on **Figure 2** where the permanent water quality treatment pond is to be located. This pond will be operated as a sediment basin, in line with the Blue Book, until the site is effectively sealed, which will be 3 to 6 months following construction. The minimum volumes of the sediment basin are to be 1,627 m³ as shown below.

Minimum Sediment Basin Volumes Required by Blue Book		
Parameter	Value Adopted	Comment or Source of Data
Soil Hydrologic Group	C	Appendix F, moderate to high runoff potential, moderately fine clay loam etc
Mean Annual Rainfall (mm)	800	744.8mm/year at Jenolan Caves Rd station and 840.5mm at Springbank Station, estimated interpolated value of 800mm/yr assumed
R/(75%, 5day)	22.5	
C/v	0.35	Appendix F Table F2, depending on soil hydraulic group and design rainfall depth
A	13.77 Ha	Total area draining to southern swale and therefore directed into main sediment basin. Only 6.63Ha disturbed
Settling Zone	1084.4m ³	$S_z = A \times C_v \times R$
Storage Zone	542.2m ³	50% of Settling Zone
Total Required Volume	1626.6m ³	9,000 m ³ of volume are proposed
Total Required Volume if Soil Type D	2,323 m ³	As above

Assuming a worst case scenario with type D soils, the sediment basin volume would need to be 2,323 m³ to comply with the Blue Book.

Borg propose to construct a 9,000 m³ basin which will substantially exceed the minimum volumes required under the Blue Book.

Borg will keep records of basin operation, noting accumulated sediment depth, flocculation details such as when floc blocs are replaced, periods of drawing down following settlement. The basin shall not be discharged until water is visibly clear and free of sediment with low turbidity. Additional flocculation may be required from time to time. A pump shall be used to discharge settled water. It is recommended that clarified water be pumped up to the existing water quality pond and be used as a feed supply for daily operations provided it is of low turbidity in lieu of discharging from the site.

It is recommend that the basin water level never be drawn down below 0.5m and that this zone would form the sediment storage/accumulation zone. A graduated depth marker should be placed in the sediment storage zone to show when it needs emptying.

The construction phase basin is to be converted into a permanent water quality treatment pond at the end of its construction phase life. To achieve this, the basin will need to be desilted prior to placement of topsoil and planting. This is discussed further in the next section.

7.3.6 Staging of Works

Stage 1: Sediment Controls in Place Prior to Construction

- 1) Localised sediment control measures put in place.
- 2) Proposed 9 ML water quality pond to be constructed and operated as construction phase sediment control basin.
- 3) Woodchem runoff to be directed along its current flow path to the north until construction phase has ceased.
- 4) Construct swales on southern boundary and eastern boundary and direct sediment laden flows into the proposed 9 ML sediment basin.
- 5) Place topsoil within swales to support grass growth.
- 6) Vegetate swales using spraygrass and/or turf strips down the centre.
- 7) Place floc blocs in flow path to assist flocculation prior to entry of flow into the sediment basin.

Stage 2: Construction Phase

- 1) Strip topsoil and stockpile.
- 2) Carry out construction.
- 3) Maintain local sediment controls.
- 4) Maintain sediment basin, empty as required. Dry out sediments and mix with topsoil for reuse on site later.

Stage 3: Sealing and Revegetation

- 1) Seal all disturbed areas by concreting where required or rolling exposed soil surfaces to minimise erosion.
- 2) Wherever possible consider placing woodchip on exposed soil areas or gravel mulch.
- 3) Place woodchip on areas to be vegetated.
- 4) Ensure all swales have a good vegetative cover.

Stage 4: Operational Phase

- 1) Drain sediment basin.
- 2) Remove accumulated sediment, allow to dry and mix with topsoil for reuse on site.
- 3) Carry out final trimming of basin and confirm levels.
- 4) Place topsoil (mixed with sediment fines).
- 5) Plant basin and if required water plants until established or a minimum of 6 weeks.

7.3.7 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Ensure localised erosion and sediment control devices are installed	Prior to commencement of earthworks	Site Supervisor / Environment Officer	Initial inspection
Work access controls installed at the point of access and egress to all areas with exposed earth works	Prior to commencement of earthworks	Site Supervisor / Environment Officer	Initial inspection
Topsoil stockpiles to be managed in accordance with the SWMP	Monthly	Site Supervisor / Environment Officer	Monthly inspection
Keep records of sediment basin operation	As required	Site Supervisor	Sediment basin operation SOP
Erosion and sediment control devices inspected post-rainfall	During and/or immediately following rainfall event	Environment Officer	Post-rainfall inspection
Erosion and sediment control devices inspected routinely	Monthly	Environment Officer	Monthly Inspection Checklist
Follow-up inspection after sediment removal from devices	Within 1 week of sediment removal requirement identified	Environment Officer	Post maintenance inspection

7.4 Noise Management

Refer to the Construction Noise Management Sub-Plan in **Appendix E** for objectives, management measures and monitoring requirements related to construction noise impacts.

7.5 Air Quality (Dust) Management

7.5.1 Objectives

- Minimise air pollution from construction activities.
- Minimise the exposure of areas for wind erosion.
- Control, to the maximum extent practicable, the generation of dust on site and migration of dust offsite.
- Undertake activities with the objective of preventing visible dust emissions from the site.

7.5.2 Applicable Conditions of Approval

Condition B2 and B3 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

- "B2. The Applicant must implement all reasonable and feasible measures to minimise dust generated by the Development.*
- B3. During construction, the Applicant must ensure that:*
- (a) exposed surfaces and stockpiles are suppressed by regular watering;*
 - (b) all trucks entering or leaving the site with loads have their loads covered;*
 - (c) trucks associated with the Development do not track dirt onto the public road network;*
 - (d) public roads used by these trucks are kept clean; and*
 - (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces."*

7.5.3 Management Measures

- 1) Toolbox meetings will be held to ensure all personnel on site are made aware that if they observe excessive dust in the air leaving the Site they are to immediately inform the Site Supervisor. In such cases, the Site Supervisor will investigate the source of the dust and ensure that proper controls are in place. If those controls prove ineffective that activity will cease until methods to successfully control the dust are employed.
- 2) The following measures will be implemented to manage dust generation from stockpiles of soil:
 - Minimise the period and volume of stockpiling where practicable;
 - Where any long term stockpiling is required, stabilise the stockpiles; and
 - Use of water sprays on any un-stabilised stockpiles.
- 3) Evaluate prevailing weather conditions - excavation/fill works to ceased or be modified if dust generation observed.
- 4) Stabilise exposed areas as soon as practicable.
- 5) Spray water on unsealed areas.
- 6) Minimise the height from which dust-generating material is dropped.
- 7) Minimise the surface area of a work zone.
- 8) Construction plant and equipment are to be maintained and serviced regularly.
- 9) Efficient use of plant and equipment, e.g. turning off idling plant and equipment.
- 10) Covering of truck loads before leaving the Site.
- 11) Remove dirt and debris from the tyres and underside of trucks prior to leaving the site.
- 12) Daily visual inspections by the Site Supervisor of the immediate surrounding area to ensure no materials have been lost from vehicles entering or leaving the Site, and to assess general dust generation.
- 13) Visual inspection of plant on a daily basis by the Site Supervisor for excessive exhaust emissions. Defective plant will be stood down until repaired.
- 14) Offensive odours are not expected to be generated from the Site. If this does occur work involved is to stop temporarily, the source of odour investigated and solutions actioned so that offensive odour production does not continue.

7.5.4 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Visual inspection of site for excessive dust generation, weather conditions, truck load covers, condition of stabilised site work access controls	Daily	Site Supervisor	Daily Diaries
Visual inspection of stockpile stability	Monthly	Site Supervisor / Environment Officer	Monthly Inspection
Toolbox talks to include reminders about reporting excessive dust from either internal or external sources, covering loads, efficient use of plant and equipment	Weekly	Site Supervisor	Toolbox Record

7.6 Storage of Hazardous Materials

7.6.1 Objectives

- Prevent leaks or spills of hazardous materials
- Prevent pollution arising from leakage or spillage of hazardous materials

7.6.2 Applicable Conditions of Approval

Condition B44 and B45 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

- “B44. The quantities of dangerous goods stored and handled at the site must be below the threshold quantities listed in the Department’s Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 at all times.*
- B45. The Applicant must store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or the EPA’s Storing and Handling of Liquids: Environmental Protection – Participants Handbook.”*

7.6.3 Management Measures

- 1) Manufacturer's instructions / Safety Data Sheets (SDS) for substances and materials shall be obtained and kept in a file on site, which will be readily available to site construction personnel when needed.
- 2) Minimise fuel and chemical storage on site.
- 3) Bunds around any chemical, fuel or oil storage (to contain 110% of largest tank / container, or 25% of the total volume of all drums, whichever is greater). Any bunds shall be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storage and Handling of Liquids: Environmental Protection – Participant's Manual*.
- 4) Spill kits to be kept onsite in marked containers (containing absorbent materials – granular vermiculite, mats, and pillows) and personnel should be trained in spill response.
- 5) Vehicles transporting materials on-site will be operated in a manner to prevent any loss of materials during loading, transport and unloading.

7.6.4 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Visual inspection of chemical and fuel storage areas and bunding	Monthly	Site Supervisor / Environment Officer	Monthly Inspection Checklist
Maintain SDS register	As required	Site Supervisor / Safety Officer	SDS register
Visual inspection of spill kits contents	Monthly	Site Supervisor / Environment Officer	Monthly Inspection Checklist
Maintain Hazardous Substances Register	As required	Site Supervisor / Safety Officer	Hazardous Substances Register

7.7 Construction and Demolition Waste Management Plan

7.7.1 Objectives

- To develop a plan for management of wastes on the site in accordance with the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* (WARR). This involves managing the waste in accordance with the waste hierarchy established under the *Waste Avoidance and Resource Recovery Act 2001*. The waste hierarchy is shown below in **Figure 3**.

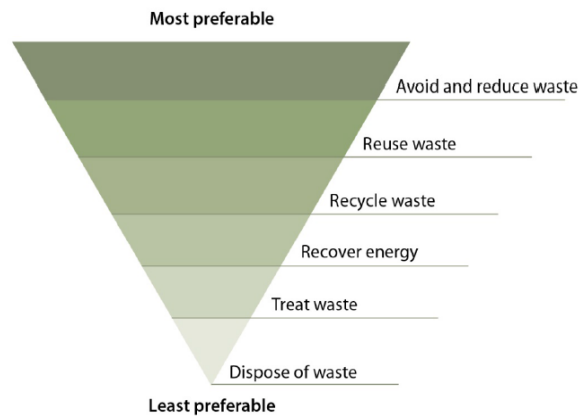


Figure 3 – The Waste Hierarchy

The NSW WARR aims to maximise conservation of natural resources and to minimise environmental harm from waste management and disposal of solid waste.

The specific objectives of the waste management plan include:

- Reduce waste generation associated with site construction activities;
- Where waste generation is unavoidable, promote reuse and recycling;
- Where on-site reuse or recycling is not practicable, appropriate off-site recycling or disposal facilities should be employed, ensuring the responsible treatment of all waste streams; and
- Ensuring all waste disposal is undertaken lawfully.

Contingency procedures will also need to be in place to deal with any waste generated as a result of hazardous material spills (**Section 7.6**).

7.7.2 Applicable Conditions of Approval

Condition B50 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

“B50. Prior to the commencement of construction of the Project, the Applicant must prepare a Construction and Demolition Waste Management Plan for the Project to the satisfaction of the Secretary. The plan must form part of the CEMP required by Condition C1 and must:

- (a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; and*
- (b) be implemented for the duration of construction works.*

7.7.3 Management Measures

Table 6 details the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations.

Table 6: Waste types, disposal methods and disposal locations

Construction activity	Waste type	Waste classification	Likely quantity	Disposal methods	Waste disposal location
Clearing and grubbing	Green waste – vegetation	General solid waste (non-putrescible)	20 Cubic metres (m ³)	Re-use on-site as mulch bunds for erosion and sediment controls, landscaping and boosting topsoil organic matter content	On-site
Demolition	Timber	General solid waste (non-putrescible)	5 Tonne (t)	Recycle/reuse of material on-site or send offsite to recycling facility	On-site OR Oberon Council Waste Depot
	Metal – pipes, sheets, reo, fencing	General solid waste (non-putrescible)	20 t	Recycle/reuse of material on-site or send offsite to recycling facility	On-site OR Oberon Council Waste Depot
	Concrete, bitumen, bricks and tiles	General solid waste (non-putrescible)	120 t	General demolition waste expected to be disposed of, unless a reuse option is identified	On-site OR Oberon Council Waste Depot
	Asbestos	Special waste	To be confirmed if encountered	Assessed by a licensed assessor. Managed and disposed of by licenced sub-contractor.	Oberon Council Waste Depot following Council approval
	Cabling and lighting	General solid waste (non-putrescible)	5 t	Where possible send offsite to a recycling facility. Fluorescent light globes and tubes recycled at Oberon Council waste depot.	Oberon Council Waste Depot

Construction activity	Waste type	Waste classification	Likely quantity	Disposal methods	Waste disposal location
	Redundant utility services	General solid waste (non-putrescible)	2 t	Copper wires and pipes send off-site to recycling facility. Separately stockpiled at various locations onsite before being sent offsite to a licensed waste facility.	Oberon Council Waste Depot
	Plastics – PVC pipes, sheeting	General solid waste (non-putrescible)	2 t	Recycle/reuse of material onsite or send offsite to recycling facility.	On-site OR Oberon Council Waste Depot
Excavation and earthworks	Topsoil	General solid waste (non-putrescible)	20 t	Stockpiled and reused on-site	On-site
	Subsoils – soils and clay materials	General solid waste (non-putrescible)	20 t	Reuse onsite for pond linings (clay), batters or landscaping (soils)	On-site
	Potentially contaminated soils	Classified based on soil tests and in accordance with Waste Classification Guidelines (DECCW 2009)	To be confirmed if encountered	Unless soil can be appropriately treated and validated, it will be disposed of in accordance with a Contaminated Land Management Plan	Landfarm on-site or Oberon Council Waste Depot following Council approval

Construction activity	Waste type	Waste classification	Likely quantity	Disposal methods	Waste disposal location
General construction	General waste and recyclables – paper, glass, plastics, silt fences, aluminium, cans, etc	General solid waste (non-putrescible)	20 t	Recyclables placed in recycling bins and removed offsite to recycling facility (metals, glass, aluminium cans, plastics, batteries, paper products). General waste taken to a licensed waste facility.	Oberon Council Waste Depot
	Excess construction materials – asphalt, concrete, metal, steel, timber, temporary fencing, timber from formworks, guard rails etc.	General solid waste (non-putrescible)	Limited	Reused on-site. Re-processed (concrete, asphalt) for use as road base. Removed off-site to a recycling facility or to a licensed waste facility.	On-site OR Oberon Council Waste Depot
	Sediment/sludge from sediment basin desilting	General solid waste (non-putrescible)	15 t	Collected and reused on-site as general fill material or incorporated within landscaping / topsoil material where practical	On-site

Construction activity	Waste type	Waste classification	Likely quantity	Disposal methods	Waste disposal location
	Storm water site run-off captured in sediment basins	Liquid waste	To be confirmed, rainfall dependent	Water captured in sediment basins pumped to water treatment plant for treatment and reuse on-site. Any water discharged offsite will be in accordance with the sediment basin operation SOP.	On-site
	Waste water from contaminated runoff	Liquid waste	To be confirmed	Water captured in dirty water system and pumped to water treatment plant for treatment and reuse onsite.	On-site
	Packaging – pallets, crates, cartons, plastics and wrapping materials	General solid waste (non-putrescible)	100 t	Return to material supplier or send off-site for recycling.	Return to supplier OR Oberon Council Waste Depot

Construction activity	Waste type	Waste classification	Likely quantity	Disposal methods	Waste disposal location
	Empty Containers used for pesticides, herbicides, fuel, lubricants, paints and other hazardous chemicals.	Hazardous waste	2 t	Stored in appropriate locked and bunded areas until disposal at licensed waste facility. Steel drums will be recycled where practical if a reliable drum reconditioning service is available. Chemical drums that have been triple rinsed will be disposed of by Drum-muster collection at Oberon Council Waste Depot.	Drum reconditioning service OR Oberon Council Waste Depot

Construction vehicles will be serviced by the existing workshop, and as such materials associated with mechanical servicing and repairs will be managed and disposed of through the existing site waste management system.

As for the workshop, existing office and bathroom facilities will be utilised by construction personnel, and wastes will be managed and disposed of through the existing site waste management system. An exception may be the use of portable toilets where construction activities are located away from existing facilities. These portable toilets will be serviced by the hire company on a contractual basis.

7.7.5 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Visual inspection of surface, loads, bins and portable toilets	Monthly	Site Supervisor / Environment Officer	Monthly Inspection Checklist
Records kept for all waste removed from site	As required	Site Supervisor	Waste Disposal Records

7.8 Traffic Management

Refer to the Construction Traffic Management Sub-Plan in **Appendix F** for objectives, management measures and monitoring requirements related to construction traffic management.

7.9 Contamination Management / Remediation

7.9.1 Objectives

- Avoid and minimise the environmental and human health risks arising from the disturbance of contaminated land if encountered during construction of the project.
- No degradation to the receiving environment as a result of disturbance of contaminated land (if encountered).
- No contamination of soil, air or water as a result of spillages or other impacts arising from construction activities.
- No importation of potentially contaminated soils to site.

7.9.2 Applicable Conditions of Approval

Conditions B28 and B53 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

“B28. The Applicant must:

- (a) ensure that only VENM, or ENM, or other material approved in writing by the EPA is used as fill on the site;*
- (b) keep accurate records of the volume and type of fill to be used; and*
- (c) make these records available to the Secretary upon request.*

B53. Prior to the commencement of construction of the Project, the Applicant must prepare a site validation report for Lot 1 DP 1085563, which demonstrates the site is suitable for its intended use(s). A copy of the site validation report must be provided to the Secretary and Council.

7.9.3 Management Measures

- 1) Removal of fuel tanks from the fuel depot on Lot 1 DP 1085563 has already been undertaken. A suitably qualified and experienced contaminated land expert is engaged to undertake a contamination investigation of the Lot, outside the scope of this CEMP. Construction activities are not to commence on this Lot until such time as the site has been deemed suitable for its intended use(s) by the contaminated land expert.
- 2) All buildings and immediate surrounds will be checked against the site hazardous materials register, i.e. for asbestos materials, prior to demolition. Any hazardous materials identified in these areas would need to be removed, in accordance with relevant legislative requirements, from the site and disposed of at an EPA licenced facility.
- 3) The site Pollution Incident Response Management Plan (PIRMP) would be enacted in the event of a major fuel or chemical spill. Minor spills will be contained and cleaned up in accordance with the SDS, using available spill kits.
- 4) If potentially contaminated material is encountered the Unexpected Contaminated Land Finds Protocol (**Appendix G**) will be followed. Works in the vicinity will be stopped or modified and will not recommence until the material has been analysed and management measures developed.
- 5) All potentially affected spoil will be stockpiled on a bunded, impermeable surface.
- 6) If soils are to be disposed off-site, then testing would be undertaken to assess the appropriate waste classification of the soils according to the EPA guidelines.
- 7) All imported VENM, or ENM, shall be classified based on soil tests and in accordance with Waste Classification Guidelines (DECCW 2009). For material to be considered VENM, it must meet the requirements of the Protection of the Environment Operations Act 1997. Where an excavated material cannot be classified as VENM, it may be eligible for reuse under the ENM order and exemption.

7.9.4 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Contamination clearance for Lot 1 DP 1085563	Prior to construction commencing	Project Manager / Site Supervisor / Environment Officer	Site Validation Report
Hazardous materials clearance prior to demolition of buildings	Prior to demolition	Project Manager / Site Supervisor / Safety Officer	Clearance Report
Visual inspection of excavations to detect presence of contamination	Daily	Site Supervisor	Daily Diary
Record of unexpected contaminated land finds	As required	Site Supervisor / Environment Officer	Incident Report
Record of all environmental incidents/spills	As required	Site Supervisor / Environment Officer	Incident Report
Record of imported or exported materials from site	As required	Site Supervisor / Environment Officer	Waste dockets / VENM/ENM certificates

7.10 Aboriginal and European Heritage

7.10.1 Objectives

- Implement contingency measures to appropriately manage Aboriginal artefacts, skeletal material or historic relics in the unexpected event that they be encountered during site earthworks. The Heritage Assessment undertaken as part of the EIS concluded that the proposed development is unlikely to encounter Aboriginal objects or historic relics.

7.10.2 Applicable Conditions of Approval

Conditions B54 and B55 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

- “B54. If Aboriginal objects are uncovered during earthworks, excavation or disturbance, work in the immediate area must stop and the Regional Operations Group of the OEH and the Registered Aboriginal Parties are to be consulted.*
- B55. If any archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area and the OEH NSW Heritage Division contacted. Depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the Heritage Act 1977 may be required before further works can continue in that area.”*

7.10.3 Management Measures

- 1) All personnel working on the Site are to be made aware of the:
 - NPW Act 1974 and the fact that it is an offence to move, disturb or destroy Aboriginal objects without the written permission of the Director General of the OEH.
 - Heritage Act 1977 and the fact that it may be an offence to move, disturb or destroy archaeological relics without consultation with the OEH NSW Heritage Division.
- 2) Should Aboriginal objects be identified during the course of site works, all work must cease immediately and the Unexpected Finds Protocol – Aboriginal objects/features encountered during construction activities (**Appendix C**) enacted.
- 3) Should archaeological relics be identified during the course of site works, all work must cease immediately and the Unexpected Finds Protocol – Discovery of historic relics during construction activities (**Appendix C**) enacted.
- 4) Should suspected skeletal material be identified during construction, all works must cease immediately and the Unexpected Finds Protocol – Discovery of human remains during construction activities (**Appendix C**) enacted.

7.10.4 Monitoring and Reporting

Monitoring	Frequency	Person Responsible	Record
Site Induction	Once, before work on site Commences	Site Supervisor / Safety Officer	Induction Register
Toolbox talks reminding personnel of processes regarding heritage items	Weekly	Site Supervisor	Toolbox Record

7.11 Mobile Wood Chippers

Refer to the Mobile Wood Chipper Operation Management Plan in **Appendix H** for objectives, and management and mitigation measures related to mobile wood chipper operation.

8 Contingencies

Table 7 summarises issues that can reasonably be expected to be encountered during construction and how these may be resolved.

Table 7 – Contingencies

Potential Anticipated Issue	Corrective Action
Excessive dust generation	Temporarily stop work activity that is causing dust generation. Review dust controls currently in place and assess need for additional measures. Such measures may include additional use of water sprays, cease dust-generating activity until better dust control can be achieved, temporarily cover dust producing areas, etc.
Excessive noise generation	Identify source, review noise attenuation equipment and as necessary provide silencers on noisy equipment or remove equipment from site.
Erosion and sediment control ineffective	Stop work, review appropriateness of environmental controls. Consider alternative measures. Consult Drainage Engineer if repeated/major issues occurring.
Release of fuel/oil from machinery	Remove source, use spill kit to remove oil, make any repairs as required.
Chemical spill/exposure	Stop work, refer to Section 11.1 for response procedure.
Inspections reveal damage to Environmental Controls	Repair as required and assess cause of damage. Eliminate cause where possible, otherwise strengthen control to limit impact of cause.

9 Training and Implementation

9.1 Site Induction

All employees, sub-consultants and sub-contractors must undertake a site induction prior to their commencement of work on site. The induction of employees and contractors is the Site Supervisor's responsibility.

The site induction will inform employees of their environmental responsibilities on site. It details the most significant environmental aspects and introduces this CEMP as the management tool used to address the controls and mitigation measures required to minimise environmental impact of the Project.

The induction will cover the following:

- Contents of the CEMP;
- Critical environmental protection procedures including spill responses, emergency procedures, hazardous substances and dangerous goods handling, and monitoring of imported fill quality;
- The location of the CEMP during works; and
- General obligations.

All visitors to the Site must undergo a visitor's induction. All visitors must be accompanied by a fully inducted member of staff at all times.

Site personnel shall be encouraged to be proactive and report any instances of environmental control measures not operating properly.

9.2 Tool Box Talks

Toolbox talks will be conducted daily by the Site Supervisor for employees and sub-contractors. Toolbox talks will be undertaken in response to evolving issues on the ground, particularly in response to significant environmental and safety incidents and non-conformance issues.

10 Compliance

10.1 Environmental Audit Program

The CEMP implementation system will be audited internally to ensure effective compliance with environmental controls, reporting and incident management requirements.

The internal audits will occur within three months of commencement of construction activities on site and every twelve months minimum or as required thereafter. This activity will be planned, programmed and fully documented. The audits should be undertaken by the Borg Construction Environment Officer and include:

- A site visit;
- Review of monthly and other checklists;
- Compliance with the CEMP;
- Update on project status;
- Report on any on-site environmental incidents occurring since the last audit;
- Checks for any repeat issues; and
- Any new initiatives in environmental management.

The audits will be documented in a summary report.

Audit reports findings will be provided to the Project Manager for determining corrective action and reply. On a twelve monthly basis the Borg Construction Project Manager shall undertake a management review of the CEMP.

10.2 Environmental Monitoring

Monitoring that is required during the construction phase of the Project is defined in **Section 7** of this CEMP.

Any measuring equipment used for monitoring shall be regularly serviced and calibrated.

10.3 Environmental Inspections

In addition to formal auditing and monitoring identified in this CEMP, the following inspections will also be undertaken:

- On a daily basis, site supervisory staff will inspect the Site and any issues arising will be noted in the daily diaries and communicated to the Project Manager. The inspections will be conducted visually prior to commencement of each day's work and where appropriate during the working day. A final daily inspection will also be undertaken at the end of the workday to ensure that systems and structures are in place. An example Checklist is shown in **Appendix I**. Checklists may be edited to reflect changing site conditions.

- A monthly site inspection will be conducted by the Environment Officer. Checklists will be used to record and report on activities for compliance with this CEMP and specific issues presenting significant environmental risks will be addressed, such as noisy works, sediment basin management, etc. An example Checklist is shown in **Appendix I**. Checklists may be edited to reflect changing site conditions.

Where necessary, any damage or reduced capacity of environmental control measures will be corrected. If required, environmental control measures may be upgraded.

11 Incident Management and Complaints

11.1 Environmental Incidents

Condition C12 and C13 of Schedule 2 in Development Consent SSD 7016 for the Project requires:

“C12. The Applicant must notify the Secretary and any other relevant agencies of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment associated with the Development immediately after the Applicant becomes aware of the incident.

C13. Within seven days of the date of this incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident.”

An environmental incident is an unplanned event which occurs on-site and has the potential to result in adverse environmental impacts either on-site or in the surrounding area. Environmental incidents include spills, uncontrolled discharges or emissions, unintended damage to native vegetation, or injury to wildlife.

Depending on the nature of the incident and the risk posed to site personnel, all practical steps will be taken to minimise the risk of environmental damage as soon as possible after the event.

In the case of an environmental incident, actions to be taken are:

- Notify the Site Supervisor immediately;
- Immediately cease work in that area and remove people from the incident zone;
- Activate the site Pollution Incident Response Management Plan (PIRMP) if appropriate;
- Notify emergency services as/if required;
- Where safe to do so, attempt to contain the hazard and prevent it from spreading;
- If the incident is a spill:
 - Use silt fences, bunding or interception pits;
 - Use absorbent materials stored on site to clean up spill;
 - Contain contaminated soil/absorbent material waste in appropriate containers, and dispose of contaminated soil/absorbent material to an appropriately licensed off-site disposal facility;
- Notify any relevant agencies when an incident causes or threatens material harm to the environment and /or an exceedance or limit of the performance criteria in the approval and /or when legislation requires;
- The Site Supervisor is to notify the Environment Officer and Project Manager of any environmental incident as soon as practicable;
- Temporarily repair or isolate the failed plant or equipment component;
- Determine actions to rectify the incident in consultation with the Environment Officer;
- Sample the impacted site media be it soil and/or surface water; and
- Implement any longer term remedial measures that may be required.

In accordance with Condition C12 and C13 of Schedule 2 in Development Consent SSD7016, the Borg Construction Environment Officer shall notify the Secretary DP&E and any other relevant agencies, including the EPA, of any incident associated with the Project as soon as practicable after becoming aware of the incident. Within seven days of the date of the incident, the Proponent shall provide the Secretary DP&E and any relevant agencies with a detailed report on the incident.

The Environment Officer will be responsible for notifying NSW EPA of the pollution incident. Information to be provided under section 150 of the POEO Act includes:

- Time, date, nature, duration and location of the incident;
- Location of the place where pollution is occurring or is likely to occur;
- Nature, the estimated quantity or volume and concentration of any pollutants involved;
- Circumstances in which the incident occurred (including the cause of the incident, if known); and
- Action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution.

The Environment Officer is to collect and document (to the extent practicable) the above information. For example, this would include taking photographs, collecting surface water samples of any unplanned water discharges both from the source of the pollution and upstream and downstream in the receiving waterway (for analysis and comparison).

Any environmental incidents, spills, uncontrolled discharges or emissions, unintended damage to native vegetation, etc , and the corrective actions undertaken, shall be recorded in DataStation, Borgs incident management system.

In accordance with Condition C10 of Schedule 2 in Development Consent SSD 7016, within three months of the submission of an incident report under Condition C12 Borg Construction shall review, and if necessary revise the CEMP to the satisfaction of the Secretary DP&E.

11.3 Emergency Contacts

Emergency contact details are listed in the Borg Panel – Oberon Emergency Response Plan, which includes the Pollution Incident Response Management Plan (PIRMP).

11.4 Complaints Handling

The Environment Officer is to be notified of any received complaints. The Environment Officer is to follow the Borg complaints handling procedure (**Section 11.4.1**) and notify the Project Manager as soon as practicable. The Project Manager will notify the Borg Managing Director, as appropriate.

11.4.1 Inquiry and Complaints Handling Process

Borg's community and stakeholder management system includes procedures for recording, investigating, tracking and handling of all inquiries and complaints.

Once Borg has received verbal or written inquiries and/or complaints via telephone, email or post, the Environment Officer or their nominated delegate will:

- undertake an immediate investigation into the nature/cause of the inquiry and/or complaint;
- make initial contact with the community or stakeholder representative within 48 hours to clarify the reason for the inquiry and/or complaint and to notify of the investigation process including an appropriate re-notification time;
- record the enquiry and/or complaint on the Community Complaints register. This register includes the following details:
 - Complaint date and time;
 - Site;
 - Title;
 - Category;
 - Description;
 - Caller details;
 - Action;
 - Status;
 - Follow-up;
 - Complaint validity; and
 - Attachments.
- further investigate the inquiry and/or complaint and provide the community or stakeholder representative with an explanation of the cause and details of any actions taken to mitigate its effect.

It should be noted that if the inquiry and/or complaint is classified as an incident of significance under the site Emergency Response Plan (ERP), the Environment Officer must follow the incident reporting process in that document and ensure appropriate resolution and sign-off.

Records of complaints will be maintained in the complaints register database for at least four years after the complaint was made.

12 Non-Conformance

12.1 Non-Conformance and Corrective Action Report

All non-conformances noted in the Site Inspections, Audits, Incident Reports, or reported to the Project Manager by staff or other parties/authorities will be investigated and recorded in a Non-Conformance and Corrective Action Report which will be provided to the Project Manager on a monthly basis. Details of the non-conformance, including any immediate corrective actions undertaken, are to be recorded by the Environment Officer.

It is the responsibility of the Site Supervisor to immediately initiate corrective actions, if required. The Non-Conformance and Corrective Action Report must include details of the corrective action proposed and an appropriate close out date. Corrective Actions will include containment measures, clean-up and restoration of the affected area and of any deficient operational controls or monitoring controls. On completion, the Environment Officer will re-inspect the outcomes to ensure that they are acceptable before signing, dating and filing the Non-conformance Report.

The occurrence of such an event will be brought to the attention of personnel responsible, and environmental controls will be updated to prevent a reoccurrence.

12.2 Environmental Incidents Register

Environmental incidents are recorded in DataStation, Borgs incident management system. Each incident report will detail the issue, the corrective and preventative actions proposed, and the responsibilities and timing for completion of the actions. The report will include any comments and the completion date of corrective actions.

The Environment Officer shall review the Environmental Incidents Register monthly to ensure actions are completed and that controls are performing effectively. The Environment Officer shall also review the CEMP to determine if the above situations require project scope changes or if the incident identifies opportunities for improvement in mitigations or work practices.

Appendices

Appendix A - Development Consent SSD 7016

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning under delegation executed on 16 February 2015, I approve the Development Application referred to in Schedule 1, subject to the conditions specified in Schedules 2 and 3.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the Development.



Anthea Sargeant
Executive Director
Key Sites and Industry Assessments

Sydney 29 May, 2017

File:15/08864

SCHEDULE 1

Application No:	SSD 7016
Applicant:	Borg Construction Pty Ltd
Consent Authority:	Minister for Planning
Land:	124 Lowes Mount Road, Oberon Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697 Lot 24 DP 1148073 and Lot 1 DP 1076346
Development:	Construction and operation of a particle board facility and continuation of, and alterations and additions to, the existing medium density fibreboard facility
Preamble:	This instrument applies to the Development which is comprised of the Existing Development and the Project on the land (see definitions)

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DEFINITIONS

Applicant, the	Borg Construction Pty Ltd, or any other person(s) carrying out any development to which this consent applies
CEMP	Construction Environmental Management Plan
Certifying Authority	A person who is authorised by or under section 109D of the EP&A Act to issue Part 4A certificates
Clean Air Regulation	<i>Protection of the Environment Operations (Clean Air) Regulation 2010</i>
Construction	The demolition of buildings or works, the carrying out of works, including earthworks, and erection of buildings and other infrastructure covered by this consent
Council	Oberon Shire Council
DA 27/95	Development Application DA 27/95 (as modified) and accompanying documents, approved on 5 October 1995 by the then Minister
Day	The period from 7:00 am to 6:00 pm on Monday to Saturday, and 8:00 am to 6:00 pm on Sundays and Public Holidays
Demolition	The removal of buildings, sheds and other structures on the site
Department	Department of Planning and Environment
Development	The Existing Development and the Project
DPI	NSW Department of Primary Industries
Earthworks	Bulk earthworks, site levelling, import and compaction of fill material, excavation for installation of drainage and services, to prepare the site for construction
EIS	Environmental Impact Statement titled <i>Environmental Impact Statement Timber Processing Facility (Particle Board)</i> , prepared by The Design Partnership dated June 2016
ENM	Excavated Natural Material
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued by the EPA under the POEO Act
Evening	The period from 6:00 pm to 10:00 pm
Existing Development	The continuation of the existing MDF facility, located at 124 Lowes Mount Road, Oberon (Lot 26 DP 1200697), comprising the main production hall, warehouse, moulding plant, sawing plant, thin MDF plant and outdoor infrastructure, as described in the EIS and RTS, and the documents, drawings and plans in Appendix C
FRNSW	Fire and Rescue NSW
Heavy vehicle	Any vehicle with a gross vehicle mass of five tonnes or more
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement
Heritage Item	An item as defined under the <i>Heritage Act 1977</i> , and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i>
Incident	A set of circumstances causing or threatening material harm to the environment, and/or an exceedance of the limits or performance criteria in this consent
Management and Mitigation Measures	The Applicant's management and mitigations measures contained in the EIS and included in Appendix B
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
MDF	Medium Density Fibreboard
Minister	Minister for Planning (or delegate)

Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
NCC	National Construction Code
Night	The period from 10:00 pm to 7:00 am on Monday to Saturday, and 10:00 pm to 8:00 am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Operation	Operation of a particle board facility and MDF facility, as described in the EIS and RTS
PCA	Principal Certifying Authority authorised under section 109D of the EP&A Act
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project	The construction and operation of a particle board facility and alterations and additions to the Existing Development, as described in the EIS and RTS, and as generally depicted on the plans in Appendix A
Reasonable	Relates to the application of judgment in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements
RMS	Roads and Maritime Services
RTS	Response to Submissions titled <i>Response to Submissions Timber Processing Facility (Particle Board)</i> , Rev E, prepared by The Design Partnership, dated December 2016
Secretary	Secretary of the Department (or nominee)
Sensitive Receivers	A location where people are likely to work or reside, this may include a dwelling, school, hospital, office or public recreational area
Site	The land listed in Schedule 1
SSD 7016	The Development as described in Schedule 1, the EIS and the RTS
VENM	Virgin Excavated Natural Material as defined in the POEO Act
Waste	As defined in the POEO Act

SCHEDULE 2

PART A: ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- A1. In addition to meeting the specific performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the Development.

TERMS OF CONSENT

- A2. The Applicant, in acting on this consent, must carry out the Development in accordance with the:
- (a) State significant development application SSD 7016;
 - (b) EIS and RTS;
 - (c) development layout plans and drawings in the EIS (see **Appendix A**);
 - (d) Management and Mitigation Measures (see **Appendix B**); and
 - (e) documents and drawings of the Existing Development (see **Appendix C**).
- A3. If there is any inconsistency between the above documents, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this consent must prevail to the extent of any inconsistency.
- A4. The Applicant must comply with any written requirement(s) of the Secretary arising from the Department's assessment of:
- (a) any strategies, reports, plans or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.

LIMITS OF CONSENT

- A5. This consent lapses five years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under section 95 of the EP&A Act.

Medium Density Fibreboard Facility

- A6. The Applicant must ensure the MDF facility does not produce more than 380,000 m³ of MDF board per calendar year.

Particle Board Facility

- A7. The Applicant must ensure the particle board facility does not produce more than 500,000 m³ of particle board per calendar year.

Note: The particle board facility is described in the EIS and RTS and forms part of the Project.

STAGED SUBMISSION OF PLANS OR PROGRAMS

- A8. With the approval of the Secretary, the Applicant may:
- (a) submit any strategy, plan or program required by this consent on a progressive basis; and/or
 - (b) combine any strategy, plan or program required by this consent.
- A9. If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program. A clear relationship between the strategy, plan or program that is to be combined must be demonstrated.

- A10. If components of the Project commence operation at different times, the Applicant shall consult with the Secretary regarding the timing of submission of plans, programs, strategies or systems.

Note: *This condition is imposed should the alterations and additions to the MDF facility, or the construction and operation of the particle board facility commence at different times.*

EVIDENCE OF CONSULTATION

- A11. Where consultation with any public authority is required by the conditions of this consent, the Applicant must:
- (a) consult with the relevant public authority prior to submitting the required documentation to the Secretary or the Certifying Authority for approval, where required;
 - (b) submit evidence of this consultation as part of the relevant documentation required by the conditions of this consent; and
 - (c) include the details of any outstanding issues raised by the relevant public authority and an explanation of disagreement between any public authority and the Applicant or any person acting on this development consent.

DISPUTE RESOLUTION

- A12. In the event that a dispute arises between the Applicant and Council or a public authority, in relation to an applicable requirement in this consent or relevant matter relating to the Development, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute must be final and binding on the parties.

STATUTORY REQUIREMENTS

- A13. The Applicant must ensure that all licences, permits and approval/consents are obtained as required by law and maintained as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approval/consents.

DEMOLITION

- A14. The Applicant must ensure that all demolition associated with the Development is carried out in accordance with Australian Standard AS 2601:2001: *The Demolition of Structures*, or its latest version and the requirements of the Work Health and Safety Regulation, 2011.

STRUCTURAL ADEQUACY AND CERTIFICATION

- A15. The Applicant must ensure all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the NCC.
- A16. Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the Development.

UTILITIES AND SERVICES

- A17. Prior to the construction of any utility works associated with the Development, the Applicant must obtain relevant approvals from service providers.

PROTECTION OF PUBLIC INFRASTRUCTURE

- A18. Prior to the commencement of construction, the Applicant must:
- (a) consult with the relevant owner and/or provider of services that are likely to be affected by the Project to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure;

- (b) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters and footpaths); and
- (c) submit a copy of this report to the Secretary and Council.

A19. The Applicant must:

- (a) repair, or pay the full costs associated with repairing any public infrastructure that is damaged by the Project; and
- (b) relocate, or pay the full costs associated with relocating any infrastructure that needs to be relocated as a result of the Project.

COMPLIANCE

A20. The Applicant must ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.

DEVELOPMENT CONTRIBUTIONS

A21. Within 12 months of the commencement of operation of the particle board facility, the Applicant must pay \$15,000 per annum (adjusted for Consumer Price Index) to Council for the life of the particle board facility for the purposes set out in any contributions plan made by Council under Subdivision 3, Part 4 of the EP&A Act.

Note: This condition has been imposed under Section 94B of the EP&A Act.

OPERATION OF PLANT AND EQUIPMENT

A22. The Applicant must ensure that all plant and equipment used for the Development is:

- (a) maintained in a proper and efficient condition; and
- (b) operated in a proper and efficient manner.

EASEMENTS

A23. The creation/modification of easements for services, rights of carriageway and restrictions as to user are applicable under section 88E of the *Conveyancing Act 1919*, including (but not limited to) the following:

- (a) drainage easements are to be placed over all subsurface drains and interallotment drainage on the site, benefiting and burdening the property owners;
- (b) maintenance of the subsurface drains is to be included in the 88E Instrument;
- (c) restriction as to user and positive covenant relating to the:
 - on-site detention system/s;
 - stormwater pre-treatment system/s; and
 - overland flowpath works.

A24. Prior to the issuing of a Subdivision Certificate, the Applicant must provide documentary evidence of any proposed/modified easements to the Certifying Authority or Council.

SUBDIVISION

A25. The Applicant must subdivide the site generally in accordance with the subdivision plan DA 04 Issue A titled '*Consolidation Plan*', prepared by Borg Construction, dated 19 May 2016 (See **Appendix A, Figure 3**). A copy of the Subdivision Certificate must be provided to the Secretary.

MODIFICATION OF EXISTING DEVELOPMENT CONSENT

A26. Within 6 months of the date of this consent, the Applicant must modify DA 27/95 as specified in Schedule 3 to this consent, in accordance with Clause 97 of the EP&A Regulation

PART B: ENVIRONMENTAL PERFORMANCE AND MANAGEMENT

AIR QUALITY

Meteorological Station

- B1. Prior to the commencement of construction, the Applicant must install and subsequently maintain during the life of the Development, a suitable meteorological station on the site that complies with the requirements in the EPA's *Approved Methods for Sampling of Air Pollutants in New South Wales*.

Dust Minimisation

- B2. The Applicant must implement all reasonable and feasible measures to minimise dust generated by the Development.
- B3. During construction, the Applicant must ensure that:
- (a) exposed surfaces and stockpiles are suppressed by regular watering;
 - (b) all trucks entering or leaving the site with loads have their loads covered;
 - (c) trucks associated with the Development do not track dirt onto the public road network;
 - (d) public roads used by these trucks are kept clean; and
 - (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.

Air Quality Discharges

- B4. The Applicant must install and operate equipment in line with best practice to ensure that the Development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL for the site.

Operational Air Quality Management Plan

- B5. Within 6 months of the date of this consent, the Applicant must prepare an Operational Air Quality Management Plan (OAQMP) for the Existing Development to manage air quality to the satisfaction of the Secretary. The OAQMP must form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C9. The OAQMP must:
- (a) be prepared by a suitably qualified expert and be prepared in consultation with the EPA;
 - (b) detail and rank all emissions from all sources of the Existing Development, including particulate and formaldehyde emissions;
 - (c) describe a program that is capable of evaluating the performance of the Existing Development and determining compliance with key performance indicators;
 - (d) identify the control measures that will be implemented for each emission source;
 - (e) outline options/strategies for reducing formaldehyde emissions;
 - (f) nominate the following for each of the proposed controls:
 - (i) key performance indicator;
 - (ii) monitoring method;
 - (iii) location, frequency and duration of monitoring;
 - (iv) record keeping;
 - (v) complaints register;
 - (vi) response procedures; and
 - (vii) compliance monitoring.
- B6. Prior to commencement of operation of the Project, the Applicant must update the OAQMP as required by Condition B5 to incorporate the Project and its management to the satisfaction of the Secretary. The updated plan must be prepared in accordance with the requirements of Condition B5 and must incorporate the following:
- (a) details of emissions from all sources of the Development;
 - (b) description of the air quality monitoring to measure the performance of the Development against this consent and the EPL; and
 - (c) description of any additional measures that would be implemented to ensure the Development complies with this consent and the EPL.

Odour Management

- B7. The Applicant must ensure the Development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

Cogeneration Units

- B8. The Applicant must ensure the two cogeneration units are capable of meeting Group 6 emissions standards outlined in the Clean Air Regulation.
- B9. Within 3 months of commissioning the two cogeneration units, the Applicant, in consultation with the EPA, must undertake post-commissioning air monitoring of exhaust gases from the two cogeneration units to demonstrate these comply with the Group 6 emission limits in the Clean Air Regulation.

Within 1 month of completing the study, the Applicant must submit a report outlining the findings of the study to the Secretary and the EPA.

- B10. Should the post-commissioning emissions verification study indicate the two cogeneration units have not met the requirements of condition B8, a detailed investigation and an outline of any management measures necessary to prevent exceedances must be submitted to the Secretary and the EPA, as part of the study.

Air Emissions Verification

- B11. Within 6 months of the commencement of operation of the Project, the Applicant must undertake an air emissions verification study at all air discharge points for the Development identified in the *Air Quality Impact Assessment Revised Borg Manufacturing Timber Panels Processing Facility Expansion* (AQIA), prepared by Todoroski Air Sciences, dated 16 February 2017, to the satisfaction of the Secretary. The study must:
- (a) be undertaken by a suitably qualified expert;
 - (b) include a verification of actual monitored emissions against the assumptions adopted in the AQIA;
 - (c) confirm, through direct measurements, that applicable EPL requirements are being complied with; and
 - (d) confirm, using reasonable means, the effectiveness of any emission control measures that have implemented to minimise air quality impacts.

Within 1 month of completing the study, the Applicant must submit a report outlining the findings of the study to the Secretary and the EPA.

- B12. Should the air emissions verification study indicate the Development has not complied with applicable EPL requirements, or where the verification indicates that greater impacts than predicted in the EIS may arise, a detailed investigation and an outline of any management measures necessary to prevent exceedances must be submitted to the Secretary and the EPA, as part of the study.

NOISE

Hours of Work

- B13. The Applicant must comply with the hours detailed in **Table 1**, unless otherwise agreed in writing by the-Secretary.

Table 1: Hours of Work

Activity	Day	Time
Earthworks and Construction	Monday – Friday Saturday	7 am to 7 pm 8 am to 1 pm
Operation	Monday – Sunday	24 hours

- B14. Works outside of the hours identified in Condition B13 may be undertaken in the following circumstances:
- works that are inaudible at the nearest sensitive receivers;
 - works agreed to in writing by the Secretary;
 - for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
 - where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Construction Noise Management Plan

- B15. The Applicant must prepare a Construction Noise Management Plan (CNMP) for the Project to manage construction noise. The plan must form part of the CEMP required by Condition C1 and must:
- be prepared by a suitably qualified and experienced noise expert;
 - be approved by the Secretary prior to the commencement of construction of the Project;
 - describe procedures for achieving the noise limits in **Table 2**;
 - describe the measures to be implemented to manage noisy works such as rock/concrete breaking activities, in close proximity to sensitive receivers;
 - include strategies that have been developed with the community for managing noisy works;
 - describe the community consultation undertaken to develop the strategies in e) above; and
 - include a complaints management system that would be implemented for the duration of the Project.

Operational Noise Limits

- B16. The Applicant must ensure that noise generated by the Development does not exceed the noise limits in **Table 2**.

Table 2: Noise Limits dB(A)

Location	Day L _{Aeq} (15 minute)	Evening L _{Aeq} (15 minute)	Night L _{Aeq} (15 minute)
All sensitive receivers	55	50	45

Note: Noise generated by the Development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

Noise Mitigation

- B17. The Applicant must ensure all noise attenuation measures already installed for the Existing Development are maintained in good working order for the life of the Development.

Operational Noise Management Plan

- B18. Within 6 months of the date of this consent, the Applicant must prepare an Operational Noise Management Plan (ONMP) for the Existing Development, to manage operational noise to the satisfaction of the Secretary. The ONMP must form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C9. The ONMP must:
- be prepared by a suitably qualified and experienced noise expert;
 - describe the measures that will be implemented to minimise noise from the Existing Development including:

- (i) all reasonable and feasible measures being employed on site;
 - (ii) maintain equipment to ensure it is in good order;
 - (iii) traffic noise is effectively managed;
 - (iv) the noise impacts of the Existing Development are minimised during any meteorological conditions when the noise criteria in this consent do not apply;
 - (v) compliance with the relevant conditions of this consent;
 - (c) includes a noise monitoring program that:
 - (i) must be carried out until otherwise agreed to in writing by the Secretary;
 - (ii) is capable of evaluating the performance of the Existing Development; and
 - (iii) includes a protocol for determining exceedances of the relevant conditions of this consent and responding to complaints; and
 - (d) include a procedure for implementing noise mitigation measures, should the Applicant be directed by the EPA or the Secretary, or should non-compliances be detected.
- B19. Prior to the commencement of operation of the Project, the Applicant must update the ONMP required under Condition B18, to incorporate the Project and its management, to the satisfaction of the Secretary. The updated plan must be prepared in accordance with the requirements of Condition B18, and must incorporate the following:
- (a) description of the noise monitoring program to measure the performance of the Development against this consent and the EPL; and
 - (b) description of any additional measures that would be implemented for the Development to ensure compliance with the noise limits in Condition B16 and the EPL.

Noise Verification

- B20. Within 3 months of commencement of operation of the Project, the Applicant must undertake a noise verification study for the Development to the satisfaction of the Secretary. The study must:
- (a) be undertaken by a suitably qualified expert;
 - (b) include an analysis of compliance with noise limits specified in Condition B16;
 - (c) demonstrate achievement of the sound power levels in Table 12 of the *Borg Panels Timber Panel Processing Facility Noise and Vibration Impact Assessment*, dated May 2016 and prepared by Global Acoustics;
 - (d) include an outline of management actions to be taken to address any exceedances of the limits specified in Condition B16; and
 - (e) describe the contingency measures in the event management actions are not effective in reducing noise levels to an acceptable level.

Within 1 month of completing the study, the Applicant must submit a report outlining the findings of the study to the Secretary and the EPA.

- B21. Should the noise verification study indicate the Development has not complied with the noise limits in Condition B16 and applicable EPL requirements, or where the verification indicates that greater impacts than predicted in the EIS may arise, a detailed investigation and an outline of any management measures necessary to prevent exceedances must be submitted to the Secretary and the EPA, as part of the study.

Mobile Wood Chippers

- B22. During construction, the Applicant must ensure that mobile wood chippers are not operating simultaneously with rock/concrete breaking activities.
- B23. The use of mobile wood chippers on site is restricted to the day time period only and to periods of breakdown or maintenance of the permanent wood debarkers and electric chippers, and must not operate under the following conditions:
- (a) in the open when winds are from the north-west through to the north-east (315°, through 0°, to 45°); or
 - (b) when winds are from the west through to the east (270°, through 0°, to 90°), two or more mobile wood chippers are not to operate simultaneously.

- B24. Within 6 months of the date of this consent or the commencement of construction of the Project, whichever occurs first, the Applicant must prepare a Mobile Wood Chipper Operation Management Plan for the Development. The plan must outline how the requirements under Conditions B22 and Condition B23 will be achieved and must include any reasonable and feasible mitigation measures to limit operation to periods of breakdown or maintenance of the permanent debarkers and electric chippers.

Cogeneration Units

- B25. The Applicant must ensure the two cogeneration units are acoustically treated as described in the *Gas Fired Co-Generators Noise Impact Assessment* (NIA) prepared by Vipac Engineers and Scientists, dated 2 July 2015.
- B26. Within 3 months of commissioning the two cogeneration units, the Applicant, in consultation with the EPA, must undertake post-commissioning noise monitoring of the cogeneration units to demonstrate the operation of the cogeneration units do not exceed the noise criteria at sensitive receivers as described in Section 7.0 of *Gas Fire Co-generators Noise Impact Assessment* prepared by Vipac Engineers and Scientists, dated 2 July 2015.

Within 1 month of completing the study, the Applicant must submit a report outlining the findings of the study to the Secretary and the EPA.

- B27. Should the post-commissioning emissions verification study indicate the two cogeneration units have not demonstrated compliance with the NIA, a detailed investigation and an outline of any management measures necessary to prevent exceedances must be submitted to the Secretary and the EPA, as part of the study.

SOILS, WATER QUALITY AND HYDROLOGY

Imported Soil

- B28. The Applicant must:
- (a) ensure that only VENM, or ENM, or other material approved in writing by the EPA is used as fill on the site;
 - (a) keep accurate records of the volume and type of fill to be used; and
 - (b) make these records available to the Secretary upon request.

Erosion and Sediment Control

- B29. Prior to the commencement of construction, the Applicant must install and maintain suitable erosion and sediment control measures on-site, in accordance with the relevant requirements in the latest version of the *Managing Urban Stormwater: Soils and Construction Guideline* and the Erosion and Sediment Control Plan included in the CEMP required by Condition C1.

Water Licences

- B30. The Applicant is required to obtain the necessary water licences for the Development under the *Water Act 1912* and/or the *Water Management Act 2000*.

Note: Licences are required for groundwater bores, excavations that may intercept groundwater, dewatering activities and extraction or interception of surface water.

Discharge Limits

- B31. The Development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.

Surface Water Management Plan

- B32. Within 6 months of the date of this consent, the Applicant must prepare a Surface Water Management Plan (SWMP) for the Existing Development, that incorporates the *Oberon Stormwater Management Strategy*, Rev G, prepared by Parsons Brinckerhoff, dated March 2012, to the satisfaction of the Secretary. The SWMP must form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C9. The SWMP must:
- (a) be prepared in consultation with the EPA and DPI;
 - (b) detail water use, metering, disposal and management on-site;
 - (c) detail the water licence requirements for the Existing Development;
 - (d) describe the surface water management system on-site,
 - (e) include a program to monitor:
 - (i) surface water flows and quality;
 - (ii) surface water storage and use; and
 - (iii) sediment basin operation;
 - (f) include a sediment and erosion control plan;
 - (g) include surface water impact assessment criteria, including trigger levels for investigating and potential adverse surface water impacts; and
 - (h) include a protocol for the investigation and mitigation of identified exceedances of the surface water impact assessment criteria.
- B33. Prior to commencement of operation of the Project, the Applicant must update the SWMP required under Condition B32 to incorporate the Project and its management to the satisfaction of the Secretary. The updated plan must be prepared in accordance with the requirements of Condition B32, and must incorporate the following:
- (a) details of the proposed mitigation measures outlined in Section 6.0 of *Proposed Particle Board Facility Water Cycle Impact Assessment*, prepared by the Sustainability Workshop and dated May 2016, in particular, the final design specifications of the additional stormwater treatment and storage pond and emergency spill basin;
 - (b) details of the stormwater harvesting and reuse scheme; and
 - (c) outline the surface water monitoring program to measure the performance of the Development against this consent and the EPL.

TRAFFIC AND ACCESS

Construction Traffic Management Plan

- B34. The Applicant must prepare a Construction Traffic Management Plan (CTMP) for the Project. The CTMP must form part of the CEMP as required by Condition C1 and be prepared in accordance with Condition C9. The CTMP must:
- (a) be prepared by a suitably qualified and experienced person(s);
 - (b) be submitted to the Secretary for approval prior to the commencement of construction;
 - (c) detail the measures that would be implemented to ensure road safety and network efficiency during earthworks and construction;
 - (d) detail heavy vehicle routes, access and parking arrangements;
 - (e) include a Driver Code of Conduct to:
 - (i) minimise the impacts of construction on the local and regional road network;
 - (ii) minimise conflicts with other road users;
 - (iii) minimise road traffic noise; and
 - (iv) ensure truck drivers use specified routes;
 - (f) include a program to monitor the effectiveness of these measures; and
 - (g) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.

Parking

- B35. The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that traffic associated with the Development does not utilise public and residential streets or public parking facilities.

Operating Conditions

B36. The Applicant must ensure:

- (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the Development are constructed and maintained in accordance with the latest version of AS 2890.1 and AS 2890.2;
- (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines;
- (c) the Development does not result in any vehicles queuing on the public road network;
- (d) heavy vehicles and bins associated with the Development are not parked on local roads or footpaths in the vicinity of the site;
- (e) all vehicles are wholly contained on site before being required to stop;
- (f) all loading and unloading of materials is carried out on-site;
- (g) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times; and
- (h) it has prepared and implemented a Driver Code of Conduct to:
 - (i) minimise the impacts of the Development on the local and regional road network;
 - (ii) minimise conflicts with other road users; and
 - (iii) ensure truck drivers use the Oberon town bypass roads.

HAZARDS AND RISK

B37. The Applicant must continue to implement the following existing plans and systems for the site until such time as the plans and systems under Condition B39 are submitted to the Secretary:

- (a) Emergency Plan titled *Emergency Response Plan, SMS 22401, REV 0*, prepared by Borg Construction; and
- (b) Safety Management System titled *Safety Management system, WHSMS Part A & B*, prepared by Borg Construction and dated May 2016.

Pre-construction

B38. The Applicant must prepare the studies set out under subsections B38(a) to B38(d) (the pre-construction studies). Construction (not including earthworks) must not commence until the recommendations of the study have been considered and, where appropriate, acted upon. The Applicant must submit the studies to the Secretary no later than one month prior to the commencement of construction of the Project, or within such further period as the Secretary may agree.

- (a) **FIRE SAFETY STUDY**
The site's Fire Safety Study must be updated to include any changes due to the Project. This study must cover the relevant aspects of the Department's *Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines'* and the NSW Government's *'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'*. The study must meet the requirements of FRNSW.
- (b) **HAZARD AND OPERABILITY STUDY**
A Hazard and Operability Study for the Project, chaired by a qualified person, independent of the Development. The study must be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'*.
- (c) **FINAL HAZARD ANALYSIS**
A Final Hazard Analysis of the Project, consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'*.
- (d) **CONSTRUCTION SAFETY STUDY**
A Construction Safety Study for the Development, consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety'*. This study must also identify and address the potential hazards arises from the interactions with the existing facility during construction.

Pre-commissioning

B39. Prior to commissioning of the Project, the Applicant must update and implement the plans and systems set out under subsections B39(a) to B39(b). The Applicant must submit to the Secretary documentation describing the plans and systems no later than two months prior to the commencement of commissioning of the Project, or within such further period as the Secretary may agree.

(a) **EMERGENCY PLAN**

The site's Emergency Plan and detailed emergency procedures as required under Condition B37(a), must be updated to incorporate any changes due to the Project. The plan must include detailed procedures for the safety of all people outside of the Development who may be at risk from the Development. The plan must be in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 1, 'Industry Emergency Planning Guidelines'*.

(b) **SAFETY MANAGEMENT SYSTEM**

The site's Safety Management System as required under B37(b), must be updated to include any changes due to the Project. The document must clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records must be kept on-site and must be available for inspection by the Secretary upon request. The Safety Management System must be developed in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'*.

Pre-startup

B40. **PRE-STARTUP COMPLIANCE REPORT**

One month prior to the commencement of operation of the Project, the Applicant must submit to the Secretary, a report detailing compliance with conditions B38 and B39, including:

- (a) dates of study/plan/system completion, commencement of construction and commissioning; and
- (b) actions taken or proposed, to implement recommendations made in the studies/plans/systems; and
- (c) responses to each requirement imposed by the Secretary under condition B43.

Post-startup

B41. **POST-STARTUP COMPLIANCE REPORT**

Three months after the commencement of operation of the Project, the Applicant must submit to the Secretary, a report verifying that:

- (a) the Emergency Plan required under condition B39(a) is effectively in place and that at least one emergency exercise has been conducted; and
- the Safety Management System required under condition B39(b) has been fully implemented and that records required by the system are being kept.

Ongoing

B42. **HAZARD AUDIT**

Twelve months after the commencement of operation of the Project and every five years thereafter, or at such intervals as the Secretary may agree, the Applicant must carry out a comprehensive Hazard Audit of the site and within one month of each audit submit a report to the Secretary.

The audits must be carried out at the Applicant's expense by an independent qualified person or team to be approved by the Secretary, independent of the Development, prior to commencement of each audit and must be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'*.

B43. FURTHER REQUIREMENTS

The Applicant must comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the reports submitted in respect of conditions B38 to B42 inclusive, within such time as the Secretary may agree.

Dangerous Goods

- B44. The quantities of dangerous goods stored and handled at the site must be below the threshold quantities listed in the Department's *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* at all times.

Bunding

- B45. The Applicant must store all chemicals, fuels and oils used on-site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or the EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Handbook*.

WASTE MANAGEMENT

- B46. Waste must be secured and maintained within designated waste storage areas at all times.
- B47. The Applicant must assess and classify all liquid and non-liquid wastes to be taken off-site in accordance with the EPA's *Waste Classification Guidelines Part 1: Classifying Waste*, November 2014, or its latest version and dispose of all wastes to a facility that may lawfully accept the waste.
- B48. Waste generated outside the site must not be received at the site for storage, treatment, processing, reprocessing, or disposal unless the EPA has permitted the use of a particular wood waste (or wastes) at the site by conditions on the EPL for the site.
- B49. Within 6 months of the date of this consent, the Applicant must provide documentary evidence of a Trade Waste Agreement with Council for the Development and must include and shall not be limited to:
- (a) covering quantities, quality, timing of the release of wastes to the sewerage system;
 - (b) contingency plans in the event of the effluent treatment facilities; and
 - (c) monetary for breaches of the standards.

Construction Waste Management

- B50. Prior to the commencement of construction of the Project, the Applicant must prepare a Construction and Demolition Waste Management Plan for the Project to the satisfaction of the Secretary. The plan must form part of the CEMP required by Condition C1 and must:
- (a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; and
 - (b) be implemented for the duration of construction works.

Waste Management Plan

- B51. Within 6 months of the date of this consent, the Applicant must prepare a Waste Management Plan (WMP) for the Existing Development to the satisfaction of the Secretary. The WMP must form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C9. The WMP must:
- (a) detail the type and quantity of waste generated by the Existing Development;
 - (b) describe the handling, storage and disposal of all waste streams generated on site, consistent with the POEO Act, *Protection of the Environment Operations (Waste) Regulation 2014* and the *Waste Classification Guideline* (Department of Environment, Climate Change and Water, 2009);
 - (c) detail the materials that are being reused or recycled, either on or off site; and
 - (d) include the Management and Mitigation Measures included in **Appendix B**.

- B52. Prior to commencement of operation of the Project, the Applicant must update the WMP required under Condition B51 to incorporate the Project and its management to the satisfaction of the Secretary. The updated plan must be prepared in accordance with the requirements of Condition B51, and must incorporate the following:
- (a) details of the materials to be reused and recycled for the Project; and
 - (b) details of the procedures for managing, handling and accepting materials to be reused or recycled on-site for the Project.

CONTAMINATION

- B53. Prior to the commencement of construction of the Project, the Applicant must prepare a site validation report for Lot 1 DP 1085563, which demonstrates the site is suitable for its intended uses(s). A copy of the site validation report must be provided to the Secretary and Council.

HERITAGE

Unexpected Finds Protocol

- B54. If Aboriginal objects are uncovered during earthworks, excavation or disturbance, work in the immediate area must stop and the Regional Operations Group of the OEH and the Registered Aboriginal Parties are to be consulted.
- B55. If any archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area and the OEH NSW Heritage Division contacted. Depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the *Heritage Act 1977* may be required before further works can continue in that area.

VISUAL AMENITY

Landscaping

- B56. The Applicant must ensure landscaping is carried out in accordance with the Landscape Plan DA 07 Issue A titled '*Landscape Plan*' prepared by Borg Construction, dated 19 May 2016.

Lighting

- B57. The Applicant must ensure the lighting associated with the Development:
- (a) complies with the latest version of *AS 4282 (INT) - Control of Obtrusive Effects of Outdoor Lighting*; and
 - (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

COMMUNITY ENGAGEMENT

- B58. The Applicant must consult with the community as required under Conditions C1 and C4 for the Development, including consultation with the nearby sensitive receivers, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders.

PART C: ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- C1. The Applicant must prepare a Construction Environmental Management Plan (CEMP) to the satisfaction of the Secretary. The CEMP must:
- (a) be approved by the Secretary prior to the commencement of construction;
 - (a) identify the statutory approvals that apply to the Project;
 - (b) outline all environmental management practices and procedures to be followed during construction works associated with the Project;
 - (c) describe all activities to be undertaken on the site during construction of the Project, including a clear indication of construction stages;
 - (d) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts;
 - (e) describe the roles and responsibilities for all relevant employees involved in construction works associated with the Project; and
 - (f) include the management plans required under Condition C2 of this consent.
- C2. As part of the CEMP required under Condition C1 of this consent, the Applicant must include the following:
- (a) Traffic Management (Condition B34);
 - (b) Dust Management (Condition B3);
 - (c) Noise Management (Condition B15);
 - (d) Mobile Wood Chipper Operation Management (Condition B24);
 - (e) Erosion and Sediment Management (Condition B29);
 - (f) Waste Management (Condition B50); and
 - (g) Community Consultation and Complaints Handling (Conditions B58).
- C3. The Applicant must carry out the construction of the Project in accordance with the CEMP approved by the Secretary (and as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

- C4. Within 6 months of the date of this consent, the Applicant must prepare an Operational Environmental Management Plan (OEMP) for the Existing Development to the satisfaction of the Secretary. The OEMP must:
- (a) be submitted to the Secretary for approval;
 - (b) be prepared by a suitably qualified and experienced expert;
 - (c) provide the strategic framework for environmental management of the Existing Development;
 - (d) identify the statutory approvals that apply to the Existing Development;
 - (e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Existing Development;
 - (f) describe the procedures that would be implemented to:
 - (i) keep the local community and relevant agencies informed about the operation and environmental performance of the Existing Development;
 - (ii) receive, handle, respond to, and record complaints;
 - (iii) resolve any disputes that may arise;
 - (iv) respond to any non-compliance;
 - (v) respond to emergencies; and
 - (g) include the following environmental management plans addressing:
 - (i) Air Quality (Condition B5);
 - (ii) Noise (Condition B18);
 - (iii) Mobile Wood Chipper Operation (Condition B24);
 - (iv) Surface Water (Condition B32); and
 - (v) Waste (Condition B51).
- C5. The Applicant must operate the Existing Development in accordance with the OEMP approved by the Secretary (and as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

- C6. Prior to commencement of operation of the Project, the Applicant must update the OEMP required under Condition C4 to incorporate the Project and its management to the satisfaction of the Secretary. The updated plan must be prepared in accordance with the requirements of Condition C4, and must incorporate the following:
- (a) procedures, roles and responsibilities of key personnel involved in the environmental management of the Development;
 - (b) community consultation requirements for the Development; and
 - (c) updates to the environmental management sub-plans listed under Condition C4(g).
- C7. The Applicant must not commence operation of the Project until the updated OEMP as required by Condition C6 is approved by the Secretary.
- C8. The Applicant must implement the most recent version of the OEMP approved by the Secretary for the duration of the Development's operation.

MANAGEMENT PLAN REQUIREMENTS

- C9. The Applicant must ensure that the environmental management plans required under Condition C4 of this consent are prepared by a suitably qualified person or persons in accordance with best practice and include:
- (a) detailed baseline data;
 - (b) a description of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures/criteria; and
 - (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;
 - (c) a description of the management measures that would be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - (i) impacts and environmental performance of the Development; and
 - (ii) effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of the Development over time;
 - (g) a protocol for managing and reporting any:
 - (i) incidents;
 - (ii) complaints;
 - (iii) non-compliances with statutory requirements; and
 - (iv) exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

Note: These requirements also apply to the preparation or updates of management plans for the Existing Development and the Project.

Revision of Strategies, Plans and Programs

- C10. Within three months of an:
- (a) approval of a modification;
 - (b) submission of an incident report under Condition C13;
 - (c) approval of an Annual Review under Condition C11; or
 - (d) completion of an audit under Condition C15.

the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Development.

ANNUAL REVIEW

- C11. By 31 July 2017, and each year thereafter, unless otherwise agreed by the Secretary, the Applicant must review and submit a report to the Secretary detailing the environmental performance of the Development to the satisfaction of the Secretary. This review must:
- (a) describe the development that was carried out during the reporting period, and the development that is proposed to be carried out over the next reporting period;
 - (b) include a comprehensive review of the monitoring results and complaints records of the Development over the previous reporting period, which includes a comparison of these results against the:
 - (i) the relevant statutory requirements, limits or performance measures/criteria;
 - (ii) requirements of any plan or program required under this consent;
 - (iii) the monitoring results of previous years; and
 - (iv) the relevant predictions in the EIS;
 - (c) identify any non-compliance during the reporting period, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the Development;
 - (e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the next reporting period to improve the environmental performance of the Development.

REPORTING

Incident Reporting

- C12. The Applicant must notify the Secretary and any other relevant agencies of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment associated with the Development immediately after the Applicant becomes aware of the incident.
- C13. Within seven days of the date of this incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident.

Regular Reporting

- C14. The Applicant must provide regular reporting on the environmental performance of the Development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

AUDITING

Independent Environmental Audit

- C15. Within 12 months of the date of this consent and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the Development. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the Development and assess whether it is complying with the requirements in this consent, and any other relevant approvals, relevant EPL(s) (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategy, plan or program required under the abovementioned consents; and
 - (e) recommend measures or actions to improve the environmental performance of the Development, and/or any strategy, plan or program required under these consents.

Note: This audit team must be led by a suitably qualified auditor, and include relevant experts in any other fields specified by the Secretary.

- C16. Within 3 months of commissioning the audit required under Condition C15, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

COMPLAINTS HANDLING

- C17. The Applicant must provide a dedicated community complaints telephone number and email address for the Development, to be operated 24 hours a day, 7 days a week. The details of these services are to be made available on the main website of the Development and placed on any public communications commissioned by the Applicant in relation to the Development.

ACCESS TO INFORMATION

- C18. The Applicant must:
- (a) make copies of the following publicly available on its website:
 - (i) the documents referred to in Condition A2;
 - (ii) all current statutory approvals for the Development;
 - (iii) all approved strategies, plans and programs required under the conditions of this consent;
 - (iv) a comprehensive summary of the monitoring results of the Development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - (v) a complaints register updated on a monthly basis;
 - (vi) the annual reviews of the Development;
 - (vii) any independent environmental audit of the Development and the Applicant's response to the recommendations in any audit;
 - (viii) any other matter required by the Secretary; and
 - (ix) keep this information up to date, to the satisfaction of the Secretary.

SCHEDULE 3

CONDITIONS OF DEVELOPMENT CONSENT DA 27/95 TO BE MODIFIED AS SPECIFIED BELOW

In Schedule 1 of DA 27/95:

1. After the fourth use of the words "Albion Street" delete the following words "Lot 2, DP 785979, Lowes Mount Road; Part Lot 20, DP 661955, off Horace Street;"

In Schedule 2 of DA 27/95:

2. Delete Condition 35A.
3. Delete Condition 35B.
4. Delete Condition 35C.
5. Delete Condition 37B.
6. Delete Condition 37C.

APPENDIX A
DEVELOPMENT LAYOUT PLANS

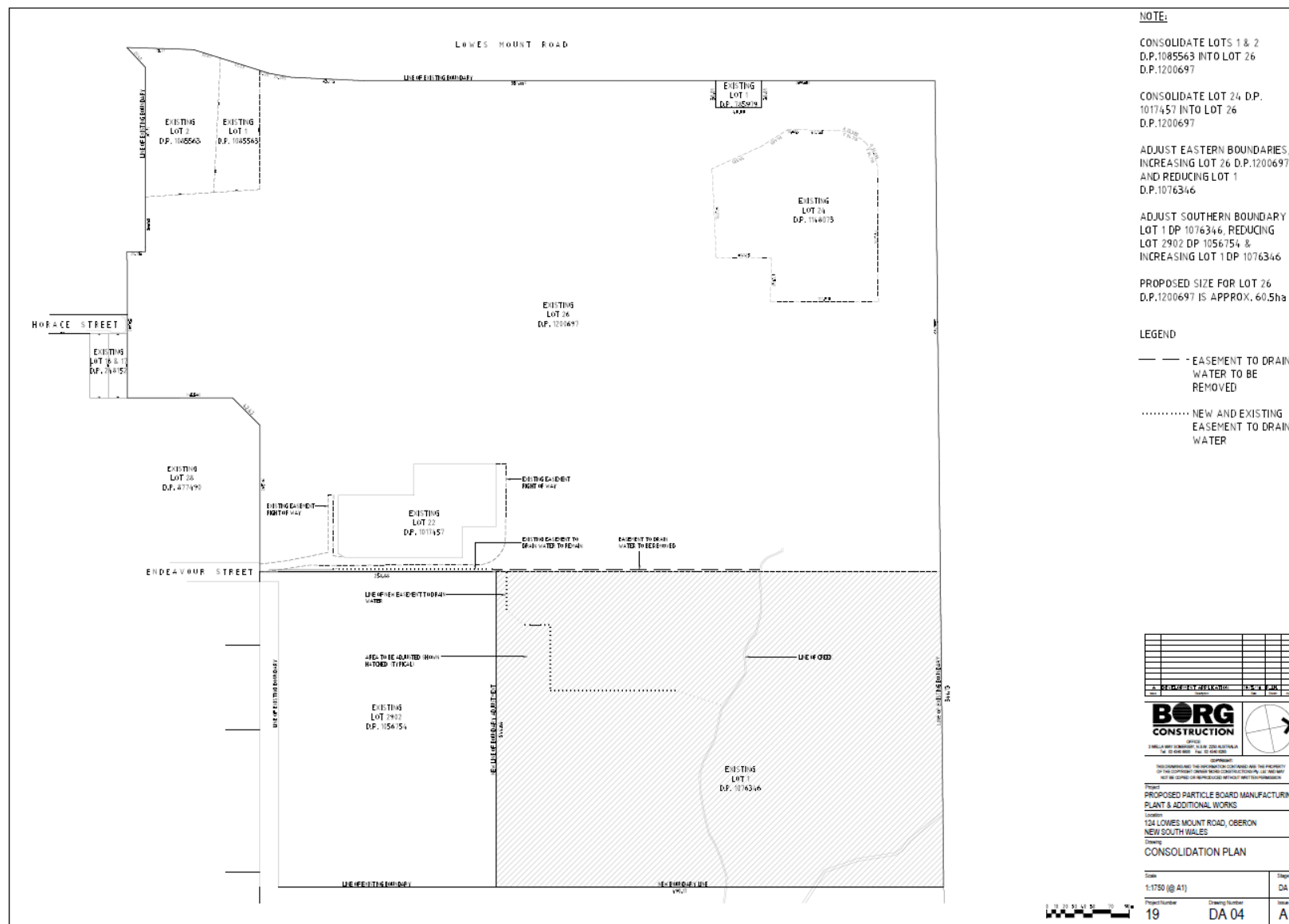


Figure 3: Lot Consolidation Plan

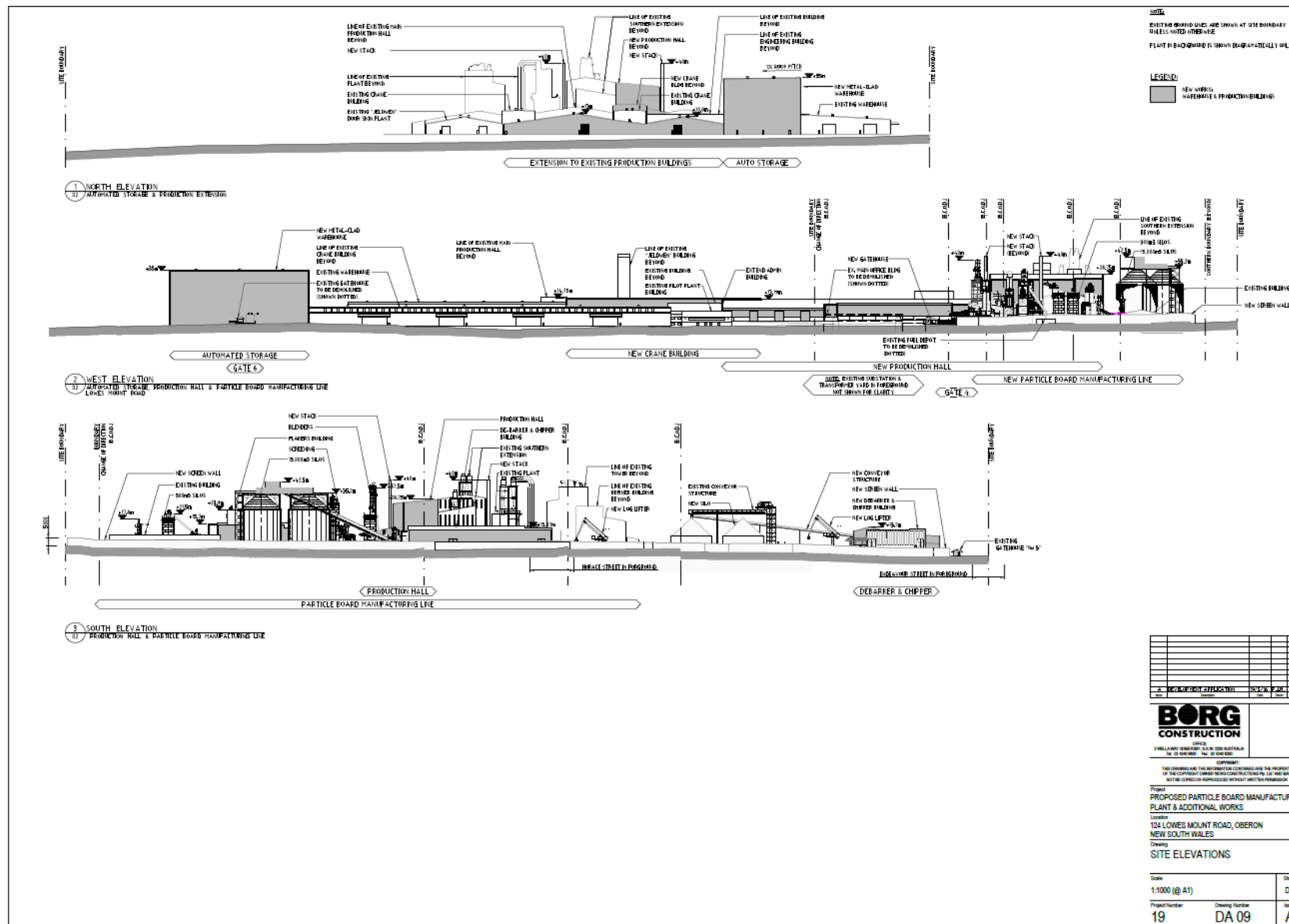


Figure 4: Site Elevations

APPENDIX B APPLICANT'S MANAGEMENT AND MITIGATION MEASURES

Borg will implement reasonable and practical measures to avoid or minimise impacts to the environment that may arise as a result of the project.

Borg will carry out the proposed works in accordance with the EIS, RTS and the approval conditions.

Noise

Attenuation, as detailed in the NIA, will be implemented as follows:

- Conti 1 Dryer Fan air intake redesigned and the fan speed reduced to minimise noise generated. A sound power reduction from LAeq 121 dB to 114 dB or better is required.
- Booster fan will receive additional insulation and a reduction in fan speed. A sound power reduction from LAeq 116 dB to 109 dB or better is required.
- Main fibre transport fan will have a concrete enclosure constructed around it. A sound power reduction from LAeq 110 dB to 104 dB or better is required.

In short, the approach taken by Borg to mitigate noise is based on a number of factors:

1. Continuation of the use of mobile chippers (that is, not to enclose the mobile chippers). However, these are backup items (only to be used when enclosed, electric chippers are not operational), and will not be used in enhancing met conditions.
2. Implementation of additional noise mitigation measures to minimise noise generated by equipment, as detailed above.
3. Provision of sound attenuation structures and enclosures to other equipment where appropriate.

Irrespective of the above, Borg undertakes to meet the existing plant sound power reductions specified in the NIA. If the proposed attenuation measures to the existing plant are found to be insufficient in achieving these reductions, additional works will be undertaken.

Air

The following mitigation measures are to be installed in to the existing MDF plant:

- EPA ID 23 (Paper treater) together with another additional treater, will be diverted to EPA ID 11 (Conti-2 heat plant) where 95% of formaldehyde will be removed before discharge to the atmosphere;
- EPA ID 12-2 (Conti 1 roof vent) will be diverted to EPA ID 17 (Conti-1 heat plant) were 95% of formaldehyde will be removed before discharge to the atmosphere;
- A new 'combined stack' will be installed. This stack is proposed to be 40 metres high, 2.1 metres diameter, with an approximate total flow rate of 200,000 m³ per hour;
- EPA ID 4 (DC1 baghouse) and EPA ID 5 (DC2 baghouse) will be discharged to the atmosphere through a proposed combined stack;
- A wet press fume extraction system will be installed on the Conti 2 press line, which will be emitted through the combined stack.

To reduce the potential amount of pollutants emitted by the Project (particleboard plant) and to achieve the outcomes as detailed in the Todoroski Air Sciences AQIA, the Proponent would install and utilise best available technologies. These would include the following:

- Cyclones for drying process particle capture.
- Wet Electrostatic precipitator (WESP)/scrubber system for the dryer with exhaust gas circulation.
- Best available Press Fume suction system for the press exhausts on the particleboard plant.
- E12 and E13 will utilise dispersion to reduce impacts.
- Low NOx burner will be used for dryer Hot gas generator.

Borg is committed to reducing its environmental impacts where it is possible (practicable and economically viable) to do so, and plans to conduct a pollution reduction program for the plant. It is suggested that this would be conducted in two parts as follows:

Part 1.

- a) A detailed examination of the existing processes to identify the potential for emissions reductions, with a primary focus on formaldehyde.
- b) This may include measurement (stack testing) of the existing unmonitored sources, with a focus on formaldehyde.
- c) Where practicable and economically feasible measures can be put into place, a description of the measures and a timeframe for their implementation would be provided. This may range from minor changes to parts of the existing plant or pollution control, through to large scale upgrades of existing plant or processes. Any large scale changes may be subject to planning approval timelines.

Part 2. (Post Part 1 or in parallel with Part 1 as timeframes allow).

- d. Measurement (stack testing) of the proposed and modified emissions sources would be conducted as part of the commissioning of the proposed Project.
- e. Further air quality modelling would be conducted to determine the likely actual effects of the best practice mitigation at c) if any, by utilising the actual stack test results from b), and/or if the results at d), or any other new information about the existing sources (or other PRP related changes to existing other plant) which may be identified show greater emissions than assumed.

Water

The following management and mitigation measures are proposed for water cycle management:

- A new swale with a longer flow path to convey the CHH runoff around the site and in to a new treatment pond should be constructed. This will provide for the additional reduction of TSS and remove tannins. This swale should be vegetated using either appropriate grasses or macrophytes.
- It will be necessary to construct new swales to connect overflows from the proposed pond with the existing creek line and these will all be carried out in accordance with any Controlled Activity guidelines/permits or conditions of consent.
- Construction of a new stormwater treatment pond with a minimum volume of 6 ML. This is to be located downstream of the existing pond and will accept runoff for the whole of the subject site, including any overflows from the existing stormwater treatment pond.
- The proposed 6 ML water quality dam will be constructed at least 40m from the top of bank of the nearest watercourse. If during detailed design, it needs to be moved closer to the first order creek, a controlled activity permit will be obtained from DPI.
- Stormwater harvesting will be undertaken as part of the development. The demand for stormwater from both the existing and future pond will be an estimated maximum of 400m³/day, i.e. 200m³/day from each pond with an estimated operational time of 300 days per year. The predicted yield for harvesting is estimated at 120 ML/year.
- Only runoff from roof and operational areas will be harvested, including runoff from existing roads, hard stands, car parks and roofs as well as future industrial buildings, hardstands and car parks. No runoff from undeveloped rural land that feeds into the catchment will be harvested. Thus a water access licence to harvest runoff was not required.

Review of the EPL

- The location of the approved monitoring point be moved downstream to the location shown in Figure 22 (EIS). The reason for this is to enable discharge from the proposed new pond to be included while excluding discharge from the ANL site and Endeavour Road which are not part of the Borgs existing or proposed development.
- It is considered that the maximum discharge concentrations will be below current EPL limits. However, should this not be the case after testing, that Borgs will be required to install additional water quality treatment measures. Such measures could include the retrofitting of floating wetlands to the existing ponds, and would further improve the quality of the discharge of water.

In order to minimise the impacts from any accidental spills, the following recommendations were included:

- The existing aerated pond should be converted into an emergency catch dam. This will require the dam to be continually drained to ensure there is adequate capacity to absorb either a spill or any firefighting water. This would prevent fire water or spills from entering in to the stormwater treatment ponds.
- This is in addition to the already proposed additional emergency spill basin.
- Any stormwater treatment pond should have a valve controlled outlet which could be closed to contain the contents of the spill in the new treatment pond as a last point of containment.
- It is recommended that spill control procedures be developed, staff trained and the procedures practiced annually.

Soil and Water Management during Construction

- It is recommended that the proposed pond be constructed prior to site stripping and used as a temporary sediment basin and converted to a permanent water quality pond once the site has been effectively sealed.
- All works involving excavation will be undertaken in accordance with an erosion and sediment control plan, prepared in accordance with the Blue Book.

Traffic and Transport

The following mitigation measures are proposed:

- Preparation of a detailed Construction Traffic Management Plan for the construction phase of the development in accordance with Roads and Maritime's Traffic Control at Worksites Manual (version 4.0 June 2010), which specifies:
 - Hours of haulage, which do not impose on peak periods and school drop-off and pickup times.
 - Haulage routes, including the source of locations and their access points for the site.
 - Designated areas within the site for truck movements, parking, loading and unloading.
 - Sequence for implementing traffic works and traffic management devices if required.
 - Safety principles for construction activities, such as speed limits around the site and procedures for specific activities.
 - Procedures for inspections and record keeping for maintaining traffic control measures.
 - Undertake a pavement inspection pre- and post-construction to ensure the pavement condition has not been further degraded due to construction traffic.

Further to the above, the following mitigation measures may be implemented to monitor and enhance the safety of pedestrian and vehicle movements around the site during operation:

- Appropriate implementation of accessible parking as specified in Sections 5.1.1 and 5.2 of the traffic report and allocation for use by staff and visitors as required.

Flora and Fauna

- Implement standard erosion and sediment control measures over the development site whilst construction works are underway as part of CEMP.
- Retain all remaining native vegetation within proposed development site where feasible.
- Noxious weeds should be controlled/eradicated where feasible.
- Consider native revegetation within development site with endemic native species.
- Develop and implement a Vegetation Management Plan for the development site.

Greenhouse Gases

- Installation of a 50 MWth biomass heat plant to produce hot air for the flake drying process. This significantly reduces the potential GHG emissions from using fossil fuel for this process, and also utilises a by-product of the production of MDF and particle board.
- A small 8MW oil heater operating with combustion air preheating operating on gas will be used to generate hot oil for the press and other plant and equipment.
- Variable speed drives on fans and pumps to reduce overall electricity demand.
- Extensive use of a SCADA system and sub-metering to assist in monitoring plant performance, provide feedback and improve plant control, allowing for ongoing monitoring and improvement in plant performance.
- Electric chippers have a higher overall efficiency and lower noise compared with diesel chippers when analysed over the full and part load operating cycles, and have been implemented in the Project.

Soil

- The existing site is largely disturbed and used for industrial purposes. No change is proposed to occur and the majority of the site is to be sealed.
- The first stage of the Project is the expansion of the existing water treatment ponds and drainage swales. These will capture any loose soil material prior to dispersal into Kings Stockyard Creek.
- In addition, appropriate erosion and sediment control fencing, in accordance with the Blue Book, will be implemented during the construction phase in order to ensure that impacts are minimised.
- There is the potential for some soil contamination at the location of the former fuel depot, fronting Lowes Mount Road. Appropriate remediation to this land to the NEPM standard will be required. Any remediation will need to be to a level suitable for the use of the site for the proposed industrial development.

Heritage

- No mitigation measures are proposed for European Heritage. No adverse impacts on listed European heritage items are anticipated to occur as a result of the Project being undertaken.
- It is considered that the probability of Indigenous heritage items being located on site is low. However, if such items are found then all works will be stopped and consultation with the Local Aboriginal Land Council and National Parks and Wildlife Service representatives will be undertaken.

<p>Visual Impacts</p> <p>The Project is considered to have an overall low impact on the visual character of the area, and this can be further mitigated through the following mitigation measures:</p> <p>LANDSCAPING</p> <ul style="list-style-type: none"> • Provide screening vegetation where possible along the boundary and/or around the new warehouse in the northern part of the site. • Provide screening vegetation along the western boundary of the site in the south-west corner to screen new development when viewed from the road. The aim should be to replicate the effect of the existing screen planting along Lowes Mount Road. • Add screening vegetation along the southern boundary of the site in the south-west corner to match existing landscaping. The aim should be to replicate the effect of the existing screen planting which screens the existing facility from view. <p>MATERIALS AND COLOURS</p> <p>For the proposed buildings within the Project Area select:</p> <ul style="list-style-type: none"> • Facade materials that are of low reflectivity. • A colour palette that matches the existing development. This will enable the built form to blend in with its landscape context and reduce its visibility from View Points with a medium and long distance of view. <p>VISUAL INTEREST</p> <ul style="list-style-type: none"> • Provide an entry feature at the southern entrance on Lowes Mount Road (Gate 4). This could be a landscape statement, a signage element or a public art element. This feature should provide visual interest in the landscape and enhance views along Lowes Mount Road. <p>LIGHTING</p> <ul style="list-style-type: none"> • The facility operates twenty-four hours per day. Lighting must be designed to minimise impacts on surrounding residential development and local roads. Recommended mitigation measures are: <ul style="list-style-type: none"> • only lighting required spaces within the Project Area; • focusing lights down, not up or out; • providing minimum lux levels to achieve the desired outcomes of safety and security; • minimising reflective material throughout the Project Area.
<p>Recovered Wood Materials/Products</p> <ul style="list-style-type: none"> • EPA approval will be obtained prior to the use of recycled materials in the particle board manufacturing process.
<p>Hazard and Risk</p> <ul style="list-style-type: none"> • Where the need is identified the separation between the Woodchem operations and the rest of the site will be reinforced through additional fencing to clearly delineate the different operations and ensure that access can be achieved over the Project site without any intrusion in to areas of construction or storage.
<p>Social and Economic</p> <ul style="list-style-type: none"> • Given the positive impacts on local employment levels, and the resultant positive social impacts from the Project, no management or mitigation measures are proposed to be undertaken.

APPENDIX C
LIST OF DRAWINGS AND DOCUMENTS FOR THE EXISTING DEVELOPMENT

Consent and Modifying Instruments	Supporting Documentation
DA 27/95	<ul style="list-style-type: none"> Environmental Impact Statement, titled <i>Oberon Facilities Expansion</i>, prepared by ERM Mitchell McCotter, dated 24 July 1995. Drawings numbered CSR4401/100/A/1000; CSR4401/100/A/1001; CSR4401/100/A/1002; CSR4401/100/A/1003; CSR4401/100/A/1004; CSR4401/100/A/1005; CSR4401/100/A/1006; CSR4401/100/A/1007; CSR4401/100/A/1008; CSR4401/100/A/1009; CSR4401/100/A/1010; CSR4401/100/A/1011; CSR4401/100/A/1012; CSR4401/100/A/1013; CSR4401/100/A/1014; CSR4401/280/A/1060A; CSR4401/280/A/1050; CSR4401/280/A/1051; CSR4401/280/A/1052; CSR4401/280/A/1053; CSR4401/280/A/1054; CSR4401/280/A/1506; CSR4401/280/A/1057; CSR4401/280/A/1058; CSR4401/280/A/1059; CSR4401/100/C/0000; CSR4401/100/C/0030A; CSR4401/100/C/0031A; CSR4401/100/C/0032A; CSR4401/100/C/0033A; CSR4401/100/C/0034A; CSR4401/100/C/0035A; CSR4401/100/C/0036A; CSR4401/100/C/0037A; CSR4401/100/C/0038A; CSR4401/100/C/0100; CSR4401/100/C/0390; CSR4401/100/C/0391; CSR4401/OBF95715A; CSR4401/200/C/1042C; CSR4401/OBF95725; CSR4401/OBF95726; and CSR4401/OBF95728. Supplementary information, provided by ERM Mitchell McCotter, dated 12 September 1995. Supplementary drawings numbered CSR4401/1000395A; CSR4401/100/0396A; and CSR4401/280/0395.
DA 27/95 MOD 1	<ul style="list-style-type: none"> Supplementary information submitted by Jeld-Wen Fibre of Australia, dated 16 March 2001. Supplementary drawings numbered JW01/SP01A and JW01/SP02A, submitted by Jeld-Wen Fibre of Australia, dated 28 March 2001. Supplementary information submitted by Jeld-Wen Fibre of Australia, dated 20 April 2001. Supplementary drawings numbered JW01/SPO3A and JW01/SP04A, submitted by Jeld-Wen Fibre of Australia, dated 20 April 2001.
DA 27/95 MOD 2	<ul style="list-style-type: none"> Supplementary information submitted by Brightwater Engineers Ltd, titled <i>CHH Oberon Bio-Fuel Proposal – Boiler Fuel System Upgrade and Expansion</i>, dated 9 July 2002. Supplementary information submitted by Brightwater Engineers Ltd, titled CHH Oberon – Development Consent, dated 9 September 2002. Supplementary information submitted by Brightwater Engineers Ltd, titled CHH Oberon – Development Consent, dated 16 October 2002. Supplementary information submitted by Brightwater Engineers Ltd, titled Carter Holt Harvey – Oberon NSW Calc 0162 Fuel Storage Bin Fire Protection, prepared by CGL Fire Technologies and dated 16 October 2002. Supplementary information submitted by Brightwater Engineers Ltd, titled CHH Oberon, dated 2 December 2002. Supplementary drawing, numbered A177-00/10005, submitted by Brightwater Engineers Ltd, dated 28 February 2002 information submitted by Brightwater Engineers Ltd, titled CHH Oberon – Development Consent, dated 9 September 2002.
DA 27/95 MOD 3	<ul style="list-style-type: none"> Statement of Environmental Effects titled – JELD-WEN Coatings – Coatings Manufacturing Process Modification, dated 2004. Supplementary information submitted by Debra Watson (Environmental Manager, Oberon Timber Complex) dated 21 March 2005 titled JELD-WEN chemical list update and 30 March 2005 titled JELD-WEN Paint Manufacturing Ingredients.
DA 27/95 MOD 4	<ul style="list-style-type: none"> Statement of Environmental Effects, titled <i>Proposed Paint Coating Line at Carter Holt Harvey Oberon Mouldings Operation</i>, prepared by Carter Holt Harvey, dated April 2008.
DA 27/95 MOD 5	<ul style="list-style-type: none"> Environmental Assessment titled <i>Factory Extensions (Borg Panels & JenWen)</i>, prepared by The Design Partnership, dated 21 September 2011, and the following associated plans and documents as submitted to the Department:

	<ul style="list-style-type: none"> ○ Plans numbered A00 Rev C; A01 Rev L; A02 Rev J; A03 Rev L; A03A Rev C; A04 Rev H; A05 Rev H; A06 Rev D; A07 Rev E, prepared by Borg Construction (various dates); ○ Document titled Oberon Stormwater Management Strategy prepared by Parsons Brinkerhoff, dated June 2011. ○ Stormwater drawings numbered 1000 to 1007 inclusive, prepared by Parsons Brinkerhoff, dated 26 May 2011, as amended by stormwater drawing numbered 1006, prepared by Parson Brinkerhoff, dated 8 November 2011; and ○ Sediment and Erosion Control drawings numbered C01-B to C04-B prepared by Eclipse, dated 8 October 2011.
DA 27/95 MOD 7	<ul style="list-style-type: none"> • Environmental Impact Statement titled <i>Factory Extensions (Borg Panels & JeldWen, Oberon)</i>, prepared by the Design Partnership, dated November 2014, and associated plans and drawings numbered DA01, DA02, DA03, DA04, DA05, DA06, DA07, DA08, DA09, DA10 prepared by Borg Group and dated April 2015.
DA 27/95 MOD 8	<ul style="list-style-type: none"> • Environmental Impact Statement titled <i>Co Generational Power Plant</i>, prepared by the Design Partnership, dated June 2015, and associated plans and drawings numbered DA01-SH 1 of 2 Rev A, DA02-SH 2 of 2 Rev A prepared by Borg Group and dated July 2015

Appendix B – Correspondence with DP&E



Contact: Pamela Morales
Phone: 9274 6386
Email: pamela.morales@planning.nsw.gov.au
Our ref: SSD 7016

Mr Victor Bendeviski
Environmental and Regulatory Compliance
Borg Construction Pty Ltd
2 Wella Way
SOMERSBY NSW 2250

Dear Mr Bendeviski

**Borg Panels Timber Processing Facility, Oberon, (SSD 7016)
Construction Environmental Management Plan – Condition C1 and C2**

I refer to your email dated 2 June 2017, and your submission of the Construction Environmental Management Plan (CEMP), Rev 2, and associated sub-plans prepared by Borg Construction Pty Ltd (Borg) and dated 31 May 2017.

The Department has reviewed the CEMP and its associated sub-plans and is satisfied they meet the terms of the relevant conditions of consent. Accordingly, the CEMP has been approved pursuant to conditions C1 and C2 of the above consent.

Please ensure that all recommendations and measures outlined in the CEMP and its associated sub-plans are fully implemented.

The Department also notes the Construction Noise Management Plan was prepared by Borg and reviewed by Global Acoustics. In preparing your Operational Noise Management Plan (ONMP) for the existing operations and the proposed development, please ensure a suitably qualified and experienced noise expert prepares the ONMP.

Should you have any further enquiries, please contact Pamela Morales on 9274 6386.

Yours sincerely

Chris Ritchie
Director

Industry Assessments

As delegate for the Secretary

13/6/17

Appendix C - Unexpected Finds Protocol Heritage Items

Unexpected Finds Protocol – Aboriginal objects/features encountered during construction activities

Stop all work in the immediate area of the item and notify the Project Manager.
Establish a 'no-go zone' around the item. Use high visibility fencing, where practical.
Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.
Project Manager MUST IMMEDIATELY NOTIFY the Registered Aboriginal Parties and suitably qualified archaeologist.
Representatives of the Registered Aboriginal Parties, and the suitably qualified archaeologist must determine the extent, nature and significance of the Aboriginal object(s).
Notify OEH and submit a site card.
Project Manager, the Registered Aboriginal Parties, the suitably qualified archaeologist and OEH determine if avoidance of further impact is possible for objects of high archaeological or Aboriginal significance. If not of high significance or if avoidance is not feasible develop an appropriate salvage methodology.

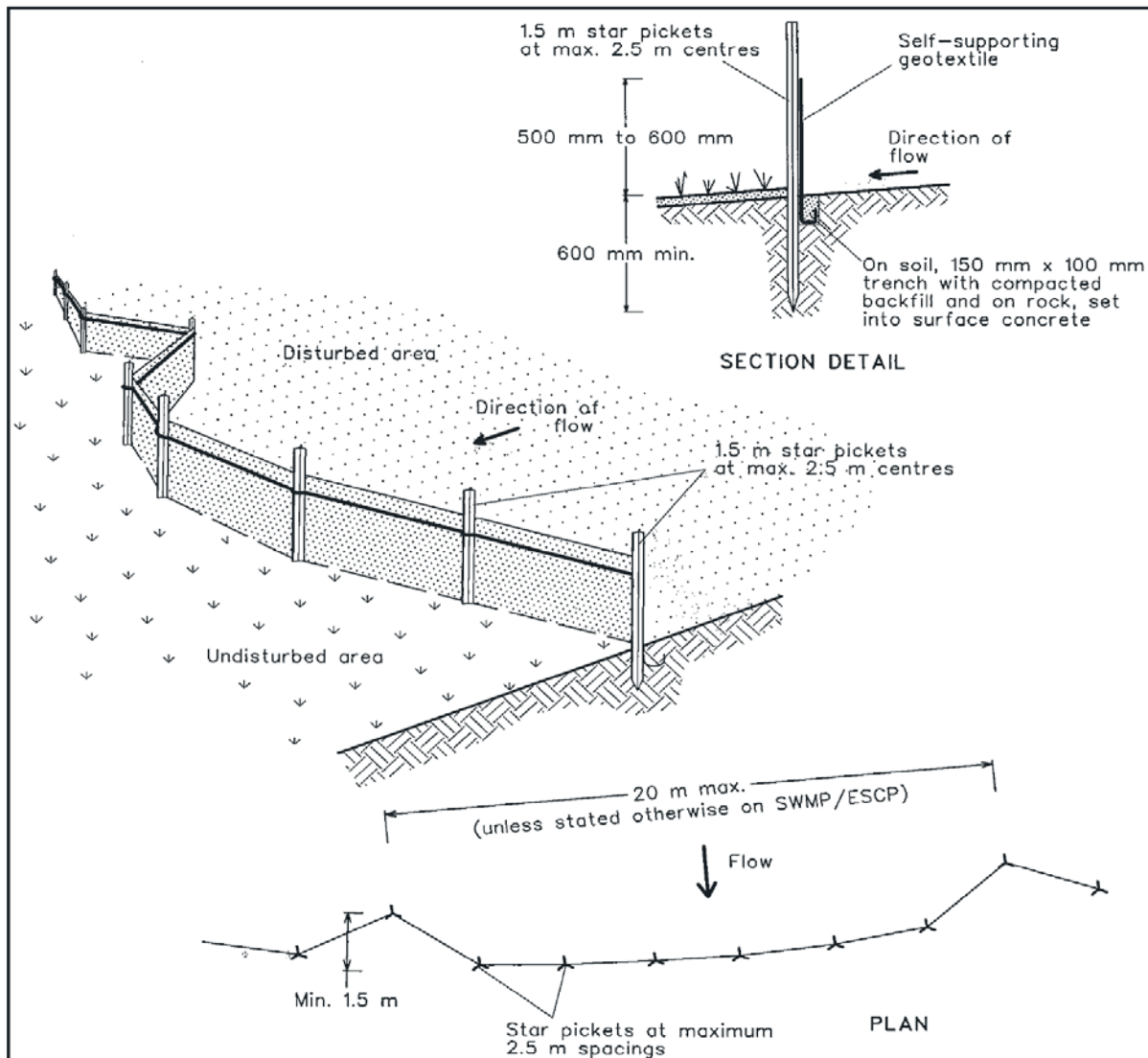
Unexpected Finds Protocol – Discovery of human remains during construction activities

When suspected human remains are exposed, all work is to cease immediately in the near vicinity of the find location.
Notify the Project Manager immediately.
Project Manager must notify the NSW Police Department, OEH on the Enviroline 131 555, the registered Aboriginal Parties and a suitably qualified archaeologist.
OEH will provide details on the current processes involved in best dealing with archaeological skeletal remains (both Aboriginal & historic).
Under the instructions of the Police, an area of 50 m radius is to be cordoned off by temporary fencing around the exposed suspected human remains site - work can continue outside of this area as long as there is no risk of interference to the human remains or the assessment of human remains.
If the remains are determined to be Aboriginal remains, then under the advice of OEH, consult with the Registered Aboriginal Parties.
Do not recommence work at the location until all legal requirements and the reasonable requirements of OEH and the Registered Aboriginal Parties have been adequately addressed.

Unexpected Finds Protocol – Discovery of historic relics during construction activities

Stop all work in the immediate area of the item and notify the Project Manager.
Establish a 'no-go zone' around the item. Use high visibility fencing, where practical.
Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.
Project Manager must notify a suitably qualified heritage consultant.
Suitably qualified heritage consultant to assess objects and recommend mitigation measures and salvage options if necessary.
Investigate, record or salvage in accordance with recommendations of the suitably qualified heritage consultant.
Project Manager to ensure implementation of heritage mitigation measures are documented.
Proceed with construction works.

Appendix D – ESC Standard Drawings

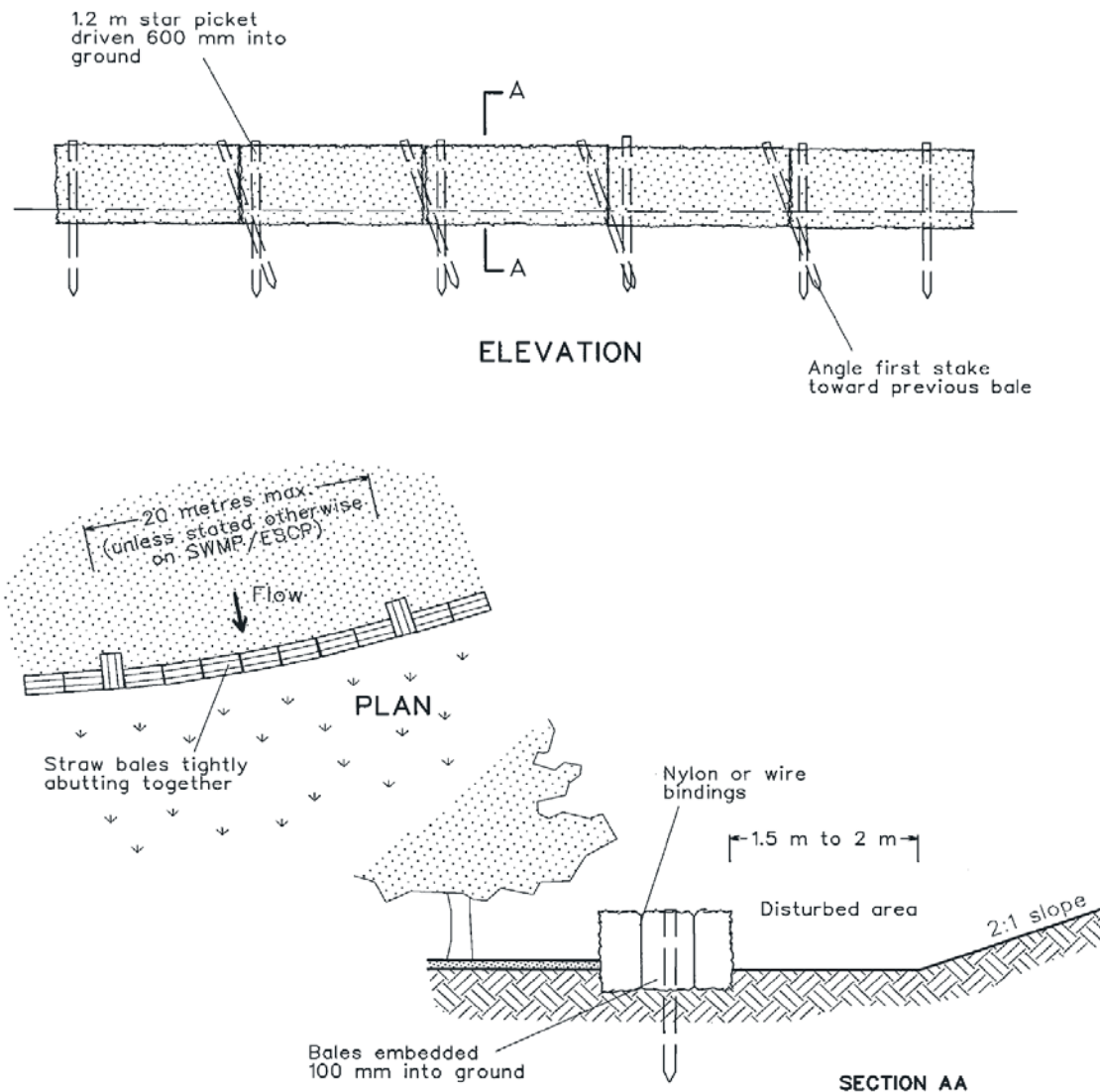


Construction Notes

1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
2. Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
3. Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
4. Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory.
5. Join sections of fabric at a support post with a 150-mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

SEDIMENT FENCE

SD 6-8

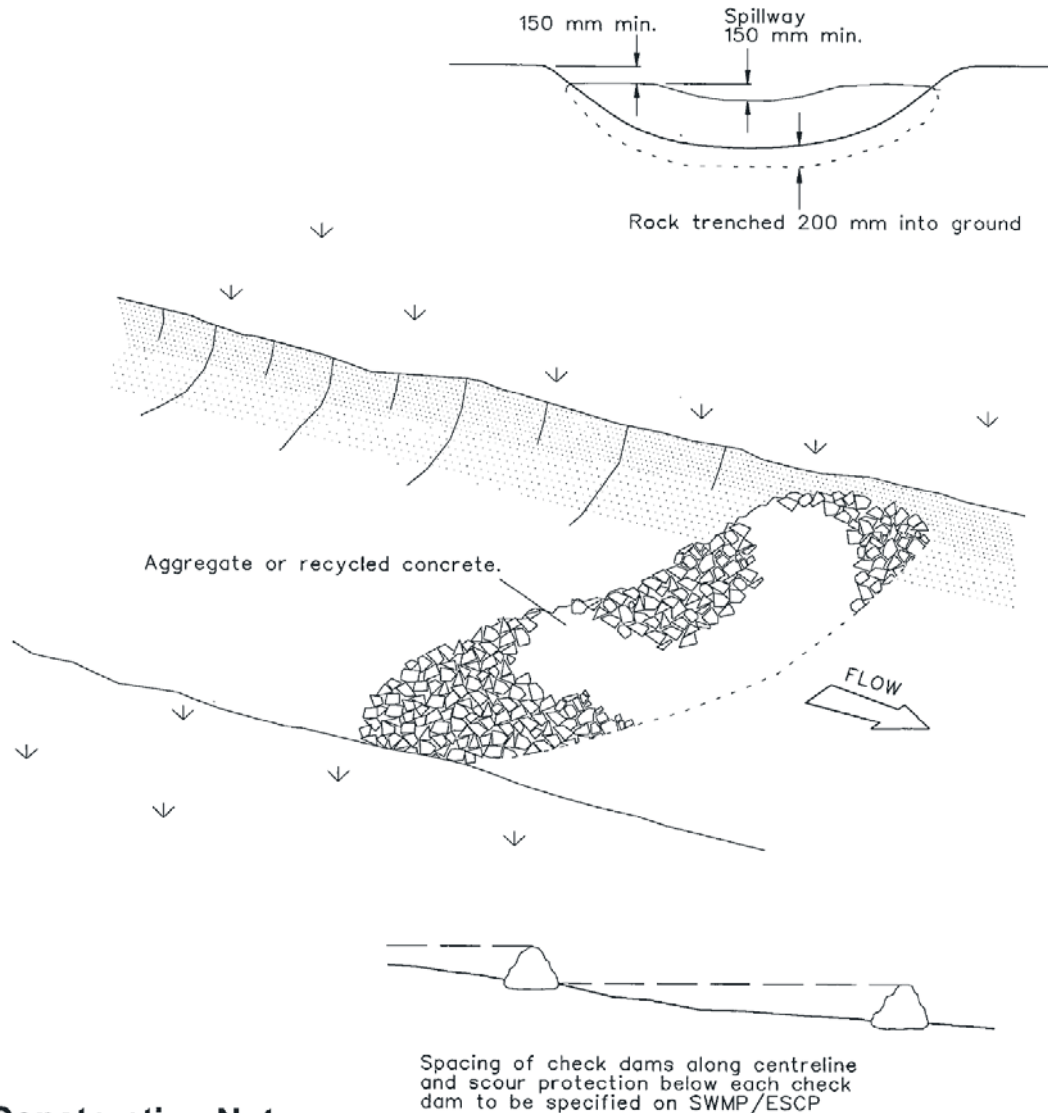


Construction Notes

1. Construct the straw bale filter as close as possible to being parallel to the contours of the site.
2. Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws are to be placed parallel to ground.
3. Ensure that the maximum height of the filter is one bale.
4. Embed each bale in the ground 75 mm to 100 mm and anchor with two 1.2 metre star pickets or stakes. Angle the first star picket or stake in each bale towards the previously laid bale. Drive them 600 mm into the ground and, if possible, flush with the top of the bales. Where star pickets are used and they protrude above the bales, ensure they are fitted with safety caps.
5. Where a straw bale filter is constructed downslope from a disturbed batter, ensure the bales are placed 1 to 2 metres downslope from the toe.
6. Establish a maintenance program that ensures the integrity of the bales is retained - they could require replacement each two to four months.

STRAW BALE FILTER

SD 6-7

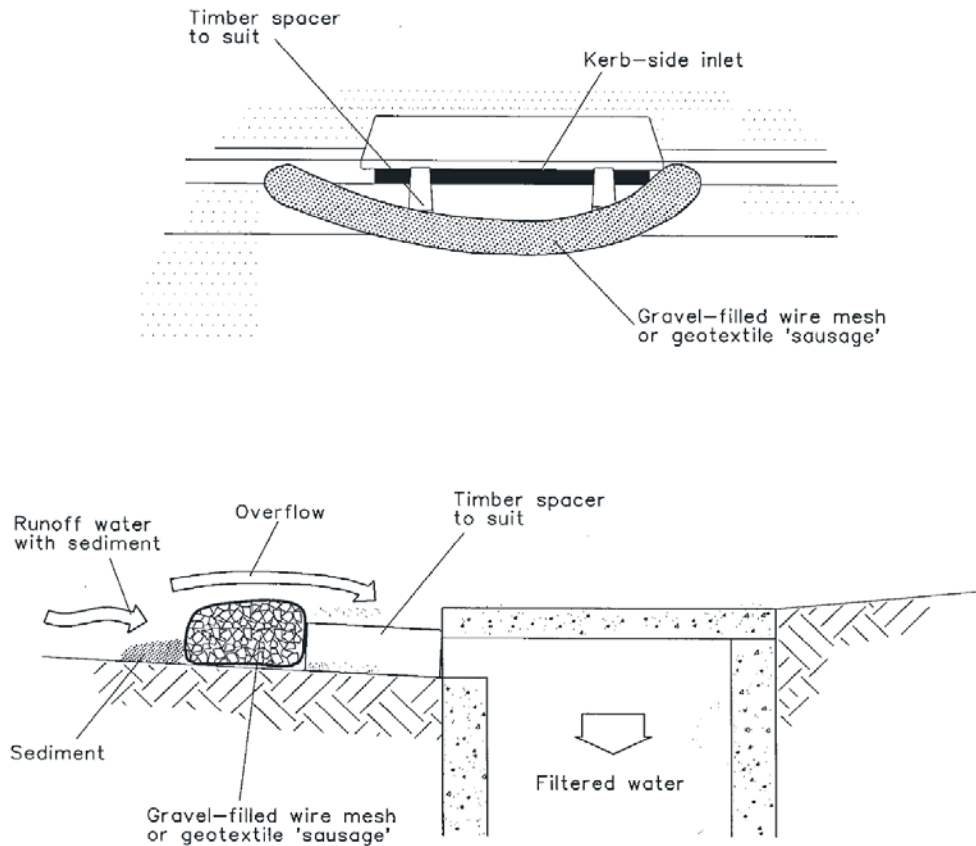


Construction Notes

1. Check dams can be built with various materials, including rocks, logs, sandbags and straw bales. The maintenance program should ensure their integrity is retained, especially where constructed with straw bales. In the case of bales, this might require their replacement each two to four months.
2. Trench the check dam 200 mm into the ground across its whole width. Where rock is used, fill the trenches to at least 100 mm above the ground surface to reduce the risk of undercutting.
3. Normally, their maximum height should not exceed 600 mm above the gully floor. The centre should act as a spillway, being at least 150 mm lower than the outer edges.
4. Space the dams so the toe of the upstream dam is level with the spillway of the next downstream dam.

ROCK CHECK DAM

SD 5-4



NOTE: This practice only to be used where specified in an approved SWMP/ESCP.

Construction Notes

1. Install filters to kerb inlets only at sag points.
2. Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.
3. Form an elliptical cross-section about 150 mm high x 400 mm wide.
4. Place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spacer blocks.
5. Form a seal with the kerb to prevent sediment bypassing the filter.
6. Sandbags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly abut each other and sediment-laden waters cannot pass between.

MESH AND GRAVEL INLET FILTER

SD 6-11

Appendix E – Construction Noise Management Plan

FINAL

Construction Noise Management Plan

Timber Processing Facility – Particle Board

124 Lowes Mount Road, Oberon NSW

Borg Construction Pty Ltd

1 June 2017

Revision History




Rev No.	Revision Date	Author / Position	Details	Reviewed / Authorised	
				Name / Position	Signature
0	04/04/17	Carly McCormack Planning and Environmental Officer	Draft	Jeremy Welbourne Acoustics Engineer – Global Acoustics Victor Bendevski Environmental and Regulatory Compliance	
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Definitions and Abbreviations

Abbreviation	Description
ABL	Assessment background level (ABL), the 10th percentile background noise level for a single period (day, evening or night) of a 24 hour monitoring period.
Ambient Noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Background Noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed.
CEMP	Construction Environmental Management Plan
Day	The period from 7:00am to 6:00pm on Monday to Saturday, and 8:00am to 6:00pm on Sundays and Public Holidays
dB(A)	Noise level measurement units are decibels (dB). The “A” weighting scale is used to describe human response to noise.
DP&E	NSW Department of Planning and Environment
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence issued by the EPA under the POEO Act
Evening	The period from 6:00pm to 10:00pm
Incident	A set of circumstances causing or threatening material harm to the environment, and/or exceedance of the limits of performance criteria in Development Consent SSD 7016
L _{Aeq} (15 min)	The average noise energy during a 15 minute period.
Night	The period from 10:00pm to 7:00am on Monday to Saturday, and 10:00pm to 8:00am on Sundays and Public Holidays
RBL	Rating background level (RBL), the background noise level for a period (day, evening or night) determined from ABL data.
Sound Level Meter (SLM)	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.

1 Introduction

1.1 Background

Borg Panels operates an existing Medium Density Fibre (MDF) board manufacturing facility in Oberon, NSW. This facility manufactures a range of Customwood MDF products including:

- Standard MDF;
- Moisture Resistant MDF;
- E0 (Low Formaldehyde Emitting) MDF;
- Ultraprime MDF Mouldings;
- Decorative Laminated MDF and Particle Board; and
- Treated paper for the lamination of MDF and Particle Board.

On 29 May 2017 Development Consent (SSD 7016) was granted by the Minister for Planning to construct a Particle Board manufacturing facility, modify the existing MDF Board manufacturing facility and undertake general site works (the Project) at the existing Borg Panels facility located on 124 Lowes Mount Road, Oberon.

The main components of the Project are:

- Construction of a dedicated Particle Board Manufacturing Line;
- Provide additional infrastructure within existing buildings;
- Modernise the existing facility;
- Construct a new automated storage warehouse; and
- Construction of hardstand, water quality ponds and emergency catchment.

This Construction Noise Management Plan (CNMP) is a sub plan to the Construction Environment Management Plan (CEMP).

1.2 Construction Staging

The Project is to be undertaken in four stages. This will be over a period of approximately 24 months:

- Stage 1 – Demolition of office building and site works, construction of detention basin (required for erosion and sediment control for later stages) and hardstand areas. Within this stage the construction of the detention basin and drainage swales will be undertaken first in order to ensure that the appropriate erosion and sediment control measures can be implemented as support for following stages. Stage 1 is to commence upon approval and is estimated to take approximately 6 months.
- Stage 2 – construction of Particle Board Manufacturing Facility and installation of related plant and equipment, including modernisation of the existing plant. Stage 2 is to commence upon approval or slightly thereafter and is estimated to take up to 18-24 months, dependent on equipment and labour availability.

- Stage 3 – alterations and additions to existing MDF site and construction of new automated storage warehouse. Stage 3 is to commence post completion of Stage 2 and is estimated that this will take up to 9 months.
- Stage 4 – debarker chipper building and chip preparation area. Stage 4 may commence approximately 6 months after approval and is estimated to take up to 12 months to complete.

These stages are not dependent on each other, and can be carried out independently and concurrently. As such, the staging plan is not indicative of the order in which Stages 2, 3 and 4 will be carried out.

1.3 Purpose of this Plan

This CNMP has been developed to address potential noise impacts on sensitive receivers and to satisfy the requirements set out in Condition B15 of Development Consent SSD 7016 for the Project, and includes information on the following:

- Relevant legislation and guidelines for noise generated during construction of the Project;
- Potential sensitive receivers who may be affected by noise generated by the Project;
- Noise impacts potentially arising from the Project;
- Safeguards, mitigation measures and monitoring to manage noise impacts during construction;
- Roles and responsibilities of those involved in the design and implementation of noise management controls; and
- An effective monitoring, auditing and reporting framework to assess the effectiveness of the controls implemented.

2 Legislative and Regulatory Compliance

2.1 Relevant Legislation

Key environmental legislation relating to noise management for the Project includes:

- *Protection of the Environment Operations Act 1997*; and
- *Environment Planning and Assessment Act 1979*.

2.2 Conditions of Consent

The Development Consent (SSD 7016) conditions relevant to noise that have been considered in this Plan are detailed in **Table 1**.

Table 1 – Development Consent Conditions

No.	Requirement	Document Reference									
	NOISE										
	Hours of Work										
B13	<p>The Applicant must comply with the hours detailed in Table 1, unless otherwise agreed in writing by the Secretary.</p> <p>Table 1: Hours of Work</p> <table> <tr> <th>Activity</th><th>Day</th><th>Time</th></tr> <tr> <td>Earthworks and Construction</td><td>Monday – Friday Saturday</td><td>7 am to 7 pm 8 am to 1 pm</td></tr> <tr> <td>Operation</td><td>Monday – Sunday</td><td>24 hours</td></tr> </table>	Activity	Day	Time	Earthworks and Construction	Monday – Friday Saturday	7 am to 7 pm 8 am to 1 pm	Operation	Monday – Sunday	24 hours	Section 2.6
Activity	Day	Time									
Earthworks and Construction	Monday – Friday Saturday	7 am to 7 pm 8 am to 1 pm									
Operation	Monday – Sunday	24 hours									
B14	<p>Works outside of the hours identified in Condition B13 may be undertaken in the following circumstances:</p> <p>(a) works that are inaudible at the nearest sensitive receivers;</p> <p>(b) works agreed to in writing by the Secretary;</p> <p>(c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or</p> <p>(d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.</p>	Section 2.6									
	Construction Noise Management Plan										
B15	The Applicant must prepare a Construction Noise Management Plan (CNMP) for the Project to manage construction noise. The plan must form part of the CEMP required by Condition C1 and must:	This Plan									

	(a) be prepared by a suitably qualified and experienced noise expert;	Reviewed by Global Acoustics								
	(b) be approved by the Secretary prior to the commencement of construction of the Project;	Appendix A								
	(c) describe procedures for achieving the noise limits in Table 2;	Section 6								
	(d) describe the measures to be implemented to manage noisy works such as rock/concrete breaking activities, in close proximity to sensitive receivers;	Section 6								
	(e) include strategies that have been developed with the community for managing noisy works;	Table 7 & Section 9.1.2								
	(f) describe the community consultation undertaken to develop the strategies in e) above; and	Section 9.1.2								
	(g) include a complaints management system that would be implemented for the duration of the Project.	Section 9.2								
	Operational Noise Limits									
B16	<p>The Applicant must ensure that noise generated by the Development does not exceed the noise limits in Table 2.</p> <p>Table 2: Noise Limits dB(A)</p> <table><tr><th>Location</th><th>Day LAeq(15 minute)</th><th>Evening LAeq(15 minute)</th><th>Night LAeq(15 minute)</th></tr><tr><td>All sensitive receivers</td><td>55</td><td>50</td><td>45</td></tr></table> <p>Note: Noise generated by the Development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.</p>	Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	All sensitive receivers	55	50	45	Section 5
Location	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)							
All sensitive receivers	55	50	45							
	Mobile Wood Chippers									
B22	During construction, the Applicant must ensure that mobile wood chippers are not operating simultaneously with rock/concrete breaking activities.	Section 6 Table 7								

2.3 Mitigation Measures

This Plan also considers the requirements of the Mitigation Measures from the Environmental Impact Statement (EIS) and Response to Submissions (RTS) for the Project.

There are no noise mitigation measures specific to construction, however Borg commits to achieving noise limits prescribed for the Project, and managing noisy works including concrete breaking in close proximity to sensitive receivers.

2.4 Environment Protection Licence

Environment Protection Licence 3035 (EPL 3035) specifies noise limits for operation of the existing facility. Condition L4 of the EPL provides noise conditions, which are reproduced below:

L4 Noise limits

L4.1 Noise from the premises must not exceed:

- a) 55 dB(A) $L_{Aeq(15 \text{ minute})}$ during the day (7am to 6pm); and
- b) 50 dB(A) $L_{Aeq(15 \text{ minute})}$ during the evening (6pm to 10pm); and
- c) at all other times 45 dB(A) $L_{Aeq(15 \text{ minute})}$, except as expressly provided by this licence.

Where L_{Aeq} means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.

L4.2 To determine compliance with condition L4.1, noise must be measured at or computed for Oberon High School or any other noise sensitive locations (such as a residence/school). A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the "NSW Industrial Noise Policy (EPA, January 2000)".

L4.3 The noise limits set out in condition L4.1 apply under all meteorological conditions except for the following:

- a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- c) Stability category G temperature inversion conditions.

L4.4 For the purpose of condition L4.3:

- a) Data recorded by the meteorological station identified as EPA Licence Point 26 must be used to determine meteorological conditions; and
- b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

Borg propose to operate the Project with continuation of these existing noise limits.

2.5 Guidelines and Standards

The guidelines and standards relevant to noise management for the Project include:

- DECC 2009, *Interim Construction Noise Guideline (ICNG)*, NSW Department of Environment and Climate Change: Sydney NSW; and
- EPA 2000, *NSW Industrial Noise Policy (INP)*, Environment Protection Authority: Sydney NSW.

2.6 Construction Noise Management Levels

Construction noise can represent a significant risk of impact on the amenity of sensitive receivers. The Interim Construction Noise Guideline (DECC, 2009) was developed to focus on applying work practices most suited to minimising construction noise impacts, rather than focusing only on achieving numeric noise levels. While some noise from construction sites is inevitable, the aim of the guideline is to protect the majority of residences and other sensitive land uses from noise pollution most of the time.

Table 2 sets out management levels for construction noise at residences and how they are to be applied. The rating background level (RBL), i.e. the overall background noise level measured in each relevant assessment period, is used when determining the management level.

Table 2 – Noise Management Levels from the ICNG (DECC, 2009)

Time of Day	Management Level LAeq (15 min) *	Notes
Residential Premises		
Recommended Standard Hours Monday to Friday 7am to 6pm Saturday 8am to 1pm No work on Sundays or Public Holidays	Noise affected RBL + 10 dB	The noise affected level represents the point above which there may be some community reaction to noise.
		Where the predicted or measured LAeq (15 min) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level.
		The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75 dB(A)	The highly noise affected level represents the point above which there may be strong community reaction to noise.
		Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account:
		1. times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or midmorning or mid-afternoon for works near residences
		2. if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.

Outside Recommended Standard Hours	Noise affected RBL + 5 dB	A strong justification would typically be required for works outside the recommended standard hours.
		The proponent should apply all feasible and reasonable work practices to meet the noise affected level.
		Where all feasible and reasonable practices have been applied and noise is more than 5 dB(A) above the noise affected level, the proponent should negotiate with the community.
Commercial Premises	70 dB(A)	External noise level at most affected point of the premises.
<p>* Noise levels apply at the property boundary that is most exposed to construction noise at a height of 1.5 m above ground level. If the property boundary is more than 30 m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence.</p>		

Other types of sensitive land uses such as schools or recreation areas may consider noise from construction to be disruptive when the property is in use. Management levels for noise at other sensitive land uses are summarised in **Table 3**.

Table 3 – Noise Management Levels for Sensitive Land Uses other than Residences

Land Use	Management Level LAeq (15min) (Applies when property is in use)
Classrooms at schools and other educational institutions	Internal noise level: 45 dB(A)
Hospital wards and operating theatres	Internal noise level: 45 dB(A)
Places of worship	Internal noise level: 45 dB(A)
Active recreation areas (characterised by sporting activities and activities which generate their own noise or focus for participants, making them less sensitive to external noise intrusion)	External noise level: 65 dB(A)
Passive recreation areas (characterised by contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example, reading, meditation)	External noise level: 60 dB(A)
Community centres	Depends on the intended use of the centre. Refer to the recommended 'maximum' internal levels in AS2107 for specific uses.

Construction of proposed infrastructure will occur concurrently with operation of the existing facility. All construction will generally be undertaken during standard construction hours, with the exception of 6pm –7pm Monday to Friday. The operational noise criterion for the evening period would apply during these hours, as conditioned in Development Consent SSD7016 and EPL 3035. Only unforeseen circumstances would require work to continue outside of these hours. When construction work outside of these hours is required, the operational noise criterion for the relevant period would apply, as conditioned in Development Consent SSD7016 and EPL 3035.

Borg propose to generally restrict site noise emission from both construction and operational tasks combined to comply with the day period operational noise criterion of $L_{Aeq(15\text{ min})}$ 55 dB and the evening period operational noise criterion of $L_{Aeq(15\text{ min})}$ 50 dB, conditioned in Development Consent SSD7016 and EPL 3035. The exception will be for short duration high noise emitting tasks as such as rock/concrete breaking, for which the “highly noise affected” construction noise criterion of $L_{Aeq(15\text{ min})}$ 75 dB is deemed appropriate. Such construction tasks should be restricted to the least noise sensitive times of day. It is recommended all potentially affected receivers are notified in advance of any construction tasks where the operational day period criterion is likely to be exceeded.

3 Sensitive Receivers

The subject land is located on the northern outskirts of Oberon, to the east of Lowes Mount Road. As per the Oberon Council Local Environmental Plan (LEP) 2013, the land zoning classification of the subject site is IN1 General Industrial. The Borg operations are part of a larger industrial precinct operated by a number of separate companies, which generally involve timber product manufacture.

Land use north, east and west of the subject site is generally agricultural. Land use to the immediate south is industrial / recreational, and further south residential and the township of Oberon.

For the purpose of identifying and managing noise impacts representative noise sensitive receivers (NSR) have been selected, including the nearest and potentially most affected residences to the site, and Oberon High School. The following NSRs are considered representative of all potentially affected receivers and are referred to in this Plan. Refer to **Figure 1** for details.

Table 4 – Noise Sensitive Receivers

Receiver ID	Receiver Location
R01	32 O'Connell Road
R02	6 Herborn Street
R03	Oberon High School
R04	10 Tasman Street
R05	127 Hazelgrove Road
R06	26 Cunyngham Street
R07	131 Hazelgrove Road
R08	2 Herborn Street
R09	15-19 Albion Street
R10	Oberon Caravan Park



Figure 5: Modelled Receiver and Logging Locations

Figure 1 – Noise Sensitive Receivers (Source: Global Acoustics, May 2016)

4 Noise and Vibration Impact Assessment

Global Acoustics (May 2016) was engaged by Borg to carry out a noise and vibration impact assessment for the proposed expansion of the panel manufacturing facility. This assessment considered impacts associated with noise emission from the existing site, and, the proposed expansion. Potential impact from operational noise, low frequency noise, sleep disturbance, cumulative noise, construction noise and road traffic noise were assessed. A model validation assessment was undertaken to provide an estimate of model prediction accuracy.

4.1 Operation

Model predictions indicate the proposed expansion could generally comply with existing EPL operational noise criteria, when recommended management strategies are implemented, and if limiting sound powers for proposed infrastructure and recommended noise controls for existing plant are achieved. The exception is 15-19 Albion Street, for which a minor 1 dB exceedance is predicted for the day period during enhancing meteorological conditions if a mobile chipper is operational. Compliance was predicted for all receivers for 'normal' operations when no mobile chipping plant is operated.

4.2 Construction

4.2.1 Noise

A construction period of approximately 24 months is proposed. Construction activities will be undertaken in conjunction with regular operation of the existing site. Borg propose to generally restrict site noise emission from both construction and operational tasks combined to comply with operational noise criteria conditioned in Development Consent SSD7016 and EPL 3035.

Rock or concrete breaking, earthworks, and, infrastructure installation were assessed. Model predictions for the earthworks and installation scenarios indicate general compliance with the day period operational noise criterion at all receivers, with the exception of 15-19 Albion Street. At this location, exceedances were predicted during prevailing wind conditions if a mobile chipper is operated concurrently with construction plant. Exceedance of the evening period operational noise criterion is predicted at R02, R03, R06, R08, R09 and R10. These exceedances are predicted during calm and prevailing wind conditions when a mobile chipper is operated concurrently with construction plant. Construction noise can be managed through monitoring weather conditions, restricting use of the mobile chipper during enhancing conditions if a large amount of construction plant is operating, and restricting construction activities where possible to the hours detailed in the ICNG.

Rock breaking was assessed against the “highly affected” construction noise criterion of $L_{Aeq(15min)}$ 75 dB, as the duration would be relatively short compared with other construction tasks, and few options are available to mitigate noise from this activity. Predictions were well below this criterion.

4.2.2 Vibration

Due to the distance to sensitive receivers from operational and construction areas, no vibration impact is expected.

4.2.3 Road Traffic Noise

Construction and operational road traffic noise impacts were assessed for North Street and Albion Street, the roads indicated in the Traffic Impact Assessment report to receive the greatest traffic flows. The majority of both construction and operational project traffic generated by the project will occur outside of general peak hour traffic flows. Increases to road traffic noise relative to the existing situation were found to be insignificant, and less than 1 dB. Such an increase is unlikely to be either measurable, or perceptible to the human ear.

4.2.4 Construction Plant

Table 5 lists plant included in the construction noise assessment.

Table 5 – Potential Noise Sources

Equipment Type	Earthworks	Installation	Rock Breaking
Excavator	1	0	0
Loader	1	0	0
Dozer	1	0	0
Dump truck	2	0	0
Grader	1	0	0
Roller	1	0	0
Articulated truck	2	0	0
Mobile crane	0	2	0
Concrete truck	0	1	0
Delivery Truck	0	2	0
Bobcat	0	1	0
Rock breaker	0	0	1

Predictions for the rock breaking scenarios include a plus 5 dB modifying factor penalty to account for the intermittent nature of rock breaking works. It is recommended mobile chipping plant is not operated during rock breaking works. It is considered reasonable to assess rock breaking against the “highly affected” construction noise criterion of $L_{Aeq} (15 \text{ min})$ 75 dB, as the duration would be relatively short compared with other construction tasks, and few options are available to mitigate noise from this activity. Predictions (without mobile chipping plant operating) are well below this criterion.

5 Construction Noise Management Levels

Construction activities will be undertaken simultaneously with regular operation of the existing site. Borg propose to generally restrict site noise emission from both construction and operational tasks combined to comply with operational noise criteria conditioned in Development Consent SSD 7016 and EPL 3035.

Following consideration of the ICNG (**Section 2.6**), Development Consent (SSD 7016) conditions (**Section 2.2**), EPL 3035 (**Section 2.4**) and the measured background noise levels (refer Global Acoustics, May 2016), **Table 6** summarises the Noise Management Levels (NMLs) for all residential receivers.

Table 6 – Operation and Construction Noise Management Levels

Location	Activity	Day (7am-6pm)	Evening (6pm-10pm)	Night (10pm-7am)
		LAeq (15 min)	LAeq (15 min)	LAeq (15 min)
All residential receivers	General Construction	55	50	45
	Rock/ Concrete Breaking	75		

Work outside approved construction hours are not expected, however unforeseen constraints relating to delivery of materials or equipment, or other technical requirements, may see some activities undertaken outside approved hours. Where required, out of hours works will be undertaken to meet the noise management levels in **Table 6**.

Development Consent SSD 7016 Condition B14 requires non-standard construction hour work to be inaudible at the nearest sensitive receivers. The Development Consent takes precedence over the ICNG and will be adopted in this plan.

In this instance, “inaudible” means the activity is not discernible from general operation activities.

6 Impact Management Measures

In order to ensure project goals are met and to maintain impacts at a practical minimum, the measures and safeguards summarised in **Table 7** will be implemented by Borg throughout the construction phase of the Project.

Table 7 – General Construction Noise Impact Mitigation Measures

Mitigation Measures	Timing	Responsibility
Administrative Controls		
Construction activities that are audible at any residential receptor, shall only be undertaken during the following hours: a) 7:00 am to 7:00 pm Monday to Friday b) 8:00 am to 1:00 pm Saturdays c) at no time on Sundays or public holidays.	Daily	Project Manager/ Environment Officer
The DECC construction noise management levels, and site operational levels, will be achieved as far as practicable. Where works are predicted to exceed the NMLs (refer Section 5), residents should be informed of the time, type, duration and noise level of noisy activities prior to the anticipated exceedance.	Daily	Project Manager/ Environment Officer
Provide an induction to site personnel (which includes Environmental Due Diligence Training) addressing the requirements of this CNMP and their responsibilities with regard to noise management.	Prior to starting work on site	Project Manager/ Environment Officer
Ensure truck drivers are informed of designated vehicle routes, parking locations, delivery hours, and minimising engine braking and idling.	Daily	Project Manager/ Environment Officer
Provide education of supervisors, operators and sub-contractors on the need to minimise noise through Toolbox meetings and on-site coaching.	As needed	Project Manager/ Environment Officer
Inform potentially noise affected residents of the nature of works to be carried out, the expected noise levels and duration, as well as relevant contact details.	As needed	Project Manager/ Environment Officer
Restrict use of mobile chippers during enhancing conditions if a large amount of construction plant is operating.	Daily	Project Manager/ Environment Officer
Where works are expected to be undertaken outside approved work hours, ensure operational noise management levels can be met for the relevant period (evening or night).	As needed	Project Manager/ Environment Officer

Mitigation Measures	Timing	Responsibility
Procedures for handling noise complaints (Section 9) will be implemented including recording, reporting and acting on complaints.	As needed	Project Manager/ Environment Officer
Construction Controls – General		
Select appropriate sized equipment for the task, such as excavation equipment.	Daily	Project Manager/ Environment Officer
Select low noise emission plant where possible.	Daily	Project Manager/ Environment Officer
Avoid, where possible, noisy plant working simultaneously close together.	Daily	Project Manager/ Environment Officer
Ensure all equipment is equipped with reasonable and feasible noise control (e.g. mufflers, acoustic enclosures, flashing lights or 'quackers' as an alternative to traditional reversing beepers) and is turned off when not in use.	Daily	Project Manager/ Environment Officer
Ensure equipment is operated in the correct manner and adequately maintained - including replacement of engine covers, repair of defective silencing equipment, tightening of rattling components, repair of leakages in air lines and shutting down equipment not in use.	Daily	Project Manager/ Environment Officer
Where practicable, maintenance work on all construction plant will be carried out away from noise sensitive receivers, and confined to standard construction hours.	Daily	Project Manager/ Environment Officer
The site entry and egress points will be set as far from receivers as practical.	Once-off	Project Manager/ Environment Officer
Ensure traffic movement is kept to a minimum, e.g. ensure trucks are fully loaded so that the volume of each delivery is maximised.	Daily	Project Manager/ Environment Officer
Avoid dropping material from a height into unlined metal trays.	Daily	Project Manager/ Environment Officer
Construction Controls – Rock/Concrete Breaking		
Mobile wood chipper and rock/ concrete breaking activities are not to be undertaken concurrently. A permit to work is required for rock/ concrete breaking activities that requires the construction team to consult with mobile wood chipper operators to ensure operations do not occur simultaneously.	Daily	Project Manager/ Environment Officer

Mitigation Measures	Timing	Responsibility
Consult with Oberon High School prior to rock/concrete breaking activities. Where feasible and reasonable, plan works to limit rock/concrete breaking activities during important events, e.g. examination periods.	Daily	Project Manager/ Environment Officer
Undertake rock/concrete breaking activities only between 8am and 6pm Monday to Friday, and 8am and 1pm Saturdays.	Daily	Project Manager/ Environment Officer
Undertake rock/concrete breaking in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.	Daily	Project Manager/ Environment Officer
Monitoring and Auditing		
Monitor construction noise levels to verify compliance with the CNMP. Prepare quarterly monitoring summaries for submission to the Project team.	As needed	Environment Officer
Monitor meteorological conditions (i.e. wind speed and direction) during construction activities and adjust activities when prevailing (enhancing) meteorological conditions occur. Prepare quarterly monitoring summaries for submission to the Project team.	As needed	Environment Officer
Report any exceedance of limits to DP&E and EPA in accordance with Development Consent SSD 7016 and EPL 3035.	As needed	Environment Officer

7 Noise Monitoring

7.1 Overview

The Noise Impact Assessment (Global Acoustics, May 2016) indicated general compliance with the day period operational noise criterion at all receivers, when management measures are implemented. Therefore, construction noise monitoring will be undertaken to:

- Verify compliance with the noise objectives presented in **Section 5**;
- In response to any exceedance of limits; and
- In response to complaints where this is considered appropriate.

7.2 Monitoring Frequency

7.2.1 Compliance Monitoring

The following compliance monitoring, to be undertaken during construction by a suitably qualified noise expert, is recommended for the project:

- Periodic attended noise monitoring at the potentially most affected residences during the day period, with a frequency of once per quarter, during the construction phase of the Project; and
- If exceedance of limits is demonstrated, additional mitigation controls are to be implemented, and follow-up monitoring undertaken within one week of the exceedance.

Construction noise performance is reported as detailed in **Section 10**.

7.2.2 Management Monitoring

In addition to quarterly compliance monitoring, off-site management noise monitoring by suitably trained site personnel should be undertaken regularly, particularly during periods of meteorological enhancement and on commencement of new construction activities or areas, to ensure relevant noise criteria are adhered to.

Operations should be modified accordingly as required when exceedance or potential exceedances are measured. Modifications may include, but are not limited to, erection of temporary barriers or screens, temporary shutdown of equipment until adverse weather conditions change, or relocating equipment to less sensitive areas when feasible to do so.

7.3 Monitoring Locations

Four representative locations have been chosen for monitoring as summarised in **Table 8**. Refer to **Figure 2** for these locations.

Table 8 – Noise Monitoring Locations

Location ID	Monitoring Location
NM1	Oberon Caravan Park
NM2	Intersection Pine Street and Herborn Street
NM3	127 Hazelgrove Road
NM4	Intersection Tasman Street and Earl Street

Noise management levels for each monitoring location are provided in **Table 6**. Where these are exceeded by construction-related noise sources, the exceedance should be investigated (as discussed in **Section 10**) to determine the cause and any necessary mitigation.

7.3.1 Instrumentation

The following requirements should be observed whilst monitoring:

- Before commencing monitoring, ensure the Sound Level Meter's (SLM) laboratory calibration is current (refer to the sticker on the unit).
- If unsure about the functions of the SLM, refer to the instruction sheet in the case. All site environment officers should be trained in the use of the SLM and training documents kept on file.
- Ensure the windscreen is attached and that the SLM settings include a windscreen factor, the SLM is set to A-weighted and fast response.
- Prior to and completing the measurement, the SLM should be field calibrated using the supplied calibrator. Ensure that the pre- and post- measurements do not differ by more than 0.5 dB(A).



7.3.2 Weather Conditions

Monitoring should be undertaken on days of light winds (<5 m/s) and no rain. Wind speed is to be monitored using a hand held wind speed monitor. Rain and too much wind will elevate the noise level. If there is no choice but to monitor in inclement weather, note the conditions on the field sheet.

NMLs listed in Table 6 apply under all meteorological conditions except for the following:

- Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- Stability category G temperature inversion conditions.

Weather conditions measured at the site weather station should be used to determine applicability of meteorological exclusion rules.

7.3.3 Construction Noise Monitoring Procedure

Monitoring should be undertaken for a duration of 15 minutes at each location. More than one 15-minute measurement can be undertaken at each location.

The following information should be recorded in accordance with *AS 1055.2—1997 Acoustics—Description and measurement of environmental noise*. The field sheet for noise monitoring should capture the following details:

- Date and time of measurement;
- Details of the measurement positions, instrumentation used and types of analyses made;
- Weather conditions at each monitoring location, recorded at 1.8 metres above ground level, during the measurements (wind direction, wind velocity, relative humidity, temperature, recent precipitation, cloud cover (oktas));
- Description of the noise being investigated as well as operating conditions of the sound source(s) under investigation;
- Noise due to other sources including normal and possibly unusual noises;
- Statistical noise metric results including L_{A1} , L_{A10} , L_{Aeq} and L_{A90} due to all noise sources during the measurement period;
- Estimated or calculated $L_{Aeq (15min)}$ attributable to Borg noise sources (in the absence of extraneous noise sources) during the measurement period;
- Associated observations (vibrations, amplitude or frequency modulation or similar).

Noise monitoring results will be recorded on a Noise Monitoring Record Form. An example Noise Monitoring Record form is provided as **Appendix B**.

Correction for Background Noise

Operational noise management levels are used to assess construction noise (refer **Section 5**). Borg propose to generally restrict site noise emission from both construction and specific operational tasks combined to comply with operational noise criteria.

Background noise such as traffic and other non-operational influences are not included in this total. Therefore, it is important to distinguish between operational noise and other noises. This can be done in several ways:

- i. Use the SLM display while monitoring to estimate the noise level from specific sources dominant at the time, e.g. when no traffic is present and construction/operational equipment is strongly dominant or where construction/operation is inaudible over the traffic.
- ii. Also, note the proportion of time that construction/operational noise is dominant, e.g. 10%, 50% etc, and under what conditions this occurs.
- iii. If practical, use the 'pause' and 'back erase' functions of the SLM to eliminate any extraneous noise such as dogs barking or lawn mowers.
- iv. Where possible, or in cooperation with operators, measure background noise with no construction activity, then again with construction underway. The construction noise can then be compared with the background noise. This could be for durations of just a few minutes or, with cooperation, two separate 15 minute recordings.

Correction for Impulsive Noise

Impulsive noise is noise having a high peak of short duration or a sequence of such peaks (EPA, 2000).

To assess whether noise is substantially impulsive, noisy activities should be measured with the SLM set on A-weighted **fast** response and **impulse** response. According to the INP, noise is considered impulsive if the difference between the two values is more than 2 dB(A). Apply difference in measured levels as the correction, up to a maximum of 5 dB.

Correction for Intermittent Noise

Intermittent noise is when the level of noise suddenly drops to that of the background noise several times during the assessment period, with a noticeable change in noise level of at least 5 dB (EPA, 2000).

In accordance with the INP, a correction of 5 dB(A) for intermittent noise should be made to the measured L_{Aeq} noise levels to account for the greater annoyance. Adjustment to be applied for night-time period only.

8 Training

Borg shall implement appropriate training and induction in the requirements of this CNMP. All employees and contractors working on site will undergo site induction training, which includes Environmental Due Diligence Training. The induction will address:

- This CNMP;
- The existence of noise legislation and what this means for the Project, i.e. Noise Management Levels;
- Delivery hours and locations;
- Reporting and recording environmental non-compliance related to noise;
- Noise minimisation measures; and
- The importance of regular plant maintenance.

Records will be kept of all personnel undertaking the site induction and training, including the contents of the training, date and name of trainer/s.

Key staff will undertake more comprehensive training relevant to their position and/or responsibility. This training may be provided as “toolbox” training or at a more advanced level by the Environment Officer.

Further details regarding the content of staff induction and training are outlined in the CEMP.

9 Community Consultation and Complaints Management

9.1 Community Consultation

Close community liaison will be maintained to ensure that local residents are aware of the times and durations when they may be affected by construction noise that exceeds the NML's in **Table 6** (such as rock/concrete breaking activities) and to provide an avenue for communication between the community and the Project team.

The CEMP details the methods and timing for community consultation on the Project throughout the construction period.

9.1.1 Community Consultative Committee

Borg has an established joint Community Consultative Committee (CCC) that meets quarterly to discuss environmental and operational aspects of the Borg Panels site. This existing CCC will be utilised to discuss and address general construction impacts, including noise management and mitigation measures. The CCC meeting will also provide a forum to provide feedback to Borg in relation to the environmental management of the Project.

9.1.2 Community Consultation for Managing Noisy Works

Strategies developed with the community for managing noisy works are documented in **Table 7**; refer section on Construction Controls – Rock/Concrete Breaking.

Community consultation undertaken to develop these strategies for managing noisy works included:

- Presentation and Project update to the Oberon Business and Tourism Association at their meeting held on 12 April 2017. An outline of activities to occur during construction, including rock/concrete breaking activities was presented, and included contact details for the construction period of the Project.
- Written email correspondence on 12 April 2017 with the Oberon High School Principal to inform that noise generating activities will occur during construction of the Project. The email was an invitation to assist in development of strategies for managing the noisy works and sought feedback and suggestions.
Additionally, the Principal was advised further consultation will be undertaken prior to the activity occurring and where feasible and reasonable, Borg will plan works to limit rock/concrete breaking activities during important events, e.g. examination periods.
Furthermore, an invite was extended to the School Principal to attend the CCC meeting workshop for developing strategies for managing noisy works.

- A meeting was held on the 18 May 2017 to update Oberon Council on the progress of the development application. This meeting was also used to discuss the management of noisy works during Project construction. Council agreed that the communication channels proposed in the CEMP were suitable, and also suggested the use of the Council community newsletter as a conduit to the public. This newsletter is sent to all households on the 15th of each month.

A workshop focusing on managing noisy works will also be held at the next CCC meeting prior to the noisy works being undertaken. Proposed strategies for managing the noisy works will be presented, discussed and further developed with the CCC members. Strategies previously developed have been included in **Table 7**.

9.2 Inquiry and Complaints Management

9.2.1 Opportunities for Information Exchange

Borg has in place the following avenues to register inquiries and complaints related to construction and operational activities:

- A 24-hour freecall community liaison line (1800 802 795);
- Postal address for written complaints (Borg Panels, Private Mail Bag 1, Oberon NSW 2787); and
- Email address for electronic complaints (oberon_site@borgs.com.au).

The telephone number, postal and email address will be clearly displayed on a sign near the entrance to the construction site, in a position that is clearly visible to the public. This information will also be widely disseminated in the community and included on public information, which may include the website, local area advertisements, letterbox notifications and Project specific fact sheets.

9.2.2 Inquiry and Complaints Handling Process

Borg's community and stakeholder management system includes procedures for recording, investigating, tracking and handling of all inquiries and complaints, as detailed in the CEMP.

Once Borg has received verbal or written inquiries and/or complaints via telephone, email or post, the Environment Officer or their nominated delegate will:

- Undertake an immediate investigation into the nature/cause of the inquiry and/or complaint;
- Make initial contact with the community or stakeholder representative within 48 hours to clarify the reason for the inquiry and/or complaint and to notify of the investigation process including an appropriate re-notification time;
- Record the inquiry and/or complaint on the Community Complaints register. This register includes the following details:

- Complaint date and time;
 - Site;
 - Title;
 - Category;
 - Description;
 - Caller details;
 - Action;
 - Status;
 - Follow-up;
 - Complaint validity; and
 - Attachments.
- Further investigate the inquiry and/or complaint and provide the community or stakeholder representative with an explanation of the cause and details of any actions taken to mitigate its effect.

It should be noted that if the inquiry and/or complaint is classified as an incident of significance under the site Emergency Response Plan (ERP), the Environment Officer must follow the incident reporting process in that document and ensure appropriate resolution and sign-off.

Records of complaints will be maintained in the complaints register database for at least four years after the complaint was made.

10 Reporting

10.1 Scheduled Reporting

Construction noise performance is reported externally as follows:

- Quarterly attended noise compliance monitoring reports. Attended noise monitoring reports will include a comparison of measured noise levels with operational noise criteria conditioned in Development Consent SSD 7016 and EPL 3035. All attended measurement result analysis should consider criteria applicability (for project specific criteria) with regard to wind speed and atmospheric stability class;
- Quarterly updates of monitoring results on the Borg website; and
- Annual Review. A copy of the Annual Review is sent to relevant stakeholders, including DP&E, EPA and Oberon Council and is available on the Borg website.

10.2 Exceedance Reporting

In the event it is determined that an exceedance of a noise criterion has occurred, at the earliest opportunity (as soon as practicable) Borg will notify DP&E in accordance with Development Consent SSD 7016 and EPA in accordance with EPL 3035.

In accordance with Condition C12 of Development Consent SSD 7016, Borg will within 7 days of the exceedance date, provide a detailed report on the exceedance to the DP&E and EPA.

11 CNMP Review

In accordance with Development Consent SSD 7016 Condition C10, this CNMP will be reviewed and if necessary revised within 3 months of an:

- Approval of a modification;
- Submission of an incident report under Condition C13;
- Approval of an Annual Review under Condition C11; or
- Completion of an audit under Condition C15.

Revisions to the CNMP will be submitted to the Secretary DP&E for approval.

12 References

Environment Protection Authority (January 2000). *NSW Industrial Noise Policy*. ISBN 0 7313 2715 2, EPA 00/1.

Environment Protection Authority (September 2015). *Draft Industrial Noise Guideline*. ISBN 978 1 74359 940 2, EPA 2015/0185.

Global Acoustics (May 2016). *Borg Panels Timber Panel Processing Facility Oberon NSW – Noise and Vibration Impact Assessment*. Prepared for Borg Manufacturing.

Appendices

Appendix A – Correspondence with DP&E



Contact: Pamela Morales
Phone: 9274 6386
Email: pamela.morales@planning.nsw.gov.au
Our ref: SSD 7016

Mr Victor Bendeviski
Environmental and Regulatory Compliance
Borg Construction Pty Ltd
2 Wella Way
SOMERSBY NSW 2250

Dear Mr Bendeviski

**Borg Panels Timber Processing Facility, Oberon, (SSD 7016)
Construction Environmental Management Plan – Condition C1 and C2**

I refer to your email dated 2 June 2017, and your submission of the Construction Environmental Management Plan (CEMP), Rev 2, and associated sub-plans prepared by Borg Construction Pty Ltd (Borg) and dated 31 May 2017.

The Department has reviewed the CEMP and its associated sub-plans and is satisfied they meet the terms of the relevant conditions of consent. Accordingly, the CEMP has been approved pursuant to conditions C1 and C2 of the above consent.

Please ensure that all recommendations and measures outlined in the CEMP and its associated sub-plans are fully implemented.

The Department also notes the Construction Noise Management Plan was prepared by Borg and reviewed by Global Acoustics. In preparing your Operational Noise Management Plan (ONMP) for the existing operations and the proposed development, please ensure a suitably qualified and experienced noise expert prepares the ONMP.

Should you have any further enquiries, please contact Pamela Morales on 9274 6386.

Yours sincerely

Chris Ritchie
Director

Industry Assessments
As delegate for the Secretary

13/6/17

Appendix B – Noise Monitoring Record Form

Noise Monitoring Record Form	
Monitoring Location	
Description of Location	
Test Conducted By	
Date of Monitoring	
Measurement Start Time (hh:mm)	
Measurement Time – Length (min)	
Noise Meter Model/ Calibration Date	
Calibrator Model/ Calibration Date	
Weather Conditions	
General Description	
Wind Speed (m/s)	
Wind Direction	
Temperature (deg C)	
Relative Humidity	
Recent Rainfall	
Cloud Cover (oktas)	
Measurement Results	
L _{Aeq} (15min) (dB(A))	
L _{A1} (dB(A))	
L _{A10} (dB(A))	
L _{Aeq} (dB(A))	
L _{A90} (dB(A))	
Major Construction Noise Source(s) During Monitoring	
Other Noise Source(s) During Monitoring	
Comments	

Appendix F – Construction Traffic Management Plan



Construction Traffic Management Plan 124 Lowes Mount Road, Oberon

Prepared for:
Borg Construction
3/05/2017

The Transport Planning Partnership
ACN: 607 079 005

Construction Traffic Management Plan

124 Lowes Mount Road, Oberon

Client: Borg Construction

Version: Final

Date: 3/05/2017

TPP Reference: 16182

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
Final	03/05/17	S.Botross, L.Nguyen	W.Johnson	W.Johnson	

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APPENDICES

- A. DRIVERS CODE OF CONDUCT
- B. DETAILED CONSTRUCTION STAGING PLAN
- C. INTERNAL ROAD NETWORK SITE PLAN
- D. TRAFFIC CONTROL PLANS

1 Introduction

1.1 Background

A State Significant Development Application (SSD 7016) is currently being reviewed by the NSW Department of Planning and Environment for an expansion to the existing timber panel processing facility at 124 Lowes Mount Road, Oberon.

The Transport Planning Partnership (TPPP) has prepared this Construction Traffic Management Plan (CTMP) on behalf of Borg Construction (Borg) to assess the traffic and transport implications of the proposed construction activities as part of this project.

This CTMP has been prepared to satisfy the relevant conditions of consent specified by the Minister for Planning. Table 1 lists the conditions of consent and the corresponding sections of the CTMP where there are addressed.

Table 1: Construction Staging and Duration

Traffic and Access Requirements	Addressed in
Condition B34.	
(c) detail the measures that would be implemented to ensure road safety and network efficiency during earthworks and construction;	Section 5
(d) detail heavy vehicle routes, access and parking arrangements;	Sections 3.3 and 3.4
(e) include a Driver Code of Conduct to: <ul style="list-style-type: none"> (i) minimise the impacts of construction on the local and regional road network; (ii) minimise conflicts with other road users; (iii) minimise road traffic noise; and (iv) ensure truck drivers use specified routes; 	Appendix A
(f) include a program to monitor the effectiveness of these measures; and	Section 6
(g) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.	Section 4.7
Condition B35.	
The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public or residential streets or public parking facilities.	Section 3.3

1.2 Purpose of this CTMP

This CTMP addresses the traffic and transport implications during the construction phase of the development. The overall principles of traffic management during construction include:

- manage access to/from adjacent properties
- restrict construction vehicle movements to designated routes to/from the site
- manage and control construction vehicle activity in the vicinity of the site
- provide an appropriate and convenient environment for pedestrians and cyclists

- minimise the impact on pedestrian movements
- maintain appropriate capacity for pedestrians at all times on footpaths adjacent to the site
- maintain appropriate public transport access, and
- carry out construction activity in accordance with the approved work hours.

The report has been prepared by engineers who hold the RMS Select/ Modify Traffic Control Plans (Red Card) and Design and Inspect Traffic Control Plans (Orange Card) certification which is now named *Prepare a Work Zone Traffic Management Plan*.

During the preparation of this CTMP, Roads and Maritime Services and Oberon City Council were consulted for any additional aspects which required further assessment. Both authorities returned no additional requirements.

This CTMP includes the following:

- Measures to ensure that the transport related conditions of consent are met,
- Drivers' Code of Conduct (Appendix A), and
- A program for monitoring the effectiveness of the CTMP and Drivers Code of Conduct.

1.3 Overview of Proposal

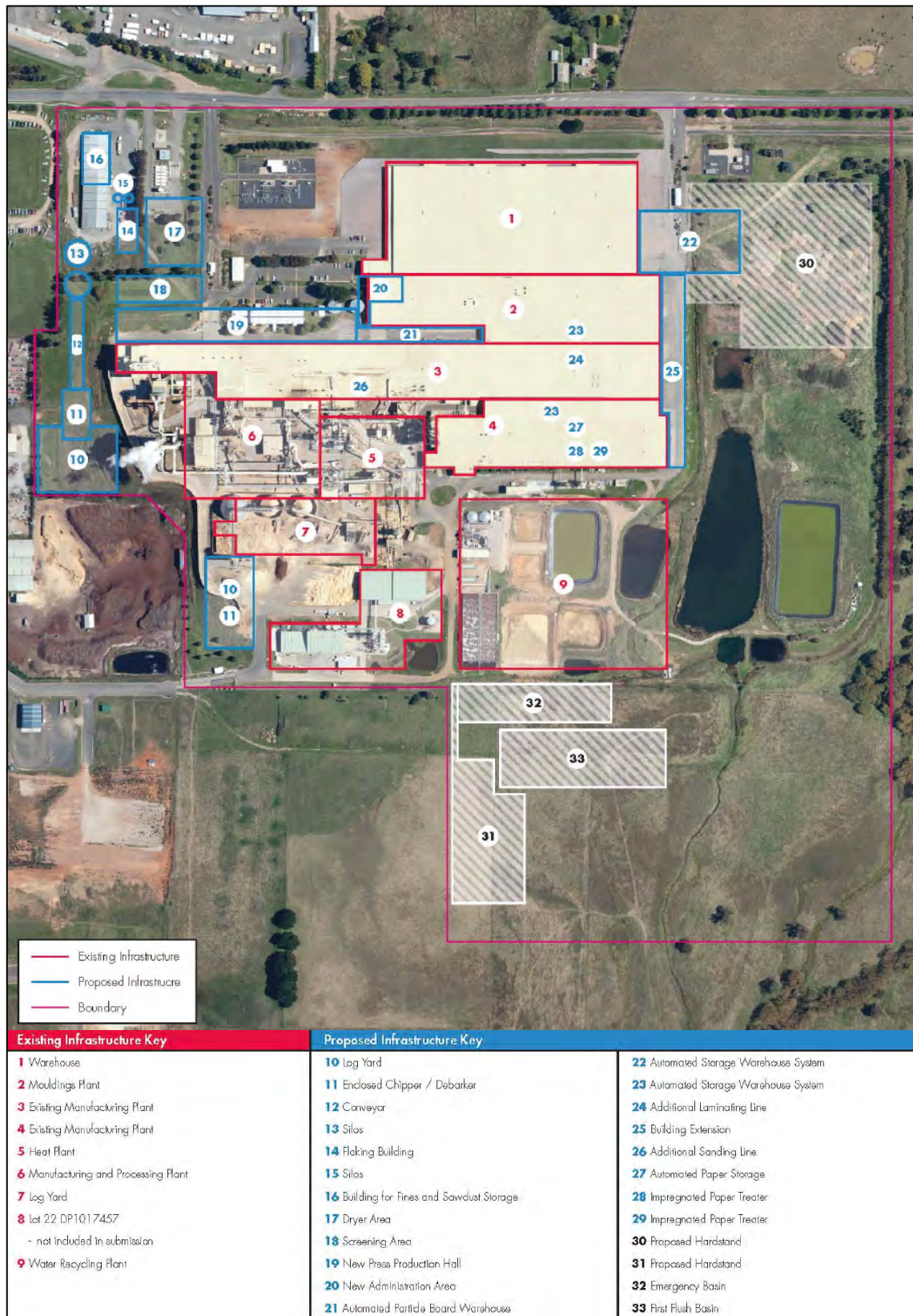
The proposal is for the expansion of the existing Borg Panels timber processing facility at 124 Lowes Mount Road, Oberon. The expansion is for the addition of a particle board manufacturing line, including chipping facility, to the existing medium density fibreboard (MDF) manufacturing line. The proposal is also seeking minor additional site works and extension of the area covered by the consent.

The components of the expansion include:

- Construction of a dedicated Particle Board Manufacturing Line
- Additional infrastructure within existing buildings
- Expand Lot 1 and 2 DP 1085563 to accommodate a wood flake preparation area
- Construction of a new automated storage warehouse on Lot 24 1148073 and part on Lot 26 DP 1200697
- Construction of hardstand area on Lot 24 DP 1148073
- Expansion to Lot 1 DP 1076346 for hardstand, water quality ponds and emergency catchment
- Allow for an increase in production by up to 500,000m³, with a commensurate increase in staff.

The extent of the proposal as well as the existing infrastructure are shown in Figure 1.

Figure 1: Existing and Proposed Infrastructure



Source: Environmental Impact Statement Timber Processing Facility (Particle Board), The Design Partnership, June 2016

2 Existing Conditions

2.1 Site Description

The site is located on Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697, Lot 24 DP 1148073 and Lot 1 DP 1076346 in the local government area of Oberon Council.

The site location and its surrounds are shown in Figure 2.

Figure 2: Site Location (Aerial)



Basemap source: Google Maps 2017

The subject land is located on the northern outskirts of Oberon town and along the eastern side of Lowes Mount Road. The primary industries within the vicinity include agriculture (farming and plantation timber growing), as well as industries associated with logging, sawmilling and timber dressing and the manufacture of wood products.

Existing accesses to the Borg site are located along Lowes Mount Road and Endeavour Street. Gate 4 is located on Lowes Mount Road and permits access to employees. Gate 6 is located around 400m north of Gate 4, and provides access for heavy vehicle deliveries, despatch and all visitors to the site. Ancillary accesses are also provided to the site via existing Lots 1 and 2, located on the southern end of Lowes Mount Road and via Horace Street.

Gate 5 is located on Endeavour Street and provides access for delivery trucks carrying raw material (ie. timber logs) and chemical to the Woodchem facility.

The location of the site accesses and the approximate separation of the sites are illustrated in Figure 3.

Figure 3: Site Access



Basemap source: ArcGIS 2017

2.2 Road Network

The site is surrounded by a network of roads including Lowes Mount Road along the site frontage. A description of these roads is provided herein.

Lowes Mount Road

Lowes Mount Road is a two-way two-lane road with a north-south alignment. It has a posted speed limit of 60km/hr at the southern end of the road and 100km/hr north of the site. Informal parking is permitted within the wide grass verge along the eastern side of Lowes Mount Road.

Access to the site is provided off Lowes Mount Road via Gate 4 and Gate 6. It is noted that both Gate 4 and Gate 6 are indented approximately 75m and 150m from the property boundary line on Lowes Mount Road, allowing space for queuing of vehicles on the subject site. A dedicated right-turn lane that is 60m in length is located at the Gate 6 access.

Albion Street

Albion Street is a two-way road with one lane per direction. It has an east-west configuration with wide kerbside parking lanes on both sides of the roadway. The posted speed limit within the township is 60km/hr which increases to 70km/hr closer to the town outskirts.

Horace Street

Horace Street has an undivided carriageway with a north-south alignment. It has a cul-de-sac at its northern end which connects to the southern boundary of the subject site. Unrestricted kerbside parking is permitted on both sides of the roadway. There is no posted speed limit however, by default, the speed zone along Horace Street is 50km/hr.

Endeavour Street

Endeavour Street is aligned in a north-south direction and has an undivided carriageway. There is a cul-de-sac at the northern end of the road where there is an access to the subject site (Gate 5).

Endeavour Street has a posted speed limit of 50km/hr with kerbside parking permitted along both sides of the roadway.

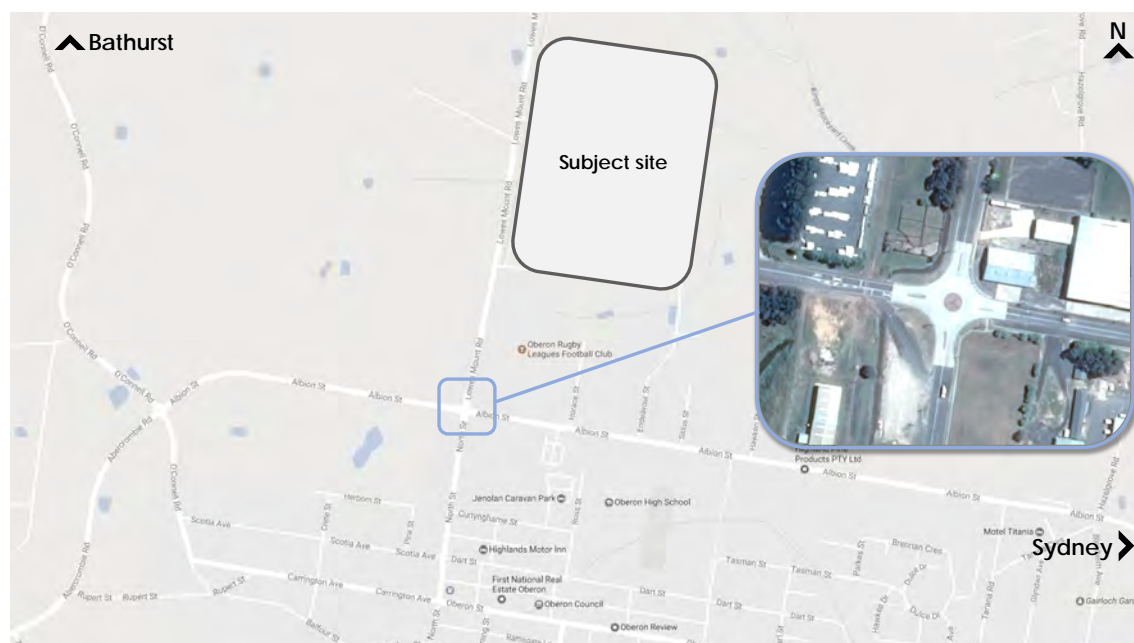
O'Connell Road

O'Connell Road is a divided two-way two-lane road with a north-south alignment. The posted speed limit varies from 60km/hr from the southern end of the road to 100km/hr around 300m north of Albion Street. On-street parking is not formalised along O'Connell Road, however, is permitted within the unsealed road verge.

2.3 Surrounding Intersections

The key intersection surrounding the site is at Lowes Mount Road and Albion Street. This is a four-way roundabout intersection, providing connectivity between Duckmaloi Road (from Sydney) and O'Connell Road (from Bathurst) to the site. The local road network and key intersection are illustrated in Figure 4.

Figure 4: Locality Map



Basemap source: Google Maps 2017

2.4 Public Transport

Public transport facilities are not provided within the area surrounding the subject site.

2.5 Pedestrian and Cycle Infrastructure

A 1.5m-wide shared path is located along the site frontage on Lowes Mount Road. At the access driveways of Gate 4 and Gate 6, shared path signage is installed to inform drivers of the presence of pedestrians and cyclists using the pathway.

In the general vicinity of the site, a footpath and kerb ramps are provided along the eastern site of Lowes Mount Road and North Street. At the key nearby intersection of Lowes Mount Road and Albion Street, pedestrian refuges are provided on all approaches of the roundabout to assist pedestrians with crossing these roads.

3 Overview of Construction Activities

This section of the report outlines the proposed construction methodology and details for the development at 124 Lowes Mount Road.

3.1 Description of Works

The expansion of the Borg Panels timber processing facility will include the addition of a particle board manufacturing line and chipping process to the current MDF manufacturing. The key construction activities include:

- Construction of new first flush and emergency basin to the east of the site
- Demolition of existing infrastructure
- Construction of new site access and hardstand
- Construction of new industrial buildings to the south-west and north-west of the site to accommodate new plant and equipment, as well as provide storage
- Installation of new plant and equipment in existing industrial buildings.

The new building are as follows:

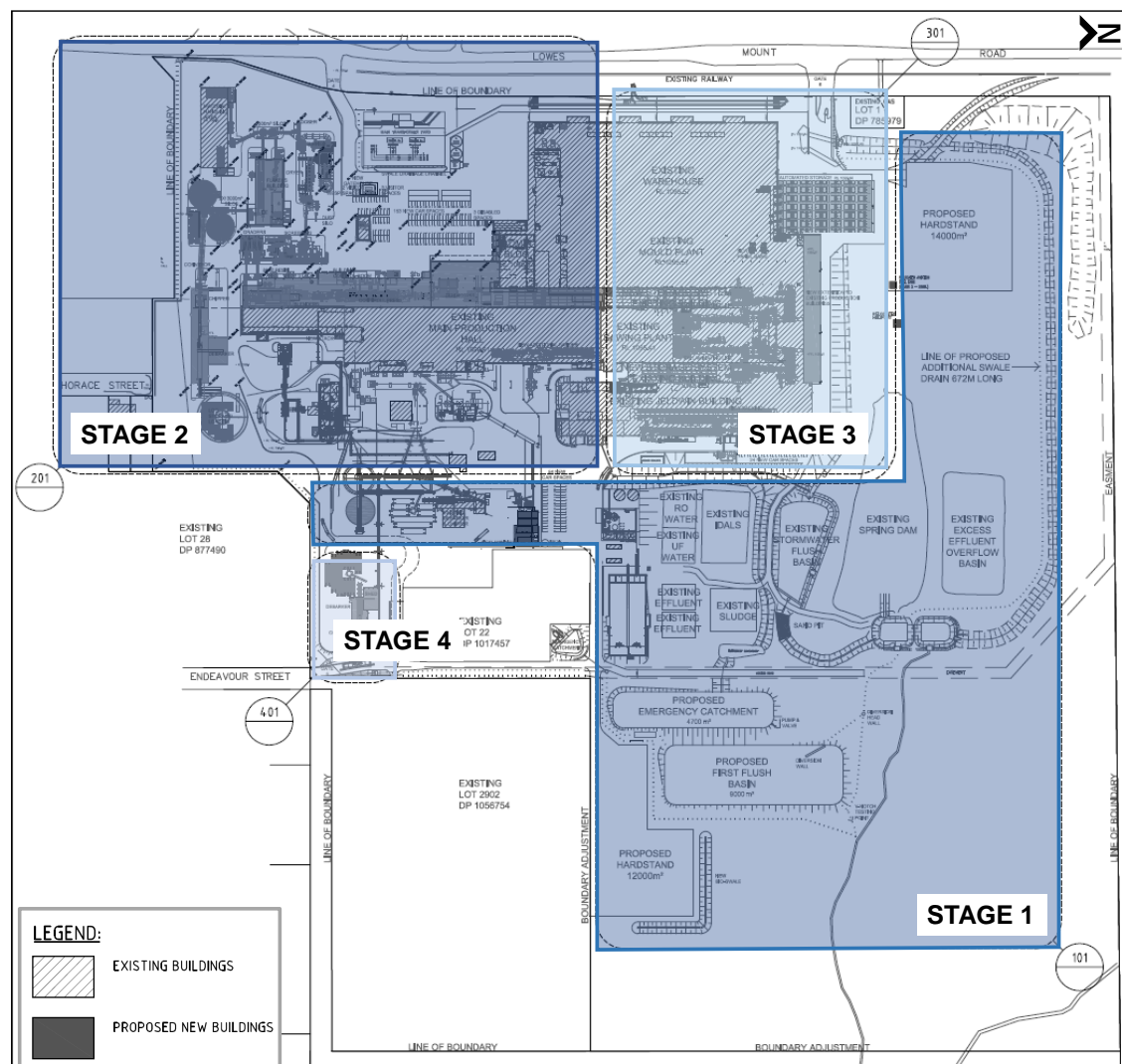
- Debarker and chipping plants to be constructed to the south and east of the existing production building. The chippers are to be contained in concrete and acoustic panels enclosures.
- A mill building to be constructed to the west of the proposed production hall. The building is to be fully enclosed with acoustic panelling.
- A flaker building to be constructed to the west of the proposed production hall. The building is to be fully enclosed with acoustic panelling.

3.2 Duration and Staging of Works

Construction works are estimated to be carried-out over a duration of 24 months, with an expected start date in April/May of 2017 after the provision of the Development Consent. The works will be undertaken in four key stages as summarised below and as illustrated in Figure 5. A detailed plan showing the construction staging is also contained in Appendix B.

- Stage 1 – site works, construction of detention basin and hardstand areas. Construction of the detention basin and drainage swale will be undertaken first in order to ensure that the appropriate erosion and sediment control measures can be implemented for later stages.
- Stage 2 – construction of particle board manufacturing facility and installation of related plant.
- Stage 3 – alterations and addition to existing MDF site and construction of new automated storage warehouse.
- Stage 4 – debarker and chipper building and chip preparation area.

Figure 5: Construction Works Staging



The construction staging, description and estimated duration of the work activities are summarised in Table 2.

Table 2: Construction Staging and Duration

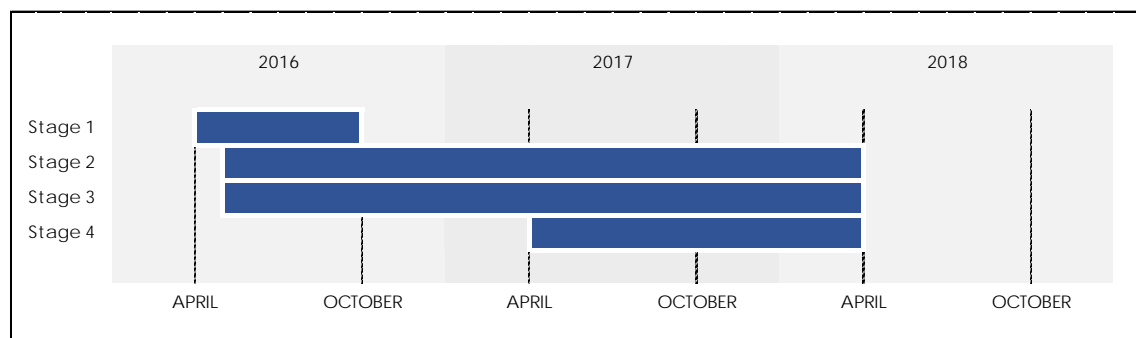
Construction Stage	Description of Works	Duration
1	<ul style="list-style-type: none"> Levelling and construction of hardstand areas Excavation and construction of emergency catchment and first flush basin Excavation, drainage and landscaping of new bioswale near hardstand and along northern boundary Erection of new awnings north of existing chipper/ debarker Delineation of 54 new car parking spaces 	6 months

2	<ul style="list-style-type: none"> Demolition of refuelling depot in south-western corner of site Construction of enclosed chipper and debarker building and installation of new machinery Installation of graders and screening machinery Construction of new flakers building Installation of new conveyor and 4x silos Allocation of new log storage area Sealing and delineation of new car park with 153 parking spaces. 	24 months
3	<ul style="list-style-type: none"> Demolition of existing administration building in centre of site to make way for new plant Construction of automated particle board warehouse Construction of new automated storage warehouse system Building extension to existing production warehouse Installation of additions within existing warehouse and mould plant buildings: <ul style="list-style-type: none"> New laminating line and sanding line Automated paper storage system Impregnated paper treater. Installation of new panel saws 	24 months
4	<ul style="list-style-type: none"> Consolidation of existing log yard Installation of new log debarker and chipper machinery 	12 months, beginning around 12 months post commencement of construction phase

Construction works will commence when Development Consent is granted; this is anticipated for April/May 2017. Construction works are estimated to be undertaken over a 24-month period.

The construction stages are generally not dependant on each other, and may be undertaken in a different order to the numerical order outlined above. However, the anticipated construction staging timeline of the above works is shown in Figure 6.

Figure 6: Construction Works Staging Timeline



3.3 Construction Details

3.3.1 Construction Vehicle Types

Vehicles likely to be generated by construction activities at the site are summarised in Table 3.

Table 3: Construction Vehicles

Works	Vehicle	Quantity
Earthworks	Excavator	1
	Loader	1
	Dozer	1
	Dump Truck	2
	Grader	1
	Roller	1
	Articulated truck	2
Installation	Mobile crane	2
	Concrete truck	1
	Delivery truck	2
	Bobcat	1
Rock Breaking	Rock breaker	1

3.3.2 Work hours

Construction activities shall be undertaken between 7:00am – 7:00pm Monday to Friday and 8:00am – 1:00 pm on Saturday. Construction works are not to be undertaken on Sunday and public holidays.

Regular site operation would continue as per normal, that is, across 24 hours per day for seven days.

Works outside of the aforementioned hours may be undertaken in accordance with consent condition B14, which specifies the following circumstances:

- Works that are inaudible at the nearest sensitive receivers;
- Works agreed to in writing by the Secretary
- For the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
- Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

3.3.3 Works Zone

All activities associated with the construction phase of the project would be carried out wholly within the site premises. Therefore, no construction works or loading/ unloading of construction vehicles would take place outside of the site boundary.

As Borg will be manufacturing a significant amount of the physical infrastructure themselves at the site, the amount of deliveries from other locations would be minimal. It is expected that construction plant would be held offsite until they are required. Once at the site, plant would be stored onsite until project completion.

Any loading and unloading of construction vehicles will be accommodated on the site hardstand areas near the south-eastern boundary of the site. In special circumstances, the unloading of large construction plant would be undertaken at the location where it is required for use to eliminate double-handling.

All construction materials and plant are expected to be wholly stored within the works site. It is not expected that any public road would be required for such purposes. As such, there would be no Works zone as part of these works.

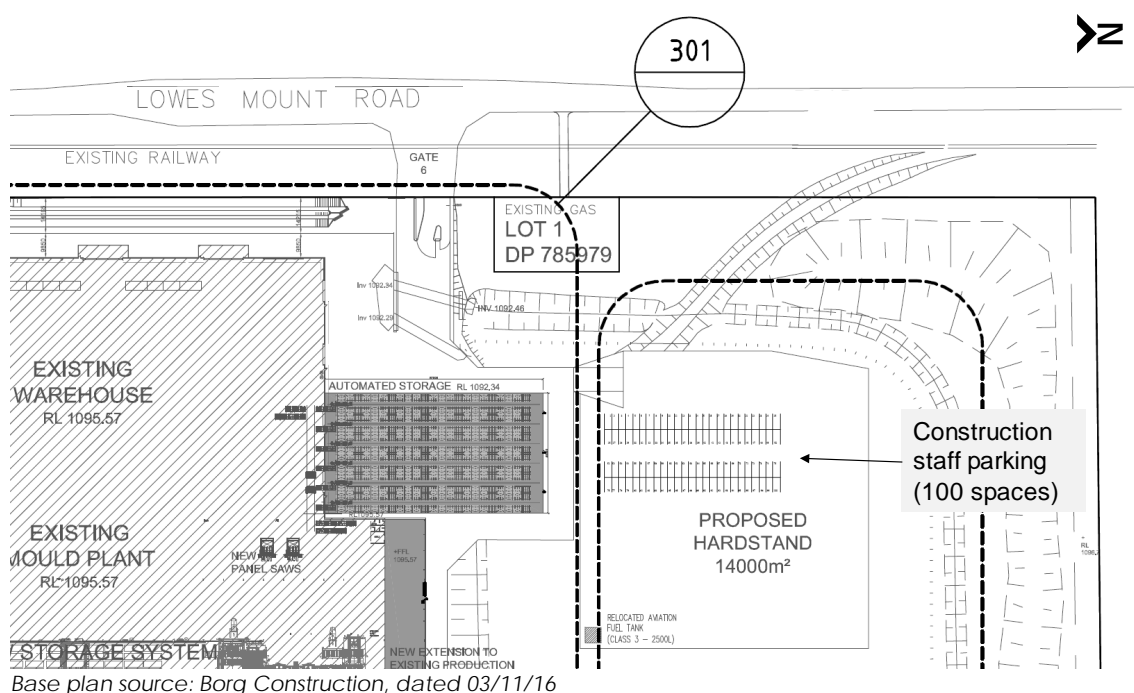
However, if temporary use of any public road is required, prior consultation with Council shall be undertaken. All relevant permit approvals would also be acquired prior to the commencement of activities within the roadway.

3.3.4 Construction Staff Parking

Car parking for construction staff would be provided onsite within the hardstand area towards the northern boundary of the site. This parking area would be accessible via Gate 6.

Within the hardstand area, 100 car parking spaces would be provided for construction staff, as shown in Figure 7. The remaining area within the hardstand would be used for storage or parking of heavy vehicles or plant when not in use.

Figure 7: Construction Staff Parking



3.4 Site Access and Internal Circulation

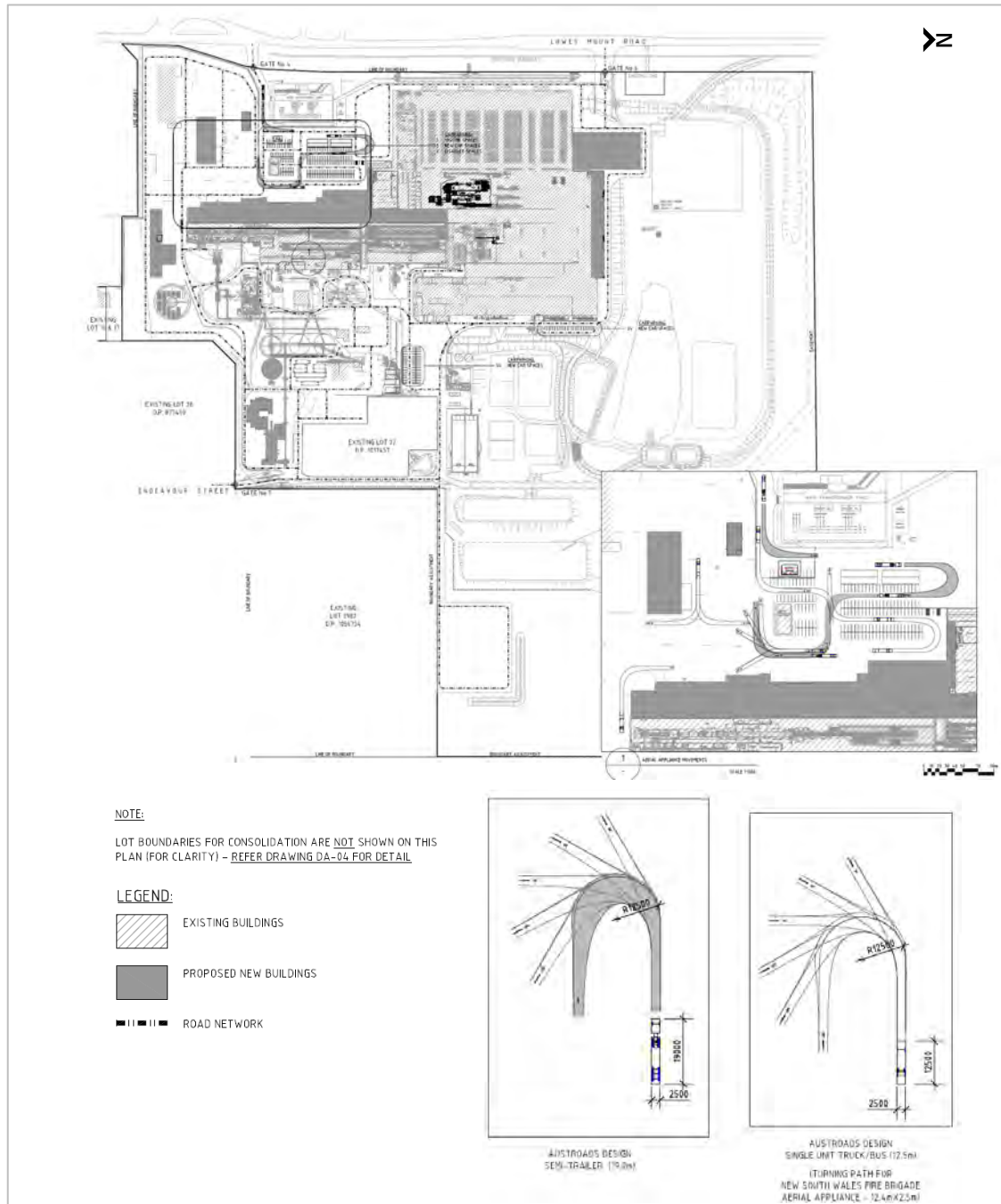
Ingress and egress of construction vehicles will be provided via ancillary accesses on Lowes Mount Road which are located directly south of Gate 4, as well as via Horace Street. Currently, the two accesses along Lowes Mount Road connect to the fuelling depot. Access for NSW Rural Fire Services would be provided via Gate 4.

Construction traffic generation is based on the construction works as described in Section 3, and the number of staff engaged during the construction phase. The delivery of materials that are to be used in the manufacture of the physical infrastructure will be undertaken using 19m semi-trailers and tipper trucks. Traffic due to staffing is expected to comprise only private cars.

The site has an established internal road network with giveaway/stop controls which can accommodate two-way vehicle flow across the full site. Of the vehicles associated with the construction phase, a 19m semi-trailer is anticipated to be largest vehicle to circulate throughout the site. The internal circulation route is already established to accommodate the turn paths of a heavy vehicle as large as a 25m B-double truck. The turning radius of 25m B-double is 15.0m and 19m semi-trailer is 12.5m. Therefore, a semi-trailer would be able to adequately circulate throughout the site without any implications. The layout of the internal road network is illustrated in Figure 8.

In relation to the rest of the site, the parking area located east of Gate 4 would be considered to have the greatest limitations for vehicle manoeuvrability. Although, this area can still adequately accommodate one-way flow by Rural Fire Service trucks which are typically heavy rigid vehicles that are 12.5m in length and have a turning radius of 12.5m. The swept path for this type of truck circulating through the parking area is illustrated in Figure 8, while a full-scale plan is contained in Appendix C.

Figure 8: Internal Road Network



3.5 Construction Vehicle Haul Routes

Generally, construction vehicles would have origins and destinations in Bathurst and Sydney. Current designated heavy vehicle haul routes to the site would be utilised by construction vehicles travelling from Bathurst and Sydney. These routes include O'Connell Road-Albion Street (from Bathurst) and Duckmaloi Road-Albion Street (from Sydney). Beyond the context of Oberon, the route to/from Sydney includes travelling on Jenolan Caves Road and The Great Western Highway.

All heavy vehicle drivers will be advised of the designated truck routes to/from the site and would be required to adhere to the nominated routes.

The designated truck routes to/from the construction site are as follows:

- Approach routes:
 - From Bathurst – from the north-west, travel on O’Connell Road, turn left onto Albion Street before turning left onto Lowes Mount Road or Horace Street.
 - From Sydney – from the east, travel on Duckmaloi Road, turn right onto Albion Street before turning right onto Horace Street or Lowes Mount Road.
- Departure routes:
 - To Bathurst – head south on Lowes Mount Road or Horace Street, turn right onto Albion Street before turning right onto O’Connell Road.
 - To Sydney – head south on Lowes Mount Road or Horace Street, turn left onto Albion Street before turning left onto Duckmaloi Road.

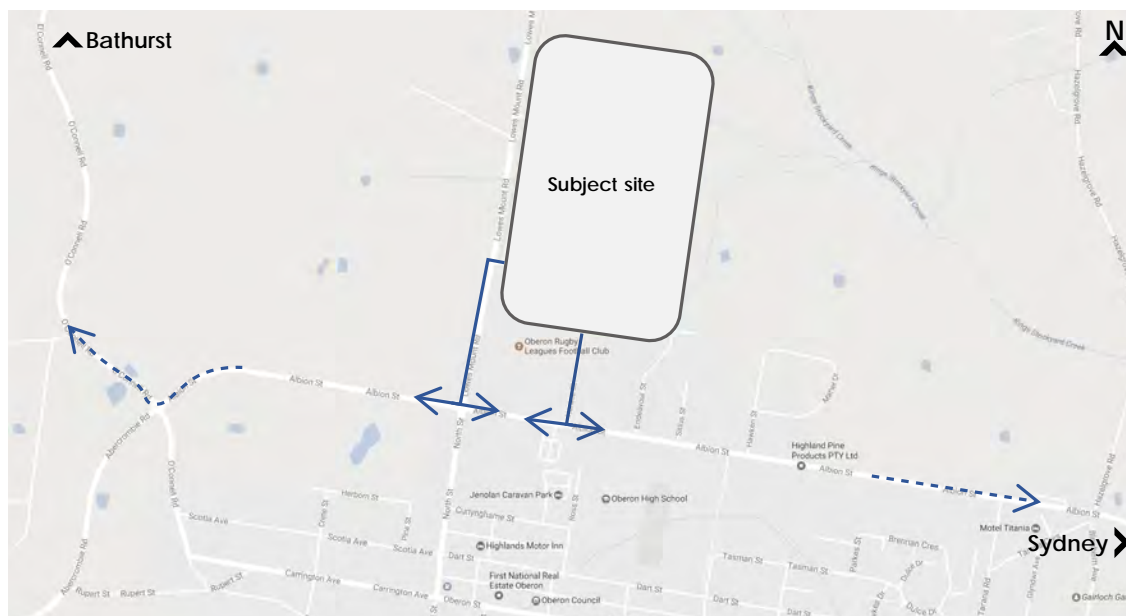
The routes described above are presented in Figure 9 and Figure 10.

Figure 9: Haul Routes to the Site



Basemap source: Google Maps 2017

Figure 10: Haul Routes from the Site



Basemap source: Google Maps 2017

During the planning process, the Contractor will schedule all deliveries ahead of time. Therefore, the Contractor will be aware of the approximate arrival times of construction vehicles and would be able to accommodate them onsite upon arrival.

This operation would eliminate the potential for queuing or marshalling/ parking on public streets. As a precaution, construction vehicles are to radio or call ahead to ensure access to the construction site is available.

4 Construction Traffic Assessment

4.1 Construction Traffic Generation

Traffic generation associated with the transportation of plant will be undertaken during the establishment of the site and generally limited to off-peak periods. Once plant has been delivered to the site, it will remain onsite until the completion of the construction works.

Construction traffic generation is based on the construction works as described in Section 3, and the number of staff engaged during the construction phase. The delivery of materials that are to be used in the manufacture of the physical infrastructure will be undertaken using semi-trailers and tipper trucks. Traffic due to staffing is expected to comprise only private cars.

Construction traffic generation in the peak construction period is summarised in Table 4.

Table 4: Construction Phase Traffic Generation

Type of Vehicle	Hourly Two-way Movements	Daily Two-way Movements	Number of Staff
Light vehicles	Before shift start (6:00am - 7:00am): 100 inbound trips	240 trips	Maximum 100 per day
	After shift end (7:00pm - 8:00pm): 100 outbound trips		
Heavy vehicles	Up to 10 trips	Up to 60 trips	-

As indicated in Table 4, the maximum daily number of construction staff is 100. Staff will be engaged on a 12-hour shift between 7:00am-7:00pm. Therefore, it is expected that a maximum of 100 cars would be driving in to the car park between 6:00am-7:00 am before the start of the shift, and driving out between 7:00pm-8:00pm following completion of the shift. This equates to an average of two vehicles accessing or departing the site per minute during the stated hours.

Gate 4 and Gate 6 are indented from the property boundary line approximately 150m and 75m, respectively, from the roadway on Lowes Mount Road. Driveways leading to the gatehouses at the Gates could accommodate around 20 cars (Gate 4) and 10 cars (Gate 6). Furthermore, the right turn lane into Gate 6 on Lowes Mount Road is 60m in length and can store up to eight cars at any time. Thus, traffic generated due to the arrival of construction staff can be adequately accommodated onsite without causing impact on the function of Lowes Mount Road.

During peak construction operation, there are up to 60 two-way heavy vehicle trips expected on a daily basis. In any peak hour, it is anticipated that there will be no more than 10 two-way trips made by heavy vehicles (ie. five heavy vehicles).

4.2 Cumulative Traffic Generation

Separately, it is noted that normal operation of the Borg and Woodchem sites would continue during the construction phase. Borg and Woodchem staff vehicle access is provided at Gate 4 and Gate 5, separated from construction staff access at Gate 6.

Traffic generation due to construction works, as summarised in Table 4, will occur outside of the AM and PM local road network peak periods, namely, 7:30am – 9:00am and 3:30pm – 5:00pm. Therefore, traffic generated due to the construction phase would not have a significant impact on the existing road network during these times.

The start and end of construction work times also occur outside of shift change-overs for employees at the Borg and Woodchem sites. The shift times for employees at the latter sites are as follows:

- Morning shift, 6:30am to 2:30pm
- Day shift, 2:30pm to 10:30pm
- Night shift, 10:30pm to 6:30am
- Full day shift, 6:00am to 6:00pm.

Hours of work for construction staff and regular Borg employees along with the surrounding road network peak periods are illustrated in Figure 11.

Figure 11: Construction and Operational Staff Working Hours

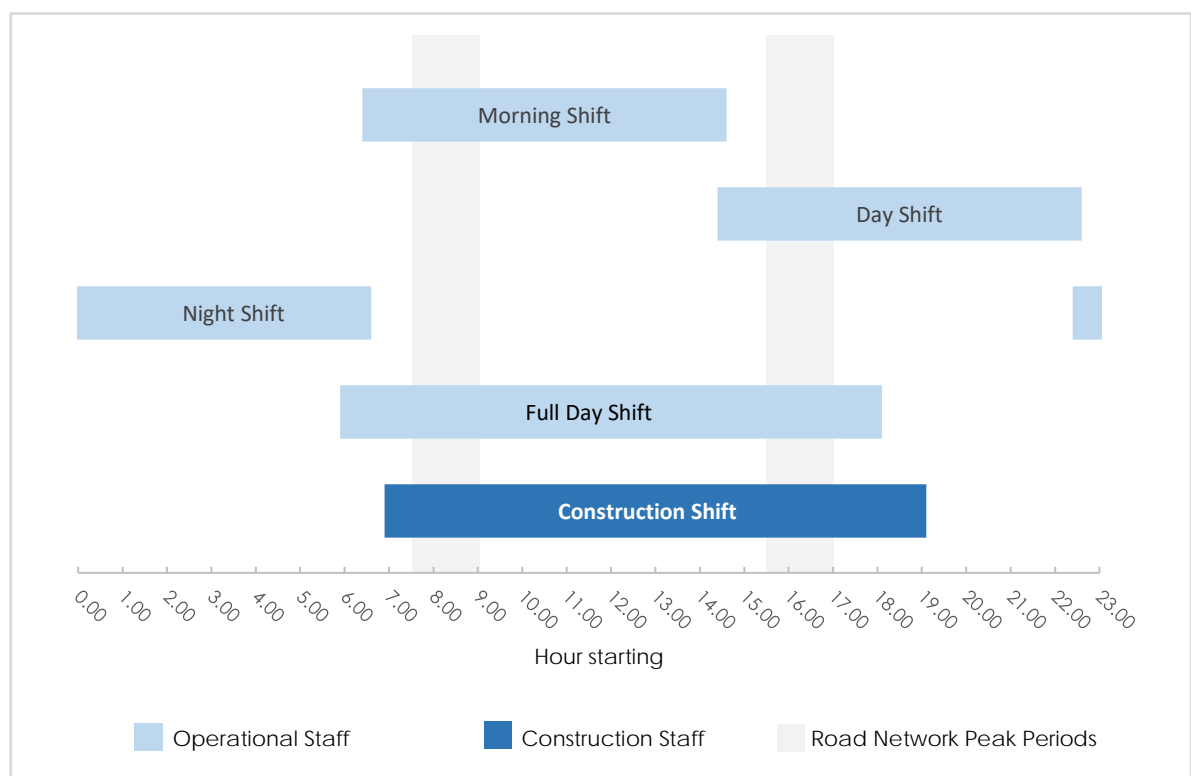


Figure 11 demonstrates that the start and end times of the construction shift fall outside of those times for regular Borg staff. The construction shift also falls outside of the local road network peak periods. Overall, the peak vehicle movements associated with construction traffic are separate to all other busy periods at the site. Therefore, the cumulative impact is considered to be low and is not expected to result in any adverse impact on the surrounding road network.

4.3 Pedestrian and Cycle Access

Pedestrian and cycle access at all site entrances will not be impacted by the construction works, and hence, would remain as existing.

4.4 Security Equipment

The existing site will be fully enclosed by large security gates around the site perimeter. During the early works, security instruments will be installed at the accessways on Horace Street and Lowes Mount Road to ensure site safety and security.

4.5 Public Transport

The proposed construction activities are unlikely to impact on the public transport in the vicinity.

4.6 Emergency Vehicles and Oversize Vehicles

No special provisions for emergency services vehicles are required as part of the proposed construction works.

Oversize flat racks would be used during the construction phase. Over the duration of the construction phase, it is estimated that 82 oversize flat racks and 450 40-foot containers would be transported to the site.

Borg are to obtain special permits for oversize flat racks and other oversize transport as from the relevant authorities when required.

4.7 Community Information

Traffic movements and construction activities associated with the construction phase of the project are not expected to cause disruptions to the surrounding road network and public transport network. From a traffic and transport perspective, the impact on the local community during construction is anticipated to be negligible.

Where minor and temporary changes to the road network would be applied such as trucks turning left or right on Lowes Mount Road and Horace Street, acceptable measures have been implemented to ensure the safety of road users. This has been detailed in Section 5 of this CTMP.

Community information will be provided by the Borg Website, Community notice boards and signposting at the site entry points. Over the duration of the project, information pertaining to the site expansion would remain available to the public via Department of Planning and Environment's Major Projects website.

Based on the above, the proposed measures for informing the community of impacts due to the works are considered sufficient, and hence, no other measures are deemed to be required.

5 Construction Traffic Management Measures

Two site-specific traffic control plans (TCP) have been prepared and are contained in Appendix D

A brief description of the two traffic control plans is provided below:

- TCP 01: advisory road signage to be installed to inform motorists travelling on Lowes Mount Road of construction vehicles turning into and out of the ancillary driveways. This signage is to be temporarily fixed 60m to the north and south of the access driveways.
- TCP 02: advisory road signage to be installed to inform motorists travelling on Horace Street of construction vehicles turning into and out of the ancillary driveway. This signage is to be temporarily fixed 50m to the south of the access driveway.

All advisory road signage shall be installed in accordance with AS1742.3 Manual of uniform traffic control devices – Traffic control devices for works on roads and the RMS Traffic Control at Worksites Manual. Signs shall be installed and maintained throughout the construction period.

5.1 Vehicle Access

All vehicles are to enter and exit the construction site in a forward direction. Vehicles must not be permitted to reverse into the site from the road, unless prior approval is obtained. It is noted that vehicles will not be required to reverse into the site as there is sufficient space onsite for vehicles to circulate internally and exit in a forward direction.

Construction vehicles shall radio/ call the site office on approach to the site to ensure access to the site is available. All loading and unloading shall be undertaken onsite during the approved work hours. As noted previously, queuing or marshalling of construction vehicles shall not be permitted on public roads.

During the transportation of materials to/from the site, if there are any materials spilt onto the roadway, site personnel and equipment shall rectify the issue accordingly, subject to appropriate OH&S provision.

All truck drivers are required to read and sign the Drivers Code of Conduct, which informs drivers of the acceptable behaviour when operating a heavy vehicle. The Code provides instructions to truck drivers on where access to the site is permitted as well as the approved haul routes to the site.

The Drivers Code of Conduct is contained in Appendix A of this CTMP.

5.2 Truck Routes

Protocols must be in place to ensure:

- Site induction shall include procedures for accessing the site;
- Drivers shall adhere to the nominated truck routes, as shown in Figure 9 and Figure 10;
- Drivers shall be aware of pedestrians and cyclists in the vicinity of the site; and
- Driver shall be aware that posted speed limit on Albion Street, O'Connell Road, and Lowes Mount Road is 60km/hr while the appropriate speed limit on Horace Street is 50km/hr.

5.3 Site Inspections and Record Keeping

The construction operation shall be monitored to ensure that it proceeds as set out in the Contractor's Construction Management Plan. A daily inspection before the start of construction activity shall take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards.

To assist the orderly resolution of issues and complaint the Construction Site Manager will keep a register itemising all report incidents and adverse traffic matters. The incident register is to include details such as date and time, location, driver and vehicle details contact details of the persons involved and a recount of the incident.

Incidents and complaints are to be managed in accordance with the procedures documented in the Construction Environmental Management Plan (CEMP).

5.4 Site Induction

All staff employed on the site by the Contractor shall be required to undergo a site induction.

The induction shall include permitted access routes to and from the construction site for site staff and delivery vehicles, as well as standard environmental, OH&S, driver protocols and emergency procedures.

Construction staff are to be informed of the appropriate access gate of which they are expected to arrive to carry out their induction.

Table 5 summarises a comprehensive list of the measures and controls currently enforced at the site by the Contractor.

Table 5: Borg Control Documents

Form/ Document	Description
Site Induction	<ul style="list-style-type: none"> The form ensures that visitors or staff on the site are inducted about the site features, PPE requirements and procedures for reporting and emergency. The form is to be signed by both site inductor and inductee.
Site WHS Management Plan	<p>This document lists:</p> <ul style="list-style-type: none"> Responsibilities of all people working on site Training and induction procedure Risk management procedure Plant and equipment requirements and controls Electrical, hazardous chemical reporting and control measure Fitness for work requirements Managing hazards Site safety rules Legislation and references Existing form and documents <p>This document is to be signed by subcontractors and Person with WHS responsibilities</p>
Driver Behaviour	<ul style="list-style-type: none"> This document clarifies duty of care and responsibilities of all workers who drive a company vehicle The document is to be signed by the drivers
Log Haulage Induction Manual	<p>The document lists and assess if the driver understand and acknowledge the following:</p> <ul style="list-style-type: none"> Drivers' duties of care Site entry requirements PPE safety requirements Traffic regulation on site, incident report, emergency procedures, Responsibilities and consequence of breaching procedure <p>Borg Assessor will pass or fail the driver according to his understanding of the above points. The manual is to be signed by both driver and Borg assessor</p>
Standard Operating Procedure	Listing of required licenses, operational procedure for log haulage of log trucks and loaders

6 Monitoring Program

The following monitoring program shall be implemented to ensure that the CTMP and Drivers Code of Conduct performs effectively and achieves the objectives set out in this CTMP.

6.1 Implementation of CTMP and Drivers Code of Conduct

The CTMP and Drivers Code of Conduct shall be included with all new site inductions for heavy vehicle drivers regularly accessing the site. One-off truck delivery drivers must agree to abide by the Drivers Code of Conduct by having read and signed the Code.

Prior to commencement of construction works, all drivers shall be provided with a copy of Drivers Code of Conduct. It is intended that all truck drivers will have signed the Drivers Code of Conduct declaration and agreed to be bound by its behavioural requirements before entering the site.

A copy of the Code has been included in Appendix A of this report.

6.2 Complaints/ Compliments Register

A complaints and compliments register detailing matters such as truck driver behaviours and truck related noise issues shall be developed and maintained by Borg.

The register shall be reviewed every three months to determine if any systematic issues are arising from the implementation of the CTMP and Drivers Code of Conduct.

Positive and negative feedback shall be documented using a Customer, Community and Stakeholder Complaint/ Compliment Form. Borg shall gather as much information as possible which will allow them to take appropriate action. Appropriate action may include:

- Arranging a meeting to discuss and/ or resolve issues
- Calling the customer, member of community or stakeholder to acknowledge feedback
- Writing a letter responding to the feedback.

Drivers shall also be provided the opportunity to give feedback on the implementation of the Drivers Code of Conduct and other measures which could be considered for implementation into the Code.

6.3 Hazards and Incidents Register

A procedure for detailing hazards and incidents relating to safety, environment and process during the construction phase has been established by Borg in the Site Work, Health and Safety (WHS) Management Plan. The Plan has been prepared as a requirement under the WHS Regulations 2011.

The Site WHS Management Plan details the responsibilities specific to each all stakeholders involved in the construction phase, including:

- Borg Construction, as the principal contractor
- Borg Officers
- Construction Manager
- Site Supervisor
- Workers, contractors and visitors
- WHS Coordinator
- Group HR and WHS Manager.

6.3.1 Hazard Reporting

Hazards are to be either addressed by the worker who first observes it, or if that is not reasonably practicable and safe, then it must be reported to the Construction Manager or Supervisor to address. This shall apply to all workers including contractors.

6.3.2 Injury Reporting

All injuries are to be reported in the 'Register of Injury' book which shall be kept on site in the site office or where the primary first aid kit is kept. A copy of the page shall be forwarded to the WHS Team within 24 hours of the injury and where required it shall be accompanied by a completed Incident Report Form. Any injury requiring medical treatment must be reported to the Borg Return to Work Coordinator immediately.

If the injury is of a serious nature and is deemed a 'Notifiable Incident' under the criteria of the State or Territory Regulator then the Construction Manager or other person in control shall contact the Borg Group HR and WHS Manager who will in turn contact the relevant authority. For clarification of what injury is deemed as Notifiable refer to the Borg Incident Report Form (WHSMS-FOR-001).

6.3.3 Near Miss/ Damage and Environmental Incident Reporting

As soon as is reasonably practicable an Incident Report Form shall be submitted to the WHS Team for any near miss, damage or environmental incident. In circumstances where the incident involves the potential escape of substances from the site this must be conveyed to Borg Officers as soon as possible should authorities need to be notified.

Where the incident is deemed a 'Dangerous Incident' such as; an electric shock, a collapsed trench, excavation or structure, the fall or release of an object from height, or collapse or overturn of plant, the Group HR and WHS Manager shall be informed as soon as possible in order for them to contact the Regulator.

7 Conclusion

This CTMP has been prepared to document the construction activities and associated construction traffic management measures necessary to facilitate the expansion of the existing timber panel manufacturing facility at 124 Lowes Mount Road, Oberon.

Based on the findings contained in this CTMP, it is concluded that:

- The construction of the proposed development is expected to generate, in the busiest hour, 100 vehicle trips by staff either entering or departing the site. The busiest periods for vehicles entering and exiting the site are anticipated to be between 6:00am – 7:00am (before commencement of shift) and 7:00pm – 8:00pm (following completion of shift), respectively.
- On average, the arrival rate for construction staff at the site would be around two vehicles per minute. This is not expected to cause any noticeable impacts on the adjacent roadway (Lowes Mount Road) as any queued vehicles would be accommodated within the site's driveways at Gate 4 and Gate 6.
- In the busiest hours, there would be up to 10 two-way heavy vehicle trips to the site which would be accommodated onsite upon arrival.
- The start and end times of the construction shift occur outside of those times for regular Borg staff and the local road network peak periods. Therefore, the cumulative impact is considered to be low and is not expected to cause any adverse impacts on the surrounding road network and regular site operation.
- Special permits for oversize vehicles are to be obtained from relevant authorities when required.
- No pedestrian or cyclist facilities would be impacted as a result of the construction activities
- It is proposed for all loading and unloading of trucks to occur onsite, and without any interruption on surrounding streets
- To ensure safety of motorists, pedestrian and cyclists around the site, driver protocols shall be enforced and monitored during the construction phase as outlined within this CTMP and the Drivers Code of Conduct.
- Truck drivers are to be instructed to use the designated truck routes to/from the site.

Appendix A

Drivers Code of Conduct



Borg Construction Drivers Code of Conduct

This document sets out the requirements for all employees and contractors to Borg Construction.

DECLARATION

I, the undersigned, hereby agree to abide by Borg Construction's Driver Code of Conduct for the transportation of construction materials to/ from the site in Oberon in a safe manner.

I have read and understand the requirements outlined in the Code and will, to the best of my ability, comply and assist with their implementation, requirements and ongoing administration.

Truck Driver

Full Name: _____

Organisation: _____

Signature: _____

Date: _____

General Requirements

The Drivers Code of Conduct would be distributed to all sub-contractors with fleet accessing the site prior to the commencement of works. The Code would be provided to each driver to read and sign to confirm they have understood and pledge to follow the haulage instructions. Once completed, a copy of the signed Code would be supplied by the sub-contractor to Borg for record keeping.

Heavy vehicle drivers hauling to and from the subject site must:

- Have read and signed the Drivers Code of Conduct (this document) prior to entry to the site;
- Hold a valid driver's license for the class of vehicle that it being operated;
- Operate the vehicle in a safe manner while on site and public road network;
- Comply with the direction of authorised site personnel when onsite;
- All drivers are to use seat belts when driving; and
- All drivers are to drive to the sign posted speed limit, both on public roads and within the site.

Site Access

All access to the construction site is to be via the dedicated accesses on Lowes Mount Road (south of Gate 4) and Horace Street.

Heavy Vehicle Haul Routes

All heavy vehicle drivers must adhere to the designated truck routes to/from the site as follows:

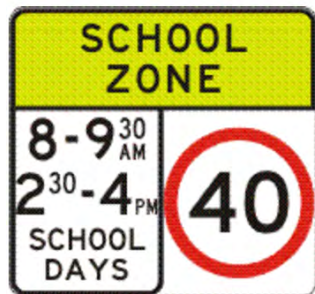
- Approach routes:
 - From Bathurst – from the north-west, travel on O'Connell Road, turn left onto Albion Street before turning left onto Lowes Mount Road or Horace Street.
 - From Sydney – from the east, travel on Duckmaloi Road, turn right onto Albion Street before turning right onto Horace Street or Lowes Mount Road.
- Departure routes:
 - To Bathurst – head south on Lowes Mount Road or Horace Street, turn right onto Albion Street before turning right onto O'Connell Road.
 - To Sydney – head south on Lowes Mount Road or Horace Street, turn left onto Albion Street before turning left onto Duckmaloi Road.

Heavy Vehicle Speed

Truck drivers must comply with the Australian Road Rules with travelling along public roads. Drivers are to observe the posted speed limits, and adjust speed appropriately to suit the road and weather conditions at the time.

Speed limits on route to the site from Bathurst and Sydney vary between 40km/hr (school zones) up to 100km/hr. The maximum speed that a vehicle must travel is the signposted speed. Warning signs indicating a reduction in speed ahead must also be obeyed. These signs are shown below.

NSW Road Speed Limit Signs



Speed Reduction Ahead Warning Sign



The speed limit within the site is 15km/hr (unless sign posted otherwise in an area) which is to be strictly maintained.

Heavy Vehicles Driver Fatigue

The heavy vehicle driver fatigues law commenced in NSW in 2008 and applies to trucks and truck combinations over 12 tonnes GVM (however, Ministerial Exemption Notices may apply).

Under the law, industry has the choice of operating under three fatigue management schemes, namely:

1. Standard Hours of Operation
2. Basic Fatigue Management (BFM)
3. Advanced Fatigue management (AFM).

All heavy vehicle drivers associated with the construction works at the subject site must be aware of their adopted fatigue management scheme and operate within its requirements.

Heavy Vehicle Compression Braking

Compression braking is not permitted within the vicinity of the Oberon township, that includes, internal to and surrounding the subject site. Compression braking through rural areas of the haul route should only be used when required and for safety reasons.

Heavy Vehicle Noise

Permitted times of construction works at the site are as follows:

- Monday to Friday - 7:00am – 7:00pm
- Saturday - 8:00am – 1:00 pm.
- Sunday and public holidays – no construction works permitted.

Load Covering

All loaded trucks arriving at and departing from the construction site are required to have an effective cover over their load for the duration of the journey. The load cover may be removed only upon arrival at the destination (ie. at the site).

Care must be taken to ensure that all loose debris from vehicles and wheels is removed prior to exiting the site.

Site management is to monitor loose material on the side of the haul route and take appropriate action regularly.

Other Safety Considerations Along the Haul Route

Heavy vehicle drivers should be aware of the following:

- Concealed driveways – drivers are to drive with caution around any signed concealed driveways
- Wet weather safety – drivers should adjust their driving speed to suit weather condition at the time.
- Wild life on country roads – drivers should stay alert to kangaroos, wombats and stray stock on haul routes from Bathurst and Sydney.

Appendix B

Detailed Construction Staging Plan

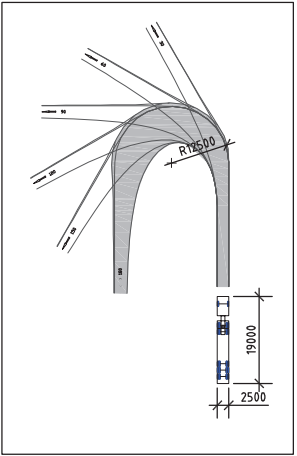
Appendix C

Internal Road Network Site Plan

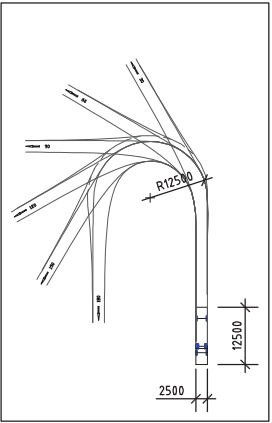
NOTE:
LOT BOUNDARIES FOR CONSOLIDATION ARE NOT SHOWN ON THIS PLAN (FOR CLARITY) - REFER DRAWING DA-04 FOR DETAIL

- LEGEND:
- EXISTING BUILDINGS
 - PROPOSED NEW BUILDINGS
 - ROAD NETWORK

CARPARKING SUMMARY:
5 VISITOR SPACES
231 NEW CAR SPACES
3 ACCESSIBLE SPACES



AUSTROADS DESIGN
SEMI-TRAILER (19.0m)



AUSTROADS DESIGN
SINGLE UNIT TRUCK/BUS (12.5m)
(TURNING PATH FOR
NEW SOUTH WALES FIRE BRIGADE
AERIAL APPLIANCE - 12.4mX2.5m)

Issue	Description	Date	Drawn	Auth
A	CONSTRUCTION CERTIFICATE	28/04/17	AM	

BORG CONSTRUCTION

OFFICE:
2 WELLS WAY SOMERSBY, N.S.W. 2250 AUSTRALIA
Tel: 02 4340 9800 Fax: 02 4340 8293

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NOT BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION

Project:
PROPOSED PARTICLE BOARD MANUFACTURING
PLANT & ADDITIONAL WORKS

Location:
124 LOWES MOUNT ROAD, OBERON
NEW SOUTH WALES

Drawing:
INTERNAL ROAD NETWORK AND
PARKING FACILITIES

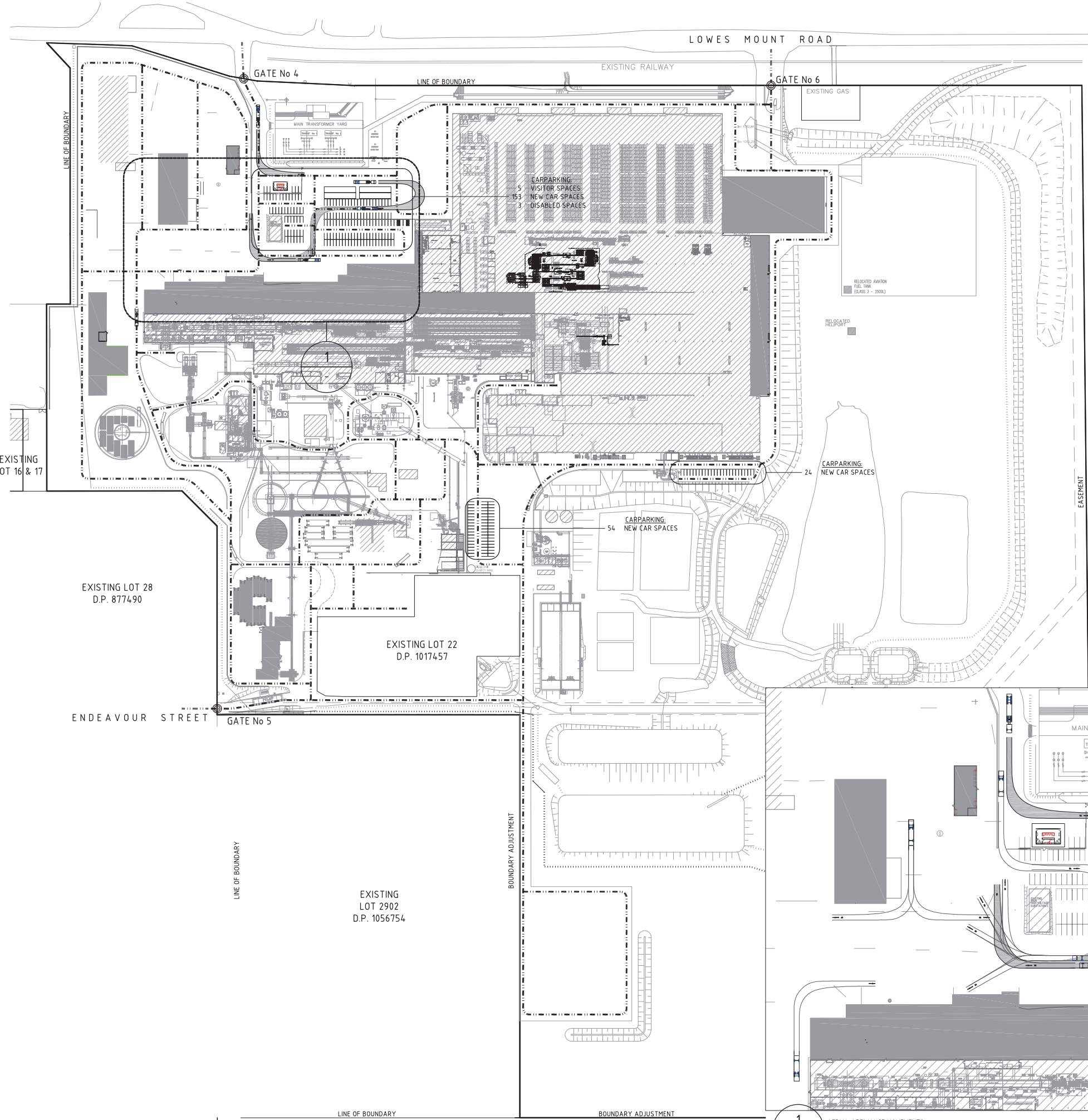
Scale:
1:1750 (@ A1)

Project Number:
19

Drawing Number:
CC 08

Stage:
CC

Issue:
A



1 AERIAL APPLIANCE MOVEMENTS

SCALE 1:1000





Appendix D

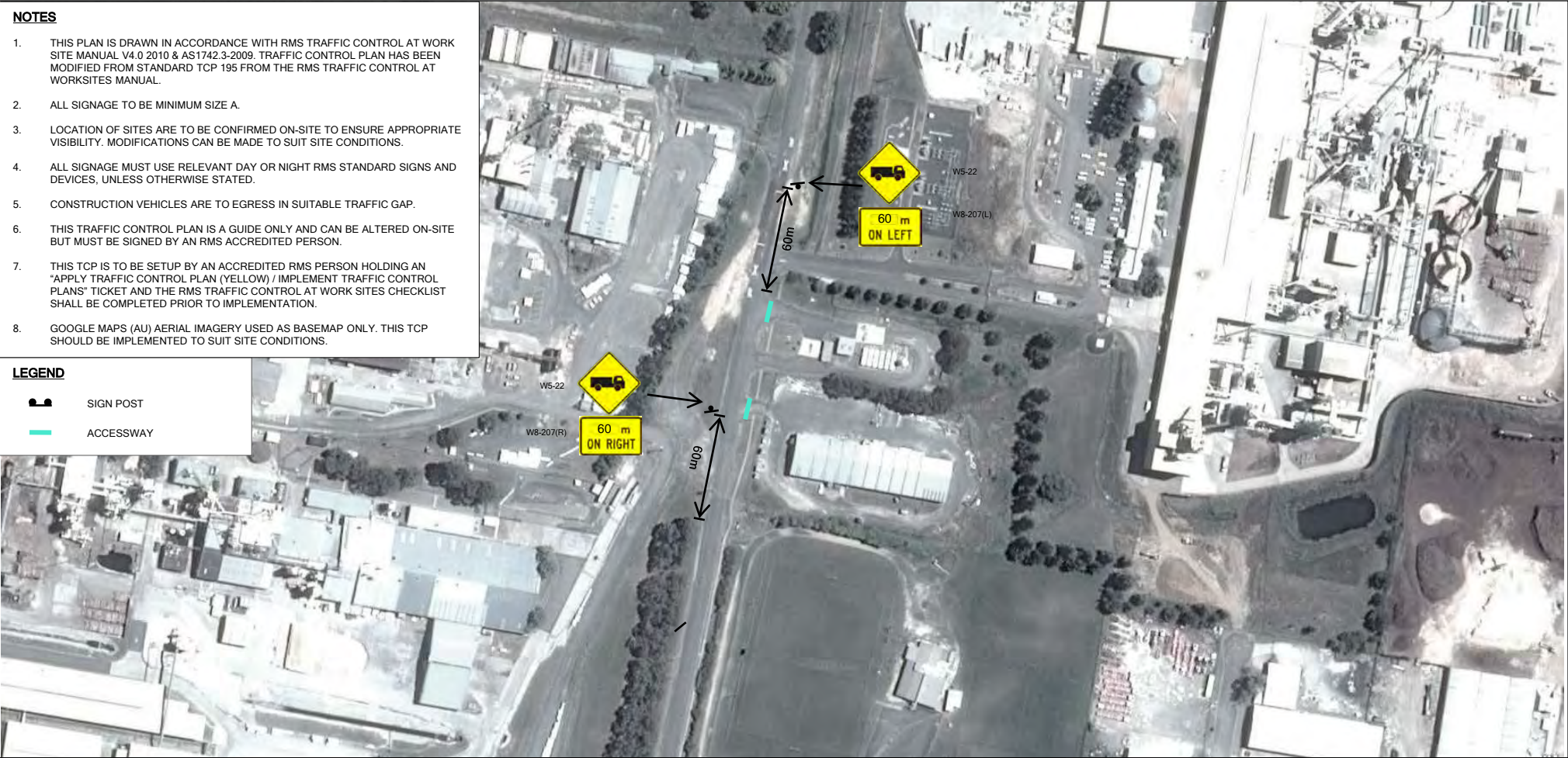
Traffic Control Plans

NOTES

- 1. THIS PLAN IS DRAWN IN ACCORDANCE WITH RMS TRAFFIC CONTROL AT WORK SITE MANUAL V4.0 2010 & AS1742.3-2009. TRAFFIC CONTROL PLAN HAS BEEN MODIFIED FROM STANDARD TCP 195 FROM THE RMS TRAFFIC CONTROL AT WORKSITES MANUAL.
- 2. ALL SIGNAGE TO BE MINIMUM SIZE A.
- 3. LOCATION OF SITES ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY. MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.
- 4. ALL SIGNAGE MUST USE RELEVANT DAY OR NIGHT RMS STANDARD SIGNS AND DEVICES, UNLESS OTHERWISE STATED.
- 5. CONSTRUCTION VEHICLES ARE TO EGRESS IN SUITABLE TRAFFIC GAP.
- 6. THIS TRAFFIC CONTROL PLAN IS A GUIDE ONLY AND CAN BE ALTERED ON-SITE BUT MUST BE SIGNED BY AN RMS ACCREDITED PERSON.
- 7. THIS TCP IS TO BE SETUP BY AN ACCREDITED RMS PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLAN (YELLOW) / IMPLEMENT TRAFFIC CONTROL PLANS" TICKET AND THE RMS TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
- 8. GOOGLE MAPS (AU) AERIAL IMAGERY USED AS BASEMAP ONLY. THIS TCP SHOULD BE IMPLEMENTED TO SUIT SITE CONDITIONS.

LEGEND

-  SIGN POST
-  ACCESSWAY



AMENDMENTS					
V01	INITIAL ISSUE	WJ	WJ	WJ	23/03/17
ISSUE	DESCRIPTION	DRAWN	CHECK	APP'D	DATE



The Transport
Planning Partnership

DATE DRAWN	23 MARCH 2017	SCALE	N.T.S	CLIENT	BORG CONSTRUCTION	
DRAWN BY	WAYNE JOHNSON (RED CARD NO. 2472057677)	REF TCPS	TCP 01	PROJECT	124 LOWES MOUNT ROAD, OBERON	
CHECK BY	WAYNE JOHNSON (RED CARD NO. 2472057677)	SIGNED		TITLE	TRAFFIC CONTROL PLAN CONSTRUCTION PHASE	
				DWG NO.	170323_TCP 01	ISSUE V01

NOTES

- 1. THIS PLAN IS DRAWN IN ACCORDANCE WITH RMS TRAFFIC CONTROL AT WORK SITE MANUAL V4.0 2010 & AS1742.3-2009. TRAFFIC CONTROL PLAN HAS BEEN MODIFIED FROM STANDARD TCP 195 FROM THE RMS TRAFFIC CONTROL AT WORKSITES MANUAL.
- 2. ALL SIGNAGE TO BE MINIMUM SIZE A.
- 3. LOCATION OF SITES ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY. MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.
- 4. ALL SIGNAGE MUST USE RELEVANT DAY OR NIGHT RMS STANDARD SIGNS AND DEVICES, UNLESS OTHERWISE STATED.
- 5. CONSTRUCTION VEHICLES ARE TO EGRESS IN SUITABLE TRAFFIC GAP.
- 6. THIS TRAFFIC CONTROL PLAN IS A GUIDE ONLY AND CAN BE ALTERED ON-SITE BUT MUST BE SIGNED BY AN RMS ACCREDITED PERSON.
- 7. THIS TCP IS TO BE SETUP BY AN ACCREDITED RMS PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLAN (YELLOW) / IMPLEMENT TRAFFIC CONTROL PLANS" TICKET AND THE RMS TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
- 8. GOOGLE MAPS (AU) AERIAL IMAGERY USED AS BASEMAP ONLY. THIS TCP SHOULD BE IMPLEMENTED TO SUIT SITE CONDITIONS.

LEGEND

-  SIGN POST
-  ACCESSWAY



AMENDMENTS					
V01	INITIAL ISSUE	WJ	WJ	WJ	23/03/17
ISSUE	DESCRIPTION	DRAWN	CHECK	APP'D	DATE

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DATE DRAWN	23 MARCH 2017	SCALE	N.T.S	CLIENT	BORG CONSTRUCTION	
DRAWN BY	WAYNE JOHNSON (RED CARD NO. 2472057677)	REF TCPS	TCP 02	PROJECT	124 LOWES MOUNT ROAD, OBERON	
CHECK BY	WAYNE JOHNSON (RED CARD NO. 2472057677)	SIGNED		TITLE	TRAFFIC CONTROL PLAN CONSTRUCTION PHASE	
				DWG NO.	170323_TCP 02	ISSUE V01

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Appendix G – Unexpected Contaminated Land Finds Protocol

Unexpected Finds Protocol – Contaminated Land

Discovery of potentially contaminated soil / material. STOP WORK IMMEDIATELY in affected area.
Immediately contact Project Manager for assistance. Project Manager to liaise with Environment Officer and Safety Officer.
Undertake a contamination assessment by a suitably qualified and experienced contaminated land expert. The report is to determine whether the land is suitable (for the intended land use) or can be made suitable through remediation.
Where the investigations identify that the site is suitable for the intended operations and that there is no need for a specific remediation strategy, measures to identify, handle and manage potential contaminated soils, materials and groundwater shall be identified and incorporated into the Construction Environmental Management Plan.
Where the investigations identify that the site is suitable for the intended operations and that a remediation strategy is required, the contamination assessment shall include a remediation strategy for addressing the site contamination, and how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater, and be incorporated into the Construction Environmental Management Plan.
Where remediation is required, a Site Validation Report shall be prepared verifying that the site has been remediated to a standard consistent with the intended land use.

Appendix H – Mobile Wood Chipper Operation Management Plan

FINAL

**Mobile Wood Chipper Operation
Management Plan**

Timber Processing Facility – Particle Board

124 Lowes Mount Road, Oberon NSW

Borg Construction Pty Ltd

1 June 2017

Revision History




Rev No.	Revision Date	Author / Position	Details	Authorised	
				Name / Position	Signature
0	28/03/17	Carly McCormack Planning and Environmental Officer	Draft for Site Consultation	Victor Bendevski Environmental and Regulatory Compliance	
1	27/04/17	Carly McCormack Planning and Environmental Officer	Final Draft	Victor Bendevski Environmental and Regulatory Compliance	
2	01/06/17	Carly McCormack Planning and Environmental Officer	Final	Victor Bendevski Environmental and Regulatory Compliance	

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1 Introduction

The purpose of this Mobile Wood Chipper Operation Management Plan is to minimise noise impacts on nearby noise sensitive receivers resulting from operation of Mobile Wood Chippers at Borg Panels Oberon.

Mobile chipping plant are the highest noise emitters on site by a significant margin. Operation of mobile chippers does not form part of 'normal' operations. They are typically only used during breakdown of electric plant.

The Noise Impact Assessment (Global Acoustics, May 2016) predicted minor to moderate exceedances for noise sensitive receivers south of site for the day period when mobile chipping plant is operational during prevailing (enhancing) meteorological conditions.

This Mobile Wood Chipper Operation Management Plan documents mitigation and management measures to assist Borg in meeting noise limits. Exceedances can be avoided through monitoring weather and restricting use of mobile chipping plant during periods of meteorological enhancement.

Routine noise compliance monitoring is undertaken to measure compliance with noise limits.

2 Compliance Requirements

2.1 Development Consent

The Development Consent SSD 7016 conditions relevant to mobile chipper operation that have been considered in this Plan are detailed in **Table 1**.

Table 1 – Development Consent Conditions

No.	Requirement	Document Reference
	Mobile Wood Chippers	
B22	During construction, the Applicant must ensure that mobile wood chippers are not operating simultaneously with rock/concrete breaking activities.	Section 4.4
B23	The use of mobile wood chippers on site is restricted to the day time period only and to periods of breakdown or maintenance of the permanent wood debarkers and electric chippers, and must not operate under the following conditions: <ul style="list-style-type: none"> a) in the open when winds are from the north-west through to the north-east (315°, through 0°, to 45°); and b) when winds are from the west through to the east (270°, through 0°, to 90°), two or more mobile wood chippers are not to operate simultaneously. 	Section 4.2 Section 4.3 Section 4.1 Section 4.1
B24	Within 6 months of the date of this consent or the commencement of construction of the Project, whichever occurs first, the Applicant must prepare a Mobile Wood Chipper Operation Management Plan for the Development. The plan must outline how the requirements under Conditions B22 and B23 will be achieved and must include any reasonable and feasible mitigation measures to limit operation to periods of breakdown or maintenance of the permanent debarkers and electric chippers.	This Plan Section 4.3

Development Consent SSD 7016 also stipulates noise limits, which are not to be exceeded, for noise generated by the Development.

2.2 Environment Protection Licence

The Environment Protection Licence 3035 (EPL 3035) conditions relevant to mobile chipper operation that have been considered in this Plan are detailed in **Table 2**.

Table 2 – Environment Protection Licence Conditions

No.	Requirement	Document Reference
L5	Hours of Operation	
L5.1	The Hours of Operation for any mobile log chipper used on the premises are limited to 7:00am to 6:00pm Mondays to Saturdays and 8:00am to 6:00pm Sundays and Public Holidays.	Section 4.2

EPL 3035 also stipulates noise limits, which are not to be exceeded, for noise generated by the Development.

3 Meteorological Monitoring

Borg operates a meteorological monitoring station located on-site to the east of the Spring Dam. This is a real-time weather station that monitors wind speed, wind direction, air temperature, rainfall, barometric pressure, relative humidity, dew point, evaporation, peak wind gust and solar radiation.

Wind directional data clearly signifying when one or two mobile chippers may be operated, or when they are not to be operated, is to be displayed as a live feed from the meteorological station in full view of the Log Yard Supervisor. The Supervisor will review data and advise operators when wind direction prevents operation and to shut down equipment.

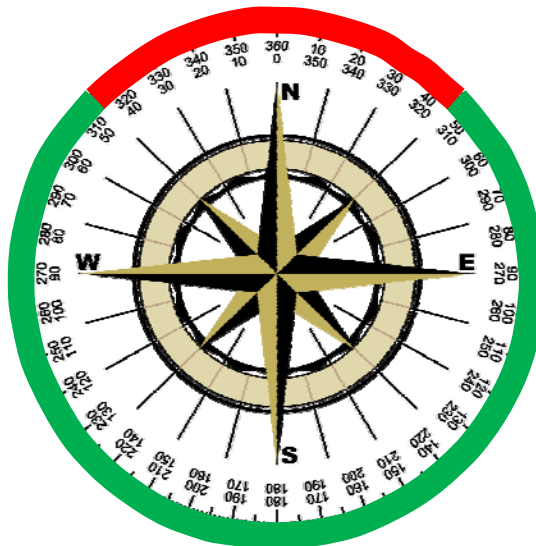
Note: If wind speed falls below 5 km/hr (1.4 m/s) the wind direction sensor (wind vane) becomes inaccurate.

4 Operating Conditions

4.1 Wind Direction

One Mobile Chipper

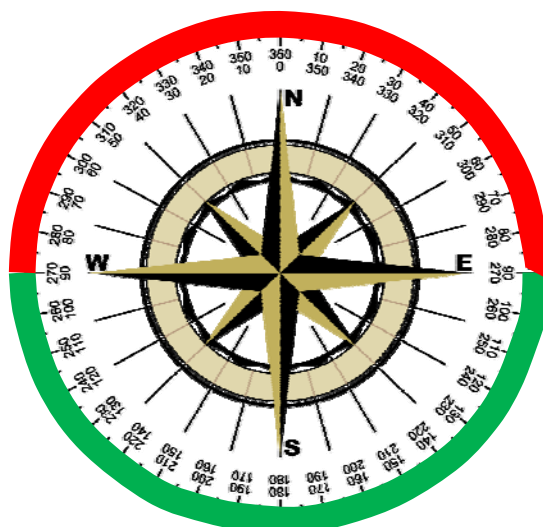
One mobile chipper **MAY** be operated when wind direction is from north-east through to north west (45°, through 180°, to 315°), as shown in green on the compass below.



One mobile chipper must **NOT** operate when wind direction is from the north-west through to the north-east (315°, through 0°, to 45°), as shown in red on the compass above.

Two Mobile Chippers

Two mobile chippers **MAY** be operated simultaneously when wind direction is from east through to west (90°, through 180°, to 270°), as shown in green on the compass below.



Two mobile chippers must **NOT** operate simultaneously when wind direction is from the west through to the east (270°, through 0°, to 90°), as shown in red on the compass above.

4.2 Timing

Mobile wood chippers are **ONLY** to be operated during the daytime period, defined as:

- 7:00am to 6:00pm Monday to Saturday
- 8:00am to 6:00pm Sundays and Public Holidays

4.3 Electric Chippers

The use of mobile wood chippers on site is restricted to periods of breakdown or maintenance of the permanent wood debarkers and electric chippers.

4.4 Rock/Concrete Breaking Permit to Work

Mobile wood chippers are not to operate simultaneously with rock/concrete breaking activities.

Construction activities involving rock/ concrete breaking require a completed Permit to Work to be submitted to both the Construction Project Manager and Log Yard Supervisor. Approval of both parties is required prior to commencement of rock/concrete breaking activities.

5 Responsibilities

Position	Responsibility
Area Manager	Ensure that the requirements of this Plan are met.
Log Yard Supervisor	Inform, instruct and train operators regarding the requirements of this Plan. Enforce and discipline staff for non-conformance of this plan, where necessary.
Mobile Chipper Operators	Operate mobile wood chippers in accordance with this Plan.
Environmental Officer	Review, and if necessary revise, this plan following a modification to either Development Consent SSD 7016 or EPL 3035, or submission of an incident report to either Department of Planning and Environment or Environment Protection Authority.

6 References

Global Acoustics (May 2016). *Borg Panels Timber Panel Processing Facility Oberon NSW – Noise and Vibration Impact Assessment*. Prepared for Borg Manufacturing.

Appendix I – Site Inspection Checklists

Monthly Site Inspection Checklist

Note: This form is designed for general use and may not be exhaustive. Modifications and additions may be necessary as the project progresses to address specific environmental issues and associated mitigation measures.

Project : Install particle board plant and additions to MDF plant
 Site Location : Borg Panels – Oberon
 Construction stage / status during inspection : _____
 Inspection Date : _____ Inspection Time : _____
 Inspected by : _____ Weather : _____

Inspection Items	Implemented?		N/A	Remarks (i.e. specify location, good practices, problem observed, possible cause of non-conformity and/or proposed corrective/preventative actions)
	Yes	No*		
1. Site Security and Access				
1.1. Perimeter fence in tact				
1.2. Others (please specify)				
2. Soil and Water Management				
New Areas				
2.1. Localised erosion and sediment control devices installed prior to earthworks				
2.2. Work access controls installed at the point of access and egress to all areas with exposed earth works				
Existing Areas				
2.3. Sight records from sediment basin operation in accordance with SOP				
2.4. Inspect erosion and sediment control devices				
2.5. Inspect work access controls				
2.6. Topsoil stockpiles <ul style="list-style-type: none"> • <2m in height • Surrounded by sediment fence • Located away from waterways • >3 months sprayed with bitumen emulsion 				

Inspection Items	Implemented?		N/A	Remarks (i.e. specify location, good practices, problem observed, possible cause of non-conformity and/or proposed corrective/preventative actions)
	Yes	No*		
2.7. Others (please specify)				
3. Noise Management				
3.1. Observation of noise generating activities on-site at time of inspection				
3.2. Others (please specify)				
4. Air Quality (Dust) Management				
4.1. Visual inspection of stockpiles for stability and dust generation				
4.2. Others (please specify)				
5. Storage of Hazardous Materials				
5.1. Visual inspection of chemical and fuel storage areas and bunding				
5.2. Visual inspection of spill kits contents				
5.3. Others (please specify)				
6. Construction and Demolition Waste Management				
6.1. Visual inspection of surface, loads, bins and portable toilets				
6.2. Sight records kept for all waste removed from site				

Inspection Items	Implemented?		N/A	Remarks (i.e. specify location, good practices, problem observed, possible cause of non-conformity and/or proposed corrective/preventative actions)
	Yes	No*		
6.3. Others (please specify)				
7. Traffic Management				
7.1. Observation of driver conduct during inspection				
7.2. Others (please specify)				
8. Contamination Management / Remediation				
8.1. Visual inspection of excavations to detect presence of contamination				
8.2. Sight records for all imported fill material, i.e. VENM or ENM certificates				
8.3. Site Validation Report deeming Lot 1 DP 1085563 suitable for its intended use(s) prior to earthworks				
8.4. Hazardous materials clearance prior to demolition of buildings				
8.5. Others (please specify)				
9. Mobile Wood Chippers				
9.1. Is operation of mobile wood chippers compliant with operating conditions during time of inspection				
9.2. Others (please specify)				

- **Any "No" recorded represents the potential breach of regulatory requirements or improvement needed. Details of non-conformity (NC) shall be recorded in the **Remarks**.*
- Report NC in the following forms. The responsible personnel shall identify the root cause of NC and adopt appropriate corrective and preventive actions (CPA) for mitigation. Confirmation of the effectiveness of the CPA shall be verified by Environment Officer within an agreed time.

Date _____

Signature Environment Officer _____

Improvement Request:

Project _____ Site Location _____
Inspection Date _____ Inspected by _____

NC Reference	
Description of NC	
Root cause of NC	
CPA adopted Target completion date	
Verified by Project Manager (Date)	

NC: Non-conformance

CPA: Corrective and Preventive Action

Daily Inspection Checklist for Site Supervisor

Note:

On a daily basis, site supervisory staff will inspect the Site and any issues arising will be noted in the daily diaries and communicated to the Project Manager.

The inspections will be conducted visually prior to commencement of each day's work and where appropriate during the working day.

A final daily inspection will also be undertaken at the end of the workday to ensure that systems and structures are in place.

Visual inspection of the site for:

- excessive dust generation
- weather conditions and activities being carried out
- condition of stabilised site work access controls
- truck load covers
- no tracking of dirt onto public roads
- public roads are clean
- excessive exhaust emission from plant and equipment
- no odour present
- visual inspection of excavations to detect presence of contamination