

# Construction Environmental Management Plan

Edge Estate Warehouse and Logistics Hub –  
Phase 1

141-251 Aldington Road, Kemps Creek

SSD-17552047



July 2025

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## Revisions

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## Glossary

Acronym/ Term	Meaning
CAQMP	Construction Air Quality Management Plan
CEMP	Construction Environmental Management Plan
CFFMP	Construction Flora and Fauna Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CTMP	Construction Traffic Management Plan
CoC	Condition(s) of Consent
CPESC	Certified Professional in Erosion and Sediment Control
CSPS	Community and Stakeholder Participation Strategy
DCP	Development Control Plan
DDP	Dam Decommissioning Plan
DPHI	Department of Planning, Housing and Infrastructure (formerly DPE)
EIS	Environmental Impact Statement
ENM	Excavated Natural Material (ENM) is naturally occurring rock and soil (including materials such as sandstone, shale, clay and soil) that has: a) Been excavated from the ground b) Contains at least 98 per cent (by weight) natural material c) Does not meet the definition of Virgin Excavated Natural Material (VENM).
Environmental Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.
ER	Environmental Representative
ESCP	Erosion and Sediment Control Plan
FIP	Fill Importation Plan
Material Harm	Harm that involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).
MRP	Mamre Road Precinct
Non-compliance	An occurrence, set of circumstances, or development that is a breach of the SSD-17552047 Development Consent.
Project, the	Construction and operation of eight warehouses with a total gross floor area of 153,343 m <sup>2</sup> and a 14-lot Torrens title subdivision. Site preparation works include demolition of existing structures, site remediation, and bulk earthworks. Supporting infrastructure works include construction and operation of stormwater management facilities comprising a series of basins, a naturalised trunk drainage channel, and on-lot infrastructure, one collector road, one local industrial road, and one estate road.
RAP	Registered Aboriginal Party
ROL	Road Occupancy Licence
SSD	State significant development
TGS	Traffic guidance scheme

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Acronym/ Term	Meaning
VENM	Virgin Excavated Natural Material (VENM) has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities.
WAD	Works Authorisation Deed
WRRMP	Waste and Resource Recovery Management Plan

# 1 Introduction

## 1.1 Background

This Construction Environmental Management Plan (CEMP) has been prepared by Aspect Environmental Pty Ltd (Aspect), on behalf of Frasers Property Industrial (Frasers), for the purposes of Phase 1 of the Edge Estate warehouse and logistics hub development at 155-251 and 141-153 Aldington Road, Kemps Creek (the Project).

This CEMP has been prepared with reference to:

- State Significant Development (SSD) 17552047 Development Consent and the included conditions of consent (CoC) dated 03 June 2025
- Response to Submissions (Ethos Urban, 8 July 2024)
- Amendment Report (Ethos Urban, 9 November 2023)
- Environmental Impact Statement (Willowtree Planning, October 2021)
- Development Control Plan (DCP) Penrith (Penrith City Council, 2014)
- DCP: Mamre Road Precinct – Western Sydney Employment Area (NSW Department of Planning, Industry and Environment, November 2021).

This CEMP defines the environmental management framework for construction of the Project.

## 1.2 Project Description

The Project comprises of the first stage of an industrial estate located at:

- 155-217 Aldington Road, Kemps Creek (Lot 33 DP258949 and Lots 25-28 DP 255560)
- 219-251 Aldington Road, Kemps Creek (Lot 24 DP 255560 and Lot 10 DP 253503)
- 141-153 Aldington Road, Kemps Creek (Lot 34 DP 258949) owned by Dexus, forming part of SSD 37222834.

Construction works between the site and Lot 34 DP 258949 are minor works and limited to transitional earthworks only, between the two development site boundaries.

The Project site is approximately 645,000m<sup>2</sup> (excluding Dexus land) in area and is irregular in shape. The location of the Project site is indicated by the red outline on Figure 1-1.

The site comprises a plant nursery, rural housing, agricultural land, farm sheds and undeveloped land with dams and waterbodies connected to the tributaries of South Creek. The site is bound by agricultural land and rural residential dwellings.

The site is located within the Western Sydney Employment Area and is situated approximately 5km from Badgerys Creek, 20km from Parramatta and 39km from the Sydney CBD.

The site affords road linkages to Mamre Road, Elizabeth Drive, Lenore Drive, Erskine Park Road and the M4 Western Motorway.

As per the SSD-17552047 Development Consent the Project involves construction and operation of eight warehouses and ancillary office space with a total gross floor area of 153,343 m<sup>2</sup> and a 14-lot Torrens title subdivision. Site preparation works include:

- demolition of existing structures
- site remediation
- bulk earthworks.

Supporting infrastructure works include:

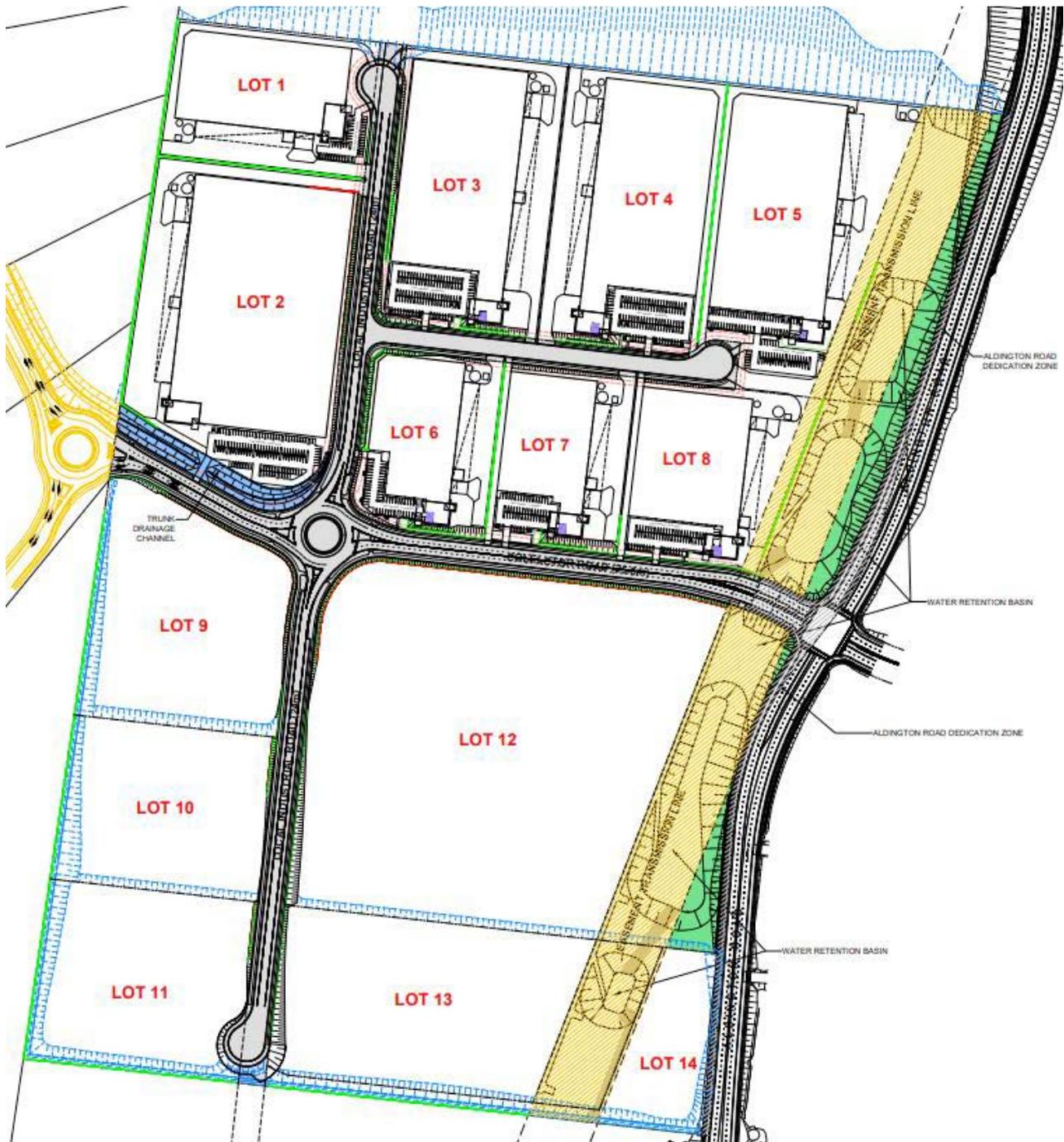
- construction and operation of stormwater management
- facilities comprising a series of basins, a naturalised trunk drainage channel and on-lot infrastructure
- one collector road, one local industrial road and one estate road.

The site layout for Phase 1 is shown in Figure 1-2.

**Figure 1-1** Site context (Amendment Report, Ethos Urban, November 2023)



**Figure 1-2** Stage 1 site layout – proposed Master Plan (Amendment Report, Ethos Urban, November 2023)



### 1.2.2 Construction Phases

The Project will be delivered by Frasers contractors in several sub-phases as outlined in Table 1-1. The forecast dates for and durations of the phases are shown in the table are approximate and are subject to construction planning. Note that construction phases overlap.

**Table 1-1** Project sub-phases

Project Phase	Construction Activity	Commencement Date	Duration	Completion Date
<b>Phase 1</b>				
Stage 1A	Site establishment	October 2025	2 weeks	October 2025
Stage 1B	Preliminaries and demolition of existing structures and infrastructure	October 2025	1 month	November 2025
Stage 1C	Establishment of building pads, bulk earthworks roads and services/ utilities	November 2025	15 months	February 2027
Stage 1D	Construction of Basins A-D and sediment basins for residual lots	November 2025	Ongoing	February 2027
<b>Phase 2</b>				
	Warehouse 2 construction	TBC	TBC	TBC

This CEMP and the Sub-Plans cover Phase 1 of the Project, being delivered for Frasers by **TBC**. Phase 2 and other future phases of the Project comprising the construction of warehouses will be covered by an updated CEMP or another CEMP.

### 1.2.3 Construction Hours

Earthwork and construction hours are to be in accordance with CoC B40 which are reproduced in Table 1-2.

**Table 1-2** Construction hours of work

Activity	Day	Time
Earthworks and construction	Monday to Friday	7 am to 6 pm
	Saturday	8 am to 1 pm

Under CoC B41, works outside of hours identified in condition CoC B40 may be undertaken in the following circumstances:

- a) works that are inaudible at nearest sensitive receivers
- b) works agreed to in writing by the Planning 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 or to prevent environmental harm.

The construction hours are to be provided to all personnel and contractors as part of the site induction.

For works to be undertaken out-of-hours, refer to the Construction Noise and Vibration Management Plan (CNVMP) attached as Appendix E for specific noise and vibration-related requirements.

## 1.2.4 Key Personnel Contact Details

The contact details for key project personnel are included in Table 1-3.

**Table 1-3** Key project personnel contact details

Role	Name	Contact Details
Frasers Representative	Monica Ngo	Mobile: 0408 930 244 Email: <a href="mailto:monica.ngo@fraserproperty.com.au">monica.ngo@fraserproperty.com.au</a>
Contractor Project Manager	<b>TBC</b>	Mobile: <b>TBC</b> Email: <b>TBC</b>
Contractor HSEQ Manager	<b>TBC</b>	Mobile: <b>TBC</b> Email: <b>TBC</b>
Communications and Community Liaison Representative	SLR Consulting Stephanie Skordas	Mobile: 0434 279 633 Email: <a href="mailto:sskordas@slrconsulting.com">sskordas@slrconsulting.com</a>
Environmental Representative (ER)	HBI International Alex Gale	Mobile: 02 9659 5433 Email: <a href="mailto:alex.gale@hbi.com.au">alex.gale@hbi.com.au</a>
Alternate ER	HBI International George Kollias	Mobile: 02 9659 5433 Email: <a href="mailto:George.kollias@hbi.com.au">George.kollias@hbi.com.au</a>
Certified Professional in Erosion and Sediment Control (CPESC)	<b>TBC</b>	Mobile: <b>TBC</b> Email: <b>TBC</b>

## 1.3 CEMP Context, Scope and Objectives

### 1.3.1 Context

This CEMP has been prepared to address the specific requirements of SSD-17552047 Development Consent for the Project. As required by CoC C1 and other CoC, the following Sub-Plans have been prepared to support this CEMP:

- Construction Traffic Management Plan (CTMP) (Appendix B)
- Erosion and Sediment Control Plan (ESCP) (Appendix C)
- Dam Decommissioning Plan (DDP) (Appendix D)
- Construction Noise and Vibration Management Plan (CNVMP) (Appendix E)
- Construction Air Quality Management Plan (CAQMP) (Appendix F)
- Asbestos Management Plan (AMP) (Appendix G)
- Unexpected Finds Procedure (UFP) (Appendix H)
- Community Consultation and Complaints Handling Procedure (Appendix I)
- Contingency Plan (Appendix J).

In accordance with CoC A38, this CEMP and relevant Sub-Plans must be reviewed by the ER to ensure they are consistent with requirements in, or under, the Development Consent and if so, make a written statement to that effect. Relevant CEMP and Sub-Plans are then to be submitted for approval by the Planning Secretary in accordance with CoC C4.

Construction is not to commence until the CEMP and relevant Sub-Plans are approved by the Planning Secretary in accordance with CoC C4.

Construction is to be undertaken in accordance with the most recent, approved version of this CEMP and Sub-Plans.

### 1.3.2 Scope

The CEMP has been prepared to satisfy CoC C1 through C4 of the SSD-17552047 Development Consent. These specific requirements, together with where these requirements have been addressed in the CEMP are listed in Table 1-4.

**Table 1-4** Relevant CoCs and where the CEMP addresses them

SSD-17552047 Development Consent CoC	CEMP Section
<b>Management Plan Requirements</b>	
C1 Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	Section 3.3
(a) a condition compliance table for that plan;	Appendix A
(b) detailed baseline data, where relevant;	Sub-Plans
(c) details of:	Section 3.3
(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	
(ii) any relevant limits or performance measures and criteria; and	Section 4.2 and Sub-Plans
(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;	Section 1.4 and Sub-Plans
(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 4.2 and Sub-Plans
(e) a program to monitor and report on the:	Section 5 and Sub-Plans
(i) impacts and environmental performance of the development; and	
(ii) effectiveness of the management measures set out pursuant to paragraph (d) above;	
(f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impact reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 5.4 and Appendix J
(g) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 5.2 and Sub-Plans
(h) a protocol for managing and reporting any:	Section 5.5
(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);	Section 5.6
(ii) complaint;	Section 2.2 and Appendix I
(iii) failure to comply with statutory requirements; and	Section 5.5
(i) a protocol for periodic review of the plan.	Section 5.8
Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for management plans	Noted

SSD-17552047 Development Consent CoC	CEMP Section
<b>Construction Environmental Management Plan</b>	
<b>Earthworks and Infrastructure Works</b>	
C2 The Applicant must prepare a Construction Environmental Management Plan (CEMP) for undertaking earthworks and infrastructure works as shown in Figure 14: in Appendix 1 in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	This CEMP
C3 As part of the CEMP required under condition C2 of this consent, the Applicant must include the following:	NA
a) Construction Traffic Management Plan (see condition B1)	Appendix B
b) Erosion and Sediment Control Plan (see condition B24)	Appendix C
c) Dam Decommissioning Plan (see condition B39)	Appendix D
d) Construction Noise Management Plan (see condition B43)	Appendix E
e) Construction Air Quality Management Plan (see condition B51)	Appendix F
f) Asbestos Management Plan (see condition B68)	Appendix G
g) Unexpected Finds Procedure (see condition B69)	Appendix H
h) Community Consultation and Complaints Handling Procedure	Section 2.2 and Appendix I
C4 The Applicant must:	NA
a) not commence earthworks until the CEMP is approved by the Planning Secretary; and	This CEMP and Sub-Plans will be referred to the Secretary for approval.
b) carry out earthworks and infrastructure works in accordance with the CEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Noted

### 1.3.3 Objectives

The objectives of this CEMP are to:

- Identify the roles and responsibilities of key personnel.
- Clearly and concisely document the commitments made in the Environmental Impact Statement (EIS, Willow Tree Planning, October 2021), and Amendment Report (Ethos Urban, November 2023), including relevant management plans, that are required to be implemented during construction.
- Provide guidelines for undertaking the construction works in compliance with the CoC and other applicable regulatory requirements.
- Demonstrate to the Department of Planning, Housing and Infrastructure (DPHI) how Frasers proposes to meet its regulatory obligations including those outlined in the CoC.
- Outline the controls to be implemented by the contractor to meet those obligations.
- Prescribe project-specific performance standards and mitigation measures that aim to protect human and ecological values and manage the potential impacts of the works on the environment.
- Detail environmental management practices for the management, implementation and monitoring of the Project.

All Frasers personnel, contractors and visitors are required to comply with the requirements of this CEMP at all times.

## 1.4 Environmental Performance Indicators

Environmental performance indicators and targets have been established as a means of assessing environmental performance during construction. The performance indicators have been developed with consideration of the key issues identified through the environmental assessment and risk assessment process.

Refer to the Sub-Plans for aspect specific environmental performance indicators and targets.

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## 2 Community and Stakeholder Engagement

As required by the SSD-17552047 Development Consent, consultation with stakeholders was required during the development of several of the Sub-Plans. The result of this consultation is documented in each Sub-Plan, where relevant.

Consultation with stakeholders during the preparation of this CEMP was not required under CoCs C1 and C2.

### 2.1 Community Communication during Construction

A Community and Stakeholder Participation Strategy (CSPS) (SLR Consulting, September 2023) (Appendix I) has been prepared by Frasers for the Project. This strategy outlines tools and techniques to be used and implemented to enable effective communication with the community and stakeholders throughout the construction works and operations, including:

- community consultation meetings, workshops and forums
- individual meetings
- agency meetings
- newspaper advertisements
- letterbox drops and email notifications
- on-site signage
- Project information and complaints telephone number
- text messages and email alerts
- website.

The CSPS recommends that a Community Consultation Strategy be prepared for the Project to continue the positive approach to engagement undertaken for the Project to date through the Project lifecycle. This strategy would include engagement and complaints/enquiry protocols, the identification of engagement responsibilities and the maintenance of an engagement register.

Frasers will participate in the existing Mamre Road Precinct (MRP) Working Group, with other relevant development consent holders in the MRP. Participation will commence within three months of the commencement of construction and will be ongoing until all components of the Project are constructed and operational. The purpose of the MRP Working Group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts.

The MRP Working Group currently includes the developers of the following industrial estates that have received development consent:

- Kemps Creek Warehouse, Logistics and Industrial Facilities Hub (SSD-9522) - 657-769 Mamre Road, Kemps Creek
- Yiribana Industrial Estate (SSD-10272349) - 754-770, 784-786 Mamre Road, Kemps Creek

- Aspect Industrial Estate (SSD-10448) - 788-882 Mamre Road Kemps Creek
- 200 Aldington Road Estate (SSD-10479) - 106-228 Aldington Road, Kemps Creek
- BAPS Temple (DA17/1247) - 230-242 Aldington Rd, Kemps Creek
- Westlink Industrial Estate – Stage 1 (SSD-91308102) - 290-308 Aldington Road, 59-63 Abbotts Road, Kemps Creek.

## 2.2 Complaints Management

Community complaints will be managed under the CSPA (Appendix I).

The ongoing and consistent management of project related feedback throughout the delivery of the Project is crucial to ensuring appropriate mitigation strategies are developed in response to issues identified and experienced. As such, the Project team will document all stakeholder and community related feedback received directly in a professional and timely manner.

Feedback is defined as any communication received from a stakeholder or community member which expresses support and/or dissatisfaction with any aspect of the Project and its delivery. As such, the proposed contact response timings for general enquiries are as follows:

- Same day acknowledgement of all stakeholder and community contact.
- Development of proposed response and issue within 48 hours by the Project team. This timeframe can be extended where complex information is required, provided an acknowledgment of the enquiry is sent, outlining the need to gather more information before a response can be sent.
- A 72-hour response target for complex enquiries (e.g. requires further consultation and planning with Project team, request for meeting).
- All details will be captured and logged in the Contact Register, and all responses will be shared with the Project team.

In accordance with CoC A39, the Contact Register will be made available to the ER on a daily basis. The ER will assist DPHI in the resolution of community complaints, as may be requested by the Planning Secretary.

Adherence to these response protocols fulfils requirements specified in CoC B44, related to the CNVMP which requires a complaints management system to be implemented for the duration of the Project.

# 3 Environmental Management Framework

## 3.1 Project Organisational Structure

Frasers is the developer of the Project and has overall responsibility for compliance with the SSD-17552047 Development Consent. Frasers have engaged various contractors for the construction of Phase 1 of the Project.

All personnel including consultants, contractors, sub-contractors and all other personnel associated with undertaking construction works on the Project, ultimately report to Frasers.

Frasers is responsible for monitoring the environmental performance of the Project and monitoring compliance with the CoC, this CEMP and Sub-Plans as they relate to the construction of the Project.

## 3.2 Roles and Responsibilities

All Project personnel are responsible for the implementation of this CEMP and have the responsibility to stop works if there is the potential for a safety or environmental incident to occur.

Roles, and responsibilities for environmental management of the Project are outlined in Table 3-1.

**Table 3-1** Project roles and responsibilities

Role	Responsibility
<b>Frasers Representative</b>	Environmental reporting responsibility associated with the Project.
	Overall responsibility for environmental management and compliance with the SSD-17552047 Development Consent and relevant legislation.
	Liaise with Frasers management to keep them informed of the Project's environmental performance and progress.
	Record, notify, investigate and respond to any environmental incidents and, where necessary, guide the development and implementation of corrective actions.
	Consult and engage with any contractors or interfacing contractors regarding the environmental management of the Project.
	Provide adequate environmental inductions/training to Frasers employees and contractors regarding their requirements under this CEMP.
	Provide ER with all documentation requested in order for the ER to perform their functions specified below, including any assessment carried out by Frasers of whether proposed work is consistent with the SSD-17552047 Development Consent (which must be provided to the ER before the commencement of the subject work).
<b>Contractor Project Manager</b>	Oversee the implementation and maintenance of the CEMP and Sub-Plans.
	Check that any licence, permit and/or approval required for the Project has been obtained in the required timeframe.
	Implement the Contamination Unexpected Finds Protocol in the event of contamination being encountered onsite during construction.

Role	Responsibility
	<p>Submit the disposal location and results of testing to the Planning Secretary, prior to its removal.</p> <p>Monitor and report on overall environmental management performance.</p> <p>Review and acknowledge periodic environmental inspection reports.</p> <p>Initiate project meetings as required or directed, in which environmental items are discussed as appropriate.</p> <p>Identify and allocate Project resources to implement the requirements of the CEMP and Sub-Plans.</p> <p>Confirm relevant environmental expectations expressed by the client and/or regulatory authorities to the Project team.</p>
<b>Contractor HSEQ Manager</b>	<p>Provide advice where required in relation to environmental issues associated with the Project.</p> <p>Inform all personnel including sub-contractors of the requirement to conform with the CEMP and Sub-Plans.</p> <p>Confirm that all necessary environmental controls are implemented and maintained for the duration of the Project.</p> <p>Complete weekly site inspections to monitor and verify mitigation measures are implemented and effective.</p> <p>Assist with the implementation of the Contamination Unexpected Finds Protocol in the event of contamination being encountered onsite during construction.</p> <p>Monitor weather conditions to prepare the Project for high winds or other extreme weather events.</p> <p>Provide regular environmental inspection and progress reports to the Contractor Project Manager.</p> <p>Monitor environmental compliance with the CEMP.</p> <p>Facilitate the environmental induction and training (toolbox talks) of employees and subcontractors (as required).</p> <p>Complete and maintain all necessary environmental documentation for the contract (as required).</p> <p>Conduct environmental incident investigations and implement corrective action responses in consultation with the Contractor Project Manager.</p>
<b>Communications and Community Liaison Representative</b>	<p>Lead and manage the community involvement activities, including liaison with property owners and key stakeholders.</p> <p>Be the primary Project contact for the public, handling enquiries and complaints and managing interface issues.</p> <p>Maintain the Contact Register and make available to the ER on a daily basis.</p> <p>Be available for contact by local residents and the community at all reasonable times to answer any questions.</p> <p>Liaise with property owners to co-ordinate access and to deal with specific property related issues arising from the upgrade works.</p> <p>Lead the delivery of communication and community engagement strategies and plans.</p> <p>Facilitate meetings and forums and arrange interviews to address concerns raised by the community.</p>

Role	Responsibility
	<p>Provide advice and participate with the project teams to improve and enhance the delivery of communication services to the community.</p> <p>Build and maintain collaborative and consultative working relationships with internal and external stakeholders.</p> <p>Be available for contact by local residents, key stakeholders and community representatives to answer queries and provide more information or feedback.</p>
<b>Environmental Representative (ER)</b>	<p>Be a suitably qualified and experienced person who was not involved in the preparation of the EIS, Response to Submissions, Amendment Report and any additional information for the development and is independent from the design and construction personnel for the development.</p> <p>Receive and respond to communication from the Planning Secretary in relation to the environmental performance of the development.</p> <p>Consider and inform the Planning Secretary on matters specified in the terms of the SSD-17552047 Development Consent.</p> <p>Consider and recommend to the Project any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community.</p> <p>Review the CEMP required in Condition C2 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under the SSD-17552047 Development Consent and if so:</p> <ul style="list-style-type: none"> <li>• make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary) or</li> <li>• make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary/DPHI for information or are not required to be submitted to the Planning Secretary/DPHI).</li> </ul> <p>Regularly monitor the implementation of the CEMP to be carried out in accordance with the document and the terms of the SSD-17552047 Development Consent.</p> <p>As may be requested by the Planning Secretary, help plan, attend, or undertake audits of the development commissioned by DPHI including scoping audits, programming audits, briefings, and site visits.</p> <p>As may be requested by the Planning Secretary, assist DPHI in the resolution of community complaints.</p> <p>Provide advice to the Applicant on the management and coordination of construction works on the site with adjoining sites in the MRP in relation to construction traffic management, earthworks and sediment control and noise.</p> <p>Attend the MRP Working Group (see CoC A41) in a consultative role in relation to the environmental performance of the Project.</p> <p>Prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an ER Monthly Report providing the information set out in the ER Protocol under the heading 'ER Monthly Reports'. The ER Monthly Report must be submitted within seven calendar days following the end of each quarter for the duration of the ER's engagement for the development, or as otherwise agreed with the Planning Secretary.</p>
<b>CPESC</b>	<p>Prepare detailed erosion and sediment control plans.</p> <p>Supervise and certify delivery and operation of all construction phase erosion and sediment controls.</p> <p>Conduct monthly audits of all construction phase erosion and sediment controls.</p>
<b>MRP Working Group</b>	<p>Comprise of at least one representative of Frasers, the ER and relevant development consent holders in the MRP.</p>

Role	Responsibility
	<p>Meet periodically throughout the year to discuss, formulate and implement measures or strategies to improve monitoring and coordination of the approved industrial developments in the MRP.</p> <p>Inform Council, TfNSW, Sydney Water and the Planning Secretary regularly of the outcomes of these meetings and actions to be undertaken by the working group.</p> <p>Review the performance of approved industrial developments in the MRP and identify trends in the data with respect to cumulative construction traffic, erosion and sediment control, noise, stormwater management and waterway health objectives under the MRP DCP.</p> <p>Review community concerns or complaints with respect to environmental management.</p> <p>Identify interim traffic safety measures to manage construction traffic and how these measures will be coordinated, communicated, funded and monitored in the MRP.</p> <p>Provide the Planning Secretary with an update and strategies, if a review under subclauses (d) and (e) identify that additional measures and processes are required to be implemented by the working group.</p> <p>Three months prior to completion of construction of all components of the development the Applicant is eligible to exit the working group. The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) consult with the Planning Secretary</li> <li>(b) provide confirmation that all components of the development are operational</li> <li>(c) advise on the date of the proposed exit.</li> </ul>
<b>All Personnel</b>	<p>Report all environmental incidents, hazards, non-compliances and near misses to their supervisor or the Contractor Project Manager immediately.</p> <p>Attend all required environmental awareness, induction and training sessions.</p> <p>Stop work or otherwise mitigate the effects of an activity that is causing significant, uncontrolled or unexpected environmental harm.</p> <p>A daily pre-start inspection of plant and equipment will be undertaken by plant and equipment operators and any leaks or excessive emissions reported to the Contractors HSEQ Manager.</p>

### 3.3 Legal and Compliance Requirements

#### 3.3.1 SSD-17552047 Development Consent

The Project will be constructed in accordance with SSD-17552047 Development Consent and in accordance with the documents referenced under CoC A2:

- (a) The CoCs
- (b) Written directions from the Planning Secretary
- (c) The EIS (Willowtree, October 2021), the Amendment Development Report (Ethos Urban, 9 November 2023), Response to Submissions (Ethos Urban, 8 July 2024) and additional information
- (d) The development layout attached to the Development Consent as Appendix 1
- (e) The management and mitigation measures attached to the Development Consent as Appendix 2.

Appendix A lists the CoCs related to the construction of the Project and identifies where in this CEMP and Sub-Plans each COC is addressed.

Under CoC A4, if there is any inconsistency, ambiguity or conflict between the plans and documentation referred to in CoC A2(c) or A2(e), the most recent document will prevail to the extent of the inconsistency. However, the conditions of SSD-17552047 Development Consent prevail to the extent of any inconsistency, ambiguity or conflict. Frasers will notify the ER and DPHI if any inconsistencies are identified.

CoC A1 states:

*In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.*

This CEMP and its Sub-Plans describe the environmental mitigation measures that will be implemented on the Project during construction to prevent and minimise environmental impacts.

CoC A32 requires that all Frasers employees, contractors (and their subcontractors) be made aware of and are instructed to comply with the CoC relevant to activities carried out for the Project.

Frasers will undertake consistency assessments to determine whether planned design changes and construction methodologies would be consistent with the requirements of the SSD-17552047 Development Consent. To meet the requirements of CoC A39(b) Frasers will provide any consistency assessments undertaken to the ER prior to any relevant work being commenced.

### 3.3.2 Regulatory Framework

The regulatory framework for the Project is outlined in Table 3-2, which identifies relevant legislative instruments, including legislative and voluntary obligations, permits and licences, and their key objectives and relevance to the Project.

**Table 3-2** Legislative and related instruments relevant to the Project

Legislation	Key Project Requirements	Activity/ Aspect
<i>Environment Planning and Assessment Act 1979</i>	Established a system of environmental planning and assessment of proposed developments in NSW. The Project must comply with the SSD-17552047 Development Consent.	All
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Requirements in relation to protection and management of nationally and internationally important flora, fauna, ecological communities, and heritage places.	Threatened species and ecological environments
<i>Biodiversity Conservation Act 2016</i>	Comply with conservation requirements for any identified threatened species.	Threatened species and ecological environments
<i>Protection of the Environment Operations Act 1997</i>	The handling, storage and disposal of all waste streams on site is to be implemented in accordance with the POEO Act. Aims to aid the protection, restoration and enhancement of the quality of the NSW environment, including emissions to air.	Construction waste management Discharges or emissions to air, land and water

Legislation	Key Project Requirements	Activity/ Aspect
	Identifies activities for which an Environment Protection Licence is required.	
<i>Protection of the Environment Operations (Noise Control) Regulation 2017</i>	Comply with the requirements of the POEO (Noise Control) Regulation to mitigate the impacts of noise and vibration on sensitive receivers and the environment.	Management and mitigation of noise and vibration produced during construction works
<i>Protection of the Environment Operations (Clean Air) Regulation 2021</i>	Identifies criteria for air quality objectives and emissions.	Management of any dust and air pollution emissions produced by works to promote air quality
<i>Protection of the Environment Operations (Waste) Regulation 2014</i>	Handling, storage, transport and disposal of all waste streams to be undertaken with consideration for the requirements within the POEO (Waste) Regulation. Aims to protect human health and the environment. Identifies the thresholds for Environment Protection Licences.	Management of construction waste Discharge or emissions to air, land, water in accordance with thresholds set by the regulation
<i>Waste Avoidance and Resource Recovery Act 2001</i>	Aims to promote waste avoidance and resource recovery by: <ul style="list-style-type: none"> <li>• Encouraging efficient use of resources</li> <li>• Encouraging the avoidance of waste and the reuse and recycling of waste</li> <li>• Ensuring industry and the community share responsibility in reducing/dealing with waste</li> <li>• Efficiently funding waste/resource management planning, programs and service delivery.</li> </ul>	Management of construction waste
<i>Contaminated Land Management Act 1997</i>	Remediation requirements for management of contaminated lands.	May be applicable in the event of any unexpected find of contaminants/contamination
<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>	Remediation of contamination lands and consent requirements.	May be applicable in the event of any unexpected find of contaminants/contamination
<i>Heritage Act 1977</i> <i>National Parks and Wildlife Act 1974</i>	Protection and recording of Indigenous and non-Indigenous heritage values, relics, artefacts, places and other finds/remains.	Earthmoving /excavation works – identifying unexpected finds
Managing Urban Stormwater: Soils and Construction – Volume 1 (the “Blue Book”) (Landcom, March 2004)	Soil and erosion controls for managing surface water flows onsite and reducing potential for erosion and sedimentation leaving site.	Management surface water flows onsite
Technical guidance for achieving Wianamatta-South Creek stormwater management targets (DPE, September 2022)	In accordance with Water Sensitive Urban Design principles set out in the Technical Guidance.	Specific direction on what modelling to undertake, assumptions to make and which data to use to demonstrate that the stormwater management targets are being achieved
Mamre Road Stormwater Scheme Plan (Sydney Water, December 2022)	Performance of stormwater management system in accordance with Integrated Water Cycle Management Controls.	Water cycle management Irrigated street trees
Stormwater Scheme Infrastructure Design Guideline	Irrigated street trees.	Design of irrigated street trees

Legislation	Key Project Requirements	Activity/ Aspect
(Sydney Water, December 2022)		

Where updated or revised versions of guidelines, protocols, standards or policies, or a replacement of them are available, the most recent versions should be applicable to this CEMP.

### 3.4 Training and Awareness

All personnel including sub-contractors are required to attend a compulsory site induction that includes an environmental component, prior to commencement of works onsite.

The environmental induction will include, but not be limited to, an overview of:

- relevant details of the CEMP including purpose and objectives
- key environmental issues
- Project specific environmental management requirements and responsibilities as specified in CEMP and CEMP Sub-Plans
- incident response and reporting requirements.

All Project personnel will be suitably qualified, but individual team members may benefit from specific environmental training (e.g. erosion and sediment control and environmental auditor training) to help them better manage the environmental impacts of the Project.

Short-term visitors to the Project site will be required to undertake a visitor's induction and be accompanied by inducted personnel.

A record of all inductions will be maintained onsite.

Toolbox talks will also be used to review management procedures and identify/discuss daily site conditions and raise environmental awareness. Site inductions and toolbox talks will highlight specific environmental requirements and activities being undertaken at the worksite each day.

A record of issues covered in daily toolbox meetings will be maintained onsite.

The CEMP will be explained to all contractors and a controlled copy will be maintained onsite during construction works.

# 4 Implementation

## 4.1 Aspects and Impacts

Project environmental aspects, impacts and opportunities have been identified and assessed in accordance with the risk assessment as presented in Part F of the EIS (Willowtree Planning, October 2021) and Amendment Report (Ethos Urban, November 2023). The key environmental aspects and impacts for the Project during construction are listed in Table 4-1.

**Table 4-1** Environmental aspects and impacts during construction

Aspect	Potential Environmental Impact	Significance of Impact*	Manageability of Impact	Residual Impact
Noise and vibration	Increase in noise and vibration levels during construction	Moderate	Standard	Medium
Traffic and parking	Increase in construction traffic on local roads	Moderate	Standard	Low/Medium
Air and water quality	Potential for reduced air and water quality during construction	Moderate	Standard	Low/Medium
Sediment, erosion and dust	Dust produced from construction Erosion produced from construction	Minor	Elementary	Low/Medium
Heritage	Potential impacts to archaeology and artefacts	Minor	Elementary	Low
Ecology	Impact on flora and fauna during construction and operation Tree removal and construction impacts	Moderate	Elementary	Low

\*Significance of impact was provided in the EIS (Willowtree Planning, October 2022).

## 4.2 Environmental Mitigation Measures

Environmental mitigation measures to be implemented during construction of Phase 1 of the Project to enable compliance with the SSD-17552047 Development Consent, performance measures and criteria are documented in Table 4-2 and the aspect-specific CEMP Sub-Plans. The identified mitigation measures are consistent with those identified in the EIS (Willowtree Planning, October 2021) and Amendment Report (Ethos Urban, November 2023) and reflect current accepted industry guidelines and practice.

**Table 4-2 Environmental mitigation measures**

Mitigation Measure	Responsibility
<b>General</b>	
Maintain and implement CEMP on site.	Contractor Project Manager
All vehicles, plant and equipment used on site are to be maintained in a proper and efficient condition and operated in a proper and efficient manner.	Contractor Project Manager
Carry out construction activities and delivery of materials within approved construction hours.	Contractor Project Manager
Only virgin excavated material (VENM), excavated natural material (ENM), or other material approved in writing by the Environment Protection Authority is to be brought onto the site.	Contractor Project Manager
Maintain accurate records of the volume and type of fill to be used and make these records available to the Planning Secretary upon request.	Contractor Project Manager
Where possible, source fill material from within the MRP.	Contractor Project Manager
<b>Waste Management</b>	
All liquid and non-liquid wastes to be taken off site are to be assessed and classified in accordance with the latest version of Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Contractor Project Manager
All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Contractor Project Manager
Waste generated outside the site must not be received at the site for storage, treatment, processing, reprocessing, or disposal.	Contractor Project Manager
Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.	Contractor Project Manager
<b>Erosion and Sediment Control</b>	
See ESCP (Appendix C)	See Sub-Plan
<b>Noise and Vibration</b>	
See CNVMP (Appendix E)	See Sub-Plan
<b>Biodiversity</b>	
Site induction is to include identification of noxious weeds species, pest species and vermin that may occur on the Project site and control measures.	Contractor Project Manager
Waste bins are to include covers to prevent windblown litter and the entry of pest animals or rain.	Contractor Project Manager
Vehicles, equipment, materials and footwear are to be clean on entry to site (free of soil, mud and/or seeds) to minimise the introduction or spread of priority weeds.	Contractor Project Manager
No spoil, excavated material, plant or equipment is to be stockpiled or stored within the delineated "No-Go" zones.	Contractor Project Manager
Inspect the site on a regular basis to verify that measures are working effectively, and that pests, vermin or priority weeds are not present on-site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.	Contractor Project Manager
<b>Aboriginal Cultural Heritage</b>	
Discovery of unanticipated Aboriginal item or object:	Contractor Project Manager

Mitigation Measure	Responsibility
<ol style="list-style-type: none"> <li>1. Works must cease immediately in the immediate vicinity of the suspected Aboriginal item or object.</li> <li>2. A 10m wide buffer area around the suspected item or object must be cordoned off</li> <li>3. Heritage NSW must be contacted immediately.</li> <li>4. Find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object, the archaeologist will provide further recommendations. These may include notifying Registered Aboriginal Parties (RAPs).</li> </ol>	
<p>A long-term care agreement is to be established in consultation with RAPs to adequately care for the artefacts identified in the Aboriginal Cultural Heritage Assessment (Biosis, 22 April 2022).</p>	Contractor Project Manager
<p>RAPs are to be regularly informed about the management of Aboriginal cultural heritage sites within the site throughout the life of the project.</p>	Contractor Project Manager
<b>Historical Heritage</b>	
<p>Discovery of unanticipated historical relics: If unanticipated archaeological relics are uncovered during the project:</p> <ol style="list-style-type: none"> <li>1. Work in the immediate vicinity of the find must cease immediately.</li> <li>2. Contact an archaeologist to provide a preliminary assessment of the find.</li> <li>3. Heritage NSW will require notification if the find is assessed as a relic.</li> <li>4. Relics cannot be disturbed except with a permit or exception/exemption notification, or approval issued by DPHI.</li> </ol> <p>Discovery of Human Remains: If any suspected human remains are discovered:</p> <ol style="list-style-type: none"> <li>1. Immediately cease all work at that location and not further move or disturb the remains.</li> <li>2. Notify the NSW Police and Heritage NSW Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location.</li> <li>3. Not recommence work at that location unless authorised in writing by Heritage NSW.</li> </ol>	Contractor Project Manager
<b>Site Contamination</b>	
See Remediation Action Plan (JBS&G, February 2024)	See Sub-Plan
<b>Air Quality</b>	
See CAQMP (Appendix F)	See Sub-Plan

# 5 Monitoring and Review

## 5.1 Environmental Inspections

The Contractor Project Manager (or delegate) is to complete weekly environmental inspections of the Project. The purpose of these inspections is to:

- verify compliance with CoC
- review the performance and effectiveness of environmental management measures
- Identify any non-conformances or potential non-conformances against the mitigation measures and other requirements of this CEMP and the Sub-Plans
- document observations and track performance.

These inspections are to be documented in the contractor's Environmental Inspection Checklist.

Any corrective actions identified are to be documented and their implementation is to be recorded onsite to verify that they have been being actioned and closed out.

A daily pre-start inspection of plant and equipment is to be completed by plant and equipment operators and any leaks or excessive emissions reported to the Contractors HSEQ Manager.

The ER and Fraser representative are to regularly monitor the implementation of this CEMP and Sub-Plans to determine whether the Project is being carried out in accordance with this CEMP and the SSD-17552047 Development Consent.

The CPESC is to supervise the delivery and operation of all construction phase erosion and sediment controls on the site and also conduct monthly audits in accordance with CoC B26.

## 5.2 Environmental Monitoring

Environmental monitoring will be undertaken to assist in the management of the following:

- construction of the Project in accordance with environmental approvals
- compliance with all relevant legislative requirements
- the minimisation of potential environmental incidents
- effectiveness of environmental controls
- implementation of this CEMP and the Sub-Plans.

Monitoring requirements are included in the relevant Sub-Plans. Where relevant, the Sub-Plan will provide detail on the following:

- responsibility for monitoring
- relevant standards applicable to the monitoring
- monitoring technique and location
- frequency of monitoring
- data management, review and distribution.

Environmental monitoring requirements are summarised in Table 5-1.

**Table 5-1** Summary of environmental monitoring

Aspect	Monitoring	Frequency/ Timing	Responsible	Reference
General	Monitor the implementation of the CEMP to ensure implementation is being carried out in accordance with the document and the CoC	Ongoing	<ul style="list-style-type: none"> <li>• Fraser representative</li> <li>• Contractor Project Manager</li> <li>• ER</li> <li>• CPESC</li> </ul>	CEMP and Sub-Plans
Water quality	Effectiveness of erosion and sediment controls	After rainfall events and at least weekly	Contractor HSEQ Manager	ESCP
Traffic safety measures	Identify interim traffic safety measures to manage construction traffic and how these measures are to be coordinated, communicated, funded and monitored	Ongoing	MRP Working Group	CTMP
Traffic	<ul style="list-style-type: none"> <li>• Onsite traffic management effectiveness</li> <li>• Traffic numbers/movements tracking</li> </ul>	Ongoing	Contractor Project Manager	CTMP
Air quality	Effectiveness of mitigation measures	Daily	Contractor HSEQ Manager	CAQMP
Air quality	Dust generation	Daily	Contractor HSEQ Manager	CAQMP
Air quality	Weather conditions	Daily	Contractor HSEQ Manager	CAQMP
Noise	Short term unattended Noise monitoring (monitoring location receivers 1 to 4)	On receipt of a noise complaint.	Contractor HSEQ Manager	CNVMP
Noise	Long term unattended Noise monitoring (monitoring location receivers 1 to 4)	Continued ongoing receipt of a noise complaints	Contractor HSEQ Manager	CNVMP
Vibration	Vibration monitoring to: <ul style="list-style-type: none"> <li>• confirm acceptability of construction techniques, or</li> <li>• confirm compliance with limits for structural or cosmetic damage of buildings.</li> </ul>	As required and or on receipt of a vibration complaint	Contractor HSEQ Manager	CNVMP
Vibration	Assess compliance with vibration limits for human exposure to vibration	As required	Contractor HSEQ Manager	CNVMP
Waste	Waste generated and disposal methods	Ongoing	Contractor HSEQ Manager	WRRMP
Waste	Past waste disposal receipts	Ongoing	Contractor HSEQ Manager	WRRMP

Aspect	Monitoring	Frequency/ Timing	Responsible	Reference
Waste	Waste volumes recycled, reused or contractor removed in accordance with Penrith DCP	Ongoing	Contractor HSEQ Manager	WRRMP
Waste	Information to track waste avoidance, reuse and recycling performance and to help in waste estimations for future waste management plans.	Ongoing	Contractor HSEQ Manager	WRRMP
Dam water	Water quality, check whether it meets the Australian and New Zealand Guidelines for Fresh Water Quality 95% species protection Assess dam water quality.	Prior to dam dewatering	Contractor HSEQ Manager under supervision of a suitably qualified specialist	DDP
Ecological clearance of dam	Presence or likely presence of aquatic species of flora and fauna in dam.	Prior to dam dewatering	Suitably qualified ecologist	DDP
Dam sediment	Assess sediments excavated from the dams against relevant guideline criteria.	During dam removal	Environmental Manager	DDP
Biodiversity	Inspect site (focused on cleared areas) for the establishment of priority weeds and weeds of national significance.	Monthly	Contractor HSEQ Manager	CEMP
Biodiversity	Inspect site to determine vermin and pest species are not present in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.	Monthly	Contractor HSEQ Manager	CEMP
Biodiversity	Inspect security (bins lids closed and secured, waste store wholly with the receptacle) of waste storage areas, particularly relating to putrescible waste items.	Daily	Site Supervisor	CEMP
Biodiversity	Inspect site for general housekeeping relating to improper disposal of food stuffs and packaging.	Weekly	Site Supervisor	CEMP
Biodiversity	Inspect sediment control measures (sediment fencing) to verify all measures are intact and functioning properly, to avoid indirect impacts on adjoining areas	Weekly, prior to and soon as practical following rainfall.	Contractor HSEQ Manager	CEMP

On request, Frasers will provide the ER with all performance reporting documentation for the ER to perform their functions in accordance with the SSD-17552047 Development Consent.

## 5.3 Environmental Auditing

Frasers are to complete an internal HSSE audit of the Project annually. Audits are to involve a review of all environmental documents, records and reports to verify compliance with the CEMP. In addition, the ER may at any time request documents and evidence confirming implementation of the CEMP and Sub-Plans.

Key environmental and procedural aspects to be covered by the audit may include:

- environmental mitigation measures detailed in the CEMP Sub-Plans
- adherence to reporting procedures
- complaint and incident management
- legislative requirements.

Environmental and construction records include:

- contact register
- incident, non-conformance and corrective action reporting
- communications with stakeholders
- records of environmental monitoring
- monthly waste management reporting
- CEMP audit documentation.

Records of auditing and reporting are to be maintained to demonstrate compliance.

As per CoC A3, the Planning Secretary may make written directions to the Applicant in relation to an audit being undertaken and approved by the DPHI.

The CPESC is to conduct monthly audits of the delivery and operation of all construction phase erosion and sediment controls on the site in accordance with CoC B26(d).

## 5.4 Contingency Plan

If inspections, monitoring and/or auditing indicate that the mitigation measures listed in the Sub-Plans are not effective in managing environmental impacts, the actions outlined in the Contingency Plan (Appendix J) are to be implemented.

The Contingency Plan (required by CoC C1(f)) is designed to manage any unpredicted impacts and their consequences.

## 5.5 Non-compliance and Actions

A non-compliance is defined in SSD-17552047 Development Consent as an:

*occurrence, set of circumstances or development that is in breach of this consent.*

A failure to comply with statutory requirements is considered a breach of the Development Consent as per CoC C1(h)(iii).

Potential non-compliances with the CoC, statutory requirements, this CEMP and Sub-Plans can be identified by anyone and are to be reported to the Contractor Project Manager as a potential non-

compliance. The Contractor Project Manager must report non-compliances and potential non-compliances to Frasers immediately.

Non-compliances are to be investigated by the Contractor Project Manager to determine the root cause and any corrective and/or preventative actions arising from the investigation. This investigation is to be documented in a Non-Compliance Report prepared by, or for, the Contractor Project Manager and is to include any corrective and/or preventative actions. The Non-Compliance Report is to be provided to Frasers and the ER within five days of the non-compliance.

In accordance with CoC C15, the Planning Secretary must be notified via the major Projects website within seven days after Frasers becomes aware of any non-compliance. As per CoC C16, the notification must identify the development and the application number for it, set out the CoC that the development is non-compliant with, the way in which it does not comply, the reasons for the non-compliance (if known), and what actions have been, or will be, undertaken to address the non-compliance.

Note that under CoC C17, a non-compliance which has been notified as an environmental incident (see Section 5.6.1) does not need to also be notified as a non-compliance.

## 5.6 Environmental Incident and Emergency Response

### 5.6.1 Environmental Incidents

An environmental incident is defined in the SSD-17552047 Development Consent as an:

*occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.*

Material harm is defined as:

*harm that:*

- a) *involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or*
- b) *results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).*

Environmental incidents can be identified by anyone and are to be reported without delay to the Contractor Project Manager. The Contractor Project Manager must then verbally report the environmental incident to Frasers and the ER immediately.

Under CoC C13, Frasers must notify the Department in writing via the NSW Planning Portal (Major Projects) website within 24 hours of Frasers becomes aware of an incident. The notification must identify:

- a) date, time and location
- b) a brief description of what occurred and why it has been classified as an incident
- c) a description of what immediate steps were taken in relation to the incident
- d) identifying a contact person for further communication regarding the incident.

Where a pollution incident causes or threatens material harm to the environment or human health, the following authorities must also be notified immediately under the POEO Act:

- EPA
- Penrith City Council
- The Ministry of Health (via Public Health Units)
- SafeWork NSW (formerly WorkCover)
- Fire and Rescue NSW.

Within seven days of the incident notification (or as otherwise agreed to by the Planning Secretary), Frasers must provide the Planning Secretary with a subsequent incident report addressing all requirements within Appendix 7 of the SSD-17552047 Development Consent, and such further reports as may be requested (CoC C14).

### 5.6.2 Environmental Emergencies

An environmental emergency is any event that causes or has the potential to cause material harm to the environment.

Frasers have nominated an emergency contact and an alternate contact that are available 24-hours a day, seven days a week. The Construction Contractor is to implement an Emergency Response Plan for the Project as required. Under this plan the Site Emergency Contact has the authority to stop and direct works on site in the event of an emergency.

For reference, emergency contact details are included in Table 5-2.

**Table 5-2** Emergency contact details

Contact	Contact Details	Address
Ambulance	000	N/A
Fire Brigade	000	N/A
Police	000	N/A
NSW EPA Pollution Hotline	131 555	N/A
DPHI	1300 305 695	N/A
NSW Department of Health	(02) 9391 9000	N/A
SafeWork NSW	13 10 50	N/A
Penrith City Council	(02) 4732 7777	601 High St, Penrith NSW 2750
Frasers Representative	Monica Ngo Mobile: 0408 930 244 Email: <a href="mailto:monica.ngo@fraserproperty.com.au">monica.ngo@fraserproperty.com.au</a>	N/A
Contractor Project Manager	<b>TBC</b>	N/A

### 5.7 Environmental Reporting

The reporting of environmental performance during construction is to be completed as required by the SSD-17552047 Development Consent. Environmental reporting requirements for the Project as documented in the CEMP and Sub-plans are summarised in Table 5-3.

**Table 5-3 Environmental reporting**

Report	Timing/Frequency	Responsibility	Reference
Dilapidation Report	Before the commencement of earthworks	Contractor Project Manager	CoC A17(b)
ER Monthly Report	Monthly	ER	CoC A38(l)
CPESC Monthly Audits	Monthly	CPESC/ Contractor Project Manager	CoC B26(d)
Remediation Validation Report	Within three months of completion of remediation works	Contractor HSEQ Manager	CoC B67
Incident Report	Within 7 days (or as otherwise agreed by the Planning Secretary) of the Applicant making the immediate incident notification	Contractor Project Manager	CoC C13
Non-Compliance Report	Within seven days of becoming aware of non-compliance	Contractor Project Manager	CoC C15
Compliance Report	Within three months after the commencement of earthworks of the development, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), for the duration of earthworks and construction works	Contractor Project Manager	CoC C18
Environmental inspection and progress reports	Ongoing to the Project Manager	Contractor HSEQ Manager	Section 3.2
Monthly Project Report (including overall environmental performance of the Project)	Monthly to Frasers	Contractor Project Manager	Section 3.2
Pre-start checks on plant and equipment	Daily	Plant and Equipment Operators	Table 4-2 and Section 5.1 CAQMP
Internal Health, Safety, Security and Environment Audit Report	Annually	Frasers Representative	Section 5.3

Several of these reports are required by the CoC to be prepared by individuals with certain qualifications or accreditations, as follows:

- The CPESC Audit Report must be prepared by a CPESC.
- The ER monthly reports must be prepared by the DPHI approved ER or Alternate ER.
- The Remediation Validation Report must be prepared by a consultant certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management scheme.

Under CoC A39(a), Frasers are to provide the ER with the Contact Register (on a daily basis) and a copy of any consistency assessment for proposed works (before the commencement of the subject work).

The Compliance Reports (required by CoC C18) are to review the environmental performance of the Project. The Compliance Reports are to be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department, 2020) and must also:

- identify any trends in the monitoring data
- identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies
- describe what measures will be implemented over the next year to improve the environmental performance of the development.

Under CoC C19, each Compliance Report is to be made publicly available by Frasers no later than 60 days after submission to the Planning Secretary. Frasers must notify the Planning Secretary in writing seven days prior to public availability.

## 5.8 CEMP Review and Revision Program

To meet the requirements of CoC C1(e) and (g) for this CEMP and the Sub-Plans, Frasers are to implement a review program to:

- monitor and report on the:
  - impacts and environmental performance of the Project
  - effectiveness of the management measures included in the CEMP and Sub-Plans
- investigate and implement ways to improve the environmental performance of the Project over time.

This review is to consider the broader management context of the CEMP and Sub-Plans including:

- complaints received
- issues raised by stakeholders
- non-compliances identified and reported
- incidents and the Project team response
- Project team structure and resourcing
- recommendations of environmental inspections, audits and previous review (after the initial review).

This review is to be completed by the Contractor HSEQ Manager, in consultation with the Project Manager and Frasers Representative, on an annual basis commencing one year after the commencement of construction. An Environmental Review Report recommending measures to improve the environmental performance of the Project is to be produced by the review.

CoC C11 also states that all strategies, plans and programs required under the SSD-17552047 Development Consent are to be reviewed and the Planning Secretary notified of the review within three months of:

- the submission of a Compliance Report under CoC C18

- the submission of an incident report under CoC C13
- the approval of any modification of the conditions of the SSD-17552047 Development Consent
- the issue of a direction of the Planning Secretary under CoC A2(b) which requires a review.

As per CoC C12, where documents are revised under the above reviews, the revised documents must be sent to the Planning Secretary for approval within six weeks of the review (or as agreed by the Planning Secretary).

All employees and contractors are to be informed of any revisions to the CEMP during toolbox talks and incorporated into environmental induction materials where relevant.

# Appendix A Development Consent Compliance Matrix

Ref.	Condition	How addressed
<b>Part A Administrative Conditions</b>		
<b>A1</b>	In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.	This CEMP and associated Sub-Plans have been developed to prevent/minimise any material harm to the environment.
<b>A2</b>	The development may only be carried out: (a) in compliance with the conditions of this consent; (b) in accordance with all written directions of the Planning Secretary; (c) in accordance with the EIS, ADR, RtS, and Additional Information; (d) in accordance with the Development Layout in Appendix 1; and (e) in accordance with the management and mitigation measures in Appendix 2.	This CEMP and associated Sub-Plans have been developed to comply with the CoC, written directions of the Secretary, EIS, ADR, RtS and additional information, Development Layout and management and mitigation measures outlined in Appendix 2 of the Development Consent.
<b>A3</b>	Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to: (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and (b) the implementation of any actions or measures contained in any such document referred to in condition A3(a).	Section 5.8 details when revisions of the CEMP may be undertaken including upon written direction by the Planning Secretary.
<b>A4</b>	The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition A2(c), or A2(e). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c) or A2(e), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.	Noted
<b>A5</b>	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 that date.	Noted
<b>A8</b>	The Applicant must ensure no vehicles associated with the construction and operation of the development use Bakers Lane.	Noted Included in site induction content
<b>A11</b>	The date of commencement of each of the following phases of the development must be notified to the Planning Secretary in writing, at least one month before that date, or as otherwise agreed with the Planning Secretary: (a) earthworks; (b) construction; and (c) operation.	Noted

Ref.	Condition	How addressed
<b>A12</b>	If the earthworks, construction, or operation of the development is to be staged, the Planning Secretary must be notified in writing, at least one month before the commencement of each stage (or other timeframe agreed with the Planning Secretary), of the date of commencement and the development to be carried out in that stage.	Noted
<b>A13</b>	Where conditions of this consent require consultation with an identified party, the Applicant must: (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and (b) provide details of the consultation undertaken including: (i) the outcome of that consultation, matters resolved and unresolved; and (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.	Consultation with stakeholders during the preparation of this CEMP was not required. Where required, consultation with stakeholders has occurred and is documented in the relevant Sub-Plan.
<b>A14</b>	With the approval of the Planning Secretary, the Applicant may: (a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development 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); (b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and (c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).	Noted
<b>A15</b>	If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.	Noted
<b>A16</b>	If approved by the Planning Secretary, updated strategies, plans or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan or program.	Noted
<b>A17</b>	Prior to the commencement of earthworks for the development, the Applicant must: (a) consult with the relevant owner and provider of services or public infrastructure that are likely to be affected by the development or that need to be installed as part of the development, to make suitable arrangements for relevant approvals, access to, diversion, protection and support of the affected services or 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 the dilapidation report to the Planning Secretary and Council.	Consultation with relevant owners will be undertaken and a dilapidation report will be prepared and submitted to Secretary and Council.

Ref.	Condition	How addressed
<b>A18</b>	Unless the Applicant and the applicable authority agree otherwise, the Applicant must: <ul style="list-style-type: none"> <li>(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the development;</li> <li>(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development; and</li> <li>(c) obtain any relevant approval(s) from the relevant service provider(s), prior to undertaking construction of the corresponding utility works.</li> </ul>	Noted
<b>A32</b>	The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.	Section 3.3.1 of this CEMP
<b>A36</b>	All plant and equipment used on-site, or to monitor the performance of the development, must be: <ul style="list-style-type: none"> <li>(a) maintained in a proper and efficient condition; and</li> <li>(b) operated in a proper and efficient manner.</li> </ul>	Table 4-2 and Section 5.1 of this CEMP and Sub-Plans

Ref.	Condition	How addressed
<b>A38</b>	<p>The Applicant must engage an Environmental Representative (ER) to oversee earthworks and construction of the development. Unless otherwise agreed to by the Planning Secretary, earthworks and construction of the development must not commence until an ER has been approved by the Planning Secretary and engaged by the Applicant. The approved ER must:</p> <ul style="list-style-type: none"> <li>(a) be a suitably qualified and experienced person who was not involved in the preparation of the EIS, ADR, Submissions Report, and Additional Information for the development and is independent from the design and construction personnel for the development;</li> <li>(b) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the development;</li> <li>(c) consider and inform the Planning Secretary on matters specified in the terms of this consent;</li> <li>(d) consider and recommend to the Applicant any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community;</li> <li>(e) review the CEMP required in conditions C2 and C5 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this consent and if so: <ul style="list-style-type: none"> <li>(i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or</li> <li>(ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary/Department for information or are not required to be submitted to the Planning Secretary/Department);</li> </ul> </li> <li>(f) regularly monitor the implementation of the CEMP, including the ESCP to ensure implementation is being carried out in accordance with the document and the terms of this consent;</li> <li>(g) as may be requested by the Planning Secretary, help plan, attend or undertake audits of the development commissioned by the Department including scoping audits, programming audits, briefings, and site visits;</li> <li>(h) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints;</li> <li>(i) provide advice to the Applicant on the management and coordination of earthworks and construction on the site with adjoining sites in the Mamre Road Precinct in relation to construction traffic management, air quality, erosion and sediment control, stormwater management and noise;</li> <li>(j) attend the Mamre Road Precinct Working Group (see condition A41) in a consultative role in relation to the environmental performance of the development;</li> <li>(k) review the monthly audits of the erosion and sediment controls undertaken by the CPESC in accordance with condition B26; and</li> <li>(l) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading 'Environmental Representative Monthly Reports'. The Environmental Representative Monthly Report must be submitted within seven calendar days following the end of each month for the duration of the ER's engagement for the development, or as otherwise agreed with the Planning Secretary</li> </ul>	Section 3.2 and Section 1.2.4 of this CEMP

Ref.	Condition	How addressed
<b>A39</b>	<p>The Applicant must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in condition A38 (including preparation of the ER monthly report), as well as:</p> <ul style="list-style-type: none"> <li>(a) the complaints register (to be provided on a daily basis); and</li> <li>(b) a copy of any assessment carried out by the Applicant of whether proposed work is consistent with the consent (which must be provided to the ER before the commencement of the subject work).</li> </ul>	Section 2.2 and Section 3.2 of this CEMP
<b>A40</b>	<p>The Planning Secretary may at any time commission an audit of an ER's exercise of its functions under condition C20. The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) facilitate and assist the Planning Secretary in any such audit; and</li> <li>(b) make it a term of their engagement of an ER that the ER facilitate and assist the Planning Secretary in any such audit.</li> </ul>	Section 3.2 of this CEMP
<b>A41</b>	<p>Within three months of the date of this consent and until all components of the development are constructed and operational, the Applicant must join the working group established by relevant consent holders in the Mamre Road Precinct (MRP), to the satisfaction of the Planning Secretary. The purpose of the working group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts. The working group must:</p> <ul style="list-style-type: none"> <li>(a) comprise at least one representative of the Applicant, the Applicant's ER, and relevant consent holders in the MRP;</li> <li>(b) meet periodically throughout the year to discuss, formulate and implement measures or strategies to improve monitoring, coordination of the approved industrial developments in the MRP;</li> <li>(c) regularly inform Council, TfNSW, Sydney Water and the Planning Secretary of the outcomes of these meetings and actions to be undertaken by the working group;</li> <li>(d) review the performance of approved industrial developments in the MRP and identify trends in the data with respect to cumulative construction traffic, air quality, erosion and sediment control, noise, stormwater management and waterway health objectives under the MRP DCP;</li> <li>(e) review community concerns or complaints with respect to environmental management;</li> <li>(f) identify interim traffic safety measures to manage construction traffic and how these measures will be coordinated, communicated, funded and monitored in the MRP; and</li> <li>(g) provide the Planning Secretary with an update and strategies, if a review under subclause (d) and (e) identifies additional measures and processes are required to be implemented by the working group.</li> </ul>	Section 3.1 and Section 3.2
<b>A42</b>	<p>Three months prior to completion of construction of all components of the development, the Applicant is eligible to exit the working group required under condition A41. The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) consult with the Planning Secretary;</li> <li>(b) provide confirmation that all components of the development are operational; and</li> <li>(c) advise on the date of the proposed exit.</li> </ul>	Section 3.2 of this CEMP
<b>A43</b>	<p>References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.</p>	Section 3.3 of this CEMP

Ref.	Condition	How addressed
<b>A44</b>	However, consistent with the conditions in this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.	Section 5.8 of this CEMP
<b>AN1</b>	All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.	Section 3.3 of this CEMP
<b>PART B SPECIFIC ENVIRONMENTAL CONDITIONS</b>		
<b>B1</b>	<p>Prior to the commencement of earthworks and construction of each warehouse building, the Applicant must prepare a Construction Traffic Management Plan (CTMP) for the development to the satisfaction of the Planning Secretary. The CTMP must form part of the CEMP required by conditions C2 and C5 and must:</p> <ul style="list-style-type: none"> <li>(a) be prepared by a suitably qualified and experienced person(s);</li> <li>(b) be prepared in consultation with Council and TfNSW;</li> <li>(c) incorporate any traffic safety outcomes and actions from the MRP working group;</li> <li>(d) outline traffic management and contingency measures to be implemented for the site to: <ul style="list-style-type: none"> <li>(i) ensure access and road safety and network efficiency is maintained;</li> <li>(ii) manage cumulative construction traffic from other concurrent construction works within the Mamre Road Precinct;</li> </ul> </li> <li>(e) detail heavy vehicle routes, access and parking arrangements including any temporary construction access on Aldington Road constructed under condition B3;</li> <li>(f) include a Driver Code of Conduct to: <ul style="list-style-type: none"> <li>(i) minimise the impacts of earthworks and construction on the local and regional road network;</li> <li>(ii) minimise conflicts with other road users;</li> <li>(iii) minimise road traffic noise;</li> <li>(iv) ensure truck drivers use specified routes;</li> </ul> </li> <li>(g) include a program to monitor the effectiveness of these measures; and</li> <li>(h) detail procedures for notifying residents and the community (including local schools and places of worship), of any potential disruptions to routes.</li> </ul>	Appendix B CTMP
<b>B2</b>	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) not commence earthworks and construction of each warehouse building until the CTMP required by condition B1 is approved by the Planning Secretary; and</li> <li>(b) implement the most recent version of the CTMP approved by the Planning Secretary for the duration of earthworks and construction of the development.</li> </ul>	Appendix B CTMP

Ref.	Condition	How addressed
<b>B3</b>	Prior to the commencement of earthworks, the Applicant must obtain a Section 138 Roads Act Approval from Council and construct one temporary left-in/right-out driveway on Aldington Road shown in Figure 12: in Appendix 1 to be used by construction vehicles.	Appendix B CTMP
<b>B4</b>	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) ensure the temporary left-in/right-out construction driveway is constructed and maintained at no cost to Council; and</li> <li>(b) remove the temporary left-in/right-out construction driveway at the completion and commissioning of the Aldington Road/collector road intersection, at no cost to Council.</li> </ul>	Appendix B CTMP
<b>B15</b>	The Applicant must provide sufficient parking facilities for the development in accordance with the MRP DCP, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public streets or public parking facilities.	Appendix B CTMP
<b>B23</b>	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) ensure that only VENM, ENM, or other fill material approved in writing by the Environment Protection Authority is brought onto the site;</li> <li>(b) where possible, source fill material from within the MRP;</li> <li>(c) keep accurate records of the volume and type of fill to be used; and</li> <li>(d) make these records available to the Planning Secretary upon request.</li> </ul>	Table 4-2 of this CEMP
<b>B25</b>	<p>Prior to the commencement of any earthworks or other surface disturbance, the Applicant must prepare an Erosion and Sediment Control Plan (ESCP) to the satisfaction of the Planning Secretary. The ESCP must:</p> <ul style="list-style-type: none"> <li>(a) be prepared by a CPESC specialist whose appointment has been approved by the Planning Secretary;</li> <li>(b) be prepared in consultation with CPHR, Sydney Water and include written evidence of the outcomes of the consultation process and how the recommendations have been incorporated into the ESCP;</li> <li>(c) be independently reviewed and verified by the ER prior to submission to the Planning Secretary;</li> <li>(d) comply with the detailed technical specifications in the Technical guidance for achieving Wianamatta South Creek stormwater management targets (DPE 2022) (the Technical Guidance) or its latest version and the performance criteria in Appendix 3 in this consent;</li> <li>(e) detail measures to protect passively irrigated street trees during construction works, if these are installed before construction is completed; and</li> <li>(f) be included in the CEMP required by conditions C2 and C5.</li> </ul>	Appendix C ESCP

Ref.	Condition	How addressed											
B26	<p>The Applicant must:</p> <p>(a) not commence earthworks until the ESCP required by condition B25 is approved by the Planning Secretary;</p> <p>(b) ensure installation and operation of the erosion and sediment controls are supervised and certified by the CPESC appointed under condition B25(a);</p> <p>(c) implement the ESCP approved by the Planning Secretary for the duration of earthworks and construction; and</p> <p>(d) engage the CPESC to conduct monthly audits of the erosion and sediment controls for the duration of earthworks and construction and for a further 12 months following the completion of construction works to ensure the controls remain effective in achieving the construction phase stormwater quality targets in the Technical Guidance. Monthly audit reports must be reviewed and verified by the ER and submitted to the Planning Secretary within 7 days of completing the audit.</p>	Appendix C ESCP											
B27	The Environmental Representative (ER) appointed in accordance with condition A38, shall make a written statement to the Planning Secretary confirming the erosion and sediment controls are commissioned, prior to the commencement of earthworks and other construction activities for the development. The ER must also verify that disturbed areas have been adequately stabilised at the completion of earthworks.	Appendix C ESCP											
B28	The development must comply with section 120 of the <i>Protection of Environment Operations Act 1997</i> (NSW) (POEO Act), which prohibits the pollution of waters, except as expressly provided for in an Environment Protection Licence.	Table 3-2 of this CEMP and Appendix C ESCP											
B40	Prior to commencement of earthworks, the Applicant must implement the Aldington Road Estate, Kemps Creek SSD-17552047 Dam Decommissioning Management Plan, prepared by écologique, dated 13 October 2022, Revision 03 included in the ADR. The Dam Decommissioning Management Plan must form part of the CEMP required by conditions C2 and C5. The Applicant must implement the most recent version of the Dam Decommissioning Management Plan for the duration of construction.	Appendix D DDP											
B41	<p>The Applicant must comply with the hours detailed in Table 2.</p> <p><i>Table 2 Hours of Work</i></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Earthworks and construction</td> <td>Monday – Friday</td> <td>7 am to 6 pm</td> </tr> <tr> <td>Saturday</td> <td>8 am to 1 pm</td> </tr> <tr> <td>Operation</td> <td>Monday – Sunday</td> <td>24 hours</td> </tr> </tbody> </table>	Activity	Day	Time	Earthworks and construction	Monday – Friday	7 am to 6 pm	Saturday	8 am to 1 pm	Operation	Monday – Sunday	24 hours	Section 1.2.3 of this CEMP and Appendix E CNVMP
Activity	Day	Time											
Earthworks and construction	Monday – Friday	7 am to 6 pm											
	Saturday	8 am to 1 pm											
Operation	Monday – Sunday	24 hours											
B42	<p>Works outside of the hours identified in condition B41 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 Planning 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 or to prevent environmental harm.</p>	Section 1.2.3 of this CEMP and Appendix E CNVMP											

Ref.	Condition	How addressed
<b>B43</b>	The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (ICNG) (DECC, 2009) (as may be updated or replaced from time to time). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in Appendix 2.	Appendix E CNVMP
<b>B44</b>	<p>Prior to commencement of earthworks and construction of each warehouse building in the development, the Applicant must prepare a Construction Noise Management Plan for the development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with conditions C2 and C5 and must:</p> <ul style="list-style-type: none"> <li>(a) be prepared by a suitably qualified and experienced noise expert;</li> <li>(b) be approved by the Planning Secretary prior to the commencement of earthworks and construction;</li> <li>(c) describe procedures for achieving the noise management levels in the ICNG (DECC, 2009) (as may be updated or replaced from time to time);</li> <li>(d) describe the measures to be implemented to manage high noise generating works such as rock breaking and piling, in close proximity to sensitive receivers;</li> <li>(e) include strategies that have been developed with the community for managing high noise generating works;</li> <li>(f) describe the community consultation undertaken to develop the strategies in condition B44(e);</li> <li>(g) detail the timing, duration and frequency of monitoring to be undertaken to demonstrate the earthworks and construction meet the construction noise management levels in the ICNG; and</li> <li>(h) include a complaints management system that would be implemented for the duration of earthworks and construction.</li> </ul>	Appendix E CNVMP
<b>B45</b>	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) not commence earthworks or construction of the development until the Construction Noise Management Plan required by condition B44 is approved by the Planning Secretary; and</li> <li>(b) implement the most recent version of the Construction Noise Management Plan approved by the Planning Secretary for the duration of earthworks and construction.</li> </ul>	Appendix E CNVMP
<b>B49</b>	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Appendix F CAQMP
<b>B50</b>	<p>During construction of the development, the Applicant must ensure that:</p> <ul style="list-style-type: none"> <li>(a) exposed surfaces and stockpiles are suppressed by regular watering or other alternative suppression method;</li> <li>(b) all trucks entering or leaving the site with loads have their loads covered;</li> <li>(c) trucks associated with the development do not track dirt onto the public road network;</li> <li>(d) public roads used by these trucks are kept clean; and</li> <li>(e) land stabilisation works are carried out progressively on-site to minimise exposed surfaces.</li> </ul>	Appendix F CAQMP

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- B51** Prior to the commencement of earthworks and construction of each warehouse building in the development, the Applicant must prepare a Construction Air Quality Management Plan (CAQMP) to the satisfaction of the Planning Secretary. The CAQMP must form part of the CEMP required by conditions C2 and C5 and must:
- (a) be prepared by a suitably qualified and experienced person(s);
  - (b) detail and rank all emissions from all sources during construction of the development, including particulate emissions;
  - (c) describe a program that is capable of evaluating the performance of the construction and determining compliance with key criteria, including installation of real-time air quality monitors on the site boundary;
  - (d) identify the locations of the real-time air quality monitors including at receiver R13 as shown in Figure 17 in Appendix 5;
  - (e) identify the control measures that will be implemented for each emission source;
  - (f) nominate the following for each of the proposed controls:
    - (i) key criteria;
    - (ii) monitoring method;
    - (iii) locations, frequency and duration of monitoring;
  - (g) outline procedures that will be implemented in relation to:
    - (i) record keeping;
    - (ii) reporting to the Environmental Representative required under condition A38;
    - (iii) complaints register;
    - (iv) response procedures;
    - (v) compliance monitoring; and
  - (h) include a Trigger Action Response Plan (TARP) that must include:
    - (i) the objectives of the TARP;
    - (ii) triggers for:
      - continuously monitored PM10 concentrations;
      - meteorological conditions;
      - visible dust plumes;
      - on-site activities that have the potential for elevated dust emissions;
    - (iii) a procedure to identify likely dust-generating sources;
    - (iv) source-specific actions to reduce dust generation rates;
    - (v) a procedure to determine the effectiveness of the implemented actions;
    - (vi) a procedure to implement additional controls if required, to ensure the development complies with the conditions of this consent; and
    - (vii) a procedure to record evidence / observations of the effectiveness of the implemented actions to manage the triggers, and evidence to demonstrate that the objectives of the TARP have been achieved; and

Ref.	Condition	How addressed
	(i) detail contingency measures to be implemented to reduce any exceedances of relevant performance indicators or criteria and include a timetable for implementation.	
<b>B52</b>	<p>The Applicant must:</p> <p>(a) not commence earthworks until the CAQMP required by condition B51 is approved by the Planning Secretary; and</p> <p>(b) implement the most recent version of the CAQMP approved by the Planning Secretary for the duration of earthworks and construction.</p>	Appendix F CAQMP
<b>B53</b>	<p>Within three months of the commencement of earthworks and every three months thereafter until the completion of earthworks, the Applicant must commission and pay the full cost of an Independent Air Quality Audit to review the air quality performance of the development. The IAQA must, and:</p> <p>(a) be undertaken by a suitably qualified (i.e. CAQP and/or CEnv), experienced and independent expert whose appointment has been endorsed by the Planning Secretary;</p> <p>(b) analyse the performance of the CAQMP, including the TARP;</p> <p>(c) audit the performance of the CAQMP, including the TARP in achieving its objectives;</p> <p>(d) identify any deficiencies in the CAQMP including the TARP in achieving its objectives and propose changes to improve the performance of the CAQMP to achieve those objectives;</p> <p>(e) review the air quality monitoring and mitigation requirements and air quality monitoring data for the audit period;</p> <p>(f) analyse any incidents, non-compliances and complaints that occurred or were made during the audit period; and</p> <p>(g) if necessary, recommend and prioritise measures to improve the air quality controls on-site for subsequent stages of the earthworks program, such that sensitive receivers would be protected against adverse air quality impacts from the development.</p>	Appendix F CAQMP
<b>B54</b>	<p>Within 6 weeks of the completion of the IAQA required by Condition B53, the Applicant must submit a copy of the audit report to the Planning Secretary with a response to any recommendations contained in the audit report. The response must include a timeframe for implementing the recommendations of the IAQA.</p>	Appendix F CAQMP
<b>B62</b>	<p>Prior to commencement of earthworks, the Applicant must implement the recommendations outlined in the Aldington Road Estate, Kemps Creek: Aboriginal Cultural Heritage Assessment Report, prepared by Biosis Pty Ltd, dated 22 April 2022 and the Edge Estate – Interim Letter of Advice regarding responses to State Significant Development Submission, prepared by Biosis Pty Ltd, dated 8 May 2024.</p>	Section 4.2 of this CEMP
<b>B63</b>	<p>If any item or object of Aboriginal heritage significance is identified on-site:</p> <p>(a) all work in the immediate vicinity of the suspected Aboriginal item or object must cease immediately;</p> <p>(b) a 10 m wide buffer area around the suspected item or object must be cordoned off; and</p> <p>(c) Heritage NSW must be contacted immediately.</p>	<p>Section 4.2 of this CEMP</p> <p>Site Induction Training Material</p>
<b>B64</b>	<p>Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the <i>National Parks and Wildlife Act 1974</i> (NSW).</p>	<p>Section 4.2 of this CEMP</p> <p>Site Induction Training Material</p>

Ref.	Condition	How addressed
<b>B65</b>	If any archaeological relics are uncovered during earthworks or construction, then all works must cease immediately in that area. Unexpected finds must be evaluated and recorded in accordance with the requirements of Heritage NSW.	Section 4.2 of this CEMP Site Induction Training Material
<b>B66</b>	The Applicant must remediate the site in accordance with the Remedial Action Plan included in the ADR and relevant guidelines produced or approved under the <i>Contaminated Land Management Act 1997</i> (NSW). Remediation works must be undertaken by a suitably qualified and experienced consultant(s).	RAP
<b>B67</b>	<p>Within three months of completion of the remediation works, the Applicant must submit a Remediation Validation Report (RVR) to the satisfaction of the Planning Secretary. The RVR must be prepared in accordance with the approved remedial action plan and relevant guidelines produced or approved under the <i>Contaminated Land Management Act 1997</i> and must:</p> <p>(a) be reviewed and approved, by a consultant certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme; and</p> <p>(b) demonstrate that:</p> <p>(i) the site is suitable for its intended industrial land use, or</p> <p>(ii) the site is suitable for its intended industrial land use with the implementation of an environmental management plan or long-term environmental management plan.</p>	RAP
<b>B68</b>	<p>Prior to the commencement of earthworks, the Applicant must prepare an Asbestos Management Plan (AMP) for the development to the satisfaction of the Planning Secretary. The AMP must form part of the CEMP required by condition C2 and must:</p> <p>(a) be prepared by a suitably experienced person(s) or a SafeWork NSW licenced asbestos assessor; and</p> <p>(b) be prepared in accordance with the Detailed Site Investigation Aldington Road Estate 155-167; 169-181; 183- 197; 199; 201-217; 219-233 and 235-251 Aldington Road, Kemps Creek, NSW prepared by JBS&amp;G Australia Pty Ltd, dated 16 March 2022.</p>	Appendix F AMP
<b>B69</b>	Prior to the commencement of earthworks, the Applicant must prepare an unexpected contamination finds procedure to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the CEMP in accordance with condition C2 and must ensure any material identified as contaminated is disposed of in accordance with the POEO Act and its associated regulations. Details of the final disposal location and the results of any associated testing must be submitted to the Planning Secretary prior to removal of the contaminated material from the site.	Appendix H UFP Site Induction Training Material
<b>B75</b>	The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Section 4.2 of this CEMP
<b>B76</b>	All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Site Induction Training Material
<b>B77</b>	Waste generated outside the site must not be received at the site for storage, treatment, processing, reprocessing, or disposal.	Section 4.2 of this CEMP
<b>B78</b>	Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.	Section 4.2 of this CEMP Site Induction Training Material

Ref.	Condition	How addressed
<b>B79</b>	<p>The Applicant must:</p> <p>(a) implement suitable measures to manage pests, vermin and declared priority weeds on the site; and</p> <p>(b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or priority weeds are not present on-site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.</p> <p><i>Note: For the purposes of this condition, priority weed has the same definition of the term in the Biosecurity Act 2015 (NSW).</i></p>	<p>Section 4.2 of this CEMP</p> <p>Site Induction Training Material</p>
<b>PART C ENVIRONMENTAL MANAGEMENT, MANAGEMENT PLAN REQUIREMENTS</b>		
<b>C1</b>	<p>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <p>(a) a condition compliance table for that plan;</p> <p>(b) detailed baseline data, where relevant;</p> <p>(c) details of:</p> <p>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);</p> <p>(ii) any relevant limits or performance measures and criteria; and</p> <p>(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;</p> <p>(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(e) a program to monitor and report on the:</p> <p>(i) impacts and environmental performance of the development; and</p> <p>(ii) effectiveness of the management measures set out pursuant to paragraph (d) above;</p> <p>(f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(g) a program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(h) a protocol for managing and reporting any:</p> <p>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);</p> <p>(ii) complaint;</p> <p>(iii) failure to comply with statutory requirements; and</p> <p>(i) a protocol for periodic review of the plan.</p>	<p>(a) Appendix A</p> <p>(b) Section 1.2, Section 4.1 and Sub-Plans</p> <p>(c) (i) Section 3.3 (ii) Section 1.3.3 and (iii) Section 1.4 and Sub-Plans</p> <p>(d) Section 4.2 and Table 4-2</p> <p>(e) Section 5</p> <p>(f) Appendix J</p> <p>(g) Section 5.3</p> <p>(h) Section 5.5 and 5.6</p> <p>(i) Section 5.8</p>
<b>C2</b>	<p>The Applicant must prepare a Construction Environmental Management Plan (CEMP) for undertaking earthworks and infrastructure works as shown in Figure 15: in Appendix 1 in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.</p>	<p>This CEMP</p>

Ref.	Condition	How addressed
<b>C3</b>	<p>As part of the CEMP required under condition C2 of this consent, the Applicant must include the following:</p> <ul style="list-style-type: none"> <li>(a) Construction Traffic Management Plan (see condition B1);</li> <li>(b) Erosion and Sediment Control Plan (see condition B25);</li> <li>(c) Dam Decommissioning Plan (see condition B40);</li> <li>(d) Construction Noise Management Plan (see condition B44);</li> <li>(e) Construction Air Quality Management Plan (see condition B51);</li> <li>(f) Asbestos Management Plan (see condition B68);</li> <li>(g) Unexpected Finds Procedure (see condition B69); and</li> <li>(h) Community Consultation and Complaints Handling Procedure.</li> </ul>	<ul style="list-style-type: none"> <li>(a) Appendix B</li> <li>(b) Appendix C</li> <li>(c) Appendix D</li> <li>(d) Appendix E</li> <li>(e) Appendix F</li> <li>(f) Appendix G</li> <li>(g) Appendix H</li> <li>(h) Appendix I</li> </ul>
<b>C4</b>	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) not commence earthworks until the CEMP is approved by the Planning Secretary; and</li> <li>(b) carry out earthworks and infrastructure works in accordance with the CEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).</li> </ul>	Section 1.3
<b>C5</b>	<p>The Applicant must prepare a CEMP for construction of warehouse buildings in the development in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.</p>	Future CEMP to be prepared
<b>C6</b>	<p>As part of the CEMP required by condition C5 of this consent, the Applicant must include the following:</p> <ul style="list-style-type: none"> <li>(a) Construction Traffic Management Plan (see condition B1);</li> <li>(b) Erosion and Sediment Control Plan (see condition B26);</li> <li>(c) Construction Noise Management Plan (see condition B44);</li> <li>(d) Construction Air Quality Management Plan (see condition B51); and</li> <li>(d) Community Consultation and Complaints Handling Procedure.</li> </ul>	Future CEMP to be prepared
<b>C7</b>	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) not commence construction of each warehouse building in the development until the CEMP is approved by the Planning Secretary; and</li> <li>(b) carry out the construction of each warehouse building in the development in accordance with the CEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).</li> </ul>	Future CEMP to be prepared

Ref.	Condition	How addressed
<b>C11</b>	<p>Within three months of:</p> <ul style="list-style-type: none"> <li>(a) the submission of a Compliance Report under condition C18;</li> <li>(b) the submission of an incident report under condition C13;</li> <li>(c) the approval of any modification of the conditions of this consent; or</li> <li>(d) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing of the outcomes of any review.</li> </ul>	Section 5.8 of this CEMP
<b>C12</b>	<p>If identified as part of the review process (see condition C11) or considered to improve the environmental performance of the development, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review required under condition C11, or such other timing as agreed by the Planning Secretary.</p> <p><i>Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.</i></p>	Section 5.8 of this CEMP
<b>C13</b>	<p>The Applicant must notify the Department within 24 hours of becoming aware of an incident. The notification must be made via the NSW planning portal (Major Projects) and address details of the incident including:</p> <ul style="list-style-type: none"> <li>(a) date, time and location;</li> <li>(b) a brief description of what occurred and why it has been classified as an incident;</li> <li>(c) a description of what immediate steps were taken in relation to the incident; and</li> <li>(d) identifying a contact person for further communication regarding the incident.</li> </ul>	Section 5.6.1 of this CEMP
<b>C14</b>	<p>The Applicant must provide the Department with a subsequent incident report in accordance with Appendix 7.</p>	Section 5.6.1 of this CEMP
<b>C15</b>	<p>Within seven days of becoming aware of non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing and must be submitted via the NSW planning portal (Major Projects). The notification must identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply, the reasons for the non-compliance (if known), and what actions have been undertaken, or will be undertaken, and when, to address the non-compliance.</p>	Section 5.5 of this CEMP
<b>C16</b>	<p>A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p>	Section 5.5 of this CEMP
<b>C17</b>	<p>A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</p>	Section 5.5 of this CEMP

Ref.	Condition	How addressed
<b>C18</b>	<p>Within three months after the commencement of earthworks of the development, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), for the duration of earthworks and construction works, the Applicant must submit a Compliance Report to the Planning Secretary reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also:</p> <p>(a) identify any trends in the monitoring data;</p> <p>(b) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p> <p>(c) describe what measures will be implemented over the next year to improve the environmental performance of the development.</p>	Section 5.7 of this CEMP
<b>C19</b>	<p>The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Planning Secretary and notify the Planning Secretary in writing at least seven days before this is done.</p>	Section 5.7 of this CEMP
<b>C20</b>	<p>Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&amp;A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.</p> <p><i>Note: For the purposes of this condition, as set out in the EP&amp;A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</i></p>	Noted

Ref.	Condition	How addressed
<b>C21</b>	<p>At least 48 hours before the commencement of earthworks of the development and for the life of the development, the Applicant must:</p> <p>(a) make the following information and documents (as they are obtained or approved) publicly available on its website:</p> <ul style="list-style-type: none"> <li>(i) the documents referred to in condition A2 of this consent;</li> <li>(ii) all current statutory approvals for the development;</li> <li>(iii) all approved strategies, plans and programs required under the conditions of this consent, with the exception of the document described under condition B73;</li> <li>(iv) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;</li> <li>(v) 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;</li> <li>(vi) a summary of the current stage and progress of the development;</li> <li>(vii) contact details to enquire about the development or to make a complaint;</li> <li>(viii) a complaints register, updated monthly;</li> <li>(ix) the Compliance Report of the development;</li> </ul> <p>(b) any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary.</p>	<p>Section 2.1 of this CEMP and Appendix I Community and Stakeholder Participation Strategy</p>

# Appendix B Construction Traffic Management Plan

Ms Monica Ngo  
Project Engineer – Infrastructure  
Fraser's Property Industrial Constructions Pty Ltd  
Level 15, 180 George Street,  
SYDNEY NSW 2000

18 September 2025

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**Subject: Construction Traffic Management Plan - The Edge Estate**

Dear Ms Ngo

I refer to the Construction Traffic Management Plan (CTMP) submitted in accordance with Condition B1, Schedule 2 of the consent for the Edge Estate (SSD-17552047). I also acknowledge your response to the Department's review comments and request for additional information.

The Department has carefully reviewed the document and is satisfied that it meets the requirements of Condition B1 in the consent (SSD-17552047).

Accordingly, as nominee of the Planning Secretary, I approve the CTMP, prepared by Ason Group (Version 5, Ref: P1043r07v05 and dated 17/07/2025).

You are reminded that if there are any inconsistencies between the CTMP and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Rebecka Williams on email [rebecka.williams@dpie.nsw.gov.au](mailto:rebecka.williams@dpie.nsw.gov.au) or phone number 02 8275 1723.

Yours sincerely



David Schwebel  
**Acting Team Leader**  
**Industry Assessments**

As nominee of the Planning Secretary



## **Construction Traffic Management Plan**

141-251 Aldington Road, Kemps Creek

Edge South Estate

17/07/2025

Ref: P1043r07v05

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## Document Control

<b>Project No</b>	P1043
<b>Project</b>	141-251 Aldington Road, Kemps Creek, Edge South Estate
<b>Client</b>	FPI Developments NSW Pty Ltd
<b>File Reference</b>	P1043r07v05_CTMP_155-251 Aldington Rd, Kemps Creek.docx

## Revision History

Revision No.	Date	Details	Author	Approved by
v01	21/05/2025	Final draft	Jay Wu Mack Brinums	Rhys Hazell
v02	18/06/2025	Final	Jay Wu Mack Brinums	Rhys Hazell
v03	19/06/2025	Final – updated to incorporate minor changes	Jay Wu Mack Brinums	Rhys Hazell
v04	14/07/2025	Minor updates to address TfNSW comments	Jay Wu Mack Brinums	Rhys Hazell
v05	17/07/2025	Minor updates to address ER comments	Jay Wu Mack Brinums	Mack Brinums

This document has been prepared for the sole use of the Client and for a specific purpose, as expressly stated in the document. Ason Group does not accept any responsibility for any use of or reliance on the contents on this report by any third party. This document has been prepared based on the Client's description of its requirements, information provided by the Client and other third parties.

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# 1 Introduction

## 1.1 Introduction

FPI Developments NSW Pty Ltd (Fraser's) engaged Ason Group to prepare a Construction Traffic Management Plan (CTMP) to support construction of an industrial development at 141-251 Aldington Road, Kemps Creek (the Site). Fraser's obtained State Significant Development (SSD) Consent SSD-17552047 on 3 June 2025 from the Department of Planning, Housing and Infrastructure (DPHI) for the Edge South Estate.

This CTMP details the measures and strategies to be completed during all construction works to minimise the effects of the works on the surrounding road network and to ensure the safety and efficiency of construction workers, community and all road users.

## 1.2 Development Consent

This CTMP responds the Development Consent issued on 3 June 2025 as it relates to SSD-17552047.

**TABLE 1: DEVELOPMENT CONSENT**

Development Consent	Response
<b>Traffic and Access</b>	
A8. All construction traffic associated with the development must access and depart the site via Abbots Road. No construction vehicles are permitted to access the site via Bakers Lane.	Noted and agreed as detailed in <b>Section 2.4</b>
<b>Evidence of Consultation</b>	
A16. Where conditions of this consent require consultation with an identified party, the Applicant must:	
(a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and	<b>Section 1.6.</b> Evidence of consultation with TfNSW and Council is provided in <b>Appendix E</b> .
(b) provide details of the consultation undertaken including: (i) the outcome of that consultation, matters resolved and unresolved, and a (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.	<b>Section 1.6.</b> Evidence of consultation with TfNSW and Council is provided in <b>Appendix E</b> .
<b>Mamre Road Precinct Working Group</b>	
A44. Within three months of the date of this consent and until all components of the development are constructed and operational, the Applicant must join the working group established by relevant consent holders in the Mamre Road Precinct (MRP), to the satisfaction of the Planning Secretary. The purpose of the working group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts. The working group must:	
(d) review the performance of approved industrial developments in the MRP and identify trends in the data with respect to cumulative construction traffic, erosion and sediment control, noise, stormwater management and waterway health objectives under the MRP DCP;	Details regarding the MRP working group are provided in <b>Section 1.6.2</b> and <b>Section 3.3</b> . This CTMP will be updated as required to address any actions coming out of the working group meetings. Any discussions relating to erosion and sediment control, noise, stormwater management and waterway health objectives are included in the overarching Construction Environmental Management Plan (CEMP).
(f) identify interim traffic safety measures to manage construction traffic and how these measures will be coordinated, communicated, funded and monitored in the MRP;	Details regarding the MRP working group are provided in <b>Section 1.6.2</b> and <b>Section 3.3</b> . Initial traffic safety and construction management measures are outlined in <b>Section 3</b> . This CTMP

**TABLE 1: DEVELOPMENT CONSENT**

Development Consent	Response
	<p>will be updated as required to address any actions coming out of the working group meetings.</p> <p>Any discussions relating to erosion and sediment control, noise, stormwater management and waterway health objectives are included in the overarching CEMP.</p>
<b>Construction Traffic Management Plan</b>	
<p>B1. Prior to the commencement of earthworks and construction of each warehouse building, the Applicant must prepare a Construction Traffic Management Plan (CTMP) for the development to the satisfaction of the Planning Secretary. The CTMP must form part of the CEMP required by conditions C2 and C5 and must:</p>	
(a) be prepared by a suitably qualified and experienced person(s);	<b>Section 1.3</b>
(b) be prepared in consultation with Council and TfNSW;	<b>Section 1.6.</b> Evidence of consultation with TfNSW and Council is provided in <b>Appendix E</b> .
(c) incorporate any traffic safety outcomes and actions from the MRP working group;	Noted. Any traffic safety commitments or management actions that are discussed/agreed within the MRPWG meetings will be actioned in coordination with the ER, and traffic consultants if required. A record of MRPWG traffic discussions are available upon request.
(d) outline traffic management and contingency measures to be implemented for the site to: <ul style="list-style-type: none"> <li>(i): ensure access and road safety and network efficiency is maintained;</li> <li>(ii): manage cumulative construction traffic from other concurrent construction works and traffic associated with operational facilities within the Mamre Road Precinct;</li> </ul>	<p><b>Section 3.3</b> concludes that the construction traffic will not have a detrimental impact on the network. A Traffic Guidance Scheme (TGS) has been provided in <b>Appendix A</b> detailing measures signage and management measures to facilitate site access.</p> <p>A monitoring and review programme has been developed and specified in <b>Section 4</b>.</p> <p>Measures and strategies to manage cumulative construction traffic from other concurrent construction works are detailed in <b>Section 1.6</b> and <b>Section 3.3</b></p>
(e) detail heavy vehicle routes, access and parking arrangements including any temporary construction access on Aldington Road constructed under condition B3;	<p><b>Section 2.3</b></p> <p><b>Section 2.4</b></p> <p><b>Section 3.5</b></p>
(f) include a Driver Code of Conduct to <ul style="list-style-type: none"> <li>(i) minimise the impacts of construction on the local and regional road network</li> <li>(ii) minimise conflicts with other road users</li> <li>(iii) minimise road traffic noise</li> <li>(iv) inform truck drivers of the site access arrangements, turning restrictions and use of specified routes</li> </ul>	<b>Appendix D</b>
(g) include a program to monitor the effectiveness of these measures	<b>Section 4</b>
(h) detail procedures for notifying residents and the community (including local schools and places of worship), of any potential disruptions to routes.	<b>Section 1.6</b>
B2. The Applicant must:	
(a) not commence construction until the Construction Traffic Management Plan required by condition B1 is approved by the Planning Secretary; and	<b>Noted</b>

**TABLE 1: DEVELOPMENT CONSENT**

Development Consent	Response
(b) implement the most recent version of the Construction Traffic Management Plan approved by the Planning Secretary for the duration of construction.	<b>Noted</b>
<b>Temporary Construction Access</b>	
B3. Prior to the commencement of earthworks, the Applicant must obtain approval under section 138 of the Roads Act 1993 from Council and construct one temporary left-in/right-out driveway on Aldington Road to be used by construction vehicles.	<b>Section 2.3</b>
B4. The Applicant must: (a) ensure the temporary left-in/right-out construction driveway is constructed and maintained at no cost to Council; and (b) remove the temporary left-in/right-out construction driveway at the completion and commissioning of the Aldington Road/collector road intersection, at no cost to Council.	<b>Section 2.3</b> <b>Section 2.4</b>
<b>Management Plan Requirements</b>	
C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	
(a) a condition compliance table for that plan.	<b>Table 1</b>
(b) detailed baseline data, where relevant.	Refer to <b>Section 1.5</b> and <b>Section 4</b> Details further to this condition is outlined within the overarching CEMP
(c) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions) (ii) any relevant limits or performance measures and criteria (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.	Refer to <b>Section 3.2</b> and <b>Section 4.4</b>
(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria.	Refer to <b>Section 3</b> and <b>Section 4</b> Otherwise, the environmental management commitments are outlined within the overarching CEMP
(e) a program to monitor and report on the: (i) impacts and environmental performance of the development (ii) effectiveness of the management measures set out pursuant to paragraph (c) above.	Refer to <b>Section 4</b>
(f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible.	Refer to <b>Section 4.6</b>
(g) a program to investigate and implement ways to improve the environmental performance of the development over time.	Refer to <b>Section 4</b> . This CTMP will also be updated as required to address any actions coming out of the working group meetings.
(h) a protocol for managing and reporting any: (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria) (ii) complaint (iii) failure to comply with statutory requirements.	Refer to <b>Section 1.6</b> and <b>Section 4</b>
(i) a protocol for periodic review of the plan	Refer to <b>Section 4.3</b>



- The Australian Standard Manual of Uniform Traffic Control Devices (AS1742.3-2019).

**Table 2** provides a list of the key project representatives and stakeholders relevant to the preparation of this CTMP.

<b>TABLE 2: PROJECT REPRESENTATIVES AND STAKEHOLDERS</b>		
<b>Name</b>	<b>Organisation</b>	<b>Role</b>
Patrick Wu	TfNSW	Stakeholder
John Skaf	Penrith City Council	Stakeholder
Ahmad Ghalayini	FPI Developments NSW Pty Ltd	Project Manager
Monica Ngo	FPI Developments NSW Pty Ltd	Project Engineer
Malcolm (Rhys) Hazell	Ason Group	Principal Lead Transport Planner
Jay Wu	Ason Group	Transport Engineer

## 1.4 Project Context

### 1.4.1 Site Location

The site is identified as 141-251 Aldington Road, Kemps Creek, which is located within the Penrith Local Government Area in the industrial-focused Mamre Road Precinct (MRP). It is approximately 4km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 12km south-east of the Penrith CBD and 40km west of the Sydney CBD. It comprises seven lots with a total area of 632,887m<sup>2</sup>.

The site is afforded a primary frontage of approximately 970m to Aldington Road to the east with vehicle access provided via several existing informal driveways. Aldington Road connects with Mamre Road via Abbots Road south-west of the site, and to the north via Bakers Lane. From Mamre Road, access is available north to the M4 Motorway, Great Western Highway, Lenore Drive and M7 Motorway; and south to Elizabeth Drive, the M7 Motorway and the future M12 Motorway.

The location of the site in the context of the surrounding local area is shown in **Figure 1**.



Figure 1: Site Location within the MRP

## 1.4.2 Project Description

The works under SSD-17552047 (once approved) would include:

- Demolition of existing dwelling houses and associated outbuildings.
- Construction of eight warehouse (Lot 1 to Lot 8) and distribution centres with a total gross floor area of 153,343m<sup>2</sup>.
- Bulk earthworks involving dam dewatering, cut and fill works and pad construction, including transitional earthworks between the site and Lot 34 DP 258949.
- Vegetation clearing.
- Proposed construction of internal public access roads of 24.0m and 25.6m wide and connections to existing and future local roads.
- Stormwater and drainage works including construction of on-site detention and bio-retention basins.
- Construction of retaining walls across the site.
- Construction of interim acoustic barriers.
- Landscaping and street tree planting.
- Infrastructure comprising civil works and utilities servicing.

Construction of Lots 9 to 14 will be subject to separate development approvals. The Edge South Estate layout is shown in **Figure 2**.



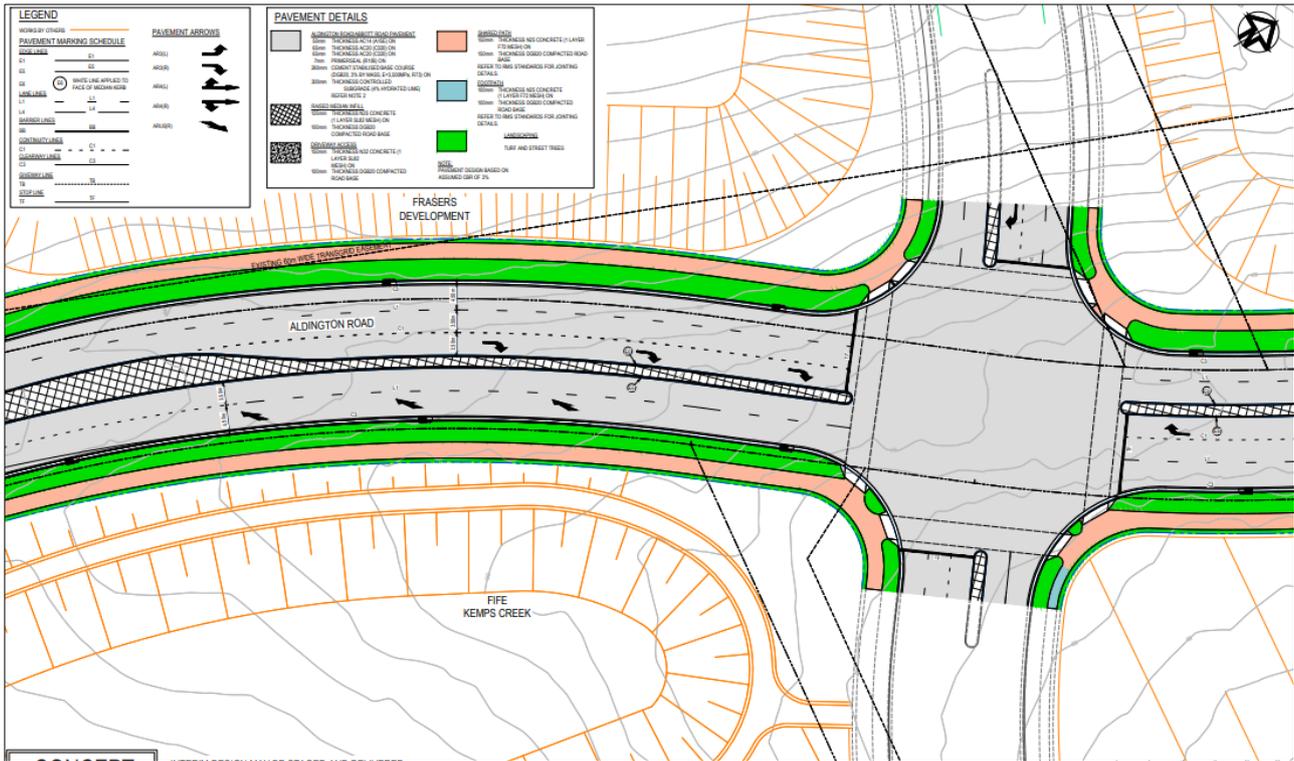
Base map source: Nearmap, 23 November 2024

Figure 2: Edge South Estate Layout

### 1.4.3 Aldington Road and Site Access Road Signalised Intersection

The planned construction of the Aldington Road/ Site Access Road signalised intersection is anticipated to be delivered by May 2026. Upon completion, this intersection will provide formal access to the Edge Estate. The Aldington Road concept plan at the signalised intersection is shown in **Figure 3**.

Construction of this intersection will be completed as part of the Voluntary Planning Agreements (VPAs) between Land Owners Group East (LOG-E) and Council and does not form part of this development.



Source: at&I, Abbots Road and Aldington Road Concept Design, Pavement and linemarking plan, Sheet 10, 21-843-C559, 12-04-21.

Figure 3: Aldington Road/ Site Access Concept Design

## 1.5 Site Related Baseline Data

### 1.5.1 Road Details

Details of key roads surrounding the site are summarised in **Table 3**.

**TABLE 3: LOCAL ROAD NETWORK**

Road Name	Section	Speed Limit	Parking	Traffic Volumes and Peak Times	Urban / Rural
Mamre Road	Great Western Highway and M4 and Elizabeth Dr	60-80 km/hr	No	AM Peak: 1,595 <sup>1</sup> veh/hr PM Peak: 1,702 <sup>1</sup> veh/hr	Urban
Aldington Road	Abbots Rd and Bakers Ln	60 km/hr	No	-	Urban
Abbots Road	Mamre Rd and Aldington Rd	60 km/hr	No	AM Peak: 46 <sup>1</sup> veh/hr PM Peak: 54 <sup>1</sup> veh/hr	Urban
Elizabeth Drive	M7 and The Northern Rd, Hume Highway and Mamre Rd	80 km/hr	No	2021 ADT <sup>2</sup> : (EB) 13,293 veh/day (WB) 13,223 veh/day	Urban
Bakers Lane	Mamre Rd and Aldington Rd	60 km/hr (40 km/hr during school peaks)	No		Urban
Erskine Park Road	Mamre Rd and M4	70 km/hr	No	-	Urban

Notes: 1) According to Ason Group surveys conducted in 2022  
2) Transport for NSW Traffic Volume Viewer

## 1.5.2 Crash History

A review of TfNSW crash database has been undertaken to establish the crash history in the vicinity of the site along Aldington Road and near the Mamre Road/ Abbots Road intersection, as highlighted in red in **Figure 4**. The crash history for the five-year period from 2018 to 2022 (inclusive) is outlined below in **Table 4** and shown indicatively in **Figure 4**. No discernible patterns relating to a trend or incident type were observed for crashes and suggests there are no inherent safety issues within the Section of Mamre Road, Abbots Road or Aldington Road, near the site.

**TABLE 4: CRASH HISTORY**

Year	Location	RUM Code	Injury/Death
2018	Aldington Road	71 – Off rd right => obj	1 x moderate injury
2018	Mamre Road, 100m north of Mamre Rd x Abbots Rd intersection	20 – Head On	1x serious injury 1 x minor injury
2022	Mamre Rd, 100m south of Mamre Rd x Abbots Rd intersection	73 – Off rd right => obj	1 x serious Injury

Source: TfNSW Crash Statistics Website

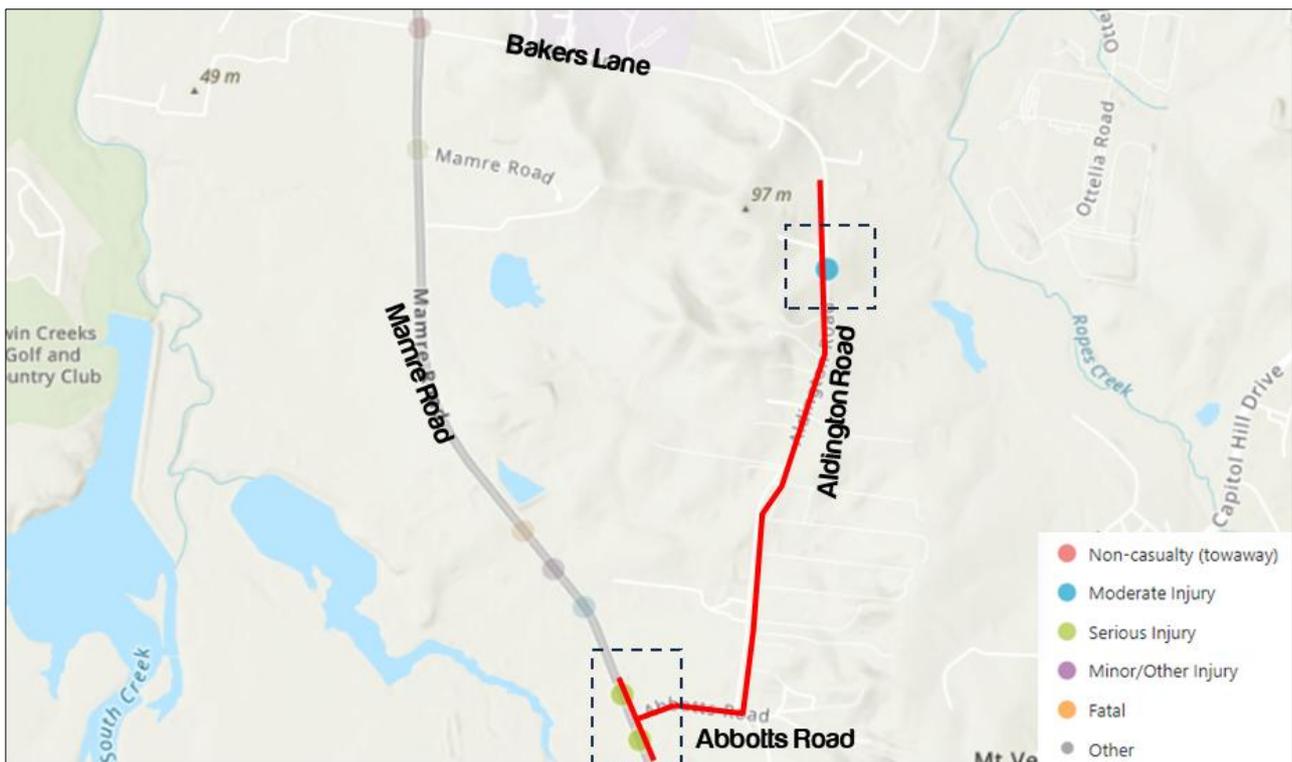


Figure 4: Crash Location and Type (2018-2022)

## 1.6 Stakeholder Engagement

### 1.6.1 Authority Consultation

In accordance with the requirements of Condition B1(b), the CTMP must be developed in consultation with Council and TfNSW. This CTMP has been provided to Council and TfNSW for review and updated to address feedback received. Evidence of consultation is provided in Appendix E.

In addition, the MRP Working Group (MRPWG) serves as a dedicated forum to consult with key stakeholders, providing a platform to discuss construction programs, potential impacts, and outcomes from previous engagements.

### 1.6.2 Communication Strategy

This communication strategy aims to be an effective communication method to ensure adequate information within the community and assist the project team to deliver the traffic changes with minimal disruption to the road network.

Ongoing communication is proposed so that stakeholders, road users and surrounding land owners are kept up to date of works and potential impacts. Early communication to motorists will aim to get the driver to make the decision between an alternate route before they arrive near the site or simply be aware of the works ahead.

Potential challenges include ensuring an effective interface with the Project Team and relevant stakeholders with regards to communications channels such as stakeholder meetings, advertising, signage and notification as well as staging to ensure minimal impact to the network where possible. A list of key community stakeholders is outlined in **Table 5**.

**TABLE 5: KEY COMMUNITY STAKEHOLDERS**

Category	Stakeholder
<b>Government Agencies</b>	<ul style="list-style-type: none"><li>• DPHI</li><li>• TfNSW</li><li>• Council</li></ul>
<b>MRPWG</b>	<ul style="list-style-type: none"><li>• Aspect industrial estate</li><li>• Westlink</li><li>• 200 Aldington Rd</li></ul>
<b>Emergency Services</b>	<ul style="list-style-type: none"><li>• Police (Penrith LAC)</li><li>• Ambulance</li><li>• Fire and Rescue</li><li>• Rural Fire Service</li></ul>
<b>Local schools</b>	<ul style="list-style-type: none"><li>• Trinity Catholic Primary School</li><li>• Mamre Anglican School</li><li>• Emmaus Catholic College</li></ul>
<b>Churches and community facilities</b>	<ul style="list-style-type: none"><li>• Church of the Risen King Jesus</li></ul>

The Contractor will consult as required with community stakeholders regarding construction schedules and trucks routes where impacted and will raise any potential conflicts with stakeholders at the earliest time. This

includes the MRPWG. The purpose of the working group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts.

### 1.6.3 Stakeholder Notification

In the event that any disruptions (unexpected or in advance) to roadways/ footpaths occur as a result of construction works, the procedures outlined below are to be followed:

- The Developer and/ or their nominated representatives will submit this CTMP to key stakeholders including TfNSW and Council for review and will liaise accordingly with all stakeholders to address any comments.
- If any future disruptions to roadways/ footpaths are required, Council/ TfNSW is to be notified first and depending on the extent of the disruption, the Contractor is to notify affected property occupiers (including local schools) via use of letter drops and signage.
- If any unforeseen disruptions to roadways/ footpaths occur, Council/ TfNSW is to be notified first and depending on the extent of the disruption, the Contractor is to notify affected property occupiers (including local schools) via use of traffic controllers and signage.
- In the event of heavy vehicle damage to Council/ TfNSW assets/ infrastructure, the Contractor will notify Penrith City Council’s Traffic and Transport team and/ or Assets Branch.
- If any future disruptions to the surrounding community, they will be notified by the appointed Communications and Community Liaison Representative (CCLR) in accordance with the procedures detailed in **Section 1.6.4**.

Relevant timeframe and distribution method are summarised in **Table 6**.

<b>TABLE 6: STAKEHOLDER CONSULTATION ACTIONS</b>		
<b>Communication Tool</b>	<b>Timeframe</b>	<b>Distribution</b>
<b>Community Notification</b>	7 days prior to works starting	Affected properties
<b>Project Website</b>	14 days prior to works starting	Online stakeholders
<b>Stakeholder Email</b>	7 days prior to works starting	Stakeholder database
<b>Temporary VMS</b>	14 days prior to works starting	Number and specific locations to be confirmed

### 1.6.4 Response Strategy

Community consultation and complaints for the construction will be managed in accordance with the Community Consultation and Complaints Handling Procedure (CCCHP) by SLR.

The appointed CCLR shall be responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an environmental complaint. The roles of the CCLR would involve:

- Leading and managing the community involvement activities, including liaison with property owners and key stakeholders
- Being the primary daily contact to the public handling of enquiries/ complaints management / interface issues

- Maintaining the complaints register and make available the complaints register to the Environmental Representative (ER) on a daily basis
- Being available for contact by local residents and the community at all reasonable times to answer any questions
- Liaising with property owners to co-ordinate access and to deal with specific property related issues arising from the upgrade works
- Leading the delivery of communication and community engagement strategies and plans
- Facilitating meetings, forums and arranging interviews to address concerns from community
- Providing advice and participating with the project teams to improve and enhance the delivery of communication services to the community
- Building and maintaining collaborative and consultative working relationships with internal and external stakeholders
- Being available for contact by local residents, key stakeholders and community representatives to answer queries and provide more information or feedback.

All employees who are made aware of a complaint, either verbal or written, are to immediately notify the Frasers Project Manager, who will then contact the CCLR.

In addition to the above, the CCLR is to be notified when traffic is expected to exceed the parameters set within “Condition Green” of **Table 14**. Notwithstanding, **Section 1.6.2** outlines an indicative communication strategy to ensure that adequate communication with key stakeholders have been met.

## 2 Proposed Works and Staging

### 2.1 Construction Activity

Infrastructure works (including earthworks, road construction and stormwater works) are expected to commence in September 2025 and completed by March 2027. Construction of warehouses will commence progressively from February 2026, with practical completion of all eight warehouses planned in May 2027. **Table 7** provides a breakdown of the key construction stages and estimated timeframes, noting these are subject to change following development approval:

**TABLE 7: CONSTRUCTION STAGING AND TIMELINE**

Stage	Start	Finish	Duration
Infrastructure Works	September 2025	March 2027	18 months
Warehouse 3 and 6	February 2026	November 2026	10 months
Warehouse 2, 4 and 7	July 2026	March 2027	10 months
Warehouse 1, 5 and 8	August 2026	May 2027	10 months
<b>Total</b>			<b>21 months [1]</b>

[1] accounts for overlap of stages

This CTMP outlines the works involved and the applicable traffic management measures for the abovementioned construction stages.

### 2.2 Construction Hours

Construction will take place in accordance with the Condition B40 of the Consent and carried out between the following hours:

- Monday to Friday – 7am to 6pm.
- Saturday – 8am to 1pm.
- Sundays and Public Holidays – No work.

Works outside of the hours identified in Condition B40 may be undertaken in the following circumstances:

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

## 2.3 Site Access Arrangements

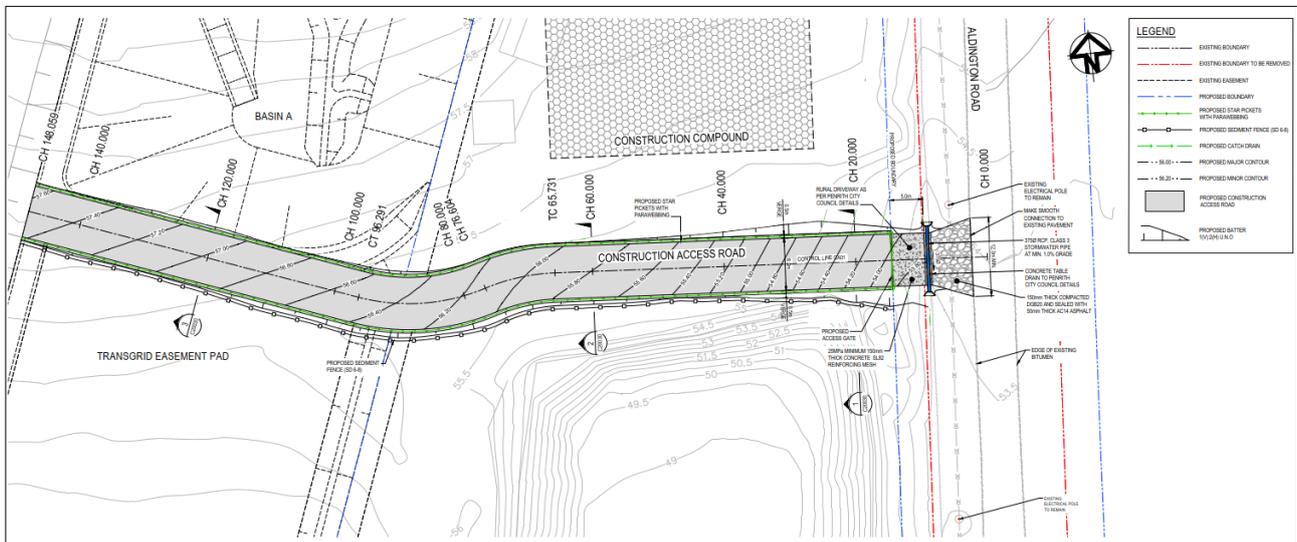
Construction vehicle access to the site will be primarily provided via a temporary left-in/right-out construction access driveway on Aldington Road. The gated left in/ right out construction access will be constructed as shown in Figure 13 of Appendix 1 of the conditions of consent and in accordance with the requirements of Conditions B4 as follows:

- The temporary left-in/right-out construction driveway is constructed and maintained at no cost to Council; and
- Remove the temporary left-in/right-out construction driveway at the completion and commissioning of the Aldington Road/collector road intersection, at no cost to Council.

The primary temporary construction access will be provided at 12 metres wide as a minimum at the site boundary and include appropriate splays, and will remain open during construction hours to minimise any such risk of delay to traffic on Aldington Road. **Figure 5** shows a layout of this temporary construction vehicle access. Vehicle swept paths have been completed for 20 metre articulated vehicles (AVs) and 19.6 metres long truck and dog combinations, confirming adequate left in/ right out movements. The vehicle swept paths are included in **Appendix B**.

Up to two alternate driveways are also proposed be established to facilitate temporary construction vehicle access. These access driveways could be located to the north and south of the future Site Access Road on Aldington Road and would be utilised for occasional delivery and construction vehicle access, and managed by the Contractor in consultation with the ER. These alternate driveways will be construction to the same principle of the primary driveway and facilitates vehicles up to and including 20 metre AVs.

In accordance with Condition B3, Section 138 Roads Act Approval would be obtained from Council for the construction driveways on Aldington Road prior to the commencement of earthworks.



Source: at&I, Construction Access Road Plan Existing Aldington Road, Sheet 10, 20-776-C20010, 08-01-25.

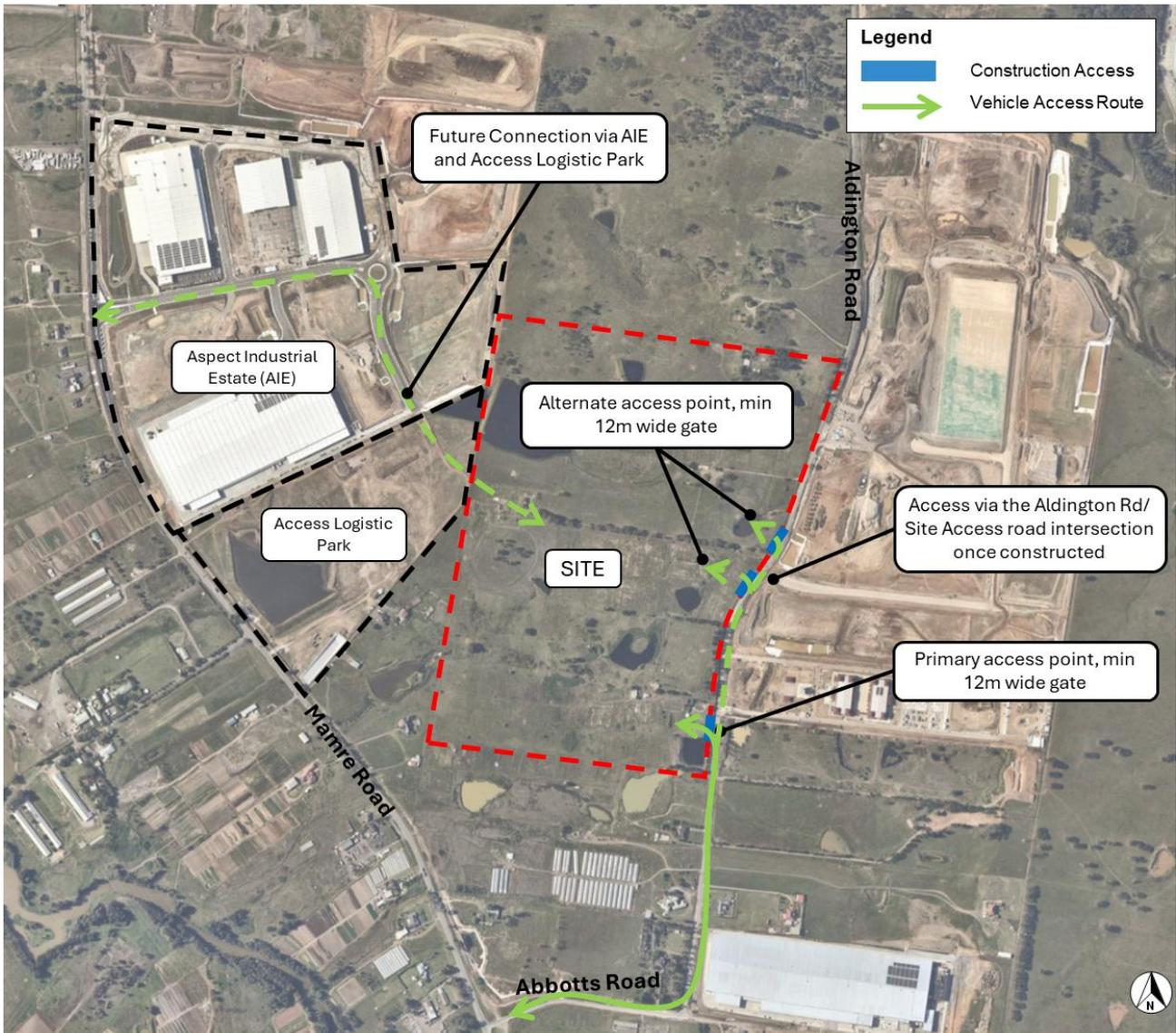
**Figure 5: Temporary Construction Access Road Plan**

Individual warehouse access arrangements will be provided via the internal roads once they are constructed and specified by the Contractor, with separate TGSs prepared as required.

Once the Aldington Road/ Site Access Road signalised intersection is constructed, the temporary construction accesses will be discontinued, and all vehicle access will be provided via the signalised intersection and new road stub. This intersection has been designed to accommodate all vehicles up to 30m articulated vehicles. In this regard, no vehicles larger than this will be used throughout all construction works.

The site access strategy is shown in **Figure 6** noting that the construction access driveways have been purposefully spaced to minimise any such risk of vehicle conflict.

There is also opportunity for construction vehicles to access the site from Mamre Road via the Aspect Industrial Estate (AIE) and Access Logistic Park (ALP) to the west. This will however be dependent on the timing of internal road delivery within the ALP and the subject site, noting that the internal road network within the AIE has been fully constructed and open to general traffic. If and when such access opportunity arises during the course of construction works, this could be addressed by a revision to this CTMP which would be approved by the ER.



Base map source: Nearmap, 23 November 2024

Figure 6: Site Access Strategy

## 2.4 Truck Routes

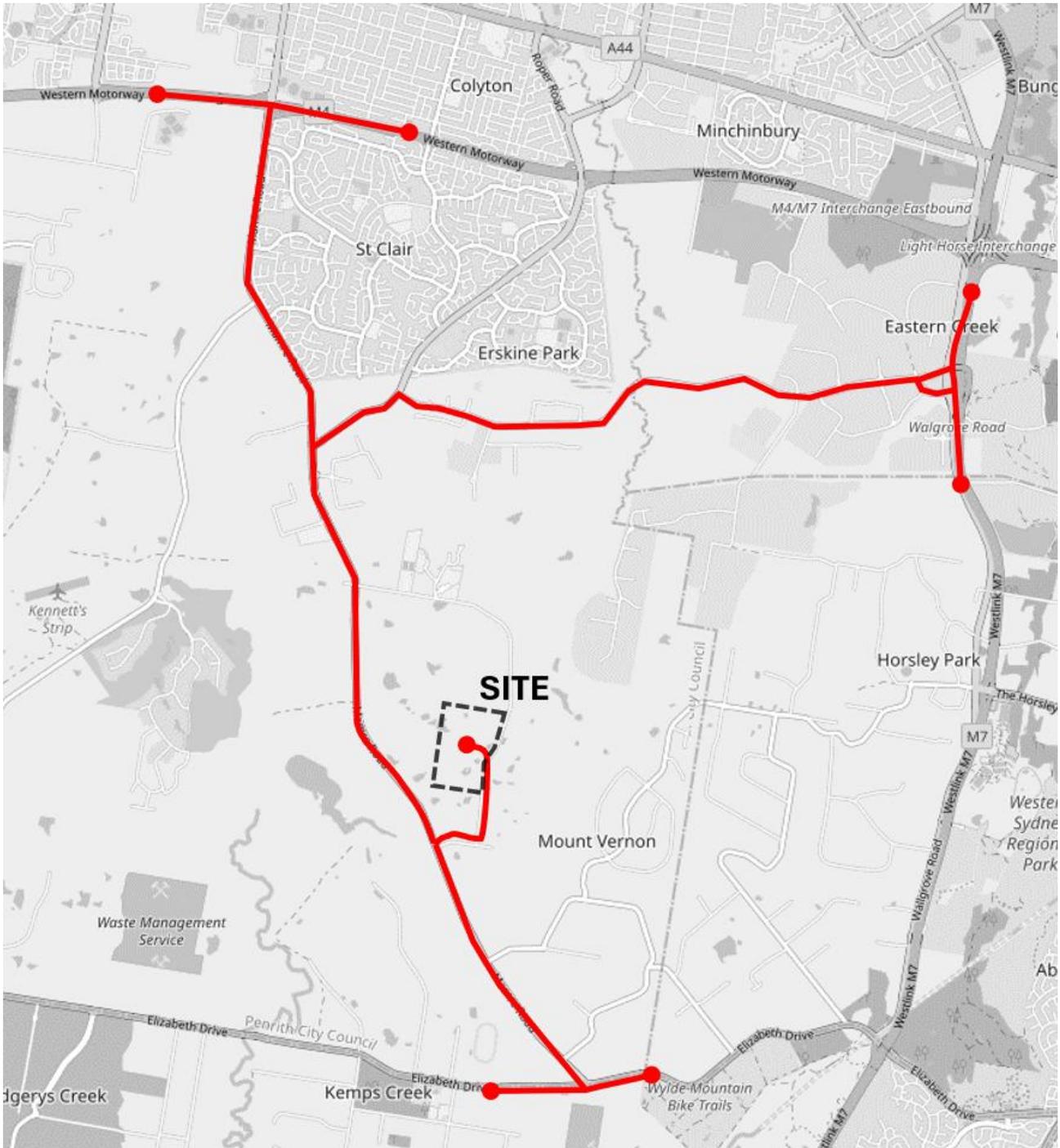
All heavy vehicles will be strictly limited to the arrival and departure routes as detailed in **Figure 7**.

At no time will construction vehicles be permitted to use Bakers Lane when travelling to and from the construction site. This includes site personnel and contractors in light vehicles. Construction vehicles shall be

restricted to the temporary construction accesses and the Aldington Road/ Site Access signalled intersection once delivered.

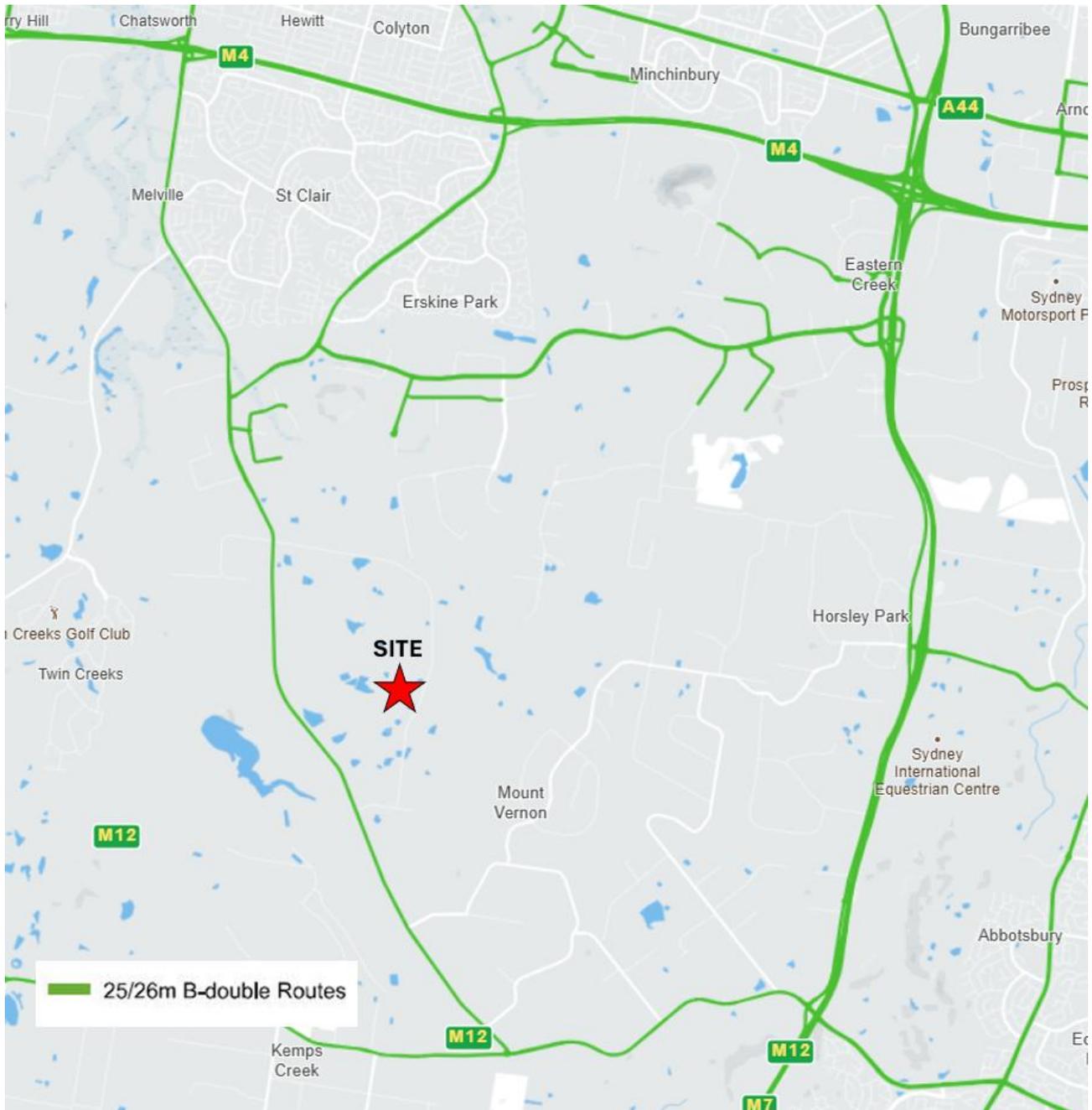
A copy of the approved routes will be distributed by the Contractor to all drivers prior to first arrival to the construction site. No trucks will queue on any roads at any time on approach to the site. Mobile phones, two-way radios or app-based solutions will be used to coordinate truck arrivals.

As shown in **Figure 8**, the proposed construction vehicle routes are also consistent with the TfNSW Restricted Access Vehicles (RAV) map for vehicles up to 26m B-doubles.



Base map source: Nearmap, 23 November 2024

Figure 7: Construction Vehicle Route Map



Base map source: [NSW Restricted Access Vehicle \(RAV\) maps](#)

Figure 8: Restricted Access Vehicle (RAV) Map

## 2.5 Temporary Traffic Management Method

Traffic management shall be undertaken in accordance with the methodology outlined in **Table 8**. All road users are expected to be directed around the worksite in order to physically separate the road user from any hazards within the worksite.

**TABLE 8: ACCESS PROTOCOLS AND METHODOLOGY**

Procedure	Responsibility	Notes
<pre> graph TD     A[Access to the Site] --&gt; B{Is the Vehicle Entering}     B -- YES --&gt; C[Discuss &amp; Understand Call-up Protocol]     B -- NO --&gt; D{Is the Vehicle Exiting}     D -- YES --&gt; E[Discuss &amp; Understand Call-up Protocol]     D -- NO --&gt; F[END]         </pre>	<p>Site Manager / Foreman / Traffic Controller</p>	<p><b>ENTRY PROTOCOL:</b> Via UHF radio, channel agreed at pre-start.</p> <ol style="list-style-type: none"> <li>1. Vehicle to advise gate controller when 200m from gate via UHF — vehicle to ensure flashing lights are on</li> <li>2. Vehicle advises of metres from gate in 50m lots (i.e., 150m from gate 100m from gate).</li> <li>3. Gate Controller advises safe to enter, vehicle enters site and decelerates behind barriers</li> <li>4. If not safe to enter, vehicle is to continue driving and not stop / queue on the public roadway</li> <li>5. Vehicle uses road network to return and make another attempt at entering site</li> </ol>
	<p>Site Manager / Foreman / Traffic Controller</p>	<p><b>EXIT PROTOCOL:</b> Via UHF radio, channel agreed at pre-start.</p> <ol style="list-style-type: none"> <li>1. Vehicle driver to radio Gate Controller to ensure exit is possible – vehicle to ensure flashing lights are on</li> <li>2. If no issues driver to accelerate to exit gate and merge with traffic.</li> <li>3. If driver cannot exit, Gate Controller to order vehicle to hold until gate is clear.</li> </ol> <p><b>Gate Controller is not to stop traffic on the public road network</b></p>

## 2.6 Risk Assessment

A risk assessment is aimed to identify the hazards and risks associated with the works. The purpose of this risk assessment is to determine the controls required for the protection of road workers and road users. A risk assessment has been completed and included in **Appendix C**.

## 2.7 Site Contact

The key contacts for the site during construction are included in **Table 9**. This table would be updated once the Contractor has been appointed.

**TABLE 9: CONSTRUCTION CONTACT**

Role	Name	Company	Contact Details
Project Manager	TBC		
Site Manager			
Project Engineer			

The list of key contacts shall be provided to all workers and contractors as part of site induction, as well as posted on the site shed. Consideration should also be given to presenting this list of contacts on the project website.

## 2.8 Works Zone

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No Works Zone is required as it relates to the infrastructure and warehouse construction works. All construction works will occur wholly within the site boundaries.

In the event that the implementation of further temporary traffic control measures on public roads/ road related area the Contractor will obtain a Road Occupancy Licence (ROL) from Council. If excavation and/ or road opening works on a public road are necessary, the Contractor will obtain a ROL.

# 3 Traffic Management

## 3.1 Approved Operational Traffic Volumes

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The Ason Group traffic report supporting the SSDA<sup>1</sup> outlined the following operational traffic volumes associated with the Edge South Estate once Lots 1 to 8 are fully operational:

- AM peak: 353 vehicle trips per hour
- PM peak: 368 vehicle trips per hour
- Daily total: 4,461 vehicle trips per day.

In this context, the following sections detail the various construction and operational traffic volumes to better understand the cumulative impacts both internally and external to the site.

## 3.2 Construction Vehicle Activity

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### 3.2.1 Site Construction Traffic Volume

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The anticipated vehicle movements associated with the infrastructure works as well as construction of warehouse buildings have been estimated having consideration to construction worker numbers together with plant, equipment and a variety of construction haulage requirements.

The infrastructure works are expected to generate up to 860 vehicles movements (in + out) per day. There will be approximately 100 vehicle movements during the AM peak hour (65 light vehicles and 35 heavy vehicles) and 85 vehicle movements during the PM peak hour (40 light vehicles and 45 heavy vehicles). The traffic generation dissipates towards the end of the infrastructure works, to a point where less than 300 vehicle movements are expected. Each warehouse is expected to generate 50 to 60 vehicle movements per day, with less than 10 vehicle movements in any peak hour.

The daily construction traffic volume forecast is summarised in **Table 10** and **Table 11** for the entire duration of the construction. Peak site traffic generation is expected to occur in March and April in 2026 when all eight warehouses are being constructed simultaneously.

In this regard, the daily and peak hour construction traffic volumes are significantly lower than the daily traffic generated by the site when operational. The construction traffic impact on the surrounding road network would therefore be acceptable, noting it would be less than that of the site once operation.

The appointed contractor will liaise regularly with other contractors in the MRP to avoid any such large vehicle delivery conflicts and to ensure that the cumulative construction impacts are managed. Signage internal to the site will be implemented as necessary to ensure appropriate use by construction traffic, with use of traffic controllers where necessary. Overall, the access arrangements will be able to cater for the anticipated traffic as part of the delivery of the Edge South Estate.

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<sup>1</sup> Transport Management & Accessibility Plan, Ason Group, 3/11/2023

**TABLE 10: DAILY CONSTRUCTION TRAFFIC VOLUMES – SEP 2025 TO JUL 2026**

Construction Stage	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26
<b>Infrastructure</b>	850	850	850	850	850	750	750	750	650	600	600
<b>Lot 1</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Lot 2</b>	-	-	-	-	-	-	-	-	-	60	60
<b>Lot 3</b>	-	-	-	-	-	50	50	50	50	50	50
<b>Lot 4</b>	-	-	-	-	-	-	-	-	-	50	50
<b>Lot 5</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Lot 6</b>	-	-	-	-	-	50	50	50	50	50	50
<b>Lot 7</b>	-	-	-	-	-	-	-	-	-	50	50
<b>Lot 8</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>850</b>	<b>750</b>	<b>860</b>	<b>860</b>							

**TABLE 11: DAILY CONSTRUCTION TRAFFIC VOLUMES – AUG 2026 TO MAY 2027**

Construction Stage	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27
<b>Infrastructure</b>	450	450	275	275	275	275	275	275	-	-
<b>Lot 1</b>	50	50	50	50	50	50	50	50	50	50
<b>Lot 2</b>	60	60	60	60	60	60	60	60	-	-
<b>Lot 3</b>	50	50	50	50	-	-	-	-	-	-
<b>Lot 4</b>	50	50	50	50	50	50	50	50	-	-
<b>Lot 5</b>	50	50	50	50	50	50	50	50	50	50
<b>Lot 6</b>	50	50	50	50	-	-	-	-	-	-
<b>Lot 7</b>	50	50	50	50	50	50	50	50	-	-
<b>Lot 8</b>	50	50	50	50	50	50	50	50	50	50
<b>Total</b>	<b>860</b>	<b>860</b>	<b>685</b>	<b>685</b>	<b>585</b>	<b>585</b>	<b>585</b>	<b>585</b>	<b>150</b>	<b>150</b>

### 3.2.2 Cumulative Construction Traffic Generation

Ason Group has been involved deeply in the development of the MRP and various of industrial developments in the area. We therefore have a good understanding of the other construction activities which may coincide with activities on the site. Of relevance to the site are those associated with the LOG-E, including local road upgrades and their respective landholdings (shown by **Figure 9**).

The following construction activities are expected to occur concurrently with the site:

- Development of Stages 1 and 2 of the Westlink Estate at 290-308 Aldington Road, 59-62 Abbots Road and 63 Abbots Road, SSD- 9138102.
- Development of the 200 Aldington Road Estate, SSD-10479.

- Aldington Road and Abbots Road upgrade<sup>2</sup>.
- Mamre Road/ Abbots Road intersection upgrade<sup>3</sup>.

No known timeframes are available for the other LOG-E sites shown in **Figure 9**. It is expected that works would commence after construction of the site is complete.



Figure 9: Surrounding Developments and On-going/ Planned Road Upgrades

The construction timeframes for the infrastructure upgrades and other development sites are provided in **Table 12** noting that these were estimated at the time of approval and are subject to change.

<sup>2</sup> [planningportal.nsw.gov.au/major-projects/projects/mod-3-road-upgrades](http://planningportal.nsw.gov.au/major-projects/projects/mod-3-road-upgrades)

<sup>3</sup> [planningportal.nsw.gov.au/major-projects/projects/mod-5-external-road-upgrades](http://planningportal.nsw.gov.au/major-projects/projects/mod-5-external-road-upgrades)

**TABLE 12: OTHER WORKS CONSTRUCTION PROGRAMMES**

Site	Estimated Commencement	Estimated Completion	Duration
Abbotts Road	September 2024	September 2025	12 months
Aldington Road	April 2025	April 2026	12 months
Mamre Road / Abbotts Road Upgrade	December 2025	December 2026	12 months
Westlink (Stage 1)	October 2023	April 2026	30 months
Westlink (Stage 2)	October 2023	April 2027	30 months
200 Aldington Rd	October 2023	January 2026	27 months

The cumulative construction traffic impact assessment of the LOG-E sites was undertaken as part of the relevant approvals process for the roadworks (SSD-9138102-Mod-5 and SSD-10479-Mod-3), and documented in the following reports:

- Ason Group, P2264r01v6 CTIA Abbotts Rd Aldington Rd Upgrade, 14 June 2024 (AARU CTIA)
- Ason Group, P2264r02v2 CTIA Mamre Rd Abbotts Rd Upgrade, 30 January 2024 (MAIU CTIA).

The AARU CTIA indicated the construction works in the area were expected to generate peak cumulative traffic volumes of 244 and 149 vehicle trips during the AM and PM peak hours, respectively. This peak volume was expected to occur in June 2025, with traffic generation gradually decreases towards the end of 2025 as some of the work finishes. Specifically, the AARU CTIA indicated the cumulative construction traffic volumes in August 2025 (which is close to when the infrastructure works are expected to commence on the subject site) would be around 205 and 123 vehicle trips during the AM and PM peak hours, respectively. The Frasers North and Frasers South sites were estimated to account for around 79 and 45 of these vehicle trips in the AM and PM peak hours, respectively.

The Frasers North development is no longer expected to commence prior to completion of all construction works on the subject site (Frasers South). As outlined in **Section 3.2.1**, development of the subject site is now estimated to generate around 100 and 85 vehicle trips during the AM and PM peak hours. Based on this and the cumulative traffic generation of the surrounding developments as estimated for August 2025 in the AARU CTIA, the total cumulative traffic volumes of all sites would be around 226 and 163 vehicle trips during the AM and PM peak hours, respectively. When compared with the peak cumulative traffic volumes as assessed in AARU CTIA for June 2025, the following is noted:

- The revised AM peak hour estimate of 226 vehicle trips remains less than the 244 vehicle trips estimated during the peak construction activity in June 2025
- The revised PM peak hour estimate of 163 vehicle trips represents a minor increase of 14 vehicle trips compared to the 149 vehicle trips estimated for the peak construction activity in June 2025.

As discussed, traffic modelling was completed as part of the AARU CTIA based on the estimated peak cumulative construction traffic generation in June 2025. The results concluded that the Mamre Road/ Abbotts Road intersection would be able to accommodate the estimated cumulative construction traffic demand during the AM and PM peak hours. During the PM peak hour, the modelling found this intersection to operate well at a level of service C, with an average delay of 31 seconds and a degree of saturation of 0.57, indicating that there would be spare capacity.

The estimated net increase of 14 vehicle trips during the PM peak hour from what was previously modelled as part of the AARU CTIA is considered minor, equating to one vehicle trip every four to five minutes and would not have a material additional impact on the operation of the Mamre Road/ Abbotts Road intersection during construction.

The surrounding road network will progressively be upgraded over the course of the construction on site. This includes Abbots Road/ Aldington Road intersection upgrade (due for completion in late 2025), installation of interim traffic signals at Mamre Road/ Abbots Road intersection (scheduled for May 2026), and full upgrade of Mamre Road/ Abbots Road intersection (due for completion in late 2026). These upgrades are expected to progressively improve traffic condition and significantly increase capacity. The 14 additional vehicle trips can be readily accommodated in this context.

The cumulative construction traffic impact is therefore considered acceptable.

### 3.3 Impact Mitigation on Surrounding Network

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The impacts of construction traffic and associated mitigation measures to be implemented are outlined below.

- **Construction traffic routes:** Construction traffic will be restricted to the identified approach and departure routes outlined in **Section 2.4** and will use the proposed temporary construction accesses on Aldington Road to access the site, with no vehicles permitted to use Bakers Lane. The Contractor will communicate to staff and contractors during site induction the permitted access routes to and from the site.
- **Management of deliveries:** To ensure the impacts to motorists within the area are kept to a minimum, construction traffic will be contained with the prescribed volumes. The Contractor will manage deliveries to ensure that construction vehicles, particularly heavy vehicles, will not exceed approved limits.
- **Safety during construction:** Safety to motorists and pedestrians throughout the area will be maintained during construction through the preparation and execution of TGSs. A range of TGSs will be developed in accordance with this CTMP to appropriately manage the interaction between the construction works and other road users. TGSs will be monitored and updated accordingly throughout the project.
- **Reporting:** Reporting and monitoring of movements during peak periods are to be undertaken to ensure that drivers are adhering to restricted times, and to ensure that the approved traffic generation, and subsequent impacts on the road network, are in line with those approved.
- **Compliance and issue resolution.** Non-compliance issues (e.g., route deviations, excessive traffic volumes) will be documented, reviewed, and rectified through the MRPWG and relevant authorities. Contractors will be required to adjust construction schedules if cumulative traffic impacts exceed agreed thresholds. Any disputes or conflicts between projects will be escalated to the MRPWG for resolution.

The key to managing the cumulative impact of the various construction worksites in the vicinity of the site is to firstly identify the relevant stakeholders and future coordination/ liaison requirements as part of the following major projects:

- Mamre Road Upgrade.
- Sydney Metro – Western Sydney Airport.

Frasers and/ or their representatives will liaise and coordinate on a regular basis in the form of construction interface meetings/ transport coordination/ liaison/ working group for coordinating activities between projects and to minimise overlapping of high-volume days, such as major concrete pours.

It is also noted that Frasers has a representative on the MRPWG. The purpose of the working group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts. This specifically includes the following, in line with the requirements of Conditions A38(d) and (f):

- Review the performance of approved industrial developments in the MRP and identify trends in the data with respect to cumulative construction traffic, air quality, erosion and sediment control, noise, stormwater management and waterway health objectives under the MRP DCP
- Identify interim traffic safety measures to manage construction traffic and how these measures will be coordinated, communicated, funded and monitored in the MRP.

As with any CTMP, this document is intended to be a 'live' document and will be updated as required with any further information or decisions that come out of the MRPWG meetings.

With the above measures, it is not expected that this level of traffic would create any adverse impact on the surrounding road network.

## 3.4 Vehicle Management

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All vehicles transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site. Public roads used by construction vehicles are to be kept clean at all times. All vehicles enter and exit the site in a forward direction.

All subcontractors must be inducted by the Contractor, to ensure that the procedures are met for all vehicles entering and exiting the construction site. All drivers are to be familiar with the Driver Code of Conduct, and will be provided a copy as part of the site induction. A copy of the Code is included in **Appendix D**. The Contractor will monitor the roads leading to and from the site and take all necessary steps to rectify any road deposits caused by site vehicles, such as sediment tracking. Vehicle movements to, from and within the site shall do so in a manner which does not create unreasonable or unnecessary noise or vibration. Public roads, access points and internal parking areas will not be obstructed by any materials, unapproved vehicles, refuse skips or the like, under any circumstances. At no time shall heavy vehicles and bins associated with the development park on local roads or footpaths.

All vehicles will be wholly contained on site before being required to stop. At no stage shall queuing or idling occur on the public road network. A schedule for deliveries of goods and materials will be established prior to that day, with traffic controllers to always maintain radio contact with construction vehicles. The anticipated deliveries will be made known to site personnel at daily prestart meetings.

All loading and unloading of materials will occur within the site boundary.

## 3.5 Contractor and Heavy Vehicle Parking

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There will be adequate parking supply to accommodate the expected maximum 220 and average 100 workers on site at any one time.

Contractors will typically drive given a general absence of practical bus services along Aldington Road in the vicinity of the site. On-site parking will be made available, with suitable pedestrian connections always maintained between the work areas and contractor parking. A dedicated contractor parking area and heavy vehicle parking strategy will be developed and modified as necessary throughout all works stages to ensure practical use. The construction works parking will adhere to the following restrictions during the construction:

- Parking for civil earthworks will be located generally adjacent to the site compound and other work-front areas as prepared by the civil contractor
- Parking for buildings and warehouses will be contained within their own site
- Once internal roads are constructed, parking will be permitted along kerbsides

- For the entire duration of construction, there will be no construction parking on Aldington Road or anywhere outside the development footprint
- All site parking areas are indicative and will follow the construction staging on site and following consultation with the ER.

It is expected that the location of dedicated heavy vehicle parking areas will change as the construction of the internal road network progresses, therefore the location of parking spaces shall be outlined within the driver code of conduct and communicated at the regular toolbox meetings. Parking will be regularly monitored to ensure no queuing onto any roadway at any time.

## 3.6 Pedestrian and Cyclist Management

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There is a general absence of vulnerable road users along Aldington Road on account of no formal footpaths, bicycle paths or shared paths along the site frontage.

In the unlikely event that there are pedestrians or cyclists needing to cross an access driveway they will be temporarily held by an accredited traffic controller at such times that construction vehicles are entering or exiting the site. Once the construction vehicles are clear, the traffic controller will allow pedestrians/ cyclists to continue their journey.

## 3.7 Public Transport Impact

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All loading and unloading of materials will occur within the site boundary. The construction activities are not expected to impact existing public transport services near the site, including the bus services using Aldington Road, Abbotts Road and Mamre Road.

## 3.8 Fencing Requirements

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Construction fencing will be provided around the perimeter of the site to ensure unauthorised persons are unable to gain access to the site.

## 3.9 Traffic Guidance Scheme

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A site-specific TGS has been developed and included in **Appendix A** to reflect specific work activities and/ or changes to road conditions. It is noted that any new signage will need to take into consideration any existing signage implemented for the Aldington Road upgrade and construction of other developments in the surrounding.

## 3.10 Authorised Traffic Controller

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There is a requirement for an authorised traffic controller to be present at the temporary construction access. The responsibilities include:

- Implementation of the TGS.
- Pedestrian and cyclist management, to ensure that adverse conflicts between vehicle movements and pedestrians/cyclists do not occur.
- Supervision of all vehicle movements across pedestrian footpaths at all times, and (if required)

- Supervision of all loading and unloading of construction materials from on-street works zone during the deliveries in the construction phase of the project (if required).

## 3.11 Driver Awareness and Code of Conduct

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All drivers shall be made aware of and adhere to the Driver Code of Conduct, as outlined in **Appendix D**.

It is understood that DPHI are working with key proponents of the MRPWG to ensure availability of an updated Driver Code of Conduct. Whilst the Driver Code of Conduct included in this CTMP does not yet reflect any such updates, Frasers is committed to updating and implementing as necessary within one month of receiving direction from the Planning Secretary.

## 3.12 Worker Induction

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All workers and subcontractors engaged on-site would be required to complete a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, work, health and safety (WHS), driver protocols and emergency procedures.

Any workers required to undertake works or traffic control within the public domain must be suitably trained and covered by adequate and appropriate insurances.

## 4 Monitoring and Review

### 4.1 Inspections and Audits

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Daily site checks of signs and devices to be undertaken prior to work commencing.

The specific requirements for safety inspection and audits will meet with the requirements of the Traffic Control at Worksite Manual.

Inspection of traffic control devices for short term traffic management will be completed on weekly basis by a site supervisor with appropriate traffic control accreditation.

### 4.2 Site Records

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A log of construction traffic movements entering and exiting the site is to be kept by the Contractor, including truck and trailer number plates. Daily truck numbers are to be tallied to ensure traffic volumes remain within approved limits.

Should any complaints or non-compliance be reported against a vehicle associated with the site, the number plate information will be reviewed and the truck will be banned from the site.

### 4.3 Monitoring Program

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This CTMP will be subject to ongoing review and will be updated accordingly as required by the Contractor. Monitoring of this CTMP shall also be picked up in the Environmental checklists, with any incidents being reported at site meetings.

All and any reviews undertaken should be documented, however key considerations regarding the review of the CTMP shall be:

- To ensure the implementation of the CTMP and TGSs are consistent with the intent of this report, and that the most recent version of the CTMP (as approved by the Planning Secretary) is being implemented.
- Tracking deliveries against the volumes outlined within the report. Deliveries will be tracked against approved volumes and will keep a vehicle log - including registration and time of entry - for the purpose of assessing the effectiveness of these monitoring programs.
- To identify any shortfalls and develop an updated action plan to address issues that may arise during construction (parking and access issues).
- To regularly monitor the approved truck routes as outlined within this CTMP.
- To ensure TGSs are updated (if necessary) by SafeWork NSW Traffic Control Work card holders to ensure they remain consistent with the set-up on-site.
- To undertake regular checks to ensure all loads are entering and leaving site covered as outlined within this CTMP.

**Table 13** provides triggers to monitor and review this CTMP.

**TABLE 13: MONITORING AND REVIEWS OF CTMP**

Type of Review	Frequency	Considerations
<b>Scheduled</b>	The scheduled CTMP review must be undertaken quarterly or as specified otherwise	<p>The scheduled CTMP review must consider the following:</p> <ul style="list-style-type: none"> <li>• CTMP and TGS are approved</li> <li>• identify required variations to the TGS, and ensure that they are updated, recorded, and approved</li> <li>• review any departures or variations of the CTMP and/or TGS to ensure they have been documented and approved</li> <li>• speed control effectiveness</li> <li>• construction vehicle entry/egress suitability, with no queuing on the public road network at any time</li> <li>• construction vehicle daily/ peak hour movements are compliant with approved volumes</li> <li>• heavy vehicles are using the correct access route.</li> </ul>
<b>Change Generated Review</b>	<p>The change generated review must be undertaken when implementing new traffic stages, switches, or other construction-based activities.</p> <p>This includes any changes as a result of approval of any modification of conditions of consent</p>	<p>The change generated CTMP review must consider the following:</p> <ul style="list-style-type: none"> <li>• the work site is operating safely</li> <li>• delineation is effective with appropriate signage installed for changed conditions</li> <li>• safe passage is provided for all road users.</li> </ul>
<b>Non-Compliance, Post Incident or Near Miss Review</b>	The Non-Compliance, post-incident or near miss review must be undertaken following an incident or near miss	<p>Any non-compliance must be reported to immediately to the supervisor. A non-compliance is anything other than 'Condition Green' as outlined within <b>Table 14</b>.</p> <p>All workplace incidents must be reported immediately to the supervisor, who is to determine responsibility for investigating the incident.</p> <p>The post incident or near miss CTMP review must consider:</p> <ul style="list-style-type: none"> <li>• causal factors</li> <li>• contributory factors or changes required</li> <li>• identified changes to TGS. For any incidents or near miss (where required) a safety alert must also be prepared and distributed by the project manager to share learnings.</li> </ul>
<b>Issue of a direction of Planning Secretary</b>	Review must be undertaken if a direction of Planning Secretary is issued	Depend on the specific requirements, the review of the CTMP should address any concern of the Planning Secretary.

This monitoring process is expected to form part of the monitoring plan required to be included as part of the overarching Construction Environmental Management Plan (CEMP), of which this CTMP forms a part.

## 4.4 Traffic Monitoring Program

The Contractor will be required to complete regular traffic monitoring through hourly construction vehicle traffic counts. This data is submitted to Frasers at the end of every week to ensure that construction traffic volumes are within the approved thresholds. All Frasers sub-contractors are also required to monitor traffic on their respective worksites.

Any non-compliances will be immediately communicated with the relevant contractors for action and Frasers will notify the ER accordingly.

## 4.5 Incident Management

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For the purposes of this CTMP, an 'incident' is an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be as a result of a non-compliance. A 'non-compliance' is an occurrence, set of circumstances or development that is a breach of the consent.

All incidents related to traffic, including those of the Contractor, subcontractors, and/or visitors that occur during construction works will be managed in conjunction with the requirements outlined in LOG-E's Incident and Non-compliance Response and Handling Procedure.

Whilst it is noted that sub-contractors will be implementing their own environmental management system procedures and processes, the Principal Contractor will be responsible for ensuring that these systems and processes satisfy the requirements of the CEMP, including the incident management components. The Contractor will be responsible for providing all necessary documentation with regards to the incident investigation and close-out actions where required. The timing of the provision of this documentation is to align with Frasers' and LOG-E requirements.

Frasers' Project Manager must be notified immediately of any environmental incident or near miss related to traffic. Such incidents may include, but not limited to:

- Vehicle crash or injury resulting from construction traffic related to the project.
- Failure to correctly implement required traffic controls for planned activities.
- Queuing onto Aldington Road, in breach of the requirements set out under this CTMP.
- Spill of any dangerous goods or hazardous substance to ground or water.
- Substantiated complaints received from members of the community or regulatory authorities relating to traffic management.
- Land-based off-site sediment loss to the environment, including sediment tracking onto the roadway.

All environmental incidents will be reported immediately to DPHI in writing via the Major Projects website within 24 hours of Frasers becomes aware of the incident and address details of the incident including:

- Date, time and location
- A brief description of what occurred and why it has been classified as an incident
- A description of what immediate steps were taken in relation to the incident
- Identifying a contact person for further communication regarding the incident.

A subsequent incident report will also be provided to DPHI in accordance with the requirements of Appendix 5 of the Condition of Consent.

Damage to Council's assets must be reported to Penrith City Council on 4732 7777 or [assetmanagementadmin@penrith.city](mailto:assetmanagementadmin@penrith.city) and repairs are to be carried out to Council's specification and satisfaction, at the Contractor's cost. Council requests that the nominated contact person provide a response within a maximum of 24 hours to any significant issues or concerns raised in relation to traffic or infrastructure matters.

## 4.6 Contingency Plan

**Table 14** outlines a contingency plan to be undertaken by the Contractor in the event that the monitoring program identifies the management plan is not effective in managing the construction impacts.

<b>TABLE 14: CONTINGENCY PLAN</b>				
<b>Risk</b>		<b>Condition Green</b>	<b>Condition Amber</b>	<b>Condition Red</b>
Construction Movements	Trigger	Both peak hour and daily construction traffic volumes are in accordance with volume and time constraints as outlined in Section 3.2.	Construction traffic volumes exceed programmed Peak volumes but is within permissible daily volume constraints.	Construction traffic volumes exceed permissible volume and time constraints.
	Response	No response required	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> <li>Adjusting scheduled deliveries</li> <li>Reviewing CTMP and updating where necessary</li> <li>Providing additional training.</li> </ul>	As with Condition Amber, plus; <ul style="list-style-type: none"> <li>If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies.</li> <li>Stop all transportation into and out of the site.</li> </ul>
Queuing	Trigger	No queuing identified	Queuing identified within site, but not on to public road.	Queuing identified on the public road.
	Response	No response required. Continue monitoring program.	Adjust scheduled deliveries. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the Driver Code of Conduct.	As with Condition Amber, plus <ul style="list-style-type: none"> <li>Review and investigate construction activities.</li> <li>If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies.</li> <li>Temporary halting of activities and resuming when conditions have improved.</li> <li>Stop all transportation into and out of the site.</li> <li>Review CTMP and update where necessary, provide additional training.</li> </ul>
Traffic Guidance Scheme	Trigger	No observable issues (TGS implemented according to plan)	Minor inconsistencies with TGS to onsite operations (such as covered signs,	Failure to implement plan effectively (even if there has been no near miss or incident)

Risk		Condition Green	Condition Amber	Condition Red
			missing signs, fallen cones, etc.)	
	Response	No response required	Traffic controller to amend TGS on site and to keep a log of all changes	Stop work until an investigation has been undertaken into the incident. There are to be changes made to the TGS to ensure that the safety of workers and the public.
Dust and Sediment Tracking	Trigger	No observable dust	Minor quantities of dust in the air and tracking on to the road.	Large quantities of dust in the air and tracking on to the road
	Response	No response required	<p>Review and investigate construction vehicle movements and activities and respective control measures, where appropriate. Implement additional remedial measures, such as:</p> <ul style="list-style-type: none"> <li>• All drivers of vehicles transporting loose materials will be required to ensure the entire load is covered using a tarpaulin or similar impervious material.</li> <li>• Deployment of additional water sprays.</li> <li>• Wheel wash station shall be positioned at the exit point of all gates.</li> <li>• Temporary halting of vehicle movements and activities and resuming when conditions have improved.</li> <li>• The roads will also be cleaned on a regular basis to minimise dust/dirt particles depositing externally from the site.</li> </ul>	<p>As with Condition Amber.</p> <ul style="list-style-type: none"> <li>• If it is concluded that construction vehicle activities and movements were directly responsible for the exceedance, submit an incident report to government agencies.</li> <li>• Implement relevant responses and undertake immediate review to avoid such occurrence in future.</li> </ul>

# Appendix A. Traffic Guidance Scheme



LEGEND	
	WORK AREA
	TEMPORARY SIGN
	FENCING (1.8M) (SHADE CLOTH COVERING)
	ACCESS GATE

Sinage to be installed with consideration of existing signage on Aldington Road

Locations of the temporary construction access driveways to be confirmed and coordinated with Aldington Raod works

**TGS GENERAL NOTES**

- ALL PUBLIC ROADS WILL HAVE A SPEED LIMIT OF 50KM/H UNLESS IDENTIFIED OTHERWISE
- NOT ALL DIMENSIONS SHOWN ARE TO SCALE
- LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY
- ALL SIGNS ARE TO BE MINIMUM SIZE A
- ALL SIGNS ARE TO BE CLASS 1 RETROREFLECTIVE
- ALL TRAFFIC GUIDANCE SCHEMES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH TfNSW'S TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL ISSUE 6 (RELEASED 2020) AND AUSTRALIAN STANDARDS AS1742.3:2019 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS
- THIS TRAFFIC GUIDANCE SCHEMES MUST BE SET UP BY A PERSON HOLDING AN 'IMPLEMENT TRAFFIC MANAGEMENT PLAN' TICKET AND TfNSW'S TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION
- THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TGS BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TGS IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TGS HAS BEEN IMPLEMENTED CORRECTLY AND THAT THE IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL
- IT IS THE RESPONSIBILITY OF THE AN ACCREDITED PERSONNEL WITH A 'PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN' TO ENSURE THE FOLLOWING:
  - \* THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURE THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
  - \* VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
  - \* AT ALL TIMES AN UP-TO-DATE COPY OF 'TRAFFIC CONTROL AT WORK SITES' SHALL BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
- ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN
- IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS
- TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS ARE TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE.
- ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED
- ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2019
- ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2019. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS
- IF REQUIRED, A TGS MUST BE SELECTED, DEVELOPED AND IMPLEMENTED BY A SUITABILITY QUALIFIED PERSON (PWZTMP AND ITCP QUALIFICATIONS)

General notes:  
Any new signage will take into consideration any existing signage implemented as part of other warehouses in AIE.

Designer  
Full Name: Jay Wu  
Role: Transport Engineer  
Division / Organisation: Ason Group  
SafeWork NSW Card Number: TCT1035997  
Signature:   
Date: 26.03.2025

Approver  
Full Name: Malcolm Rhys Hazell  
Role: Principal Lead  
Division / Organisation: Ason Group  
SafeWork NSW Card Number: TCT0045321  
Signature:   
Date: 26.03.2025

AMENDMENTS	
01	07.02.2025 DRAFT
REV	DATE DESCRIPTION
	JW RH RH
	DRW CHK APP

**GENERAL NOTES**

This drawing is provided for information purposes only and should not be used for construction.  
Aerial image acquired from Nearmap, dated 23.11.24.

DESIGNED	Jay Wu
CHECKED BY	A. Tan
APPROVED BY	Rhys Hazell
PAPER SIZE	A3
DATE	26.03.2025
SCALE	Custom

CLIENT	FPI Developments NSW Pty Ltd
PROJECT	2455
	Warehouse 6 & 7, Aspect Industrial Estate

DOCUMENT INFORMATION	TRAFFIC GUIDANCE SCHEME
	ALL CONSTRUCTION TRAFFIC
DRAWING STATUS	DRAFT

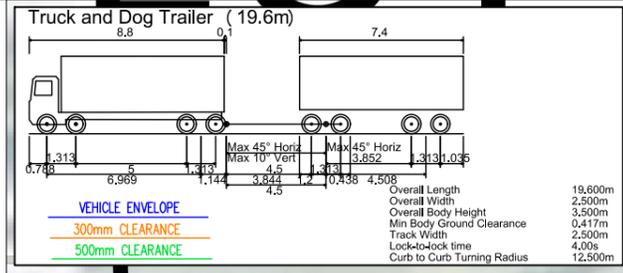
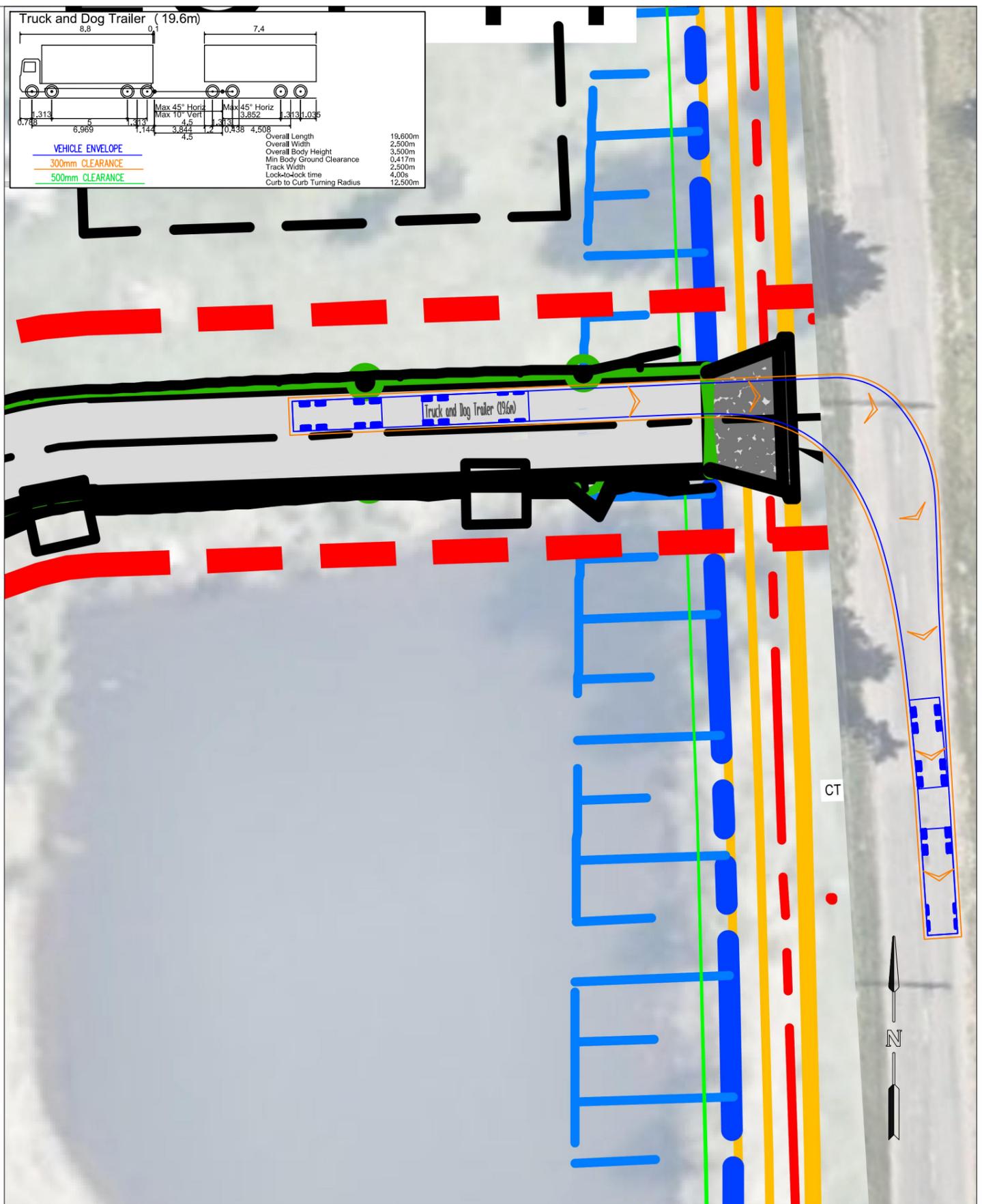
**asongroup**

Suite 17.02, Level 17, 1 Castlereagh St  
Sydney NSW 2000  
info@asongroup.com.au

FILE NAME	AG1043-07-v02-TGS.dwg
SHEET	AG02

# Appendix B. Swept Path Analysis

ASON ACCEPTS NO RESPONSIBILITY FOR THE USE OF UNAPPROVED PLANS IN ANY CONSTRUCTION OR FOR ANY COMMERCIAL PURPOSES. SET OUT DIMENSIONS OF ALL DESIGN LINES, GRID LINES, CONTROL LINES, RECOVERY MARKS AND BENCH MARKS SHOULD BE VERIFIED AND CONFIRMED AGAINST THE LATEST INFORMATION AT CONSTRUCTION. ASON IS TO BE NOTIFIED IMMEDIATELY OF ANY ERROR OR DISCREPANCY AND THE MATTER RESOLVED PRIOR TO THE COMMENCEMENT OR CONTINUATION OF ANY WORK. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN/DATA. REPRODUCTION OF THIS PLAN OR ANY PART OF IT WITHOUT THE WRITTEN PERMISSION OF ASON GROUP IS STRICTLY PROHIBITED. THE INFORMATION SHOWN ON SUCH REPRODUCTION IS UNLAWFUL AND NOT SUITABLE FOR USE.



GENERAL NOTES  Civil prepared by at&I, received 21.01.2025	DESIGNED Jay Wu	PAPER SIZE A3	CLIENT FPI Developments NSW Pty Ltd
	APPROVED BY R. Hazell	DATE 26.03.2025	PROJECT P1043
	SCALE 1:400		

DOCUMENT INFORMATION	
Construction Access Swept Path Analysis	
19.6m Truck & Dog Trailer Entry & Exit	
FILE NAME AG1043-06-v02-CTMP - Copy.dwg	SHEET AG01

Suite 17.02, Level 17, 1 Castlereagh St  
Sydney NSW 2000  
info@asongroup.com.au



# Appendix C. Risk Assessment

# Proposed Infrastructure Works and Warehouse Construction – 141-251 Aldington Road, Keeps Creek, Edge South Estate

## Risk Assessment and Communication Tool

Project Number	1043r07		
Project Name	Infrastructure works and construction of warehouse and ancillary office		
Site Location	141-251 Aldington Road, Kemps Creek		
Date of Assessment	17 July 2025		
Revision	Issue I		
Name	Company	Title	
<b>Document Control</b>			
Date Issued	Revision	Issued By	Checked By
16/06/2025	Final	J. Wu	

Risk Matrix		Consequence				
		Minor A	Major B	Severe C	Critical D	Catastrophic E
Very Unlikely	1	Low	Low	Medium	Medium	Medium
Unlikely	2	Low	Low	Medium	Medium	High
Possible	3	Low	Medium	High	High	High
Likely	4	Medium	Medium	High	High	Extreme
Almost Certain	5	Medium	High	High	Extreme	Extreme

Description	
A - Minor	Could result in injury or illness not resulting in a lost workday or minimal environmental damage not required to be notified under jurisdiction requirements.
B - Major	Could result in injury or illness resulting in one or more lost workday(s) or environmental damage can be mitigated and is not required to be notified under jurisdiction.
C - Severe	requirements where restoration activities can be accomplished.
D - Critical	Could result in permanent partial disability, injuries or illness that may result in hospitalisation.
E - Catastrophic	hospitalisation of persons or environmental damage can be mitigated and is required to be notified under jurisdiction requirements.

Likelihood descriptor	Design Likelihood
1 - Very unlikely	Industry experience suggests design failure is very unlikely. It can be assumed failure.
2 - Unlikely	Industry experience suggests design failure is unlikely to occur in the life of design.
3 - Possible	Industry experience suggests design failure is possible sometime during the life of the product.
4 - Likely	Industry experience suggests design failure is likely to occur during the life of the product.
5 - Almost certain	Industry experience suggests design failure is almost certain to occur during the life of the product.

## Risk Assessment and Communication Tool

ID. Ref	Risk and/ or Hazard	Risk Description	Location	Existing Control	Initial Risk Rating			Design Response to risk and /or hazard	Status of Risk	Assignment of risk or hazard	Residual risk rating		
					C	L	RR				C	L	RR
1	Unauthorized Access to the Site	Site prevents unauthorised access	Entire Site	Nil	C	3	High	Exclusion barriers will be provided as part of the main works. The design provides a defined separation between construction and work areas.	Design Solution	Contractor	B	2	Low
2	Interaction between pedestrians and vehicles	Vehicles and pedestrians to be separates as best possible	Entire Site and Access Roads	Nil	D	3	High	Ensure pedestrian access provisions are adequately addressed and maintained as required.	Design Solution	Contractor	B	2	Low
3	Potential vehicle conflict points	Vehicles can crash with each other while manoeuvring through the site	Entire Site and Access Roads	Nil	B	3	Medium	Roadways are capable of two-way flow. Nonetheless, the Contractor and/or traffic controllers shall limit movements within disrupted areas to limit any safety issues. Low speeds throughout the site also reduce potential for crashes.	Design Solution	Contractor	B	1	Low
4	Fatigue	Injury caused by fatigue	Entire Site	Nil	C	3	High	Toolbox meetings and regular breaks (in line with WHS practices) to minimise fatigue	Design Solution	Contractor	B	1	Low
5	Fall risks	Injury due to falls (in general)	Entire Site	Nil	E	3	High	Ensuring level changes across the site to be minimised as best possible, with additional black and yellow hazard tape/markings being installed where appropriate. Installation of handrails where level changes / ramps grades are significant.	Design Solution	Contractor	C	2	Medium

ID. Ref	Risk and/ or Hazard	Risk Description	Location	Existing Control	Initial Risk Rating			Design Response to risk and /or hazard	Status of Risk	Assignment of risk or hazard	Residual risk rating		
					C	L	RR				C	L	RR
6	Misdirected access into neighbouring site	Vehicle in unsafe locations	Entire Site	Nil	C	3	High	Ensuring appropriate directional signage has been provided to ensure vehicles do not access the wrong construction site, which could create potential safety breaches and hazards for all parties	Design Solution	Contractor	B	2	Low
7	Conflicting Traffic Management	Coordinating Traffic Controllers could create misleading and wrong advice	Entire Site	Nil	C	3	High	Toolbox meetings, regular liaison with all construction teams and review of signage plans on site in order to minimise contradicting signage.	Design Solution	Contractor	C	2	Medium
8	Disobeying road rules	Drivers not adhering to road rules (e.g. no U-turning on Mamre Road)	Entire Site, Mamre Road	Driver Code of Conduct, warning signage, license plate recognition (LPR)	E	3	High	Monitoring of traffic volumes, reporting non-compliances, fines, LPR to discourage law-breaking, banning vehicles that break road rules.	Design Solution	Contractor	C	1	Medium

# Appendix D. Driver Code of Conduct

## Driver Code of Conduct

Safe Driving Policy for Edge South Estate, Kemps Creek.

## Objectives of the Drivers Code of Conduct

- To minimise the impact of construction on the local and regional road network.
- To minimise conflict with other road users.
- To minimise road traffic noise.
- To ensure truck drivers use specified heavy vehicles routes between the site and the sub-regional road network.

## Code of Conduct

The code of conduct requires that while driving any vehicle for work-related purposes. Drivers are to be issued with a copy of the Drivers Code of Conduct, and must comply with all of the following:

- Demonstrate safe driving and road safety activities.
- Abide by traffic, road, and environmental legislations.
- Follow site signage and instructions.
- Drivers must only enter and exit the site via the approved entry and exit points and travel routes.

The below activities in any vehicles will be considered as a breach of conduct and will result in removal from site:

- Reckless or dangerous driving causing injury or death.
- Driving whilst disqualified or not correctly licensed.
- Drinking or being under the influence of drugs while driving.
- Failing to stop after an incident.
- Loss of demerit points leading to suspension of licence.
- Any actions that warrant the suspension of a licence.
- Exceeding the speed limit in place on any permanent or temporary roads.

# Driver Responsibilities

All Drivers on site must:

- Be responsible and accountable for their actions when operating a company vehicle or driving for the purposes of work.
- Display the highest level of professional conduct when driving a vehicle at all times.
- Ensure they have a current driver licence for the class of vehicle they are driving, and this licence is to be carried at all times.
- Comply with all traffic and road legislation when driving.
- Assess hazards while driving.
- Undertake daily pre-start checks of mufflers, oil, tyre pressures, radiator, and battery levels of company vehicles they regularly used.
- Drive within the legal speed limits, including driving to the conditions.
- Not drive outside of the approved heavy vehicle routes. All drivers must obey weight, length and height restrictions imposed by the National Vehicle Regulator, and other Government agencies. Heavy Vehicles shall adhere to the selected routes.
- Do not queue on public roads unless a prior approval has been sought.
- Be aware that at no time may a tracked plant be permitted or required on a paved road.
- Never drive under the influence of alcohol or drugs, including prescription and over the counter medication if they cause drowsiness – to do so will merit disciplinary measures.
- All drivers to report to their supervisor if they have been prescribed medication prior to the start of work.
- Wear a safety seat belt at all times when in the vehicle.
- Avoid distraction when driving – the driver will adjust car stereos/mirrors etc. before setting off or pull over safely to do so.
- Report ALL near-misses, crashes, and scrapes to their manager,
- Report infringements to a manager at the earliest opportunity.
- Report vehicle defects to a manager prior to the next use of the vehicle.
- Follow speed limits as imposed within the estate.
- Keep loads covered at all times.
- Park in dedicated light vehicle or heavy vehicle parking spaces.
- Follow the approved site ingress/ egress routes only, as defined below.

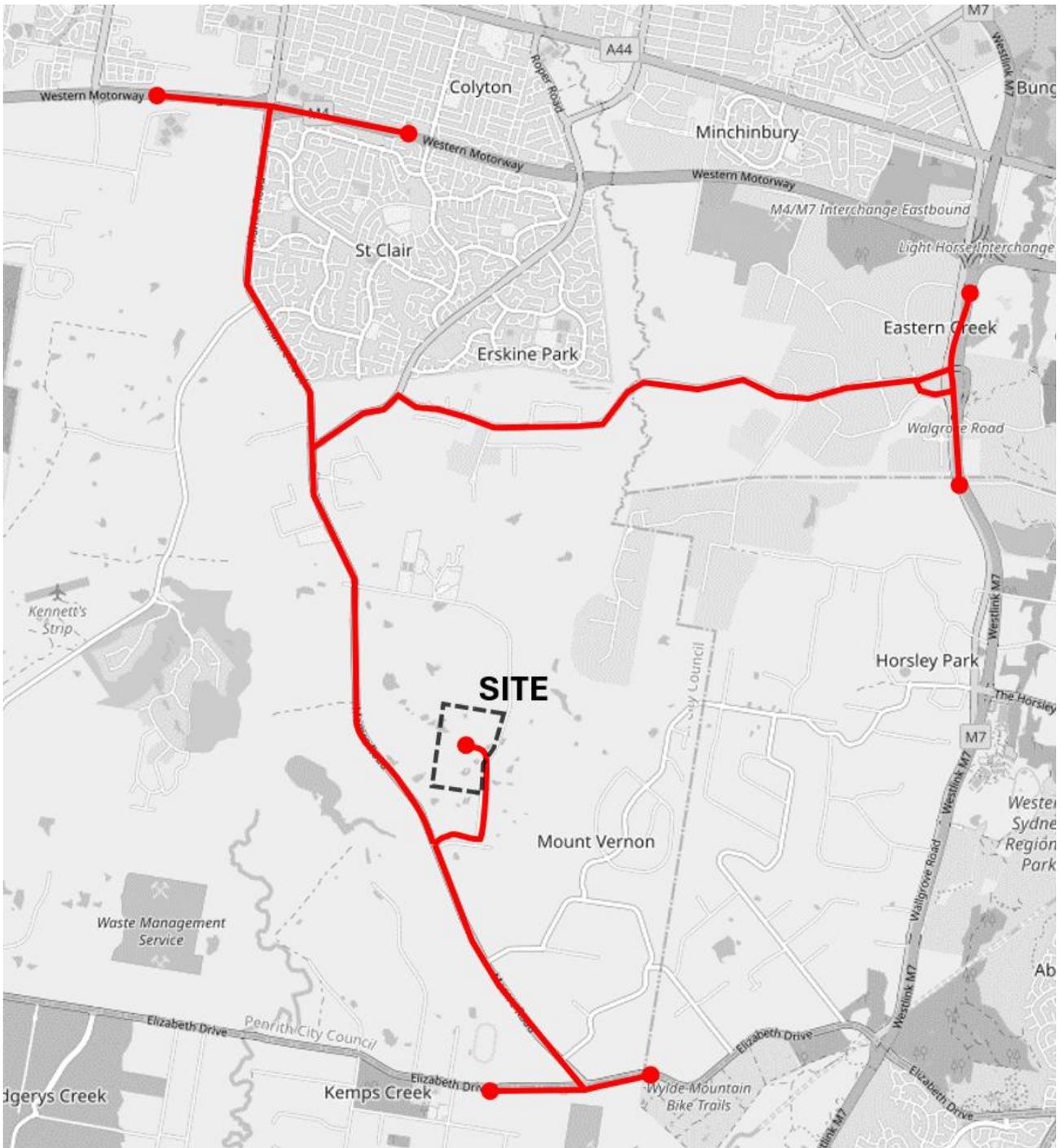


Figure D1: Construction Vehicle Route Map

## Road Traffic Noise

Generating excessive noise is governed by legislation and is an offence. Heavy trucks generate a higher level of noise than light vehicles.

The amenity of surrounding road users/residents is to be maintained as far as practical during the construction process. Vehicles traveling to, from and within the site shall not create unreasonable or unnecessary noise or vibration to minimise interference to adjoining building operations.

All heavy vehicle operators are required to adhere to the following during the course of their duty:

- If possible, minimise road traffic noise by not using engine brakes near residences and built-up areas.
- All vehicles must be fitted with audible reversing alarms. These are essential for the safety of all personnel. Reversing alarms are, however, the source of potential noise complaints from neighbouring residents, so all drivers should be aware of this and try to minimise reversing when possible.
- Avoid loading and unloading of materials/deliveries outside of daytime hours.
- Trucks should not idle near residential receivers.
- Stationary sources of noise, such as generators, should be located away from sensitive receivers.
- Project personnel, including relevant sub-contractors, to acquaint themselves with noise and vibration requirements and the location of sensitive receivers during inductions and toolbox talks.
- Delivery vehicles should be fitted with straps rather than chains for unloading, wherever possible.
- Truck drivers should avoid compression-braking and overrevving as far as practicable when accessing the site during the approved hours and avoid them entirely outside of the approved work hours.
- Where night-time works are required, trucks should use broadband reversing alarms.

## Site Team Responsibilities

The Contractor is responsible to take all steps necessary to ensure company vehicles are as safe as possible and will not require staff to drive under conditions that are unsafe.

This will be achieved by undertaking the following:

- Ensuring all vehicles are well maintained and that the equipment enhances driver, operator, and passenger safety by way of:
  - Pre-commencement checks for all new plant arriving on-site and prior to undertaking any work.
  - Daily prestart inspections for all plant, vehicles, and equipment currently on-site.
  - All construction plant must be fitted with a flashing light, fire extinguisher and reverse alarms (or squawkers).
  - Ensure all operators onsite have a current verification of competency (VOC) for their current driver's licence of the appropriate class.
  - Ensure maintenance requirements are met and recorded.
- Identify driver training needs and arranging appropriate training or re-training. This may include providing the below:
  - Operator VOC assessment as part of all inductions.
  - Regular Toolbox discussions on safety features, managing fatigue, approved heavy routes, driver responsibility and drink-driving.
- Encouraging Safe Driving behaviour by:
  - Ensuring the subcontractor is informed if their staff become unlicensed.
  - Not covering or reimbursing staff speeding or other infringement notices.
  - Ensuring Legal use of mobile phones in vehicles while driving only and that illegal use is not undertaken.
- Encouraging better fuel efficiency by:

- Use of other transport modes or remote conferencing, whenever practical.
- Providing training on, and circulating information about, travel planning and efficient driving habits.

## Monitoring and Compliance Program

To ensure adherence to the Driver Code of Conduct, the following measures will be implemented:

- GPS tracking and log reviews: All heavy vehicles will be monitored via GPS tracking to ensure they follow approved routes. Regular log reviews will be conducted to identify any deviations.
- Site entry and exit checks: Number plates will be recorded for vehicles accessing the site. Spot checks will be conducted at site access points to confirm compliance with designated routes and turning restrictions.
- Incident and non-conformance reports: Any observed breaches (e.g., illegal U-turns, noise violations) will be documented, and patterns of non-compliance will be analysed to improve traffic management strategies.
- Driver feedback mechanism: Drivers will be encouraged to report road network issues, unsafe conditions, or difficulties in following prescribed routes.

## Compliance Actions for Route Deviations

Any vehicles found to be deviating from approved routes or violating turning restrictions will be subject to the following actions:

- First offense: Verbal warning and review of site access and route compliance requirements.
- Second offense: Written warning and retraining session on designated routes and site access points.
- Third offense: Temporary suspension of site access privileges.
- Severe or repeated offenses: Permanent removal from the project, blacklisting of the vehicle, and notification to relevant authorities if necessary.

Any breaches of the CTMP and Driver Code of Conduct may be considered a breach of development consent and penalties such as fines and/or prosecution may apply.

## Crash or Incident Procedure

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
  - Details of the other vehicles and registration numbers
  - Names and addresses of the other vehicle drivers.
  - Names and addresses of witnesses.
  - Insurers details
- Give the following information to the involved parties:
  - Name, address, and company details

- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
  - If there is a disagreement over the cause of the crash.
  - If there are injuries.
  - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

## General Environmental Procedures

A range of measures shall be implemented to ensure the following:

- No dirt or debris from the construction vehicles is tracked on to the public road network.
- Reduce the impacts to sensitive receivers, including, where practicable, starting noisy equipment away from sensitive receivers and implementing respite periods.
- Watering of dusty activities will be undertaken, or activities temporarily halted and then resumed once weather conditions have improved.
- Containment measures for spillages will be provided at appropriate locations and in close proximity to staff car park areas, dangerous goods stores areas and main Project work areas.
- All vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria, and
- Keep an accurate record which includes the range of measures undertaken to reduce environmental impacts.

Detailed measures are included in the overarching CEMP.

# Appendix E. Stakeholder Consultation

## Mack Brinums

---

**From:** Patrick Wu <Patrick.Wu@transport.nsw.gov.au>  
**Sent:** Thursday, 17 July 2025 4:40 PM  
**To:** Mack Brinums; Ahmad Ghalayini; Development CTMP CJP  
**Cc:** Monica Ngo; Jay Wu; Development Applications; Bus Approval  
**Subject:** Re: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

Hi Mack and Ahmad,

Transport for NSW (TfNSW), Coordinator-General Division has reviewed the CTMP and endorse the proposed temporary construction arrangements, subject to the following conditions:

- Any Traffic Guidance Schemes (TGS) prepared are to comply with AS1742.3 and Transport for NSW's "Traffic Control at Worksites" manual and be signed by a person with TfNSW certification to prepare a TGS.
- Proponent must apply and obtain approval from the Transport Management Centre for a Road Occupancy Licence (ROL) for any required lane closures and/or Speed Zone Authorisations as part of the ROL that may impact the state road network or is within 100m of traffic signals.
- Access to be maintained for residents, businesses and emergency vehicles at all times.
- No marshalling or queuing of construction vehicles is to occur on public roads. Arriving vehicles that are not able to use parking bay/work zone must continue to a holding point until space becomes available.
- When heavy vehicles are entering or leaving the site a traffic controller is to be provided to manage any conflicts between pedestrians and heavy vehicles.
- Access to the site should be at the farthest point from the intersection as practicable to reduce additional conflicting vehicle manoeuvres.
- Transport for New South Wales reserve the right to alter the CTMP Conditions at any time to maintain safe and efficient traffic and pedestrian movements in this area.
- Any approved Works Zone should only be used for work activities. No infrastructure, including bins, tanks or traffic control equipment should be left on the road when the works zone is not in use by a vehicle. All non-vehicular items must be contained within the work area and not on the carriageway. When a work zone is not in use, the area/lane must be opened up to allow for normal trafficable conditions
- Should TfNSW Network and Asset Management, Network Operations, CJP Operations, Network and Safety or other TfNSW business area determine that more information is to be provided for review and acceptance, including other TCS locations, this information must be submitted prior to the CTMP being implemented, or otherwise agreed upon.
- Any traffic control devices, including signage and line marking, should be installed by the proponent and must conform with Australian Standards 1742
- All temporary road signs, including both portable and fixed signs used to advise road users of nearby work sites and changes in traffic conditions due to the implementation of the CTMP, must be removed upon completion of the works

Endorsement of the CTMP is not an approval to the type of traffic management or delineation devices used, nor is it an approval to any traffic guidance schemes depicted within the CTMP. It is assumed that the proponent has used type approved devices and has developed its traffic guidance schemes in accordance with the relevant Australian Standards and Guidelines.

The proponent is to ensure local residents, businesses, schools and other stakeholders in the affected area as well as emergency service organisations are notified of the changes associated with the CTMP, prior to its implementation. Please note CTMPs are only valid for 12 months and must be resubmitted after this period.

Please ensure this CTMP is shared and adhered to by all contractors. If the CTMP changes, please forward a copy to [development.CTMP.CJP@transport.nsw.gov.au](mailto:development.CTMP.CJP@transport.nsw.gov.au), [Developments.CJP@transport.nsw.gov.au](mailto:Developments.CJP@transport.nsw.gov.au) for further review and endorsement.

Kind regards

**Patrick Wu** *He/Him*  
Precinct Manager, Precinct Operations  
Operations Planning  
Coordinator-General Division

**Transport for NSW**

**M:** 0439035796 **Email:** [patrick.wu@transport.nsw.gov.au](mailto:patrick.wu@transport.nsw.gov.au)

[transport.nsw.gov.au](http://transport.nsw.gov.au)



**Transport  
for NSW**



I acknowledge the Aboriginal people of the country on which I work, their traditions, culture and a shared history and identity. I also pay my respects to Elders past and present and recognise the continued connection to country.

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**From:** Mack Brinums <[mack.brinums@asongroup.com.au](mailto:mack.brinums@asongroup.com.au)>  
**Sent:** Monday, July 14, 2025 15:04  
**To:** Patrick Wu <[Patrick.Wu@transport.nsw.gov.au](mailto:Patrick.Wu@transport.nsw.gov.au)>; Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Cc:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>; Jay Wu <[jay.wu@asongroup.com.au](mailto:jay.wu@asongroup.com.au)>; Development Applications <[Developments.CJP@transport.nsw.gov.au](mailto:Developments.CJP@transport.nsw.gov.au)>; Bus Approval <[BusApproval@transport.nsw.gov.au](mailto:BusApproval@transport.nsw.gov.au)>  
**Subject:** RE: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

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Hi Patrick

Thanks for the discussion earlier, please see below for comments in red. As mentioned, we've now added a short statement in the CTMP (Section 3.7) to talk to the public transport impacts (or lack of) to address comment 3. The other comments shouldn't require any updates to the CTMP.

If you can please confirm all okay with the updated CTMP? Can you also just confirm receipt of this email just due to file size?

Thanks

## Monica Ngo

---

**From:** Ahmad Ghalayini  
**Sent:** Friday, 11 July 2025 10:14 AM  
**To:** 'Patrick Wu'  
**Cc:** Mack Brinums; Monica Ngo; Ali Rasouli  
**Subject:** RE: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

Hi Patrick,

Thank you for the productive discussion on the phone.

As agreed, though we are closing consultations on the CTMP per condition B1 of SSD17552047, we will be looking forward to receiving your input early next week and we would inform our Environmental Representative of any changes if required.

Kind Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

**T** +61 2 9767 2197 **M** +61 475 592 689  
**E** [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Level 15, 180 George Street, Sydney NSW 2000  
[FrasersPropertyIndustrial.com](http://FrasersPropertyIndustrial.com)



At Frasers Property, we acknowledge the Traditional Custodians of the land on which we operate and pays respects Elders past, present, and future.

Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values. The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

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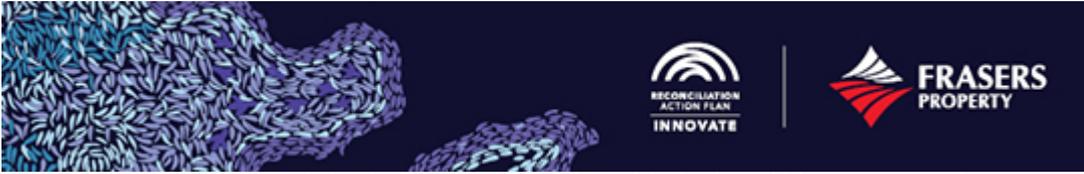
**From:** Ahmad Ghalayini  
**Sent:** Friday, 11 July 2025 7:10 AM  
**To:** Patrick Wu <Patrick.Wu@transport.nsw.gov.au>  
**Subject:** RE: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

Thank you Patrick, looking forward to your response.

Regards,  
**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

**T** +61 2 9767 2197 **M** +61 475 592 689  
**E** [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Level 15, 180 George Street, Sydney NSW 2000  
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**From:** Patrick Wu <[Patrick.Wu@transport.nsw.gov.au](mailto:Patrick.Wu@transport.nsw.gov.au)>

**Sent:** Thursday, 10 July 2025 2:42 PM

**To:** Mack Brinums <[mack.brinums@asongroup.com.au](mailto:mack.brinums@asongroup.com.au)>; Development CTMP CJP <[development.CTMP.CJP@transport.nsw.gov.au](mailto:development.CTMP.CJP@transport.nsw.gov.au)>

**Cc:** Heather Trengove <[Heather.Trengove@transport.nsw.gov.au](mailto:Heather.Trengove@transport.nsw.gov.au)>; Maryam Yadak <[Maryam.Yadak@transport.nsw.gov.au](mailto:Maryam.Yadak@transport.nsw.gov.au)>; Jay Wu <[jay.wu@asongroup.com.au](mailto:jay.wu@asongroup.com.au)>; Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>; Ali Rasouli <[ali.rasouli@asongroup.com.au](mailto:ali.rasouli@asongroup.com.au)>; Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>

**Subject:** Re: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

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Hi Mack,

Apologies for the delay. I'm still waiting on input from my internal stakeholders. I've followed up with them again today and will get back to you tomorrow with an update.

Thanks for your patience.

Kind regards

**Patrick Wu** *He/Him*

Precinct Manager

Operational Improvement Planning

Coordinator-General Division

**Transport for NSW**

**M:** 0439035796 **Email:** [patrick.wu@transport.nsw.gov.au](mailto:patrick.wu@transport.nsw.gov.au)

[transport.nsw.gov.au](http://transport.nsw.gov.au)



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**From:** Mack Brinums <[mack.brinums@asongroup.com.au](mailto:mack.brinums@asongroup.com.au)>  
**Sent:** Thursday, July 10, 2025 12:00  
**To:** Development CTMP CJP <[development.CTMP.CJP@transport.nsw.gov.au](mailto:development.CTMP.CJP@transport.nsw.gov.au)>  
**Cc:** Heather Trengove <[Heather.Trengove@transport.nsw.gov.au](mailto:Heather.Trengove@transport.nsw.gov.au)>; Maryam Yadak <[Maryam.Yadak@transport.nsw.gov.au](mailto:Maryam.Yadak@transport.nsw.gov.au)>; Jay Wu <[jay.wu@asongroup.com.au](mailto:jay.wu@asongroup.com.au)>; Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>; Ali Rasouli <[ali.rasouli@asongroup.com.au](mailto:ali.rasouli@asongroup.com.au)>; Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Subject:** RE: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

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Hi

We're just following up on the below email trail again. We've spoke with Zhaleh Alamouti at TfNSW last week who advised the CJP team were reviewing the CTMP and were looking to get back to us with a response late last week/early this week though we haven't received anything yet.

Are you able to please confirm if any feedback on the CTMP by tomorrow?

Kind regards

**Mack Brinums**  
Principal Transport Engineer | Ason Group

T: +61 2 9083 6601 | M: +61 414 600 989 | E: [mack.brinums@asongroup.com.au](mailto:mack.brinums@asongroup.com.au)

A: Suite 17.02, Level 17, 1 Castlereagh Street, Sydney NSW 2000

---

**From:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>

**Sent:** Thursday, 26 June 2025 4:21 PM

**To:** Development CTMP CJP <[development.ctmp.cjp@transport.nsw.gov.au](mailto:development.ctmp.cjp@transport.nsw.gov.au)>

**Cc:** Heather Trengove <[heather.trengove@transport.nsw.gov.au](mailto:heather.trengove@transport.nsw.gov.au)>; [maryam.yadak@transport.nsw.gov.au](mailto:maryam.yadak@transport.nsw.gov.au); Mack Brinums <[mack.brinums@asongroup.com.au](mailto:mack.brinums@asongroup.com.au)>; Jay Wu <[jay.wu@asongroup.com.au](mailto:jay.wu@asongroup.com.au)>; Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>; Ali Rasouli <[ali.rasouli@asongroup.com.au](mailto:ali.rasouli@asongroup.com.au)>

**Subject:** RE: SSD-17552047 -B1 - Edge South Estate Construction - CTMP

Hi,

We would like to follow-up on the status of the below submission.

It is worth noting we have chosen Ason to author this CTMP as the respective site is surrounded by developments and infrastructure that had their construction and operational traffic management plans prepared by Ason as well thereby ensuring external factors have been accounted for and synergy between the different sites.

Per condition B1 of SSD17552047, we therefore kindly request your feedback or comments by June 3, 2025.

Kind Regards,

**Ahmad Ghalayini**

Project Manager - Infrastructure

**Frasers Property Industrial**

**T** +61 2 9767 2197 **M** +61 475 592 689

**E** [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

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The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

---

**From:** Jay Wu <[jay.wu@asongroup.com.au](mailto:jay.wu@asongroup.com.au)>  
**Sent:** Thursday, 19 June 2025 5:18 PM  
**To:** Development CTMP CJP <[development.ctmp.cjp@transport.nsw.gov.au](mailto:development.ctmp.cjp@transport.nsw.gov.au)>  
**Cc:** Heather Trengove <[heather.trengove@transport.nsw.gov.au](mailto:heather.trengove@transport.nsw.gov.au)>; [maryam.yadak@transport.nsw.gov.au](mailto:maryam.yadak@transport.nsw.gov.au); Mack Brinums <[mack.brinums@asongroup.com.au](mailto:mack.brinums@asongroup.com.au)>  
**Subject:** SSD-17552047 - Edge South Estate Construction - CTMP

**EXTERNAL EMAIL: Do not click links or open attachments unless you recognise the sender and know the content is safe.**

Hi,

I'm submitting the attached Construction Traffic Management Plan as it relates to the Edge South Estate project at 155-251 Aldington Road, Kemps Creek (SSD-17552047). The report includes all details around construction traffic management as necessary throughout all works stages and has been prepared in consultation with the assigned Environmental Representative of the Mamre Road Precinct Working Group.

We appreciate your consideration of the CTMP, and your feedback and comments are welcome. Please don't hesitate to reach out should you have any questions.

Regards,

**Jay Wu**

Transport Engineer | Ason Group

**T:** +61 2 9083 6601 | **M:** +61 450 715 950 | **E:** [jay.wu@asongroup.com.au](mailto:jay.wu@asongroup.com.au)

**A:** Suite 17.02, Level 7, 1 Castlereagh Street, Sydney NSW 2000

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## Monica Ngo

---

**From:** John Skaf <John.Skaf@penrith.city>  
**Sent:** Thursday, 24 July 2025 3:42 PM  
**To:** Ahmad Ghalayini  
**Cc:** Monica Ngo  
**Subject:** RE: SSD17552047 - The Edge - CTMP Condition B1

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---

Hi Ahmad,

Apologies again for the delay in the review of the CTMP. Council has reviewed the submitted CTMP prepared by AT&L, reference P1043r07v03, dated 19/06/2025 as per condition B1 of the SSD-17552047. As such, Council requires the following items to be included in the CTMP:

- The applicant must obtain any relevant section 138 Road Act approvals before commencement of works within the road reserve.
- Damage to Council's assets must be reported to Penrith City Council on 4732 7777 or [assetmanagementadmin@penrith.city](mailto:assetmanagementadmin@penrith.city) and repairs to be carried out to Council's specification and satisfaction, at the applicants cost.
- Council requests that the nominated contact person provide a response within a maximum of 24 hours to any significant issues or concerns raised in relation to traffic or infrastructure matters.

Subject to the above items are addressed, Council has no objection to the proposed CTMP.

Kind Regards,

**John Skaf**  
Senior Engineer - Major Developments  
Engineering Services

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[www.penrithcity.nsw.gov.au](http://www.penrithcity.nsw.gov.au)



---

**From:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Sent:** Thursday, 17 July 2025 1:55 PM  
**To:** John Skaf <John.Skaf@penrith.city>  
**Cc:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>  
**Subject:** RE: SSD17552047 - The Edge - CTMP Condition B1

## Monica Ngo

---

**From:** Ahmad Ghalayini  
**Sent:** Thursday, 17 July 2025 1:55 PM  
**To:** John Skaf  
**Cc:** Monica Ngo  
**Subject:** RE: SSD17552047 - The Edge - CTMP Condition B1

Hi John,

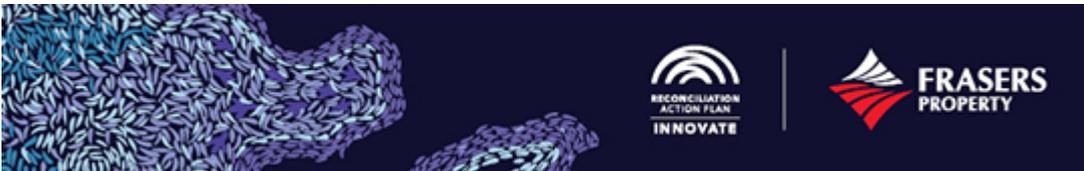
Thank you for your time on the phone today. As discussed and agreed with you, we will proceed with submission and can incorporate amendments to the CTMP, if any, retrospectively.

Kind Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

**T** +61 2 9767 2197 **M** +61 475 592 689  
**E** [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Level 15, 180 George Street, Sydney NSW 2000  
[FrasersPropertyIndustrial.com](http://FrasersPropertyIndustrial.com)



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Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values. The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

---

**From:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>  
**Sent:** Wednesday, 16 July 2025 11:09 AM  
**To:** John Skaf <[John.Skaf@penrith.city](mailto:John.Skaf@penrith.city)>  
**Cc:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Subject:** RE: SSD17552047 - The Edge - CTMP Condition B1

Hi John,

I'm just following up on any feedback regarding the CTMP.  
We are closing out consultation for the Construction Traffic Management Plan (CTMP) by **Friday, 18 July**, in line with Condition B1 of the consent.

Should Council have any remaining feedback after this date, we're happy to review and ensure these comments are addressed accordingly in the CTMP if required.

Please don't hesitate to reach out if there are any matters needing discussion

**Monica Ngo**  
Project Engineer - Infrastructure  
**Frasers Property Industrial**

T +61 2 9767 2240 M +61 408 930 244  
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---

**From:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>

**Sent:** Friday, 11 July 2025 10:20 AM

**To:** John Skaf <[John.Skaf@penrith.city](mailto:John.Skaf@penrith.city)>

**Cc:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>

**Subject:** RE: SSD17552047 - The Edge - CTMP Condition B1

Hi John,

Hope all is well. Have you heard back from your assets team on the CTMP?

I note that I have just got off the phone with TfNSW and they are ok for us to proceed their end noting that Ason are a common denominator on traffic among the surrounding works/developments which naturally creates synergy between all traffic management plans in the precinct.

I will also be directly managing the Aldington road upgrade from Frasers end and can confirm the construction traffic assumptions and plans remain aligned.

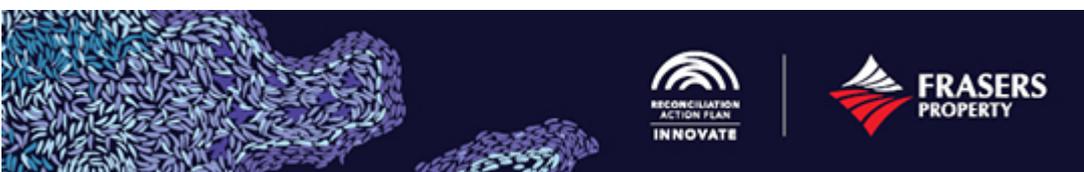
Looking forward to your response.

Kind Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

T +61 2 9767 2197 M +61 475 592 689  
E [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

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The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

---

**From:** John Skaf <[John.Skaf@penrith.city](mailto:John.Skaf@penrith.city)>  
**Sent:** Sunday, 6 July 2025 6:19 PM  
**To:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>  
**Cc:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Subject:** RE: SSD17552047 - The Edge - CTMP Condition B1

---

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---

Hi Monica,

My apologies for the delay in my response regarding the CTMP and thank you for resharing the link to the folders.

I have sent a follow up e-mail to our Assets team who are reviewing this document. I will touch base with them again early in the week and hope to have feedback to you very soon after.

Kind Regards,

**John Skaf**  
Senior Engineer - Major Developments

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[www.penrithcity.nsw.gov.au](http://www.penrithcity.nsw.gov.au)

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**From:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>  
**Sent:** Monday, 23 June 2025 12:18 PM  
**To:** John Skaf <[John.Skaf@penrith.city](mailto:John.Skaf@penrith.city)>  
**Cc:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Subject:** SSD17552047 - The Edge - CTMP Condition B1

Afternoon John,

Our Consent Condition B1 for the Edge Estate requires council's consultation for our Construction Traffic Management Plan.

Due to the size of the document, I have included a link below to download and access the CTMP which has also been uploaded to the "SSD Consultations" sharefolder.

 [P1043r07v03\\_CTMP\\_155-251 Aldington Rd, Kemps Creek.pdf](#)

We appreciate your consideration of the CTMP and welcome your feedback. Please feel free to contact me if you have any questions

**Monica Ngo**  
Project Engineer - Infrastructure  
**Frasers Property Industrial**

T +61 2 9767 2240 M +61 408 930 244  
E [monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)

# Appendix C Erosion and Sediment Control Plan & Summary of Consultation

Ms Monica Ngo  
Project Engineer – Infrastructure  
Fraser's Property Industrial Constructions Pty Ltd  
Level 15, 180 George Street  
SYDNEY NSW 2000

1 September 2025

---

**Subject: Erosion and Sediment Control Plan (ESCP) – The Edge Estate**

Dear Ms Ngo,

I refer to the ESCP submitted in accordance with Condition B24 in Schedule 2 of the consent for The Edge Estate (SSD-17552047). I also acknowledge your response to the Department's request for additional information.

The Department has carefully reviewed the document and is satisfied that it meets the requirements of Condition B24(a) to (e) (SSD-17552047).

Accordingly, as nominee of the Planning Secretary, I approve the ESCP (Revision 4, dated 23/07/2025).

You are reminded that if there are any inconsistencies between the ESCP and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Rebecka Williams on telephone 02 82751723 or email [rebecka.williams@dpi.nsw.gov.au](mailto:rebecka.williams@dpi.nsw.gov.au)

Yours sincerely



David Schwebel  
**Acting Team Leader**  
**Industry Assessments**

As nominee of the Planning Secretary

# **The Edge Estate**

**SSD-17552047**

**141-251 Aldington Road,  
Kemps Creek**

## **Erosion and Sediment Control Plan**

**Frasers Property Pty Ltd**

**23/07/2025**

**20-776**

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## Document Registration

<b>Document Title</b>	The Edge Estate – Erosion and Sediment Control Plan
<b>Document File Name</b>	REP002B-04-20-776-ESCP.docx
<b>Section</b>	Civil / Urban Water Management
<b>Certification</b>	<p>I, Tim Michel (CPESC No. 11555) of AT&amp;L, certify that this ESCP has been prepared in accordance with the principles of The Blue Book (Landcom, 2004) and the Technical guidance for achieving Wianamatta-South Creek stormwater management targets (NSW DPE, 2022).</p> <p>This ESCP does not include all details required for ESCPs – further details will not be available until a Contractor has been appointed and construction sequencing and methods have been confirmed. The Civil Contractor appointed to construct the project will be responsible for preparation of compliant Progressive ESCPs.</p>
<b>Document Author</b>	<p>Tim Michel (AT&amp;L) Associate   Civil Engineer BE BA DipEngPrac, MIEAust, CPEng NER (Civil / Environmental) CPESC (11555)</p>

Issue	Description	Date	Author	Checked	Approved
01	Issue for SSDA	19/09/2023	Tim Michel	<input type="checkbox"/>	<input type="checkbox"/>
02	Minor amendments	01/11/2023	Tim Michel	<input type="checkbox"/>	<input type="checkbox"/>
03	Issue for RtS	09/04/2024	Tim Michel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
04	Issue for SWC Approval	23/07/2025	Tim Michel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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# 1. Introduction

This Erosion and Sediment Control Plan (ESCP) has been prepared by AT&L on behalf of Frasers Property Industrial in support of a Construction Certificate (CC) and/or Subdivision Works Certificate (SWC) for the proposed development of the site located at 155-251 and 141-153 Aldington Road, Kemps Creek (the Site, also referred to throughout as The Edge Estate).

The Edge Estate is located in the suburb of Kemps Creek, within the Penrith Local Government Area (LGA), and approximately 13 km south-east of the Penrith CBD and 6 km north-east of the under-construction Western Sydney Airport. The site is made up of the following allotments:

- Lot 34 DP258949 (141-153 Aldington Road, Kemps Creek)
- Lot 33 DP258949 (155-167 Aldington Road, Kemps Creek)
- Lot 28 DP255560 (169-181 Aldington Road, Kemps Creek)
- Lot 27 DP255560 (183-197 Aldington Road, Kemps Creek)
- Lot 26 DP255560 (199 Aldington Road, Kemps Creek)
- Lot 25 DP255560 (201-217 Aldington Road, Kemps Creek)
- Lot 24 DP255560 (219-233 Aldington Road, Kemps Creek)
- Lot 10 DP253053 (233-251 Aldington Road, Kemps Creek)

The total area of the site is approximately 63 hectares.

The extent of the site is presented in **Figure 1**.



**Figure 1: Site Extent (imagery from nearmap dated 28 May 2025)**

## 1.1. Scope of SSDA

The NSW Minister for Planning and Public Spaces granted development consent for The Edge Estate in June 2025 under [SSD-17552047](#). The following is a general outline of the scope of development for which development consent was granted:

- Demolition of existing dwelling houses and associated outbuildings;
- Bulk earthworks involving dam dewatering, cut and fill works and pad construction;
- Vegetation clearing;
- Fourteen-lot Torrens title subdivision;
- Proposed construction of internal public access roads of approximately 24.0m and 25.6m wide and connections to existing and future local roads;
- Stormwater and drainage works including construction of four on-site detention and bio-retention basins;
- Construction of retaining walls across the site;
- Construction of interim acoustic barriers;
- Landscaping and street tree planting;
- Infrastructure comprising civil works and utilities servicing; and
- Construction of eight warehouse and distribution centres with a total building area of approximately 153,343m<sup>2</sup>.

## 1.2. Scope of this ESCP

This ESCP has been prepared to describe the approach to construction phase soil and water management and to summarise the key standards and guidelines that will inform implementation and operation of erosion and sediment control measures.

This ESCP presents design of a series of proposed measures that will need to be implemented during demolition, site clearing and construction of the infrastructure works. The objectives of the proposed erosion and sediment control measures incorporated in this ESCP are to:

- Acknowledge the activities on a construction site which may contribute to erosion, sedimentation and water quality impacts.
- Conserve and protect soil resources.
- Minimise potential impacts on receiving land and waters from demolition, site clearing and construction activities.
- Describe industry best management practices to minimise adverse water quality and sedimentation impacts brought about through construction activities.
- Demonstrate compliance with relevant regulatory requirements.

The sizing, location and sequencing of erosion and sediment control measures will suit the proposed construction sequencing, which will ultimately be determined by the principal civil contractor nominated by the Proponent. The principal civil contractor (or its representative) will be responsible for the preparation and implementation of detailed Progressive Erosion and Sediment Control Plans (PESCPs), which will be incorporated into an overarching Construction Environmental Management Plan (CEMP).

## 1.3. Key references

This ESCP references several guidelines that document minimum requirements and best practice for erosion and sediment control:

Document title	Abbreviation
<ul style="list-style-type: none"> <li>International Erosion Control Association (IECA) Australasia, <i>Best Practice Erosion &amp; Sediment Control</i>, November 2008</li> </ul>	IECA (2008)
<ul style="list-style-type: none"> <li>International Erosion Control Association (IECA) Australasia, <i>Appendix B; Sediment basin design and operation</i> (Revision – June 2018), <a href="http://www.austieca.com.au/documents/item/697">www.austieca.com.au/documents/item/697</a></li> </ul>	IECA Appendix B (2018)
<ul style="list-style-type: none"> <li>Landcom, <i>Managing Urban Stormwater: Soils and Construction (Volume 1)</i>, 4<sup>th</sup> edition, March 2004</li> </ul>	The Blue Book
<ul style="list-style-type: none"> <li>NSW Department of Planning and Environment, <i>Technical guidance for achieving Wianamatta-South Creek stormwater management targets</i>, September 2022</li> </ul>	DPE Technical Guidance (2022)

In addition to these documents, fact sheets prepared by [Catchments and Creeks Pty Ltd](#) have also been referred to throughout this ESCP.

## 1.4. Supporting Documentation

The following documentation is referred to throughout and should be read in conjunction with this report:

- Erosion and Sediment Control Plan (C10000 series of civil works drawings) – included as **Appendix A**.
- Construction Access Package (C20000 series of civil works drawings)
- Civil Infrastructure Package (C30000 series of civil works drawings)
- Trunk Drainage Package (C40000 series of civil works drawings)
- Civil Infrastructure Report (AT&L, Rev. 05, September 2023)
- Water and Stormwater Management Plan (AT&L, Rev. 02, March 2024)
- Geotechnical Investigation Report (PSM, June 2019)

## 2. Pre-Development Site Conditions

### 2.1. General

The site is currently characterised as rural land and comprises residential dwellings, sheds, open pasture and farm dams.

The Site is zoned *IN1 – General Industrial* under the *State Environmental Planning Policy (Industry and Employment) 2021*. The Site is also located in the Mamre Road Precinct and is therefore subject to controls outlined in the *Mamre Road Development Control Plan 2021*.

Delineation of the internal drainage catchments and external catchments that drain through the site is presented in **Figure 2**.

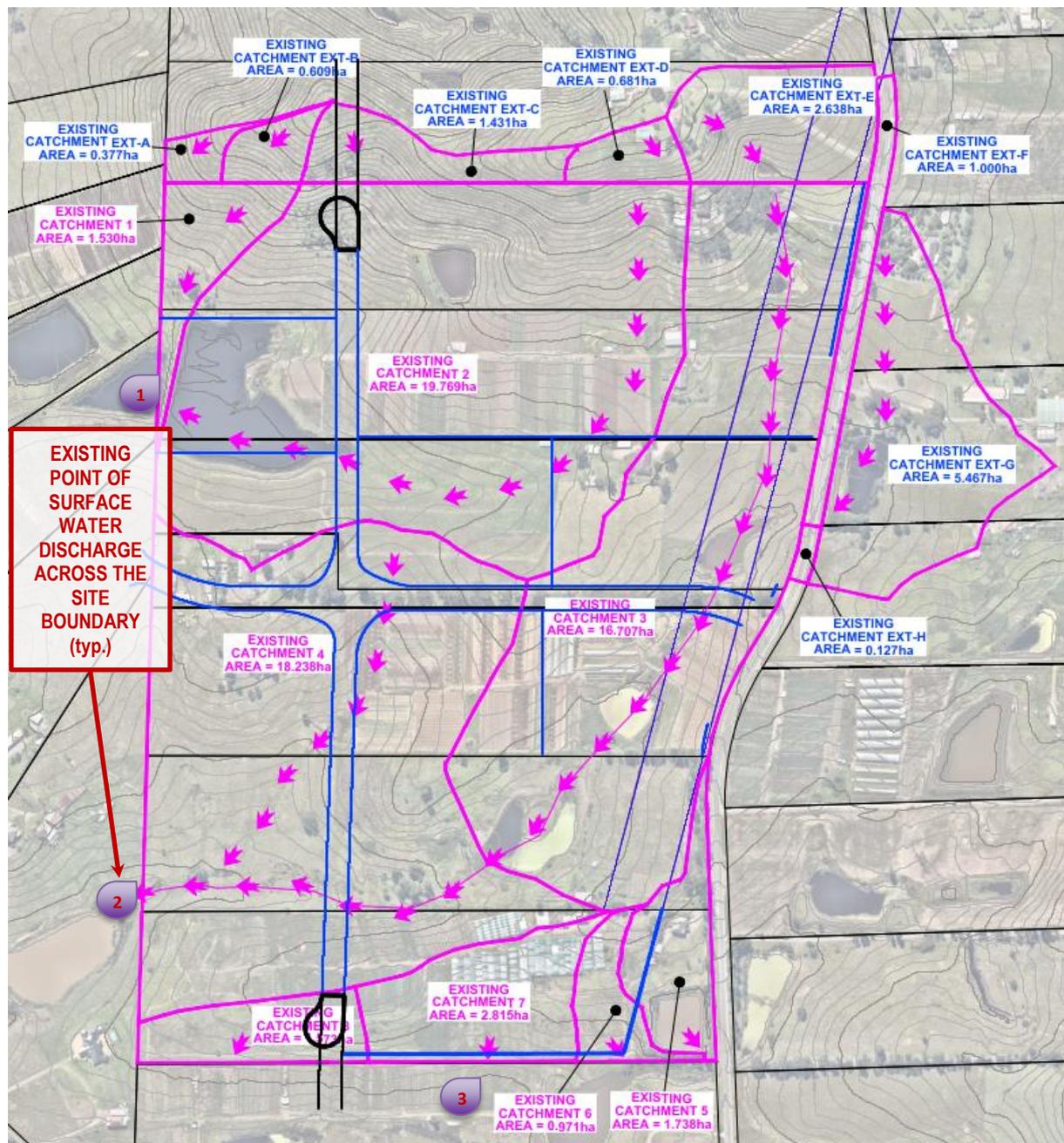


Figure 2: Catchment extents under existing conditions

Refer to the Water and Stormwater Management Plan ([AT&L, 2024](#)) for details of the pre-development site conditions including waterways and vegetation and topography.

## 2.2. Site Geology

A desktop study and geotechnical investigation has been prepared for the Site by PSM (June 2019). This study identified the following geological units within the Site extent:

- (Rwb) – Shale of the Wianamatta Group comprising carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff.

PSM undertook site investigation works in May 2019, consisting of 49 test pits and auger holes. Based on these tests, a summary of the inferred subsurface conditions across the Site is summarised below:

- Topsoil (0m to top of inferred unit) – silty clay and silty clay with gravel.
- Fill (up to 0.2m deep) – fill / clay / silty clay.
- Residual soil (between 0.1m and 1.2m deep) – clay (medium to high plasticity) and silty clay (medium plasticity).
- Bedrock (between 0.6m and 2.8m deep) – siltstone (pale grey and red, extremely weathered), siltstone (pale grey and orange, moderately weathered), sandstone (fine grained, slightly weathered).

### 2.2.1. Salinity

Based on site investigations undertaken by PSM (May 2019), consisting of eight soil samples across the Site, the soils on site are classified as “non-saline” (six out of eight samples) to “moderately saline” (two out of eight samples).

### 2.2.2. Sodicity

The Exchangeable Sodium Percentages (ESPs) calculated from tests undertaken by PSM ranged from <1.9% to 22.0%, which indicates that the natural soil on the site is classified as “non-sodic” (<5% ESP) to “highly sodic” (>15% ESP).

## 2.3. Soil Landscapes

Reference to the *Soil Landscape Series Map – Penrith* (refer to **Figure 3**) shows that the soil landscape grouping for the majority of the Site is or the majority of the site is:

*Luddenham (lu) – undulating to low rolling hills on Wianamatta Group shales, often associated with Minchinbury Sandstone. Local relief 50-80m, slopes 5-20%. Narrow ridges, hillcrests and valleys. Extensively cleared tall open-forest (wet sclerophyll forest). Soils – shallow (<100cm) dark Podzolic Soils or massive earthy clays on crests; moderately deep (70-150cm) Red Podzolic Soils on upper slopes; moderately deep (<150cm) Yellow Podzolic Soils and Prairie Soils on lower slopes and drainage lines. Limitations – high soil erosion hazard, localised impermeable highly plastic subsoil, moderately reactive.*

The soil landscape in the south-western portion of the Site is:

*Blacktown (bt) – gently undulating rises on Wianamatta Group shales. Local relief to 30 m, slopes usually < 5%. Shallow to moderately deep (< 100 cm) hard setting mottled texture contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and in drainage lines.*

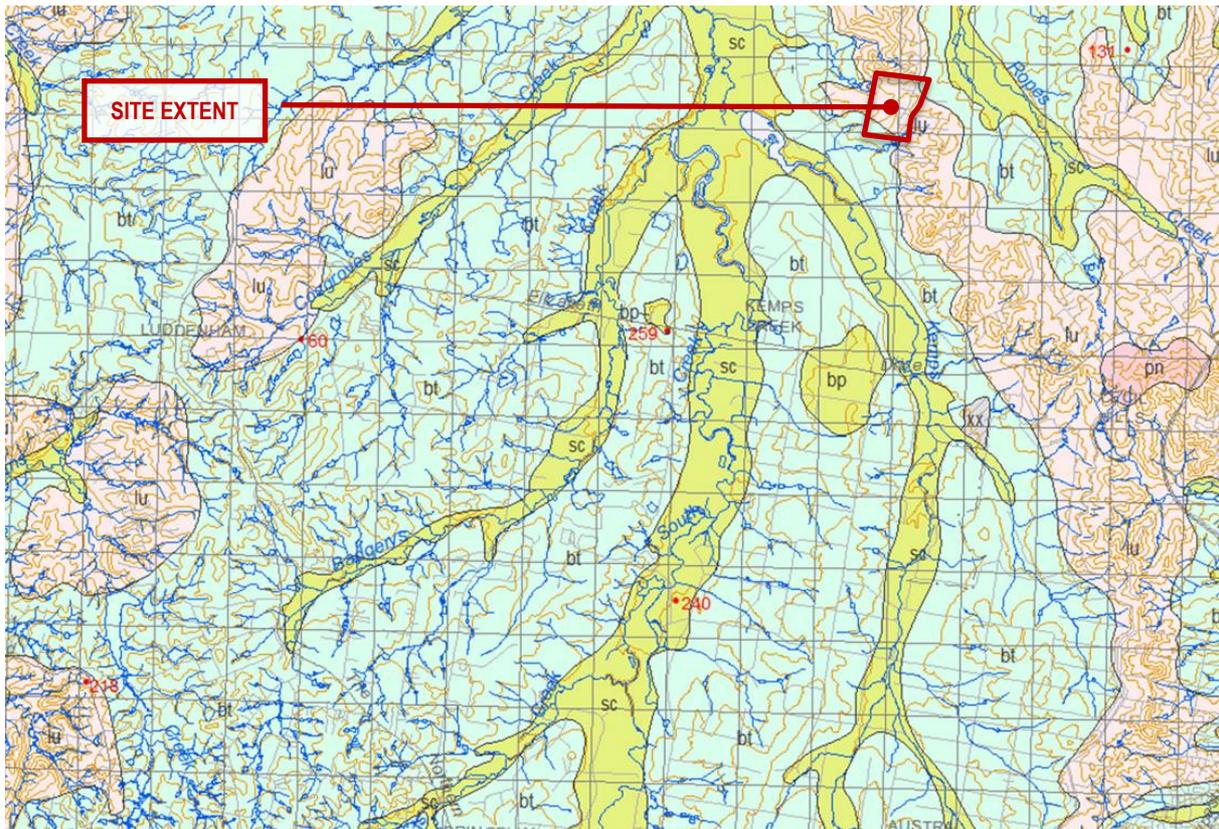


Figure 3: Extract of the Soil Landscape Series Map – Penrith (9030)

The Wianamatta Group extends to a depth of up to 110 m within the southern Sydney Basin and is underlain by Hawkesbury Sandstone, which is known to contain significant amounts of groundwater in some parts of the Sydney Basin.

### 3. Objectives and Controls

The Mamre Road Precinct DCP establishes the construction and operational phase stormwater quality and quantity (flow) targets for the Site. This ESCP addresses construction phase water quality targets only. Operational phase targets are addressed in a separate Water and Stormwater Management Plan for the Site.

The construction phase stormwater flow targets adopted in the Mamre Road Precinct DCP are summarised in **Table 1**.

*Table 1: Construction phase stormwater quality targets adopted in the Mamre Road Precinct DCP*

Parameter	Construction Phase Target	Reference in this ESCP
<b>TSS and pH</b>	All exposed areas greater than 2500 square metres must be provided with sediment controls designed, implemented and maintained to a standard achieving at least 80% of the average annual runoff volume of the contributing catchment treated (i.e., 80% hydrological effectiveness) to 50mg/L TSS or less, and pH in the range 6.5–8.5.	<b>Section 5.3</b> <b>Section 6.2</b> <b>Section 6.3</b>
<b>Oil, litter and waste contaminants</b>	No release of oil, litter or waste contaminants.	The proposed management and mitigation measures outlined in <b>Section 5.1</b> would provide inherent capture of oil, litter and waste generated throughout the construction phase.  It is expected that further specific measures to address potential impacts associated with the discharge of oil, litter and waste contaminants would be contained within a Construction Waste Management Plan.
<b>Stabilisation</b>	Prior to completion of works for the development, and prior to removal of sediment controls, all site surfaces must be effectively stabilised including all drainage systems.  An effectively stabilised surface is defined as one that does not, or is not likely to result in visible evidence of soil loss caused by sheet, rill or gully erosion or lead to sedimentation water contamination.	<b>Section 5.4</b>

## 4. Potential erosion and sedimentation impacts

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### 4.1. Summary of impacts

The major potential impacts on receiving waters downstream of the Site relate to erosion of distributed areas or stockpiles and sediment transportation. Potential adverse impacts from erosion and sediment transportation can include:

- Loss of topsoil.
- Increased water turbidity.
- Decreased levels of dissolved oxygen.
- Changed salinity levels.
- Changed pH levels.
- Smothering of stream beds and aquatic vegetation.
- Reduction in aquatic habitat diversity.
- Increased maintenance costs.
- Decrease in waterway capacity leading to increased flood levels and durations.

### 4.2. Sources of pollution

The activities and aspects of the works that have potential to lead to erosion, sediment transport, siltation and contamination of natural waters include:

- Earthworks undertaken immediately prior to rainfall periods.
- Work areas that have not been stabilised.
- Extraction of construction water from waterways during low rainfall periods.
- Clearing of vegetation and the methods adopted, particularly in advance of construction works.
- Stripping of topsoil, particularly in advance of construction works.
- Bulk earthworks and construction of pavements.
- Works within drainage paths, including depressions and waterways.
- Stockpiling of excavated materials.
- Storage and transfer of oils, fuels, fertilisers and chemicals.
- Maintenance of plant and equipment.
- Ineffective implementation of erosion and sediment control measures.
- Inadequate maintenance of environmental control measures; and
- Time taken for the rehabilitation / revegetation of disturbed areas.

### 4.3. Assessment of erosion hazard

To inform the design of the ESCP, an analysis using the Revised Universal Soil Loss Equation (RUSLE) has been undertaken in accordance with the “Blue Book”. This analysis has been undertaken to predict the long term, average and annual soil loss from sheet and rill flow from the site under specified management conditions.

Estimating soil loss for a proposed development has four important applications to soil and water management. These are to:

- a) Assess the erosion risk at a site.
- b) Identify suitable measures to overcome the erosion risk.
- c) Estimate the required capacity of sediment retarding basins.
- d) Compare the effectiveness of various erosion control measures.

Refer to **Table 2** below for estimates of soil loss on the site.

Table 2: *RUSLE Analysis*

Parameter	Item (Blue Book Reference)	
Rainfall Erosivity Factor (R)	1893	(Equation 2, Appendix A2)
Soil Erodibility Factor (K) (Table C20, Blue Book)	0.05	(Table C19, Appendix C) For South Creek (sc) soil landscape
Slope Length / Gradient Factor (LS)	3.25	Table A1, Appendix A Assuming a maximum slope length of 300m and a maximum slope gradient of 6%
Erosion Control Practice Factor (P)	1.20	Table A1, Appendix A5 Assuming slopes are track-walked along the contour
Ground Cover and Management Factor (C)	1	Assumed that all soil is recently disturbed, thus a C factor of 1 is chosen.
<b>Computed Soil Loss (tonnes per hectare per year)</b>	<b>369</b>	
Soil Loss Class	4	(Table 4.2 of the Blue Book)
Erosion Hazard	Moderate	(Table 4.2 of the Blue Book)

#### 4.4. Dispersive soil management

Management of dispersive (sodic) soils should be undertaken in accordance with IECA (2008). Specific advice regarding the management of problematic soils (including dispersive soils) and an overview of critical erosion and sediment control measures are outlined in Table 6.3 and Table 7.1 of IECA (2008). In summary:

- The effective use of flocculated sediment basins is critical for environmental protection where dispersive soils are present.
- Rilling is usually best managed through the appropriate treatment and/or placement of dispersive soils (rather than through the control of runoff velocity).
- Dispersive soils should be treated (e.g., with gypsum) or buried under a layer of non-dispersive soil before applying a final surface treatment, even if the final surface treatment is rock, gabions or concrete.

Where possible, catch drains and drainage channels should be avoided where they need to be cut into dispersive soils. If this cannot be avoided, appropriate sediment controls will be implemented such as:

- Addition of gypsum (or similar) to improve settlement properties or to minimise the risk of dispersion.
- Placement of sediment basins at locations that will maximise the capture of sediment-laden runoff in areas of dispersive soils.

## 5. Erosion and sediment control measures

### 5.1. Summary of measures

This section outlines the proposed erosion and sediment control measures that have been incorporated in this ESCP. Layouts and details of these proposed measures are presented on the drawings included as Appendix A. These drawings present the main control and protection measures across the site until completion of on-lot works.

The following erosion and sediment control measures and construction methodology will be adopted to minimise the impact of sedimentation due to construction works:

- Minimising the extent and duration of land disturbance
- Diversion of surface runoff from undisturbed areas away from disturbed areas and discharge via suitable scour protection.
- Provision of hay bale type flow diverters to catch drainage and divert to “clean” water drains.
- Diversion of sediment-laden water into temporary sediment control basins to capture the design volume and undertake flocculation and/or coagulation.
- Provision of construction traffic shaker grids and vehicle / wheel wash facilities to prevent vehicles carrying soils beyond the Site, in particular onto the road network adjacent to the Site.
- Provision of catch drains to carry sediment-laden water to sediment basins.
- Provision of silt fences to filter and retain sediments at source.
- Rapid stabilisation of disturbed and exposed ground surfaces with hydro-seeding areas where future construction and building works are not currently proposed.
- All temporary sediment basins will be located clear of the mainstream 1% AEP flood extent from South Creek. Where possible, all temporary sediment basins will be located clear of the 1% AEP flood extents from local overland flow.

### 5.2. Design criteria

All design, documentation, installation and maintenance of sediment and erosion controls has been undertaken in accordance with the requirements of:

- *Protection of the Environment Operations Act (1997)*
- The Blue Book
- IECA (2008) and IECA Appendix B (2018)
- DPE Technical Guidance (2023)
- Penrith City Council’s guidelines and specifications

### 5.3. Sediment basins

Sediment basins will be required based on the area of the Site that will be disturbed and the construction phase water quality targets adopted in the Mamre Road Precinct DCP.

The *Technical guidance for achieving Wianamatta-South Creek stormwater management targets* specifies that to achieve the adopted construction phase water quality targets, sediment basins need to be sized and operated as either a Type-A or Type-B basin as per IECA Appendix B (2018). Type A and Type B basins incorporate automated flocculant dosing systems and a suitable supply of flocculant or coagulant.

IECA Appendix B (2018) notes that ‘*alternative measures such as batched sediment basins (i.e., enlarged Type D) may be implemented in lieu of Type A or B basins where it can be shown that such measures will achieve a commensurate performance outcome*’.

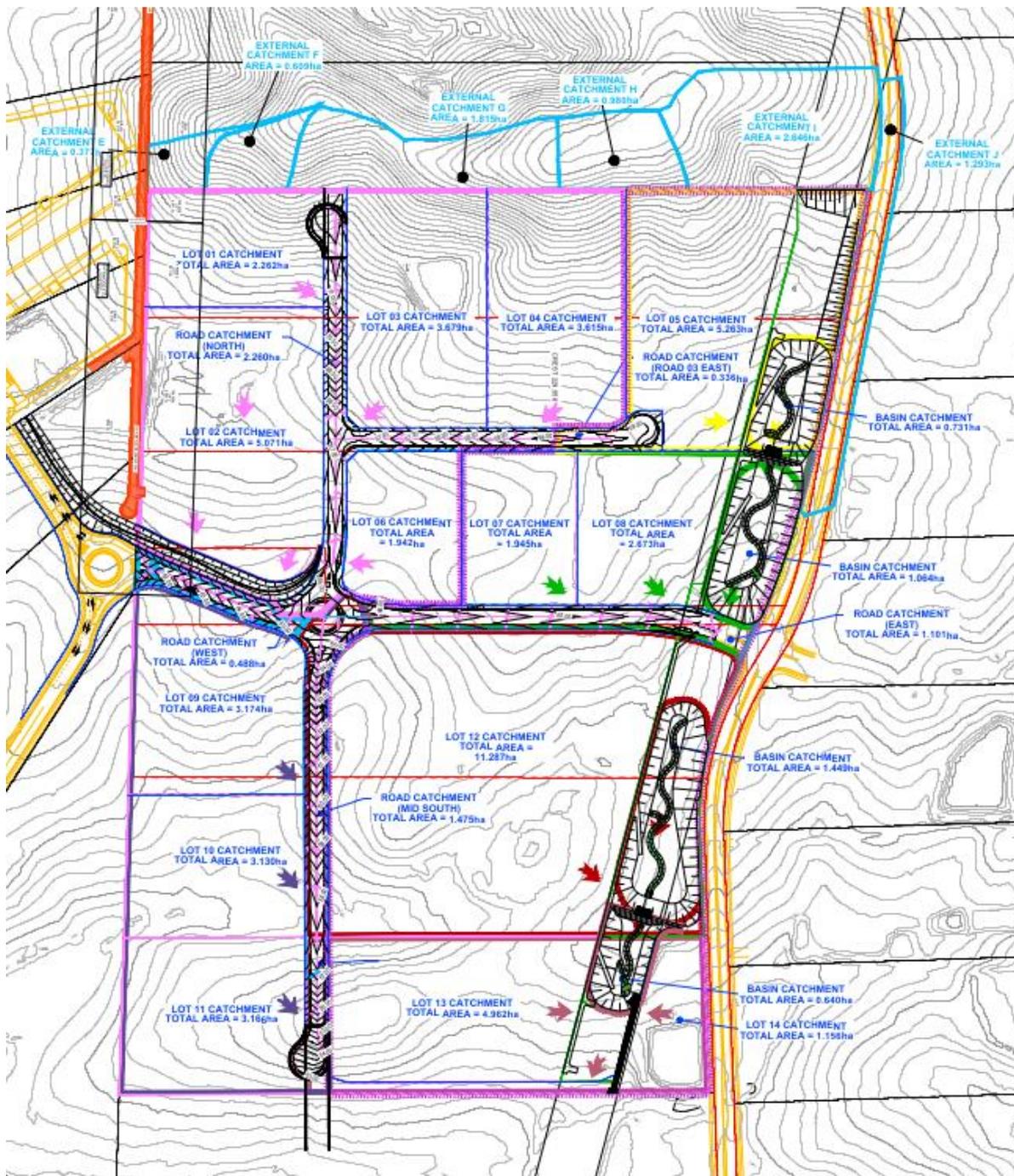
Further to advice provided by the Biodiversity, Conservation and Science Group (BCS) within NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) (now part of the CPHR Group) on the SSDA

for the Dexu site at 113-153 Aldington Road ([SSD-32722834](#)), enlarged Type-D basins with a minimum volume of 900 m<sup>3</sup>/ha have been suggested as an alternative to Type A/B basins. It is noted that the Dexu development estate is located directly north of The Edge Estate, and the two sites are located within the same drainage catchments and soil landscapes (Luddenham).

Given the nature of the proposed development of The Edge Estate and the available space for enlarged Type D sediment basins, these basins have been incorporated into the ESCP.

Sizing of the sediment basins has been undertaken by applying a uniform 900 m<sup>3</sup>/ha as per recent advice from DCCEEW BCS Group. A summary of the volume calculations is presented on drawing 20-776-C10050 (refer to **Appendix A**).

A catchment plan identifying sub catchments for the sediment basins is presented below as **Figure 4**.



**Figure 4: Catchment plan for sediment basins**

The temporary sediment basin locations and sizes have been determined to suit development staging requirements. Sediment basins will be maintained in accordance with the requirements of the above-mentioned authority documents.

## 5.4. Site stabilisation

As per The Blue Book (Landcom, 2004), site stabilisation will be achieved to protect disturbed surfaces from erosive forces. Maximum cover factors (C-factor) applicable to the Site are specified in **Table 3**.

**Table 3: Target cover factor (C) during and after construction (Landcom, 2004)**

Land	Nominated duration	Maximum C-factor	Comments
Waterways and other areas subject to concentrated flows (e.g., downstream of proposed detention basin)	Post-construction	0.05	Applies after 10 working days from completion of formation and before they are allowed to carry any concentrated flows.
Material stockpiles	Post-construction	0.10	Applies after 10 working days from completion of formation.
All lands, including waterways and stockpiles	During construction	0.15	Applies after 20 working days of inactivity, even though works might continue later.

Various stabilisation methods can be implemented (refer to Table A3 of The Blue Book), such as:

- Biodegradable mulches (e.g., wood chip, hydromulching, bonded fibre)
- Rolled Erosion Control Products (RECPs) (e.g., jute, coir, plastic fibre netting)
- Hydraulic soil stabilisers (bitumen emulsion)
- Temporary seeding
- Rolled turf

## 6. Inspection, maintenance and monitoring

### 6.1. Site inspection and maintenance

The inspection and maintenance requirements outlined in this section must be carried out while earthworks are being conducted, and until all areas are re-established.

The Contractor will be required to inspect the Site after every rainfall event and at least weekly, and will:

- Inspect and assess the effectiveness of the ESCP and identify any inadequacies that may arise during normal work activities or from a revised construction methodology.
- Construct and/or install additional erosion and sediment control works as necessary to ensure the desired protection is given to downstream lands and waterways.
- Ensure that drains operate properly and to affect any repairs or cleaning (e.g., removal of accumulated sediment).
- Remove spilled sand or other materials from hazard areas, including lands closer than 5 metres from areas of likely concentrated or high velocity flows especially waterways and paved areas.
- Remove trapped sediment whenever less than design capacity remains within the structure.
- Ensure rehabilitated lands have affectively reduced the erosion hazard and to initiate upgrading or repair as appropriate.
- Maintain erosion and sediment control measures in a fully functioning condition until all construction activity is completed and the Site has been rehabilitated.
- Remove temporary soil conservation structures as the last activity in the rehabilitation.
- Inspect sediment basins during the following periods:
  - ▶ During construction to determine whether machinery, falling trees, or construction activity has damaged and components of the sediment basin. If damage has occurred, repair it.
  - ▶ After each runoff event, inspect the erosion damage at flow entry and exit points. If damage has occurred, make the necessary repairs.
  - ▶ At least weekly during the nominated wet season (if any), otherwise at least fortnightly; and
  - ▶ Prior to, and immediately after, periods of 'stop work' or Site shutdown.
- Clean out accumulated sediment when it reaches the marker board/post and restore the original volume. Place sediment in a disposal area or, if appropriate, mix with dry soil on the Site.
- Do not dispose of sediment in a manner that will create an erosion or pollution hazard.
- Check all visible pipe connections for leaks, and repair as necessary.
- Check all embankments for excessive settlement, slumping of the slopes or piping between the conduit and the embankment, make all necessary repairs.
- Remove the trash and other debris from the basin and riser; and
- Submerged inflow pipes must be inspected and de-silted (as required) after each inflow event.

### 6.2. Sediment basin maintenance

The proposed development Site contains 'Type D' soils, or soils that contain a significant proportion of fine "dispersible" material that will never settle unless flocculated.

Stormwater within the settling zone should be drained or pumped out within 5 days (design time), if the nominated water quality targets can be met, to the satisfaction of the superintendent. Where extended settling is likely to fail to meet the objectives within the 5-day period, dosing with a chemical coagulant and/or a flocculant should be undertaken. Coagulants achieve flocculation through charge neutralisation whereas flocculants physically bind clay and colloidal particles together. Flocculation causes colloidal particles to clump into larger units that can either settle in a reasonable time or be filtered.

Batch (jar) testing of surface water runoff from the site is the preferred method to determine the most appropriate coagulant and/or flocculant and the optimum dosing rate. The recommended procedure for jar

testing to confirm the preferred coagulant and/or flocculant and dosage rate is outlined in the [Chemical Coagulants and Flocculants Fact Sheet](#) (IECA Australasia).

Application methods for the selected coagulant and/or flocculant will depend on the type(s) of coagulants and/or flocculants ultimately adopted. These could be either passive systems (e.g., application of dry products such as gypsum by hand or machine, placement of block products or biopolymer gel socks at basin inlets) or active systems (rain or flow activated liquid dosing systems). Specific guidance on dosing methodologies for gypsum (calcium sulfate) and Polyaluminium chloride (PAC) is outlined in Appendix E4 of The Blue Book, although other application methods may be applied so long as the primary objectives for discharge water quality and hydrological effectiveness listed in **Section 3** are achieved.

### 6.3. Performance assessment

As required by IECA Appendix B (2018), ongoing review of sediment basin performance will need to be carried out throughout the construction phase of the development. As noted in IECA Appendix B, *'sediment basins are not designed to achieve a specific water quality; rather, they are designed to either capture and treat a specific volume of runoff, or to treat discharges up to a specified peak flow'*. Considering this, site specific water quality management practices such as those suggested in IECA Appendix B will need to be implemented by the Contractor responsible for implementation of the ESCP. Demonstration of adaptive management practices and decision-making processes such as that presented in **Figure 5** will provide greater certainty that all reasonable and practicable actions are being undertaken to minimise potential impacts associated with release of sediment laden water from the Site.

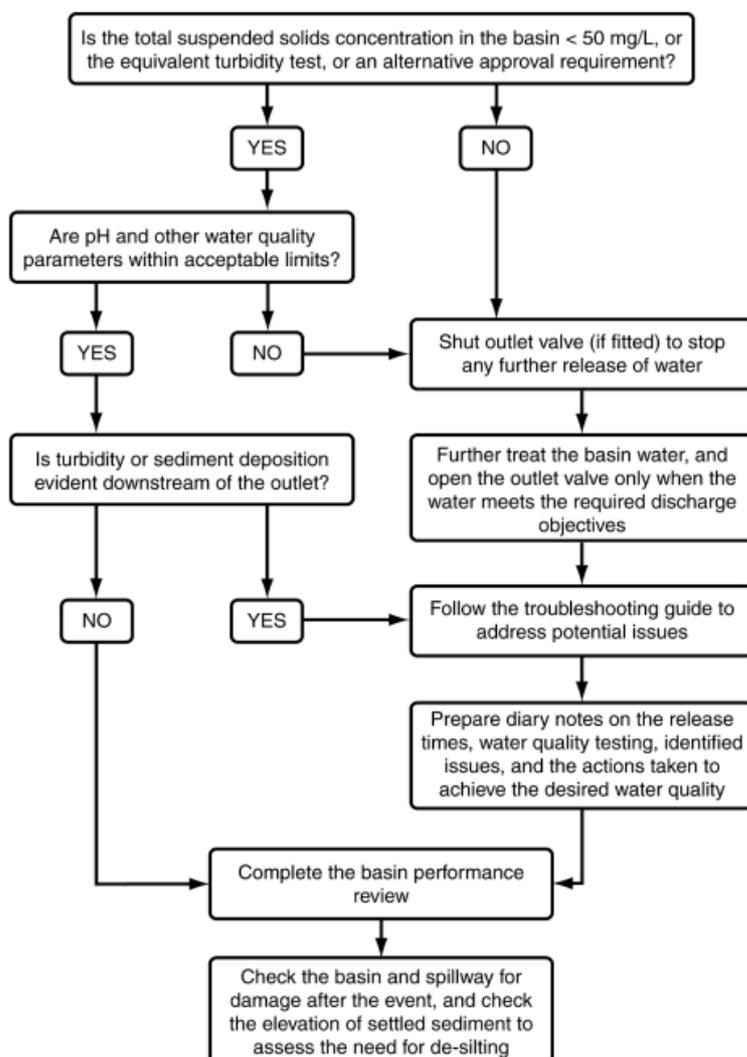


Figure 5: Sediment basin performance assessment process (IECA Appendix B, 2018)

## 7. Management of incidents and non-compliances

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Incident response requirements including classification, responses, external notification and incident review protocols are outlined in the Construction Environmental Management Plan (CEMP) as they apply to all facets of environmental management pertaining to construction activities at The Edge Estate. The CEMP documents:

- Responsibilities for incident and non-compliance response
- Notification requirements
- Contacts for regulatory authorities
- A procedure for handling incidents and non-compliances
- Requirements for keeping an Incident and Non-Compliance Register
- Procedure for handling and responding to complaints

It is the responsibility of all site personnel to report environmental incidents, non-compliances and non-conformances to the Site Supervisor and/or the Contractors Environmental Manager.

## 8. Contingency management

In the event that the ESCP is not effective in managing potential environmental impacts, specific contingency actions will be implemented. **Table 4** lists actions to be implemented if inspections, monitoring or auditing indicate that the erosion and sediment controls listed in **Section 5** are not effective in managing environmental impacts.

The Contingency Plan categorises conditions as follows:

- **Condition Green** – considered to be normal operating condition.
- **Condition Amber** – minor non-compliance that should be rectified as soon as practical.
- **Condition Red** – non-compliance that should be rectified as a matter of urgency.

All actions and responses identified in **Table 4** will be actioned by Frasers Property Industrial (or a representative of Frasers Property Industrial).

**Table 4: Contingency measures relating to construction phase erosion and sediment control**

Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
<b>Erosion</b>	Trigger	No evidence of erosion	Minor gully or tunnel erosion present and/or rilling.  Evidence of sediment or sediment laden water leaving the site.	Significant gully or tunnel erosion present and/or rilling.  Evidence of sediment or sediment laden water leaving the site.
	Response	Continue implementation of controls as per this ESCP	A suitably trained person to inspect the site and review erosion and sediment controls that are in place. Remediation to be undertaken by Contractor as appropriate.	A suitably trained person to inspect the site and review erosion and sediment controls that are in place. Remediation to be undertaken by Contractor as appropriate.
	Timing	Ongoing	Within 14 days of evidence of visible indicators.	Within 5 days of evidence of visible indicators.
<b>Water management structures</b>	Trigger	Water management structures have been designed, constructed and implemented in accordance with the Blue Book and this ESCP.	Inspections indicate that water management structures demonstrate minor non-compliance with the Blue Book and the ESCPs.	Inspections indicate a failure of one or more of the water management structures.
	Response	Continue ESCP implementation.	A suitably trained person to inspect the site. Review of water management structures. Remediate as appropriate.	A suitably trained person to inspect the site. Remediate as soon as practical. Review of engineering design and revise ESCPs.
	Timing	Ongoing	Within 14 days of evidence of visible indicators.	Within 5 days of evidence of visible indicators.

Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
<b>Water quality monitoring</b>	Trigger	No visible indicators within the Site (oil / grease, turbidity). No complaints from property owners downstream of the Site.	Visible indicators within the Site. Complaints from property owners downstream of the Site.	Prolonged poor water quality within the sediment basins and downstream of the Site.
	Response	Continue ESCP implementation	Water quality sampling and testing to be undertaken to ensure results are just an anomaly and not a trend.	Appropriate rectification measures are implemented (e.g., aeration, additional filtration).  Follow up water quality monitoring is undertaken to ensure parameters meet the construction phase water quality targets for the Wianamatta-South Creek catchment.
	Timing	Ongoing	Within five (5) business days of evidence of visible indicators within the Site or receipt of a complaint from an adjacent property owner.	Follow up water quality monitoring within five (5) business days of implementation of measures and until water quality results are below or within acceptable limits.
<b>Tracking of soil or sediment onto public roads</b>	Trigger	No visible indication of soil or sediment on public roads adjacent to the site.	Visible indication of soil or sediment on public roads adjacent to the site.	Multiple instances of visible soil or sediment on public roads adjacent to the site.
	Response	Continue ESCP implementation	A suitably trained person to inspect wheel wash measures at site exit point(s). Review and remediate as appropriate.	A suitably trained person to inspect wheel wash measures at site exit point(s). Review and remediate as soon as practical. Review of engineering design and revise ESCPs.
	Timing	Ongoing	Within 14 days of evidence of visible indicators.	Within 5 days of evidence of visible indicators.

Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Dust management	Trigger	No visible evidence of dust within or adjacent to the site due to construction activities.	Visible evidence of dust within or adjacent to the site due to construction activities (primarily bulk earthworks).	Frequent visible evidence of dust within or adjacent to the site due to construction activities (primarily bulk earthworks).
	Response	Continue ESCP implementation	Implement dust suppression, including importing water to site if none is available in on-site water storages.	Implement dust suppression, including importing water to site if none is available in on-site water storages.  Apply stabilisation to exposed surfaces and stockpiles. Consider covering high risk stockpiles with a suitable material (e.g., geotextile).
	Timing	Ongoing	As required	As required

## 9. Review and improvement

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Continuous review and improvement of this ESCP will be achieved by ongoing evaluation of the performance of erosion and sediment control measures against the requirements of the standards and guidelines listed in **Section 1.3** and the objectives and controls outlined in **Section 3**.

This ESCP will be revised to address agency comments, monitoring outcomes, lessons learned and as otherwise necessary. The ESCP will also be revised whenever the construction programme, scope of work or work methods change to a degree that warrant amendments to the proposed erosion and sediment control measures.

## APPENDIX A – Erosion and Sediment Control Plan Drawings

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DRAWING LIST	
DRAWING No.	DRAWING TITLE
GENERAL	
20-776-C10000	COVER SHEET
20-776-C10001	DRAWING LIST AND LEGENDS
20-776-C10002	GENERAL NOTES SHEET 1
20-776-C10003	GENERAL NOTES SHEET 2
20-776-C10004	GENERAL NOTES SHEET 3
20-776-C10005	GENERAL NOTES SHEET 4
20-776-C10006	GENERAL NOTES SHEET 5
20-776-C10007	GENERAL NOTES SHEET 6
20-776-C10008	GENERAL NOTES SHEET 7
20-776-C10009	GENERAL NOTES SHEET 8
20-776-C10010	GENERAL NOTES SHEET 9
20-776-C10011	GENERAL NOTES SHEET 10
EROSION AND SEDIMENT CONTROL PLANS	
20-776-C10015	PERMANENT ARRANGEMENT EROSION & SEDIMENT CONTROL GENERAL ARRANGEMENT PLAN
20-776-C10016	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 1
20-776-C10017	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 2
20-776-C10018	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 3
20-776-C10019	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 4
20-776-C10020	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 5
20-776-C10021	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 6
20-776-C10022	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 7
20-776-C10023	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 8
20-776-C10024	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 9
20-776-C10025	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 10
EROSION AND SEDIMENT CONTROL BASINS	
20-776-C10030	EROSION AND SEDIMENT BASIN DETAILS BASINS A AND B
20-776-C10031	EROSION AND SEDIMENT BASIN DETAILS BASINS C AND D
20-776-C10032	EROSION AND SEDIMENT BASIN DETAILS BASIN E
20-776-C10033	EROSION AND SEDIMENT BASIN DETAILS BASIN F
20-776-C10034	EROSION AND SEDIMENT BASIN DETAILS BASIN G
20-776-C10035	EROSION AND SEDIMENT BASIN DETAILS BASIN H
20-776-C10036	EROSION AND SEDIMENT BASIN DETAILS BASIN SB1
20-776-C10037	EROSION AND SEDIMENT BASIN DETAILS BASIN SB2
20-776-C10038	EROSION AND SEDIMENT BASIN DETAILS BASIN SB3
20-776-C10039	EROSION AND SEDIMENT BASIN DETAILS BASIN SB4
20-776-C10040	EROSION AND SEDIMENT BASIN DETAILS BASIN SB5
20-776-C10041	EROSION AND SEDIMENT BASIN DETAILS BASIN SB6
20-776-C10042	EROSION AND SEDIMENT BASIN DETAILS BASIN SB7
20-776-C10043	EROSION AND SEDIMENT BASIN DETAILS BASIN SB8
20-776-C10044	EROSION AND SEDIMENT BASIN DETAILS BASIN SB9
20-776-C10045	EROSION AND SEDIMENT BASIN DETAILS BASIN SB10
20-776-C10046	EROSION AND SEDIMENT BASIN DETAILS BASIN SB11
20-776-C10047	EROSION AND SEDIMENT BASIN DETAILS BASIN SB12
20-776-C10048	EROSION AND SEDIMENT BASIN DETAILS BASIN SB13
20-776-C10049	EROSION AND SEDIMENT BASIN DETAILS BASIN SB14
20-776-C10050	EROSION AND SEDIMENT BASIN SPECIFICATIONS
EROSION AND SEDIMENT CONTROL DETAILS	
20-776-C10051	EROSION AND SEDIMENT CONTROL DETAILS SHEET 1
EROSION AND SEDIMENT CONTROL STAGING	
20-776-C10061	CONSTRUCTION STAGING PLAN STAGE 1
20-776-C10062	CONSTRUCTION STAGING PLAN STAGE 2
20-776-C10063	CONSTRUCTION STAGING PLAN STAGE 3
20-776-C10064	CONSTRUCTION STAGING PLAN STAGE 4
20-776-C10065	CONSTRUCTION STAGING PLAN STAGE 5

SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP - CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING uPVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

SITeworks LEGEND	
	EXISTING BOUNDARY
	EXISTING BOUNDARY TO BE REMOVED
	EXISTING EASEMENT
	PROPOSED BOUNDARY
	PROPOSED FILL RETAINING WALL
	PROPOSED CUT RETAINING WALL
	FUTURE RETAINING WALL
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED BATTER 1(V):3(H) U.N.O
	TEMPORARY BATTER 1(V):3(H) U.N.O
	PROPOSED MOUNTABLE KERB
	PROPOSED KERB ONLY
	PROPOSED KERB AND GUTTER
	PROPOSED DISH DRAIN
	PROPOSED DRIVEWAY LAYBACK
	PROPOSED KERB RAMP
	LIMIT OF WORKS
	PROPOSED CATCH DRAIN
	PROPOSED SUBSOIL (100mm Ø) WITH FLUSHING POINT
	PROPOSED STORMWATER JUNCTION PIT
	PROPOSED STORMWATER JUNCTION PIT
	PROPOSED STORMWATER KERB INLET PIT WITH LINTEL
	PROPOSED STORMWATER PIPE WITH HEADWALL
	PROPOSED CAPPED STORMWATER PIPE
	PROPOSED STORMWATER PIT LABEL
	PROPOSED STORMWATER PIPE, DIRECTION AND SIZE
	PROPOSED SEWER PIPE AND MANHOLE
	LOCATION OF TRANSGRID EASEMENT PADS

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales	

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Scales	N.T.S.	Drawn	LM
		Designed	TM
Grid	GDA 2020	Checked	AM
Height Datum	AHD	Approved	

Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	DRAWING LIST AND LEGENDS

Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10001
Issue	01



**A. INTRODUCTION**

- 1) THE DETAILS SHOWN WITHIN THIS EROSION AND SEDIMENT CONTROL PLAN (ESCP) ARE OVER-ARCHING CONTROL REQUIREMENTS ONLY. AS THE WORKS PROGRESS AND SITE CONDITIONS CHANGE, THIS PLAN IS TO BE UPDATED ACCORDINGLY. SITE SPECIFIC PROGRESSIVE EROSION AND SEDIMENT CONTROL PLANS (PESCPs) WILL ALSO BE REQUIRED TO DETAIL SPECIFIC WORKS. THIS ESCP HAS BEEN PREPARED TO SUPPLEMENT THE PROJECT'S CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP).
- 2) THIS ESCP HAS BEEN PREPARED BY A CPESC IN ACCORDANCE WITH THE BLUE BOOK VOLUME 1 (LANDCOM, 2004) AND TO MEET THE REQUIREMENTS FOR CONSTRUCTION PHASE WATER QUALITY MANAGEMENT AS SET OUT IN THE TECHNICAL GUIDANCE FOR ACHIEVING WIANAMATTA SOUTH CREEK STORMWATER MANAGEMENT TARGETS (NSW GOVERNMENT, 2022). IT DEMONSTRATES THE CONSTRUCTION APPROACH AND TIMING REQUIREMENTS FOR ACHIEVING THE CONSTRUCTION PHASE STORMWATER QUALITY TARGETS.
- 3) THE NSW GOVERNMENT (2022) TECHNICAL GUIDANCE (AS NOTED ABOVE) REQUIRES 80% OF THE AVERAGE ANNUAL RUNOFF VOLUME ACHIEVES 50mg/L TOTAL SUSPENDED SOLIDS (TSS) OR LESS AND PH IN THE RANGE OF 6.5-8.5.

**B. DESIGN PARAMETERS**

- 1) 5 DAY 85<sup>TH</sup> PERCENTILE RAINFALL DEPTH = 35mm (PENRITH)
- 2) THE SITE IS LOCATED IN THE LUDDENHAM AND BLACKTOWN SOIL LANDSCAPES (SOIL TEXTURE TYPE D)
- 3) 2-YEAR 6-HOUR DURATION RAINFALL INTENSITY = 9.04mm/hr, WHICH GENERATES A RAINFALL EROSIIVITY FACTOR OF 1870.

**C. GENERAL REQUIREMENTS**

- 1) THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
- 2) THE EXTENT AND POSITION OF THE EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED ON SITE BY THE CONTRACTOR TO SUIT THE CONSTRUCTION PROGRAM.
- 3) THESE PLANS PRESENT CONCEPTS ONLY AND THE MEASURES SHOWN ON THESE DRAWING(S) ARE MINIMUM REQUIREMENTS ONLY.
- 4) THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT, MANAGEMENT AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES TO MEET STATE AND LOCAL GOVERNMENT STANDARDS AND GUIDELINES.
- 5) LARGE OPEN AREAS OR STEEP BATTERS SHOULD NOT BE LEFT EXPOSED/UNSTABILISED FOR MORE THAN 10 DAYS OR IF WET WEATHER IS FORECAST.
- 6) EXPOSED AREAS INCLUDING BATTERS WHICH REMAIN UN-WORKED FOR MORE THEN 10 DAYS SHOULD BE STABILISED USING TEMPORARY HYDROMULCHING, HYDROSEEDING OR MULCHING, EVEN IF AREAS WILL BE WORKED AT A LATER TIME.
- 7) ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DOCUMENT TITLED TECHNICAL GUIDANCE FOR ACHIEVING WIANAMATTA SOUTH CREEK STORMWATER MANAGEMENT TARGETS (NSW GOVERNMENT, 2022).
- 8) THE CONTRACTOR SHALL BE AWARE OF ITS RESPONSIBILITIES FOR PROTECTING THE DOWNSTREAM ENVIRONMENT AND RECEIVING WATER FROM POLLUTION AND ENVIRONMENTAL HARM, UNDER THE POEO ACT 1997.
- 9) ADDITIONALLY, THE CONTRACTOR SHALL BE AWARE OF ITS DUTY UNDER THE POEO ACT 1997 TO NOTIFY THE LOCAL AUTHORITY AND THE ENVIRONMENT PROTECTION AUTHORITY (NSW) OF A POTENTIAL OR ACTUAL INCIDENT OF ENVIRONMENTAL HARM.

**D. RECOMMENDED IMPLEMENTATION SEQUENCE**

- 1) ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO WORKS COMMENCING AND IN THE FOLLOWING SEQUENCE.
  - a. CONSTRUCT TEMPORARY STABILISED SITE ACCESS, ENSURING ADJACENT STORMWATER RUN OFF IS DIVERTED AWAY FROM ACCESS. ENSURE THAT ALL VEHICLES ENTERING AND LEAVING THE WORK AREA PASS OVER A STABILISED SITE ACCESS POINT. A VEHICLE WHEEL WASH / WASH DOWN FACILITY IS TO BE ESTABLISHED AT THE MAIN CONSTRUCTION EXIT AND ALL CONSTRUCTION VEHICLES MUST PASS THROUGH THIS POINT WHEN LEAVING THE SITE.
  - b. SITE ACCESS AND DISTURBANCE MUST BE MINIMISED TO THE AREAS ESSENTIAL FOR THE CONSTRUCTION WORKS ONLY.
  - c. ESTABLISH A TEMPORARY SITE OFFICE, TOILET AND PARKING AREA AS NOMINATED BY THE SITE MANAGER.
  - d. INSTALL SEDIMENT FENCING AND/OR BARRIER FENCING TO CONFINE INGRESS TO AND EGRESS FROM THE SITE TO STABILISED ACCESS POINT(S) ONLY.
  - e. PROVIDE INLET PROTECTION TO STORMWATER INLETS AND GULLIES ON ALL ROADS ADJOINING THE SITE.
  - f. CONSTRUCT BARRIER FENCING AROUND RESTRICTED 'NO-GO' ZONES OF RETAINED VEGETATION, AREAS NOT TO BE DISTURBED AND AREAS WHICH WILL REMAIN UN-WORKED.
  - g. CONSTRUCT UPSTREAM DIVERSION CHANNELS TO DIVERT CLEAN WATER AROUND WORKSITE AND INSTALL APPROPRIATE CHANNEL STABILISATION.
  - h. CONSTRUCT LOW FLOW EARTH BANKS AS CATCH DRAINS PARALLEL TO CONTOURS TO LIMIT LARGE SLOPE LENGTHS (SLOPES SHOULD BE LESS THEN 80M IN LENGTH).
  - i. INSTALL ALL TEMPORARY SEDIMENT FENCES.
  - j. CONSTRUCT ANY NOMINATED SEDIMENT BASINS AND SEDIMENT TRAPS.
  - k. ESTABLISH STOCKPILE AREAS IN AREAS AS SPECIFIED BY THE SITE MANAGER AND IN ACCORDANCE WITH THE SOIL STRIPPING AND STOCKPILING NOTES BELOW.
  - l. EXISTING DAMS ARE TO BE PROGRESSIVELY DEWATERED IN ACCORDANCE WITH THE PROJECT APPROVED DEWATERING PROCEDURE AND IN ACCORDANCE WITH THE 'DIRTY WATER TREATMENT AND DISCHARGE REQUIREMENTS' NOTES AND OTHER RECOMMENDATIONS ON THIS PLAN. NOTE THAT IN SOME INSTANCES (WHERE DIVERSION DRAINS OR SEDIMENT BASINS ARE LOCATED IN THE POSITION OF EXISTING DAMS), DEWATERING OF THE DAMS WILL NEED TO OCCUR PRIOR TO THE CONSTRUCTION OF THESE DEVICES.
  - m. STABILISE ALL DISTURBED AREAS ASAP AND PROGRESSIVELY AS WORKS ARE COMPLETED. TEMPORARY STABILISATION TO BE DONE USING GEOTEXTILE, MULCHING, HYDROMULCHING, HYDROSEEDING OR DIRECT SEEDING TO GIVE A 70% COVERAGE OF GROUND SURFACE WITHIN 14 DAYS OF WORKS COMPLETING (EVEN IF WORKS MAY CONTINUE LATER).
- 2) UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO MINIMUM WORKABLE AREAS.
- 3) DISTURBED AREAS TO EXTEND NO MORE THAN 5 METRES (PREFERABLY 2 METRES) FROM ESSENTIAL WORKS AREAS.
- 4) WORK AREAS TO BE DELINEATED BY BARRIER FENCING AND DIVERSION CHANNEL UPSLOPE AND SEDIMENT FENCING DOWNSLOPE.
- 5) THE CONTRACTOR SHALL ENSURE THAT THE EXISTING VEGETATION AND GROUND COVER IS RETAINED AS MUCH AS POSSIBLE.
- 6) SITE VEGETATION APPROVED FOR CLEARING SHOULD BE MULCHED AND STOCKPILED FOR LATER USE IN LANDSCAPING, STABILISATION AND/OR SITE REHABILITATION WORKS.
- 7) AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND RECEIVING ENVIRONMENTS.
- 8) EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONTRACT.
- 9) PLANS AND CONTROL MEASURES FOR LARGE SITES WILL NEED TO BE REVISED AND UPDATED TO REFLECT THE SITE STAGES AND PROGRESSION OF WORKS.
- 10) MEASURES INCLUDING SEDIMENT FENCES SHOULD BE MOVED AND REINSTATED AS WORKS PROGRESS.
- 11) PEDESTRIAN AND VEHICULAR TRAFFIC TO BE RESTRICTED IN RECENTLY STABILISED AREAS INCLUDING THOSE HYDROSEEDED, TURFED OR SEEDDED.

**E. EROSION AND SEDIMENT CONTROL MEASURES**

- 1) TO SATISFY THE REQUIREMENT OF 80% HYDROLOGICAL EFFECTIVENESS FOR CONSTRUCTION PHASE WATER QUALITY MANAGEMENT, ALL FEASIBLE AND PRACTICAL MEASURES SHOULD BE IMPLEMENTED FOR THE DURATION OF WORKS. SPECIFIC MEASURES INCLUDE:
  - UTILISING EXISTING DAMS AND / OR FUTURE WATER RETENTION DEVICES WHERE PRACTICABLE TO PROVIDE ADDITIONAL WATER STORAGE VOLUME AND BREAK UP CATCHMENTS;
  - ENHANCED EROSION CONTROLS (E.G. REDUCED SLOPE LENGTHS, INCREASED FOCUS ON TEMPORARY AND PROGRESSIVE STABILISATION, ADDITIONAL CHECK DAMS AND A FOCUS ON TEMPORARY DRAINAGE CONTROL
  - PASSIVE BROADCAST GYPSUM SPREADING OVER THE ENTIRE DISTURBED CATCHMENT PRIOR TO LARGER RAINFALL EVENTS BEYOND THE SEDIMENT BASIN DESIGN TO ASSIST WITH WATER TREATMENT AND TO MINIMISE SOIL LOSS
  - PRE-LOADING SEDIMENT BASIN, SEDIMENT TRAPS AND THEIR INLET DRAINAGE DEVICES WITH GYPSUM OR BIOPOLYMER SOCKS TO SPEED UP SETTLEMENT RATES; AND
  - ADAPTIVE MANAGEMENT RESULTING FROM MONTHLY INSPECTIONS BY A CPESC, INCLUDING ACTING ON ADVICE AND IMPLEMENTING CHANGES TO THE EROSION AND SEDIMENT CONTROLS WHERE NECESSARY.
- 2) THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE UNDERTAKEN AS REQUIRED DURING ALL STAGES OF THE WORKS:
  - a. TOPSOIL STRIPPING IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE 'SOIL STRIPPING AND STOCKPILING' NOTES.
  - b. SLOPE LENGTHS ACROSS DISTURBED LANDS ARE TO BE MAINTAINED AT MAXIMUM 40M INTERVALS DURING ALL RAINFALL EVENTS. TO ACHIEVE THIS, DIVERSION BUNDS / DRAINS, LOW FLOW EARTH BANKS (STANDARD DRAWING SD 5-5) OR SANDBAGS / EQUIVALENT SHOULD BE INSTALLED PRIOR TO FORECAST RAINFALL AND SITE CLOSURE OF MORE THAN 2 DAYS. (NOTE THAT 40M INTERVALS ARE LESS THAN THE DESIGN SLOPE LENGTH OF 80M TO PROVIDE ENHANCED EROSION CONTROL AND ASSIST WITH REDUCING SEDIMENT MOVEMENT - ALSO REFER TO THE 'RAINFALL PREPARATION PROCEDURE' NOTES).
  - c. BROADCAST GYPSUM SPREADING IS TO BE UNDERTAKEN ACROSS ALL EXPOSED SOILS PRIOR TO FORECAST RAINFALL ABOVE THE 85TH PERCENTILE DESIGN RAINFALL EVENT AND SITE CLOSURE OF MORE THAN 2 DAYS IN ACCORDANCE WITH THE 'RAINFALL PREPARATION PROCEDURE'.
  - d. SEDIMENT BASIN AND SEDIMENT TRAP INLET POINTS WILL BE PRE-LOADED WITH GYPSUM (OR EQUIVALENT) PRIOR TO FORECAST RAINFALL ABOVE THE 85TH PERCENTILE DESIGN RAINFALL EVENT AND SITE CLOSURE OF MORE THAN 2 DAYS IN ACCORDANCE WITH THE 'RAINFALL PREPARATION PROCEDURE'.
  - e. MAJOR DIRTY WATER DIVERSION DRAINS WILL HAVE GYPSUM, BIOPOLYMER GEL SOCKS (OR EQUIVALENT) PLACED WITHIN THEM AT 80M INTERVALS. THESE DEVICES WILL BE MAINTAINED OR REPLACED AS REQUIRED TO ENSURE THEY ARE IN PLACE PRIOR TO FORECAST RAINFALL ABOVE THE 85TH PERCENTILE DESIGN RAINFALL EVENT AND SITE CLOSURE OF MORE THAN 2 DAYS IN ACCORDANCE WITH THE 'RAINFALL PREPARATION PROCEDURE'.
  - f. DUST SUPPRESSION TO BE CARRIED OUT WHEN REQUIRED (REFER TO THE 'DUST SUPPRESSION' NOTES).
  - g. TEMPORARY DIRTY WATER CONTROL STRUCTURES (E.G. BATTER CHUTES, CHECK DAMS AND WINDROWS) ARE TO BE IMPLEMENTED (REFER TO THE 'RAINFALL PREPARATION PROCEDURE' NOTES).
  - h. TEMPORARY STABILISATION IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE 'STABILISATION' NOTES AND THE 'RAINFALL PREPARATION PROCEDURE' AND THE INSTRUCTIONS ON THE PLAN/S.
  - i. TREATMENT OF DIRTY WATER IS TO BE CARRIED OUT AS NECESSARY IN ACCORDANCE WITH THE 'DIRTY WATER TREATMENT AND DISCHARGE REQUIREMENTS' NOTES.
  - j. MEASURES TO ASSIST WITH SALINITY MANAGEMENT ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE 'SALINITY CONSIDERATIONS' NOTES AND THE PROJECT'S SALINITY MANAGEMENT PLAN.
  - k. MONITORING, MAINTENANCE AND INSPECTIONS ARE TO BE CARRIED OUT REGULARLY AS REQUIRED, IN ACCORDANCE WITH THE 'SITE INSPECTION AND MONITORING' NOTES.
  - l. UNDERTAKE PROGRESSIVE STABILISATION OF LANDS AS FINAL EARTHWORKS ARE COMPLETE IN EACH AREA (RATHER THAN WAITING UNTIL THE COMPLETION OF WORKS). FINAL STABILISATION IS TO BE COMPLETED IN ACCORDANCE WITH THE 'STABILISATION' NOTES.
- 3) FINAL SITE LANDSCAPING SHALL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS OF CONSTRUCTION COMPLETION
- 4) SEDIMENT LADEN WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM BY USING INLET PROTECTION.

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- 22) THE CONTRACTOR TO KEEP DETAILED AND LEGIBLE RECORDS OF ALL INSPECTION AND MAINTENANCE UNDERTAKEN ON THE EROSION AND SEDIMENT CONTROL DEVICES.
- 23) ALL SITE WASTE INCLUDING GENERAL RUBBISH TO BE DISPOSED OF IN AN ENVIRONMENTALLY RESPONSIBLE MANNER IN ACCORDANCE WITH THE POEO (WASTE) REGULATION 2014.
- 24) THE CONTRACTOR SHALL CONSTRUCT AND IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO ENSURE PROTECTION OF DOWNSTREAM ENVIRONMENTS.

**K. SEDIMENT BASINS**

- 1) SEDIMENT BASIN LOCATIONS AND SIZING ARE PRESENTED ON THE PLANS.
- 2) ADDITIONAL VOLUME CAN BE PROVIDED IN SEDIMENT BASINS FOR STORING WATER IF SO DESIRED (I.E. THEY CAN BE MADE BIGGER THAN IS REQUIRED BY THIS ESCP). MARKERS WILL NEED TO BE INSTALLED WITHIN BASINS TO INDICATE THE VARIOUS VOLUMES.
- 3) SEDIMENT BASINS ARE TO ACHIEVE AT LEAST 3:1 LENGTH:WIDTH FROM THEIR INLET(S) TO THEIR SPILLWAY. IF THIS IS NOT ACHIEVED THROUGH THE NATURAL SHAPE OF THE BASIN, A BAFFLE IS TO BE INCLUDED.
- 4) SEDIMENT BASIN FLOORS AND WALLS ARE TO BE WELL COMPACTED TO MINIMISE INFILTRATION TO ENGINEERING DETAIL.
- 5) SEDIMENT BASIN WALLS, INLETS AND SPILLWAY OUTLETS ARE TO BE GYPSUM TREATED AT A RATE OF 1.5kg/m<sup>2</sup> TO PROMOTE SEDIMENT SETTLING AND MINIMISE DISPERSION.
- 6) WITHIN 5 CALENDAR DAYS OF THE CONCLUSION OF ANY RAINFALL EVENT THAT CAUSES RUNOFF, THE SEDIMENT BASINS ARE TO BE EMPTY, READY FOR THE NEXT RAINFALL EVENT. THIS MIGHT INCLUDE TESTING WATER, TREATING (E.G. FLOCCULATING), DE-WATERING AND DE-SILTING BASINS. SEE THE 'DIRTY WATER AND DISCHARGE REQUIREMENTS' NOTES BELOW REGARDING DE-WATERING. IF RAINFALL (CAUSING RUNOFF) OCCURS AGAIN WITHIN 5 DAYS OF THE PREVIOUS RAIN EVENT, THE 5-DAY REQUIREMENT RE-SETS.
- 7) DIRTY WATER ACCUMULATING IN SEDIMENT BASINS CAN BE USED ONSITE FOR DUST SUPPRESSION OR CONSTRUCTION PURPOSES. IF THIS OCCURS IT DOES NOT NEED TO BE TREATED TO THE STANDARD REQUIRED FOR DISCHARGE. NOTE THAT THE 5-DAY MAINTENANCE REQUIREMENT FOR BASINS TO BE EMPTIED STILL APPLIES.
- 8) THE CONTRACTOR SHALL KEEP DETAILED AND ACCURATE RECORDS OF THE MONITORING, TREATMENT, TESTING AND MAINTENANCE OF THE SEDIMENT BASIN INCLUDING RECORDED RAINFALL VOLUME AND FLOCCULATING AGENTS USED.
- 9) ALL CHEMICAL DOSING AND WATER TESTING TO BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON.
- 10) ALL LABORATORY TESTING TO BE UNDERTAKEN BY A NATA ACCREDITED LABORATORY.
- 11) ALL WATER PUMPED FROM THE SEDIMENT BASIN SHALL BE TESTED FOR ENVIRONMENTAL COMPLIANCE AGAINST THE RELEASE CRITERIA IN THE TABLE BELOW (AS A MINIMUM), UNLESS ALTERNATIVE (MORE STRINGENT) STANDARDS ARE SPECIFIED BY THE LOCAL AUTHORITY PRIOR TO RELEASE.

PARAMETER	RELEASE CRITERIA
TOTAL SUSPENDED SOLIDS	50 mg/l MAX
pH	WITHIN THE RANGE OF 6.5 – 8.5
VISUAL AMENITY	NO VISIBLE PLUME

- 12) WATER TESTING TO BE UNDERTAKEN USING EITHER A HANDHELD PH/TURBIDITY METER OR SAMPLES COLLECTED FOR LABORATORY TESTING PRIOR TO ANY MANUAL BASIN DEWATERING.
- 13) THE TREATED BASIN SHALL BE DEWATERED WITH A PUMP SYSTEM WITH A FLOATING INLET TO ENSURE SETTLED SEDIMENT IS NOT ENTRAINED AND DISCHARGED.
- 14) DIRTY WATER ACCUMULATING IN EXCAVATIONS/CUT SECTIONS CAN BE PUMPED OR CARTED TO A SEDIMENT BASIN PROVIDING ADEQUATE CAPACITY IS AVAILABLE AND THE BASIN WON'T OVERFLOW AS A RESULT. NOTE THAT THE 5-DAY MAINTENANCE REQUIREMENT FOR BASINS TO BE EMPTIED STILL APPLIES
- 15) SEDIMENT BASINS WILL REQUIRE DEWATERING AND SEDIMENT CLEANOUT WHENEVER SEDIMENT ACCUMULATES TO MORE THAN 70% OF THE SEDIMENT STORAGE VOLUME. SEDIMENT REMOVED FROM THE BASIN CAN BE TAKEN TO A STOCKPILE AREA, BURIED ONSITE OR USED AS GENERAL FILL. ENSURE SEDIMENT REMOVED FROM BASINS IS NOT PLACED WHERE IT COULD WASH, BLOW OR FALL OFFSITE.
- 16) A MARKER PEG (OR SIMILAR) IS TO BE INCLUDED IN EVERY BASIN SHOWING THE LEVEL OF THE SEDIMENT STORAGE VOLUME.
- 17) CAPTURED SEDIMENT WILL BE DISPOSED OF IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AS TO NOT CAUSE FURTHER CONTAMINATION OR DOWNSTREAM POLLUTION. SEDIMENT SHOULD NOT BE DISPOSED OF IN CONCENTRATED FLOWS, WHERE IT CAN BE RE-ENTRAINED OR WHERE THE RECEIVING WATER HAS A PH OF < 5.5.

- 18) THE BASIN AND ALL OTHER CONTROL DEVICES WILL BE MAINTAINED IN AN OPERATIONAL STATE UNTIL SITE STABILISED.
- 19) REPAIR ANY SCOUR DAMAGE TO THE SEDIMENT BASIN BATTERS AND EMERGENCY SPILLWAY FOLLOWING RAINFALL EVENTS.
- 20) SEDIMENT BASIN SHOULD NOT BE CONSTRUCTED WITH SMOOTH INTERNAL SLOPES AND BASIN BATTERS SHOULD NOT BE STEEPER THAN 2(H):1(V).
- 21) BASINS SHOULD BE APPROPRIATELY FENCED AND MARKED BY WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY AND PUBLIC SAFETY IS AT RISK.
- 22) THE SEDIMENT BASINS ARE TO INCLUDE OUTLETS (WEIR OVERFLOW/SPILLWAY) SIZED TO HAVE A CAPACITY TO PASS THE 100 YEAR PEAK FLOW. OUTLETS ARE TO BE ONTO STABLE LANDS OR INTO A STABLE WATERWAY.
- 23) ALL INLET CHUTES TO BE FORMED FROM DUMPED ROCK PLACED OVER GEOTEXTILE LINER (BIDIM A34 OR EQUIVALENT). ROCK USED TO BE CRUSHED, CLEAN, HARD DURABLE AND MINIMUM AVERAGE SIZE (d<sub>50</sub>) =150mm
- 24) PERMEABLE INTERNAL BAFFLES CAN ALSO BE USED TO ENSURE UNIFORM FLOW THROUGH A SEDIMENT BASIN. THESE PERMEABLE BAFFLES CAN ASSIST PERFORMANCE OF ALL BASIN TYPES EVEN IN STANDARD BASIN SHAPES. PERMEABLE IN-LINE BAFFLES CAN TYPICALLY BE CONSTRUCTED USING A FIXED OR FLOATING SYSTEM. FIXED SYSTEMS WILL TYPICALLY INCORPORATE POSTS MOUNTED IN THE FLOOR AND WALL OF THE BASINS WITH A MESH ATTACHED TO THE POSTS. THE HEIGHT OF THE POSTS AND MESH SHOULD BE AT APPROXIMATELY THE SAME HEIGHT AS THE BASIN SPILLWAY TO AVOID A CONCENTRATED FLOW ON THE UPPER LAYER OF THE WATER COLUMN ABOVE THE BAFFLE. AN ALTERNATIVE OPTION IS TO USE A BAFFLE INCORPORATING FLOATS TO KEEP THE MESH ON THE TOP OF THE WATER COLUMN AND WEIGHTING TO FIX THE BAFFLE TO THE FLOOR OF THE BASIN. THIS CAN GENERALLY BE ACHIEVED BY UTILISING PROPRIETARY SILT CURTAINS.
- 25) A CRITICAL COMPONENT OF IN-LINE PERMEABLE BAFFLES IS THE OPEN AREA OF THE PRODUCT. TOO TIGHT A WEAVE AND THE BAFFLES WILL ACTUALLY HINDER PERFORMANCE, WITH TOO OPEN A WEAVE PROVIDING LITTLE BENEFIT. A 75% WEAVE SHADE CLOTH (OR EQUIVALENT) OPEN AREA IS RECOMMENDED FOR IN-LINE PERMEABLE BAFFLES. NOTE THIS IS SIGNIFICANTLY MORE OPEN THAN TYPICAL SILT CURTAINS USED ON CONSTRUCTION SITES.

**L. DRAIN / BUND STABILISATION AND LINING**

- 1) SOIL PREPARATION PRIOR TO LINING DRAINS:
  - a. GYPSUM SHALLOW/LIGHTLY RIPPED INTO SUBGRADE AT A RATE OF 500g/m<sup>2</sup> (E.G., RIP IN USING GRADER OR EXCAVATOR BUCKET TINES (TEETH)).
  - b. PLACE TOPSOIL OVER ENTIRE DRAIN SURFACE TO A MINIMUM DEPTH OF 75mm. (SOIL PREPARATION ALSO APPLIES TO TEMPORARY DRAINS IN PLACE FOR <6 MONTHS)
- 2) DRAIN LINING:
  - a. SEEDING + VITAL P47 (OR VITAL STONEMASS) + JUTE MATTING:
  - b. (VITAL P47/ STONEMASS TO BE APPLIED AT A MAXIMUM DILUTION OF 1:10 (VITAL:WATER)
  - c. SEEDING TO BE A COMBINATION OF A COVER CROP (E.G., RYE GRASS FOR WINTER MONTHS / JAPANESE MILLET FOR SUMMER MONTHS) AND A SUITABLE PERENNIAL (LONG TERM) LOCAL NATIVE GRASS MIX.
- 3) WATERING:
  - a. REGULAR WATERING REQUIRED WHERE RAINFALL IS INSUFFICIENT.
  - b. ENSURE WATER IS APPLIED GENTLY (NOT WITH A PRESSURE SPRAY).
  - c. ENSURE OVERWATERING DOES NOT OCCUR AND IS MINIMISED TO ONLY WHAT IS NECESSARY FOR PLANTS TO THRIVE.
- 4) LINING OF TEMPORARY DRAINS (IN PLACE FOR <6 MONTHS) – LINE WITH GEOTEXTILE (BIDIM A24 MIN. OR EQUIVALENT).

**M. DIRTY WATER TREATMENT AND DISCHARGE REQUIREMENTS**

**THE DEVELOPMENT MUST COMPLY WITH SECTION 120 OF THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997 (POEO ACT), WHICH PROHIBITS THE POLLUTION OF WATERS (EXCEPT AS EXPRESSLY PROVIDED FOR IN AN ENVIRONMENTAL PROTECTION LICENCE). THE FOLLOWING REQUIREMENTS ARE TO BE ADHERED TO:**

- 1) WATER ACCUMULATING IN SEDIMENT BASINS, TRAPS, EXCAVATIONS OR IN ANY OTHER LOW POINTS ONSITE CAN EITHER BE:
  - a. RE-USED FOR DUST SUPPRESSION OR CONSTRUCTION PURPOSES; OR
  - b. TREATED (IF REQUIRED) AND TESTED IN SITU, THEN RELEASED OFF SITE ONCE IT MEETS THE REQUIRED WATER QUALITY DISCHARGE CRITERIA (SEE BELOW); OR
  - c. PUMPED INTO A TANK, TRUCK OR OTHER HOLDING AREA FOR LATER TREATMENT.

- 2) ANY ACTIVE DISCHARGE OF WATER FROM THE PROJECT (I.E. WHERE WATER IS MOVED OFFSITE VIA DIRECT ACTION SUCH AS PUMPING RATHER THAN FLOWING OFF THE PROJECT AS A RESULT OF HEAVY RAINFALL) IS TO ACHIEVE:
  - a. 50 mg/L OR LESS TOTAL SUSPENDED SOLIDS (TSS); AND
  - b. PH BETWEEN 6.5 AND 8.5; AND
  - c. NO VISIBLE TRACE OF OIL AND GREASE.
- 3) ADEQUATE WATER QUALITY CAN BE ACHIEVED BY USING GYPSUM AT A RATE OF APPROXIMATELY 30 KG/100 m<sup>3</sup> OF STORMWATER. ALTERNATIVE FLOCCULATING AGENTS CAN ONLY BE USED IF THEY DO NOT CAUSE ENVIRONMENTAL HARM WHEN DISCHARGED. REFER TO MANUFACTURERS GUIDELINES FOR DOSAGE DETAILS.
- 4) SPREAD THE TREATMENT AGENT EVENLY OVER THE ENTIRE POND SURFACE FOR PROPER TREATMENT OF WATER.
- 5) THESE DE-WATERING REQUIREMENTS APPLY TO DIRTY WATER ACCUMULATING IN ANY SORT OF EXCAVATION, SUMP, OR OTHER PONDED WATER BODY ON THE PROJECT.
- 6) IF THE WATER IS GOING TO BE USED WITHIN THE CONSTRUCTION SITE FOR DUST-SUPPRESSION OR CONSTRUCTION PURPOSES AND WILL DRAIN BACK INTO THE SEDIMENT CAPTURE SYSTEM IT DOES NOT REQUIRE TREATMENT.

**N. RAINFALL PREPARATION PROCEDURE**

- 1) THE WEATHER FORECAST IS TO BE MONITORED REGULARLY (AT LEAST DAILY AND HOURLY WHEN RAINFALL IS IMMINENT) BY THE SITE ENVIRONMENTAL MANAGER (OR THEIR REPRESENTATIVE).
- 2) PRIOR TO FORECAST RAINFALL (> 70% CHANCE OF 5MM OR MORE OVER 24 HOURS) AND SITE CLOSURE OF MORE THAN 2 DAYS, THE FOLLOWING WILL OCCUR:
- 3) THE SITE ENVIRONMENT MANAGER (OR THEIR REPRESENTATIVE) IS TO INSPECT THE CONDITION OF ALL EROSION AND SEDIMENT CONTROLS AND ACTION ANY URGENT REPAIR, MAINTENANCE OR IMPROVEMENT. THEY ARE TO KEEP A RECORD ALL FINDINGS (INCLUDING DETAILS OF ACTIONS AND THEIR CLOSE OUTS).
- 4) SLOPE BREAKS / CONTOUR BERMS WILL BE PUSHED UP OR CUT IN ACROSS LARGE, EXPOSED AREAS TO SLOW DOWN FLOWS AND MINIMISE EROSION. SLOPE LENGTHS ARE TO BE RESTRICTED TO 40M INTERVALS ACROSS ALL EXPOSED SURFACES PRIOR TO AND DURING RAINFALL. DIVERSION BUNDS/DRAINS, LOW FLOW EARTH BANKS (STANDARD DRAWING SD 5-5) OR SANDBAGS / EQUIVALENT SHOULD BE INSTALLED PRIOR TO RAINFALL EVENT TO ACHIEVE THIS WHERE REQUIRED. NOTE THAT SLOPE BREAKS / CONTOUR BERMS ARE NOT REQUIRED TO BE IN PLACE DURING ACTIVE CONSTRUCTION WORKS WHEN RAINFALL IS NOT FORECAST / OCCURRING. AS WORKS PROGRESS LOCATIONS FOR SLOPES BREAKS WILL CHANGE AND THESE ARE TO BE UPDATED ON PROGRESSIVE ESCPS.
- 5) TEMPORARY DIVERSIONS AROUND CULVERT WORKS ARE TO BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS TO TAKE UPSLOPE CLEAN WATER FLOWS AROUND / THROUGH THE WORKS - REFER TO THE PLANS AND TO DETAIL 1 FOR SPECIFIC INSTRUCTIONS.
- 6) ALL EXPOSED SURFACES OF HIGH RISK AREAS (I.E. STEEP SLOPES (5%), BATTERS, SURFACES NOT DRAINING TO SEDIMENT BASINS AND WORKS IN / NEAR WATERWAYS AND FLOW AREAS) WILL BE STABILISED WITH TEMPORARY GROUND COVERS LIKE VITAL P47/STONEMASS, GEOTEXTILE OR BLACK PLASTIC (SECURELY PINNED OR EQUIVALENT).
- 7) CHECK DAMS ARE TO BE PROVIDED WITHIN ALL DRAINAGE DEVICES INCLUDING ROADSIDE TABLE DRAINS AT 40m INTERVALS.
- 8) PRIOR TO FORECAST HIGH RAINFALL (> 70% CHANCE OF 10mm OR MORE OVER 24 HOURS) AND SITE CLOSURE OF MORE THAN 2 DAYS, THE FOLLOWING WILL OCCUR IN ADDITION TO THE ABOVE:
  - a. WINDROWS / BUNDS ARE TO BE PROVIDED ALONG THE TOP EDGE OF FILL
  - b. BATTERS TO PROTECT FILL BATTERS. LOCATIONS AND DETAILS ARE TO BE CONFIRMED ONSITE AS WORKS PROGRESS AND DOCUMENTED ON SITE SPECIFIC PROGRESSIVE ESCPS. THEY ARE NOT REQUIRED FOR INITIAL STRIPPING WORKS. THEY ARE TO BE FORMED AS COMPACTED EARTH BERMS (MIN. 600MM HIGH) ALONG THE TOP EDGE OF FILL PLATFORMS PRIOR TO RAINFALL AND SITE CLOSURE (2 DAYS). THEY ARE NOT REQUIRED DURING DRY WEATHER. ADDITIONAL WINDROWS AND GEOFABRIC LINED BATTER CHUTES AT REGULAR INTERVALS MAY NEED TO BE PROVIDED AS THE WORKS PROGRESS - LOCATIONS AND DETAILS ARE TO BE PROVIDED ON SITE SPECIFIC PROGRESSIVE ESCPS. REFER TO PHOTO 6 ON ESCP006 FOR A BATTER CHUTE EXAMPLE.
- 7) PRIOR TO FORECAST RAINFALL (~70% CHANCE OF 60mm OR MORE OVER A 5 DAY PERIOD) AND SITE CLOSURE OF MORE THAN 2 DAYS, THE FOLLOWING WILL OCCUR IN ADDITION TO THE ABOVE:
  - a. SEDIMENT BASIN AND SEDIMENT TRAP INLET POINTS WILL BE PRELOADED WITH GYPSUM.
  - b. MAJOR DIRTY WATER DIVERSION DRAINS WILL HAVE GYPSUM, BIOPOLYMER GEL SOCKS (OR EQUIVALENT) PLACED WITHIN THEM OR REPLENISHED AT 80M INTERVALS (IF NOT ALREADY IN PLACE).

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales
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Height Datum	AHD	Approved	

Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	GENERAL NOTES SHEET 4

Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10005
Issue	01

**Q. SALINITY AND SODICITY CONSIDERATIONS**

TO MINIMISE IMPACTS ASSOCIATE WITH SALINE AND SODIC (DISPERSIVE) SOILS DURING THE CONSTRUCTION PHASE OF WORKS THE FOLLOWING MEASURES ARE TO BE IMPLEMENTED:

- 1) TOPSOIL IS TO BE TESTED PRIOR TO REVEGETATION TO CONFIRM TREATMENT REQUIREMENTS.
- 2) ENSURE TOPSOIL IS SPREAD OVER AREAS TO BE REVEGETATED TO AT LEAST 75MM.
- 3) WATERING OF NEWLY REVEGETATED AREAS IS TO BE MINIMISED TO ONLY WHAT IS NECESSARY FOR PLANTS TO THRIVE.
- 4) AVOID OVER-WATERING WHICH COULD EXACERBATE CATCHMENT SALINITY.
- 5) THE FLOOR AND WALLS OF EACH SEDIMENT BASIN IS TO BE WELL COMPACTED TO MINIMISE INFILTRATION.
- 6) SWALE / DIVERSION DRAINS ARE TO BE GYPSUM-DUSTED AND LINED WITH MATTING AS NOTED TO PROMOTE FLOW AND REDUCE PONDING AND EROSION.
- 7) AVOID PONDING WATER ACROSS THE SITE IN AREAS WHERE SHALE OR CLAY FILL MATERIALS HAVE BEEN PLACED.
- 8) REHABILITATION AND REVEGETATION OF COMPLETED EARTHWORKS IS TO BE UNDERTAKEN PROGRESSIVELY AS EACH AREA IS FINISHED.

THE ABOVE LIST OUTLINES GENERAL STRATEGIES FOR MINIMISING THE POTENTIAL SALINITY RISK DURING CONSTRUCTION. REFER TO THE PROJECT'S SALINITY MANAGEMENT PLAN FOR DETAILED RECOMMENDATIONS.

**P. OTHER MATTERS**

- 1) ACCEPTABLE RECEPTORS AND DISPOSAL PRACTICES WILL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHERS, LITTER AND GENERAL WASTE MATERIALS.
- 2) ANY EXISTING TREES WHICH ARE NOT REQUIRED OR APPROVED TO BE CLEARED FOR THE WORKS AND/OR FORM PART OF THE FINAL LANDSCAPING PLAN SHOULD BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
  - a. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THEIR DRIP LINE.
  - b. ENSURING NOTHING IS NAILED TO THEM.
  - c. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN DRIP LINE.
- 3) ALL VEHICLE AND EQUIPMENT WASHING SHOULD BE CONTAINED IN SPECIFIC BUNDED AREAS, DISCONNECTED FROM CONCENTRATED FLOW PATHS AND THE STORMWATER SYSTEM.
- 4) ANY NECESSARY VEHICLE OR EQUIPMENT REFUELING SHOULD BE UNDERTAKEN AWAY FROM CONCENTRATED FLOW PATHS AND PREFERABLY WITHIN A BUNDED AREA.
- 5) ANY ONSITE FUEL STORAGE AREAS SHOULD BE COVERED AND BUNDED.

**Q. LIMITATIONS TO ACCESS DURING CONSTRUCTION**

LAND USE	LIMITATION	COMMENT
CONSTRUCTION AREAS	LIMITED TO 5 (PREFERABLE 2) METRES FROM THE EDGE OF ANY ESSENTIAL CONSTRUCTION ACTIVITY AS SHOWN ON THE ENGINEERING PLANS.	ALL SITE WORKERS SHOULD CLEARLY RECOGNISE THESE AREAS THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
ACCESS AREAS	LIMITED TO A MAXIMUM WIDTH OF 5 METRES	THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE ZONES ON SITE. THEY CAN VARY IN POSITION SO AS TO BE BEST CONSERVE EXISTING VEGETATION AND PROTECT DOWNSTREAM AREAS WHILE BEING CONSIDERATE OF THE NEEDS OF EFFICIENT WORKS ACTIVITIES. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE BOUNDARIES.
ALL LANDS (INCLUDING WATERWAYS AND STOCKPILES)	ENTRY PROHIBITED EXCEPT FOR ESSENTIAL MANAGEMENT WORKS	THINNING OF GROWTH MAY BE NECESSARY (E.G., FOR FIRE RISK REDUCTION OR WEED REMOVAL). ALL THINNING ACTIVITIES MUST BE APPROVED PRIOR TO COMMENCEMENT.

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01	ISSUED FOR CONSTRUCTION			23-07-25	Title GENERAL NOTES SHEET 5	Status FOR CONSTRUCTION	Issue 01
Issue	Description	Date				Project - Drawing No. 20-776-C10006	Issue 01

TABLE 1 – STABILISATION REQUIREMENTS AND TREATMENT METHODS DURING CONSTRUCTION (TEMPORARY STABILISATION)				
LAND TYPE	STABILISATION REQUIREMENT	TIMEFRAME	TREATMENT METHODS / PRODUCTS	REMARKS
HIGH RISK AREAS SOIL LOSS CLASS 6 OR ABOVE LANDS (WHERE APPLICABLE)	C-FACTOR = 0.1 (60% GRASS COVER OR EQUIVALENT GROUND COVER)	APPLIES PRIOR TO RAINFALL AND AFTER 10 WORKING DAYS OF INACTIVITY (EVEN THOUGH WORKS MIGHT CONTINUE LATER)	SOIL BINDER (i.e.: VITAL P47/STONEWALL OR EQUIVALENT)	STABILISE ALL EXPOSED SOILS BY SPARYING SURFACES WITH VITAL P47/STORMWATER OR EQUIVALENT VITAL DILUTION RATE = 1:10 (VITAL MIXTURE). -RE-APPLY / MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PROVIDED.
			GEOTEXTILE, JUTE MATTING, BLACK PLASTIC (SECURELY PINNED) OR EQUIVALENT	COVER ALL EXPOSED SOILS. RE-APPLY / MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PROVIDED.
ALL LANDS (INCLUDING WATERWAYS AND STOCKPILES)	C-FACTOR = 0.15 (50% GRASS COVER OR EQUIVALENT GROUND COVER)	APPLIES PRIOR TO RAINFALL AND AFTER 20 WORKING DAYS OF INACTIVITY (EVEN THOUGH WORKS MIGHT CONTINUE LATER)	SOIL BINDER (i.e.: VITAL P47/STONEWALL OR EQUIVALENT)	STABILISE ALL EXPOSED SOILS BY SPARYING SURFACES WITH VITAL P47/STORMWATER OR EQUIVALENT VITAL DILUTION RATE = 1:10 (VITAL MIXTURE). RE-APPLY / MAINTAIN AS NECESSARY (APPROX. EVERY 3-6 MONTHS WITHOUT SUITABLE VEGETATION COVERAGE) TO ENSURE THE REQUIRED COVER IS PROVIDED.
			GEOTEXTILE, JUTE MATTING, BLACK PLASTIC (SECURELY PINNED) OR EQUIVALENT	COVER ALL EXPOSED SOILS. RE-APPLY / MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PROVIDED.

TABLE 2 – STABILISATION AND TREATMENT METHODS POST CONSTRUCTION (FINAL STABILISATION)				
LAND TYPE	STABILISATION REQUIREMENT	TIMEFRAME	TREATMENT METHODS / PRODUCTS	REMARKS
WATERWAYS, DRAINAGE LINES AND CONCENTRATED FLOW AREAS	C-FACTOR = 0.05 (70% GRASS COVER OR EQUIVALENT GROUND COVER)	APPLIES AFTER 10 WORKING DAYS FROM COMPLETION OF FORMATION AND BEFORE THEY ARE ALLOWED TO CARRY CONCENTRATED FLOWS.	LOW FLOW – JUTE MESH, SEEDING AND SOIL BINDER (I.E., VITAL P47 / STONEWALL OR EQUIVALENT)	COMPLETE SUBSOIL TREATMENT (E.G. GYPSUM LIGHTLY RIPPED INTO SUBGRADE AT A RATE OF 15 t/ha) – TESTING TO CONFIRM TREATMENT RATES. PLACE TOPSOIL TO A DEPTH OF AT LEAST 75MM.
			LOW TO MODERATE FLOW – JUTE MATTING (350GSM) AND SEEDING (OR EQUIVALENT)	COMPLETE ANY FERTILISATION AND SEEDING BEFORE LAYING THE MATTING INSTALL MATTING IN ACCORDANCE WITH SD 5-7.
			MODERATE FLOW – TURF REINFORCEMENT MATTING (TRM)	SPRAY ALL SURFACES WITH VITAL P47/STONEWALL OR EQUIVALENT. VITAL DILUTION RATE = 1:10 (VITAL:WATER). APPLICATION RATE = 1L/m <sup>2</sup> OF DILUTED VITAL MIXTURE. RE-APPLY / MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PERMANENTLY MAINTAINED.
			HIGH FLOW – ROCK LINING	SAME AS ABOVE, PLUS: INSTALL ROCK ARMORING TO THE DEPTH AND SIZE AS SPECIFIED ON THE CIVIL DRAWINGS
STOCKPILES	C-FACTOR = 0.10 (60% GRASS COVER OR EQUIVALENT GROUND COVER)	APPLIES AFTER 10 WORKING DAYS FROM COMPLETION OF FORMATION	SEEDING AND SOIL BINDER (i.e. VITAL P47/STONEWALL OR EQUIVALENT)	APPLY SEED TO ALL STOCKPILE SURFACES (NOTE: SEEDING MAY NOT BE REQUIRED IF EXISTING SEEDBED IS PRESENT). SPRAY ALL STOCKPILE SURFACES WITH VITAL P47/STONEWALL OR EQUIVALENT*. VITAL DILUTION RATE = 1L / m <sup>2</sup> OF DILUTED VITAL MIXTURE. RE-APPLY/MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PERMANENTLY MAINTAINED.
			GEOTEXTILE, JUTE MATTING, BLACK PLASTIC (SECURELY PINNED) OR EQUIVALENT	COVER ALL EXPOSED SOILS. RE-APPLY / MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PROVIDED.
GENERAL SURFACES	C-FACTOR = 0.10 / 0.05 (60% / 70% GRASS COVER OR EQUIVALENT GROUND COVER)	C-FACTOR = 0.1 APPLIES AFTER 10 WORKING DAYS FROM COMPLETION OF FORMATION C-FACTOR = 0.05 APPLIES WITHIN A FURTHER 60 DAYS	TOPSOIL, SEEDING AND SOIL BINDER (VITAL P47/STONEWALL OR EQUIVALENT) HYDROMULCH OR EQUIVALENT	-REFER TO SD 7-1 -COMPLETE SUBSOIL TREATMENT (i.e. GYPSUM LIGHTLY RIPPED INTO SURGRADE AT A RATE OF 15 TONNES/ha). TESTING TO CONFIRM TREATMENT RATES. - PLACE TOPSOIL TO A DEPTH OF AT LEAST 75MM. - APPLY ANY FERTILISERS REQUIRED. - APPLY SEED TO ALL SURFACES (Note: SEEDING MAY NOT BE REQUIRED IF EXISTING SEEDBED IS PRESENT). - INSTALL MATTING IN ACCORDANCE WITH SD 5-7. - SPRAY ALL SURFACES WITH VITAL P47/STONEWALL OR EQUIVALENT*. - VITAL DILUTION RATE = 1:10 (VITAL:WATER). - APPLICATION RATE = 1L / m <sup>2</sup> OF DILUTED VITAL MIXTURE. - RE-APPLY / MAINTAIN AS NECESSARY TO ENSURE THE REQUIRED COVER IS PERMANENTLY MAINTAINED.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales	
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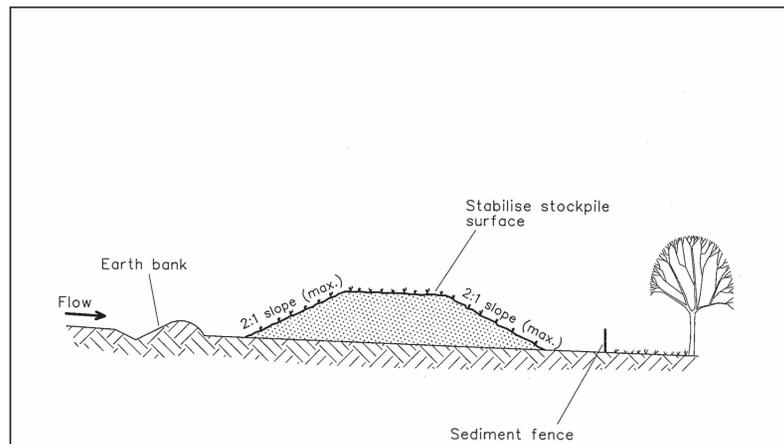
Client	Project
Scales	Drawn
Grid	Checked
Height Datum	Approved

Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	GENERAL NOTES SHEET 6

Civil Engineers and Project Managers

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Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10007	Issue
		01



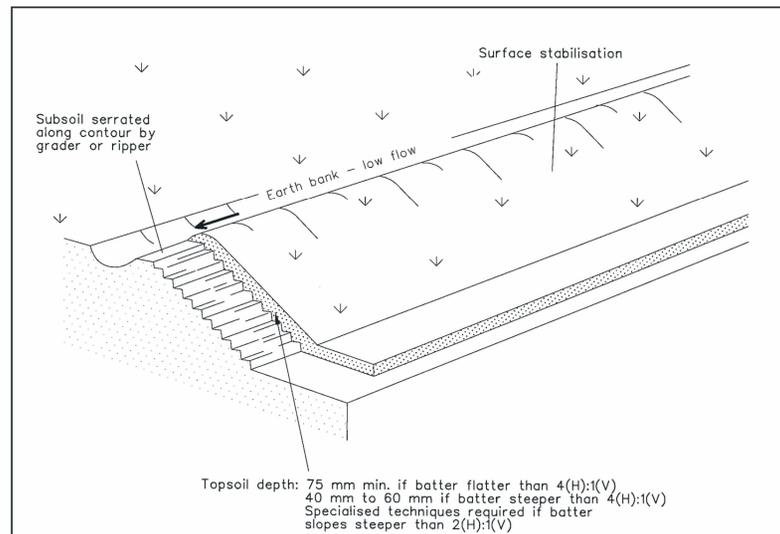
**Construction Notes**

1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct on the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

**STOCKPILES**

**SD 4-1**

4-5



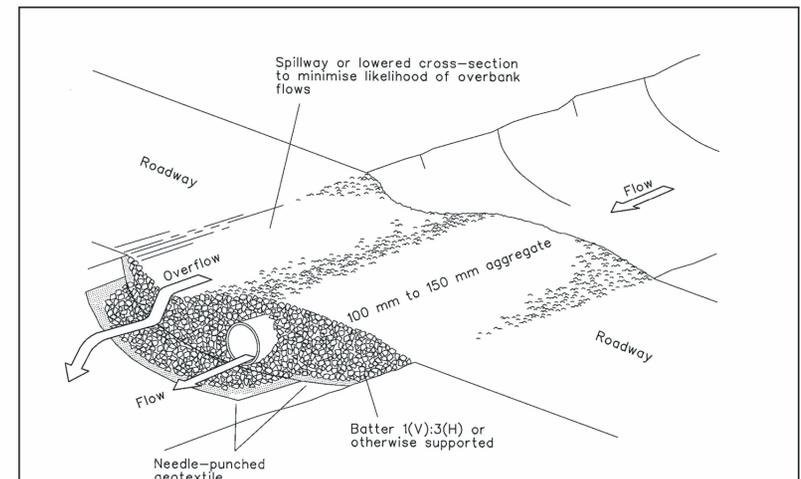
**Construction Notes**

1. Scarify the ground surface along the line of the contour to a depth of 50 mm to 100 mm to break up any hardsetting surfaces and to provide a good bond between the respread material and subsoil.
2. Add soil ameliorants as required by the ESCP or SWMP.
3. Rip to a depth of 300 mm if compacted layers occur.
4. Where possible, replace topsoil to a depth of 40 to 60 mm on lands where the slope exceeds 4(H):1(V) and to at least 75 mm on lower gradients.

**REPLACING TOPSOIL**

**SD 4-2**

4-6



**Construction Notes**

1. Prohibit all traffic until the access way is constructed.
2. Strip any topsoil and place a needle-punched textile over the base of the crossing.
3. Place clean, rigid, non polluting aggregate or gravel in the 100 mm to 150 mm size class over the fabric to a minimum depth of 200 mm.
4. Provide a 3-metre wide carriageway with sufficient length of culvert pipe to allow less than a 3(H): 1 (V) slope on side batters.
5. Install a lower section to act as an emergency spillway in greater than design storm events.
6. Ensure that culvert outlets extend beyond the toe of fill embankments.

**TEMPORARY WATERWAY CROSSING**

**SD 5-1**

5-14

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales

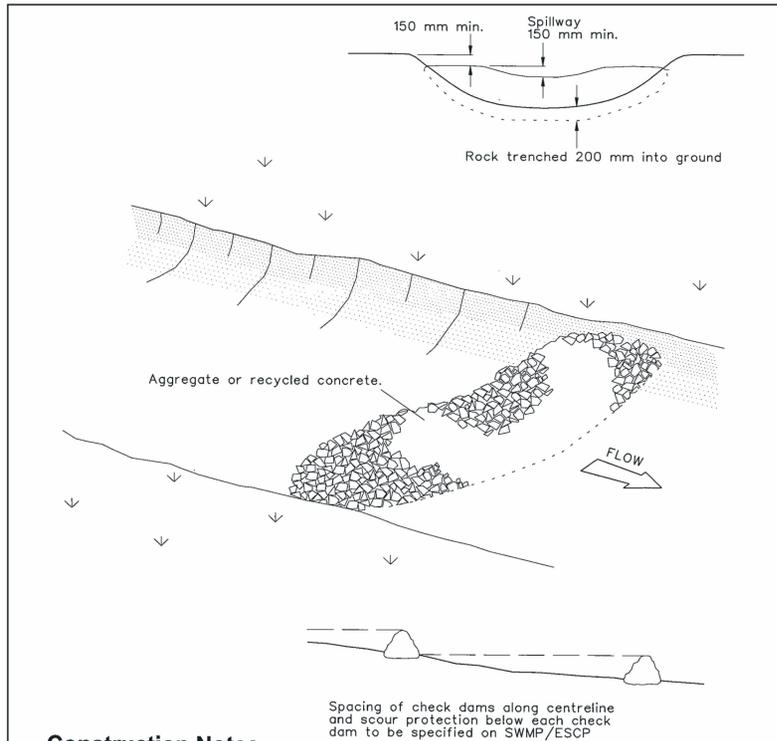
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Scales	N.T.S.
Grid	GDA 2020
Height Datum	AHD
Drawn	LM
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Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	GENERAL NOTES SHEET 7

Civil Engineers and Project Managers	
	
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Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10008
Issue	01



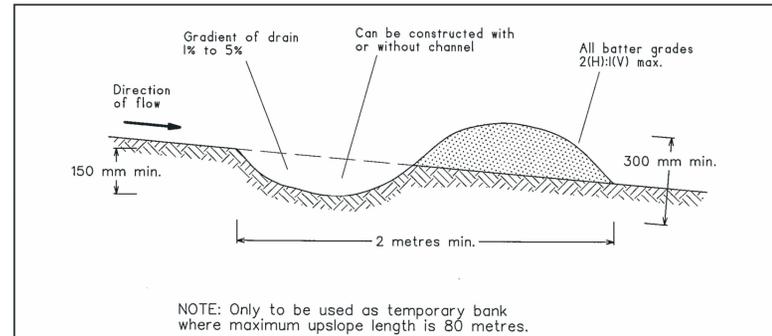
**Construction Notes**

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**

5-22



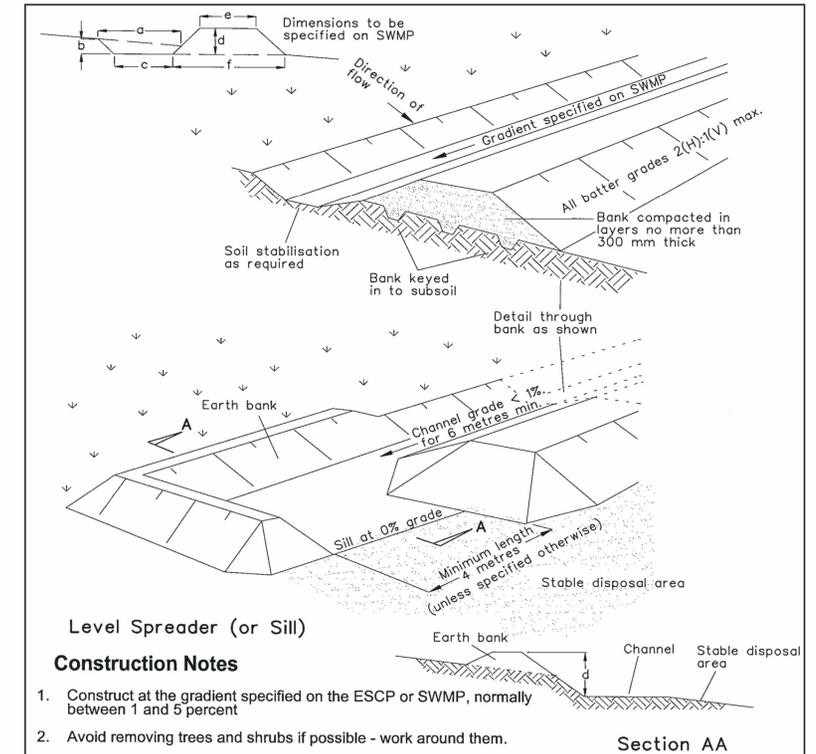
**Construction Notes**

1. Build with gradients between 1 percent and 5 percent.
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V shaped.
5. Ensure the banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction.

**EARTH BANK (LOW FLOW)**

**SD 5-5**

5-25



**Level Spreader (or Sill)**

**Construction Notes**

1. Construct at the gradient specified on the ESCP or SWMP, normally between 1 and 5 percent
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V-shaped, at the dimensions shown on the SWMP.
5. Ensure the banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction following Table 5.2 in Landcom (2004).
7. Where discharging to erodible lands, ensure they outlet through a properly constructed level spreader.
8. Construct the level spreader at the gradient specified on the ESCP or SWMP, normally less than 1 percent or level.
9. Where possible, ensure they discharge waters onto either stabilised or undisturbed disposal sites within the same subcatchment area from which the water originated. Approval might be required to discharge into other subcatchments.

**EARTH BANK (HIGH FLOWS)**

**SD 5-6**

5-26

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales

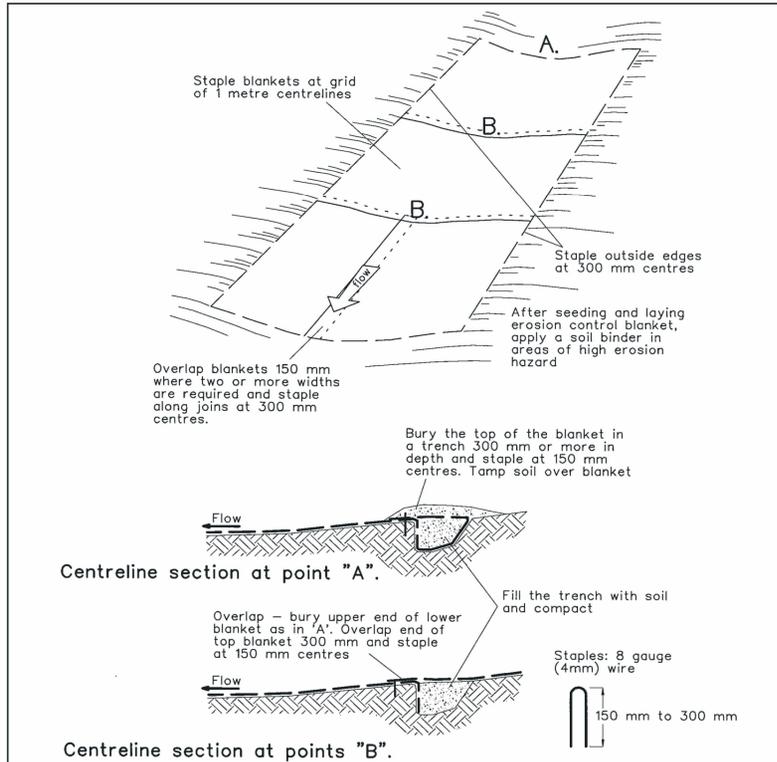
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Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	GENERAL NOTES SHEET 8

Civil Engineers and Project Managers	
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Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10009
Issue	01



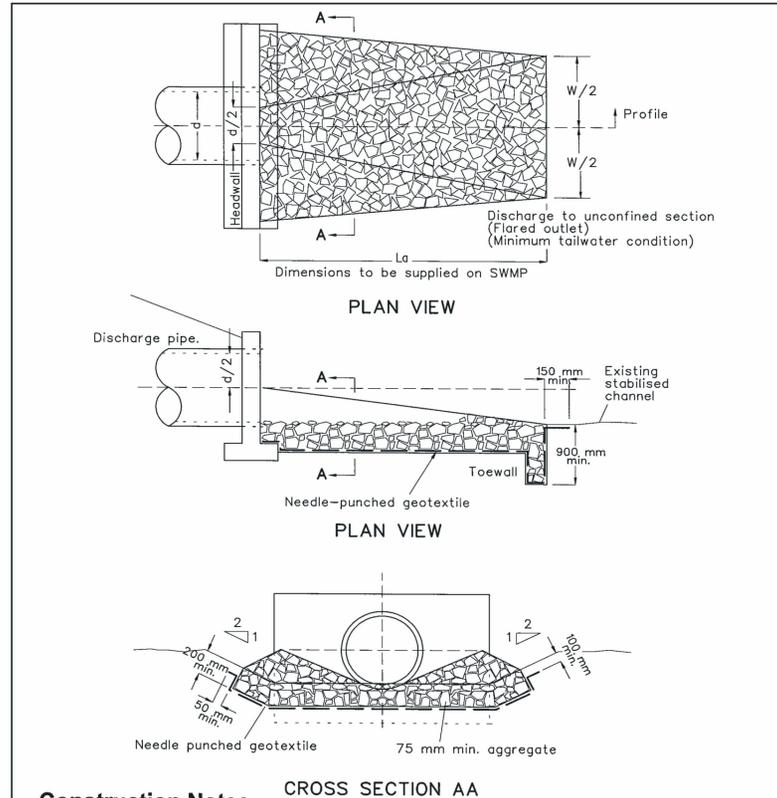
**Construction Notes**

1. Remove any rocks, clods, sticks or grass from the surface before laying matting
2. Ensure that topsoil is at least 75 mm deep.
3. Complete fertilising and seeding before laying the matting.
4. Ensure fabric will be continuously in contact with the soil by grading the surface carefully first.
5. Lay the fabric in "shingle-fashion", with the end of each upstream roll overlapping those downstream. Ensure each roll is anchored properly at its upslope end (Standard Drawing 5-7b).
6. Ensure that the full width of flow in the channel is covered by the matting up to the design storm event, usually in the 10-year ARI time of concentration storm event.
7. Divert water from the structure until vegetation is stabilised properly.

**RECP : CONCENTRATED FLOW**

**SD 5-7**

5-28



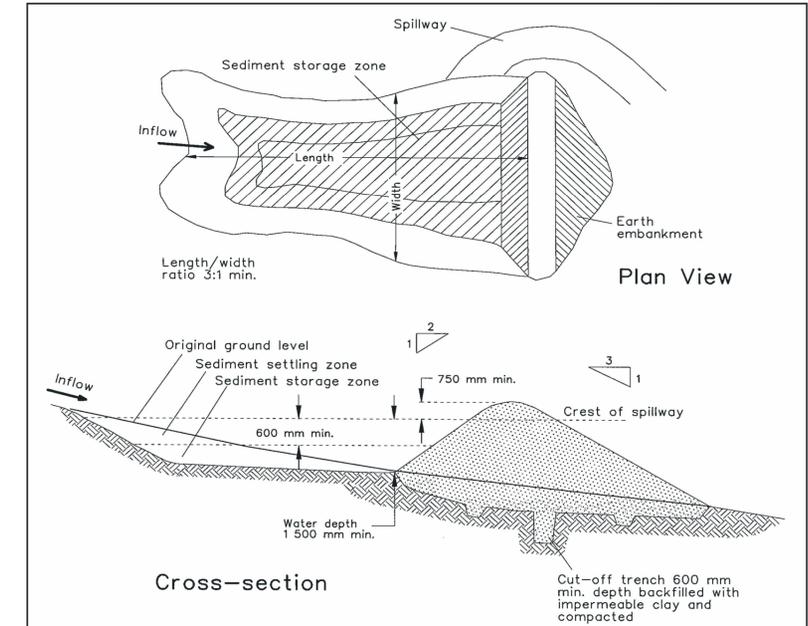
**Construction Notes**

1. Compact the subgrade fill to the density of the surrounding undisturbed material.
2. Prepare a smooth, even foundation for the structure that will ensure that the needle-punched geotextile does not sustain serious damage when covered with rock.
3. Should any minor damage to the geotextile occur, repair it before spreading any aggregate. For repairs, patch one piece of fabric over the damage, making sure that all joints and patches overlap more than 300 mm.
4. Lay rock following the drawing, according to Table 5.2 of Landcom (2004) and with a minimum diameter of 75 mm.
5. Ensure that any concrete or riprap used for the energy dissipater or the outlet protection conforms to the grading limits specified on the SWMP.

**ENERGY DISSIPATER**

**SD 5-8**

5-34



**Construction Notes**

1. Remove all vegetation and topsoil under the dam wall and from within the storage area.
2. Construct a cut-off trench 500 mm deep and 1,200 mm wide along the centreline of the embankment extending to a point on the gully wall level with the riser crest.
3. Maintain the trench free of water and recompact the materials with equipment as specified in the SWMP to 95 per cent Standard Proctor Density.
4. Select fill following the SWMP that is free of roots, wood, rock, large stone or foreign material.
5. Prepare the site under the embankment by ripping to at least 100 mm to help bond compacted fill to the existing substrate.
6. Spread the fill in 100 mm to 150 mm layers and compact it at optimum moisture content following the SWMP.
7. Construct the emergency spillway.
8. Rehabilitate the structure following the SWMP.

**EARTH BASIN - WET**

(APPLIES TO 'TYPE D' AND 'TYPE F' SOILS ONLY)

**SD 6-4**

6-19

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales

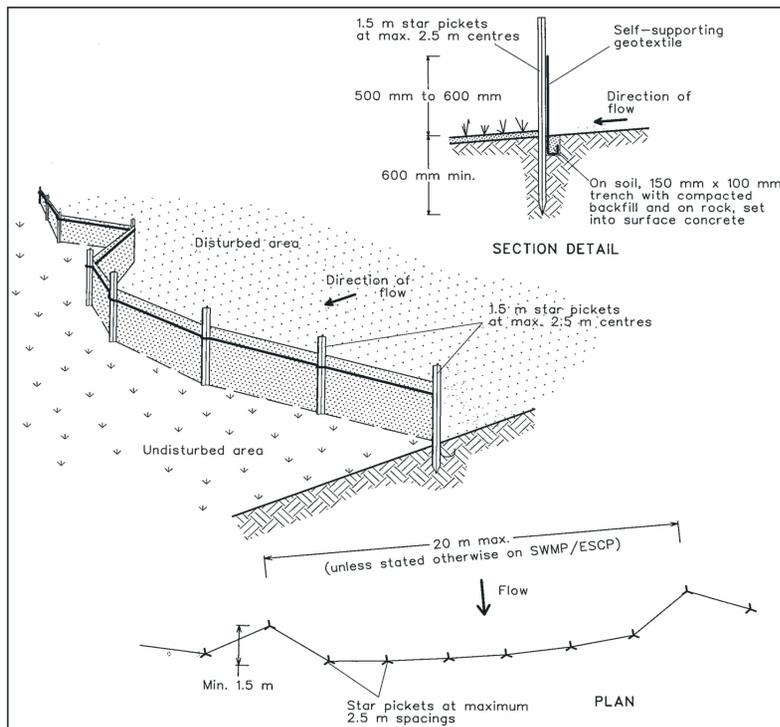
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Project	Title
SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK	GENERAL NOTES SHEET 9

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Project - Drawing No.	Issue
20-776-C10010	01



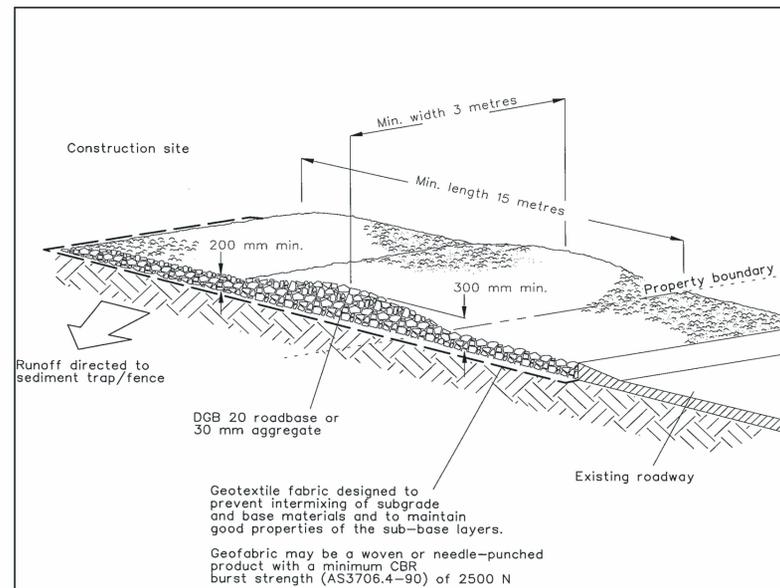
**Construction Notes**

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**

6-36



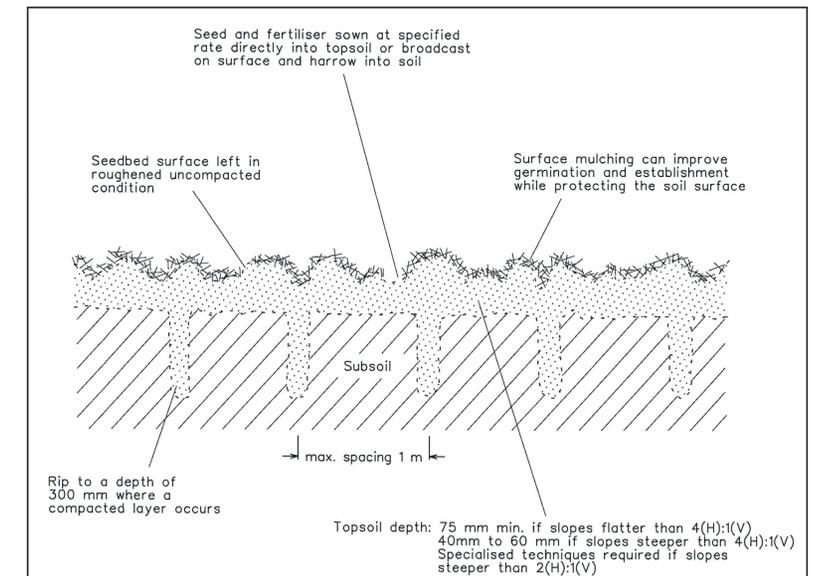
**Construction Notes**

1. Strip the topsoil, level the site and compact the subgrade.
2. Cover the area with needle-punched geotextile.
3. Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

**STABILISED SITE ACCESS**

**SD 6-14**

6-48



**Construction Notes**

1. Loosen compacted soil before sowing any seed. If necessary, rip the soil to a depth of 300 mm. Avoid rotary hoe cultivation.
2. Work the ground only as much as necessary to achieve the desired tilth and prepare a good seedbed.
3. Avoid cultivation in very wet or very dry conditions.
4. Cultivate on or close to the contour where possible, not up and down the slope.

**SEEDBED PREPARATION**

**SD 7-1**

7-7

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales

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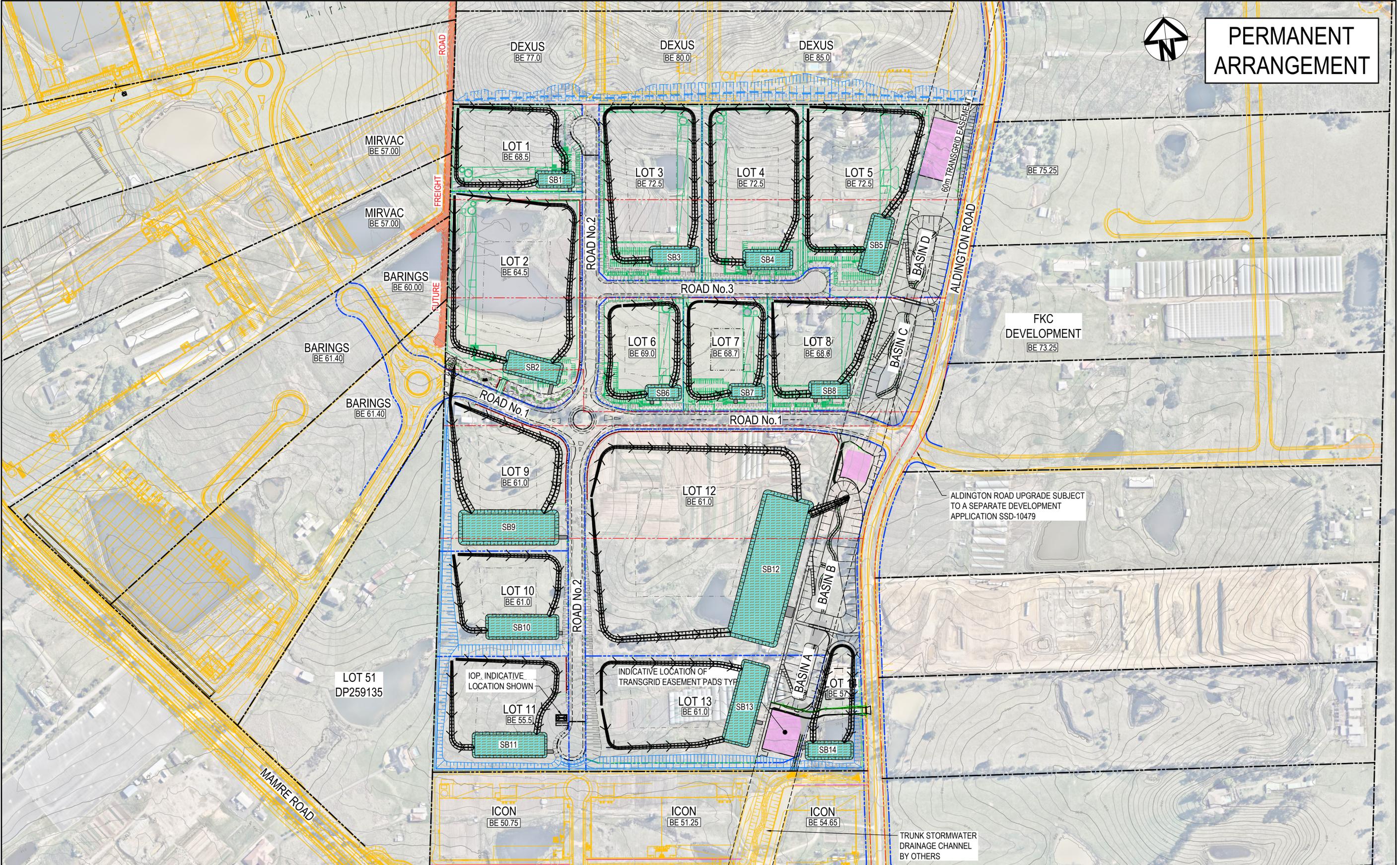


Client	Project
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Scales	Drawn
N.T.S.	LM
Grid	Designed
GDA 2020	TM
Height Datum	Checked
AHD	AM
	Approved

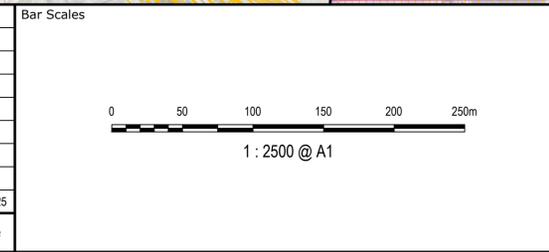
Project	
Title	GENERAL NOTES SHEET 10

Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	A1
FOR CONSTRUCTION	
Project - Drawing No.	Issue
20-776-C10011	01

# PERMANENT ARRANGEMENT



Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Height Datum	AHD	Checked	AM
		Approved	

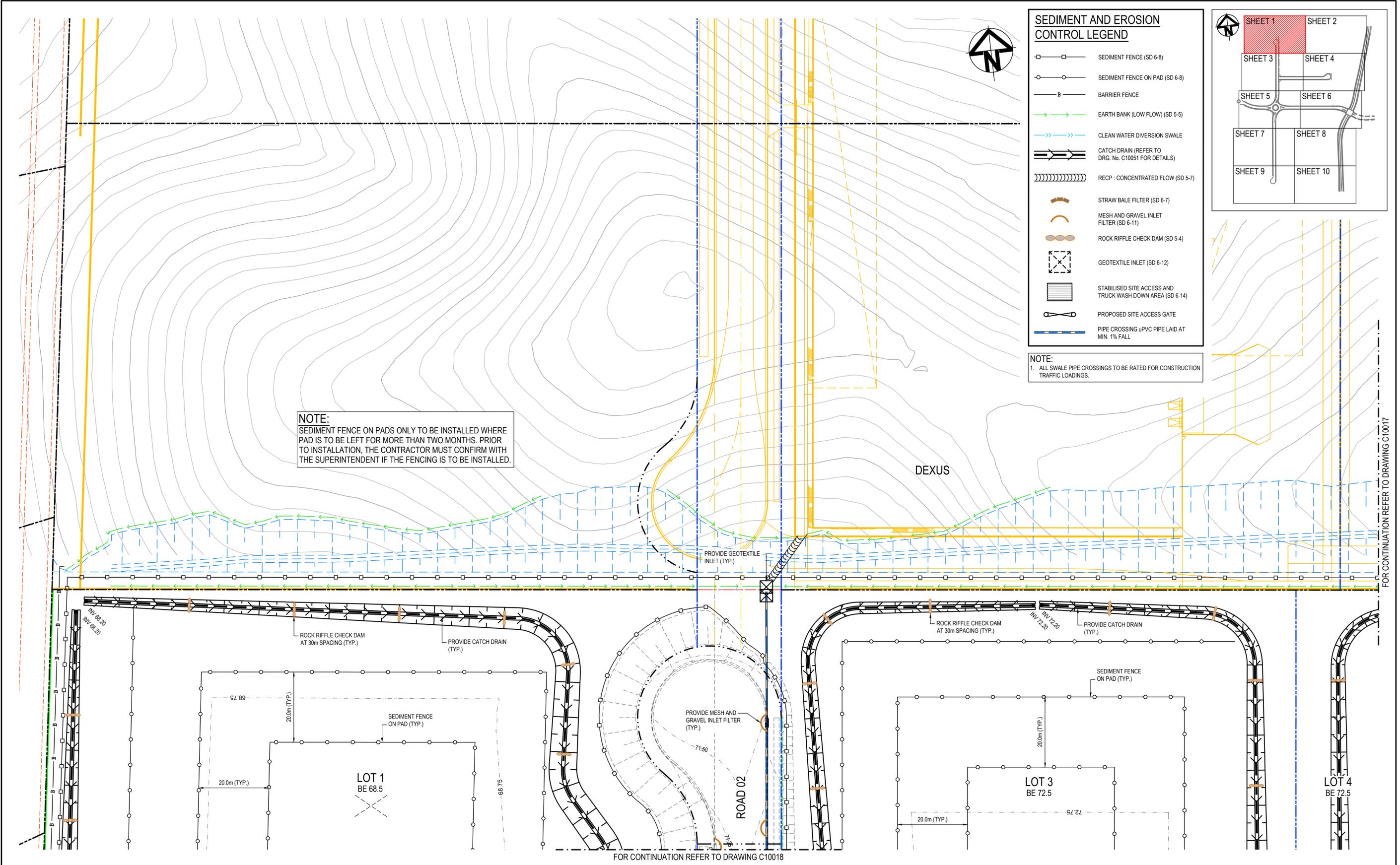
Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

Title  
**PERMANENT ARRANGEMENT**  
**EROSION & SEDIMENT CONTROL**  
**GENERAL ARRANGEMENT PLAN**

Civil Engineers and Project Managers

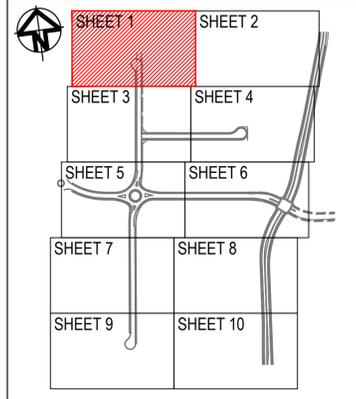
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Project - Drawing No.	20-776-C10015	Issue
		01



### SEDIMENT AND EROSION CONTROL LEGEND

- SEDIMENT FENCE (SD 6-8)
- SEDIMENT FENCE ON PAD (SD 6-8)
- BARRIER FENCE
- EARTH BANK (LOW FLOW) (SD 5-5)
- CLEAN WATER DIVERSION SWALE
- CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
- RECP: CONCENTRATED FLOW (SD 5-7)
- STRAW BALE FILTER (SD 6-7)
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- ROCK RIFFLE CHECK DAM (SD 5-4)
- GEOTEXTILE INLET (SD 6-12)
- STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
- PROPOSED SITE ACCESS GATE
- PIPE CROSSING uPVC PIPE LAID AT MIN. 1% FALL



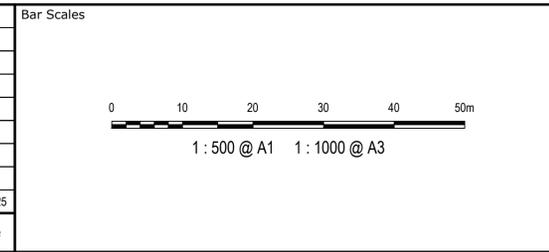
**NOTE:**  
 SEDIMENT FENCE ON PADS ONLY TO BE INSTALLED WHERE PAD IS TO BE LEFT FOR MORE THAN TWO MONTHS. PRIOR TO INSTALLATION, THE CONTRACTOR MUST CONFIRM WITH THE SUPERINTENDENT IF THE FENCING IS TO BE INSTALLED.

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

FOR CONTINUATION REFER TO DRAWING C10017

FOR CONTINUATION REFER TO DRAWING C10018

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client

Scales  
 1 : 500

Grid  
 GDA 2020

Height Datum  
 AHD

Drawn	LM
Designed	TM
Checked	AM
Approved	

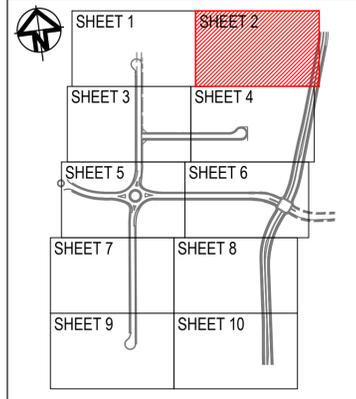
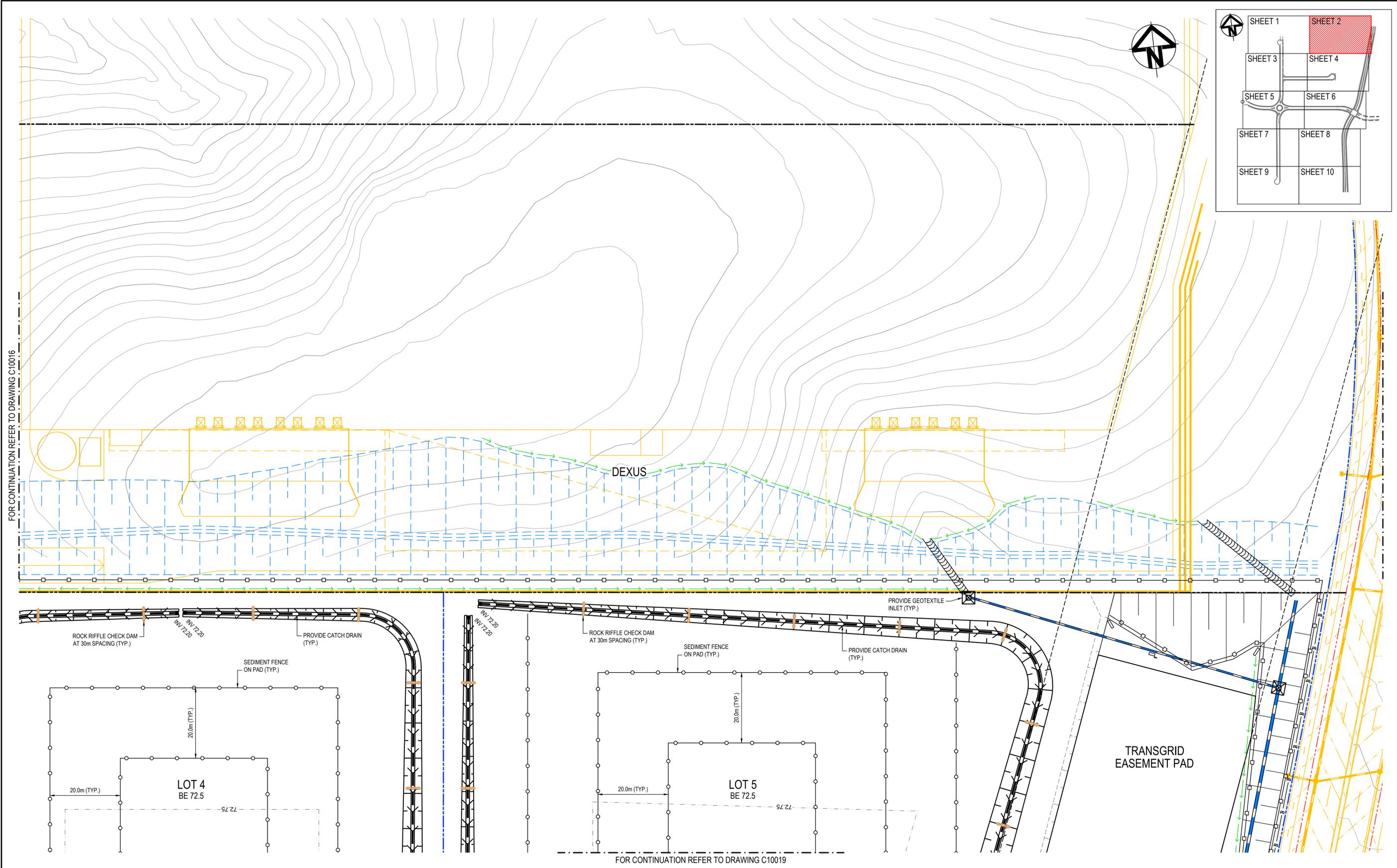
Project  
 SSD-17552047  
 155-251 ALDINGTON ROAD  
 KEMPS CREEK

Title  
 PERMANENT ARRANGEMENT  
 EROSION AND SEDIMENT  
 CONTROL PLAN  
 SHEET 1

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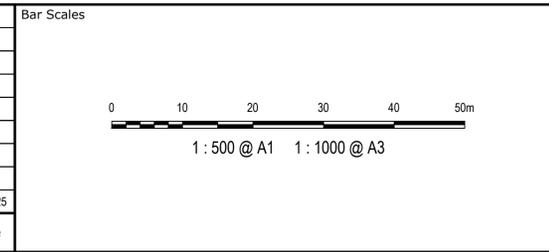
Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10016	Issue
		01



FOR CONTINUATION REFER TO DRAWING C10016

FOR CONTINUATION REFER TO DRAWING C10019

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



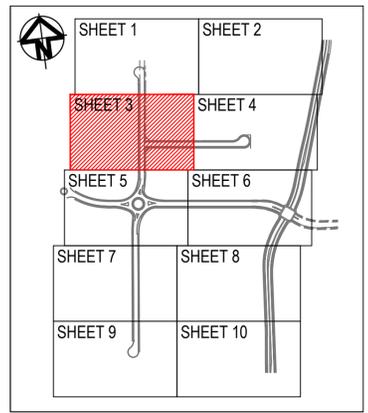
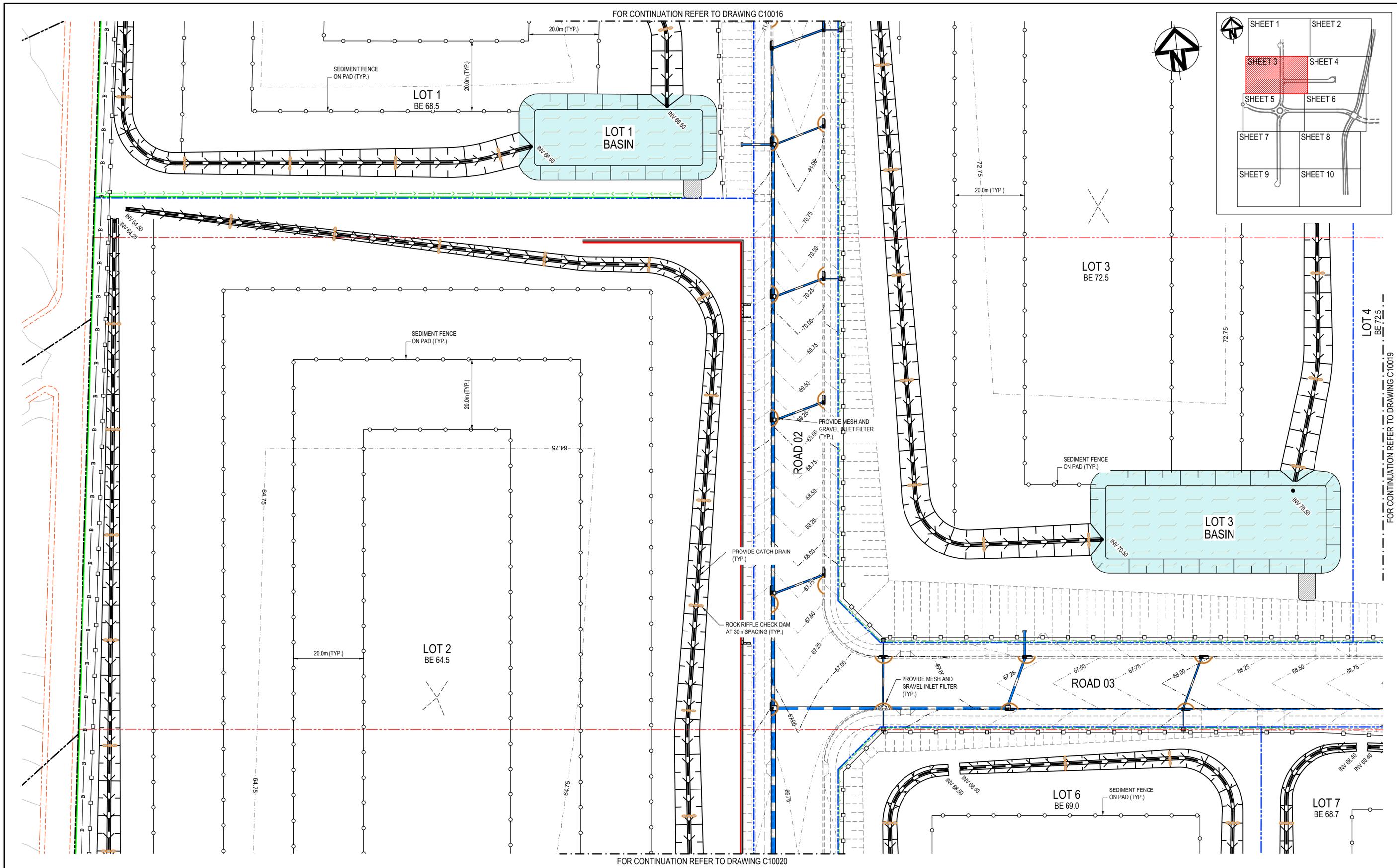
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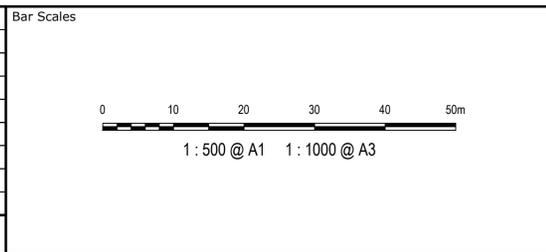
Client	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Scales	1 : 500
Grid	GDA 2020
Height Datum	AHD
Drawn	LM
Designed	TM
Checked	AM
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Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	PERMANENT ARRANGEMENT EROSION AND SEDIMENT CONTROL PLAN SHEET 2

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Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10017
Issue	01



Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Height Datum	AHD	Checked	AM
		Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

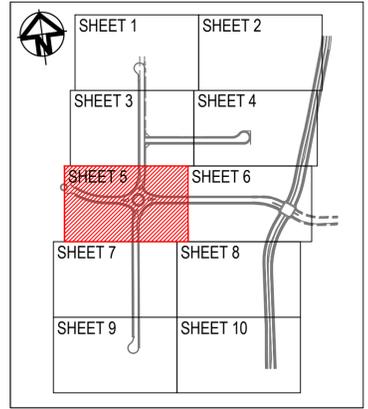
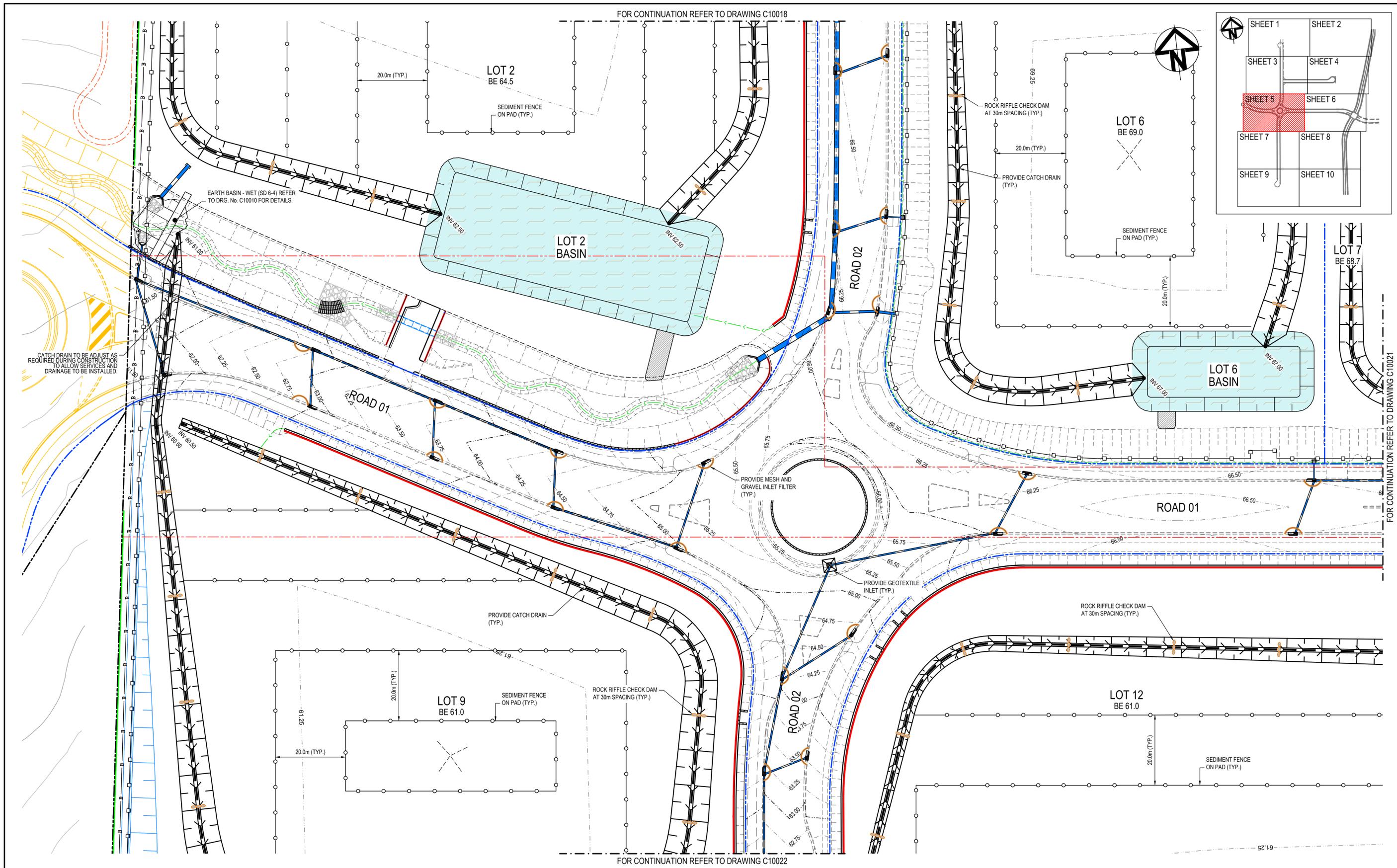
Title  
**PERMANENT ARRANGEMENT**  
**EROSION AND SEDIMENT**  
**CONTROL PLAN**  
**SHEET 3**

Civil Engineers and Project Managers

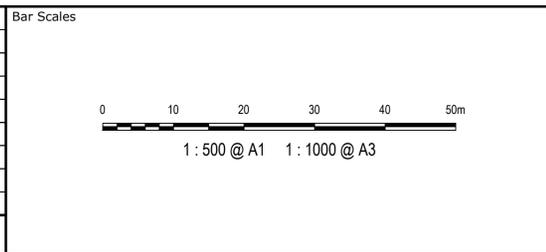
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Project - Drawing No.	20-776-C10018	Issue
		01





Issue	Description	Date
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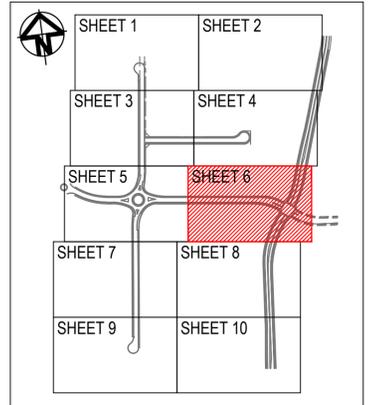
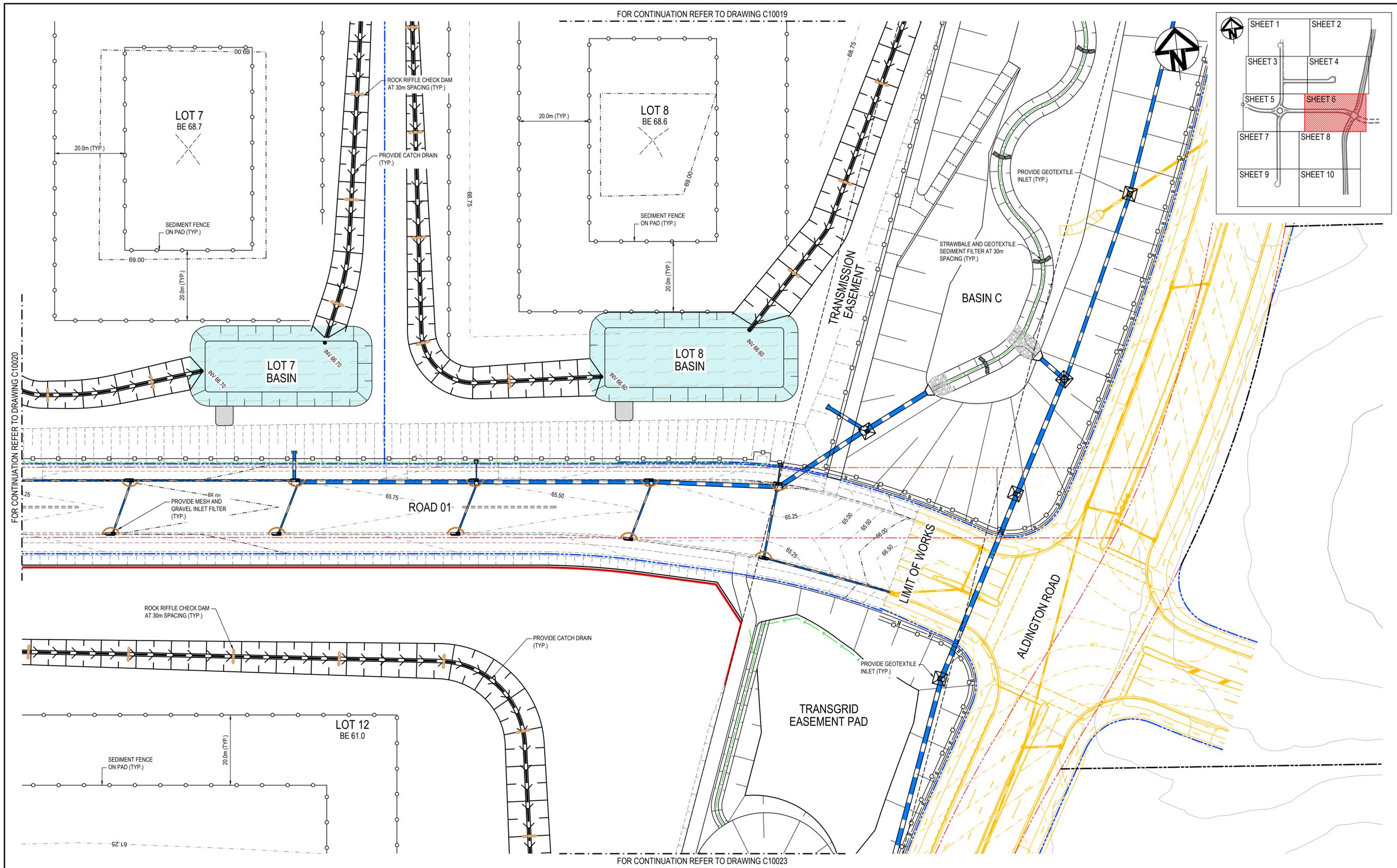
Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

Title  
**PERMANENT ARRANGEMENT**  
**EROSION AND SEDIMENT**  
**CONTROL PLAN**  
**SHEET 5**

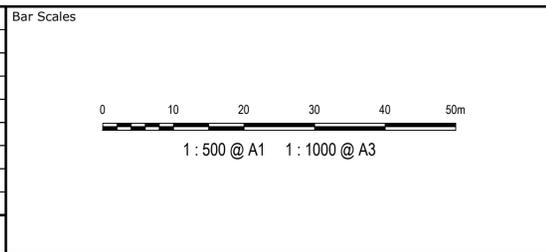
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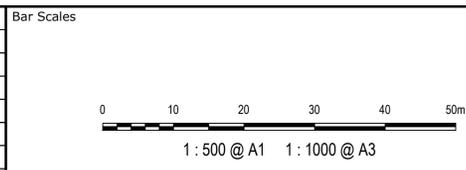
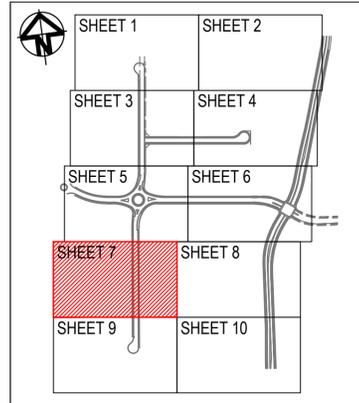
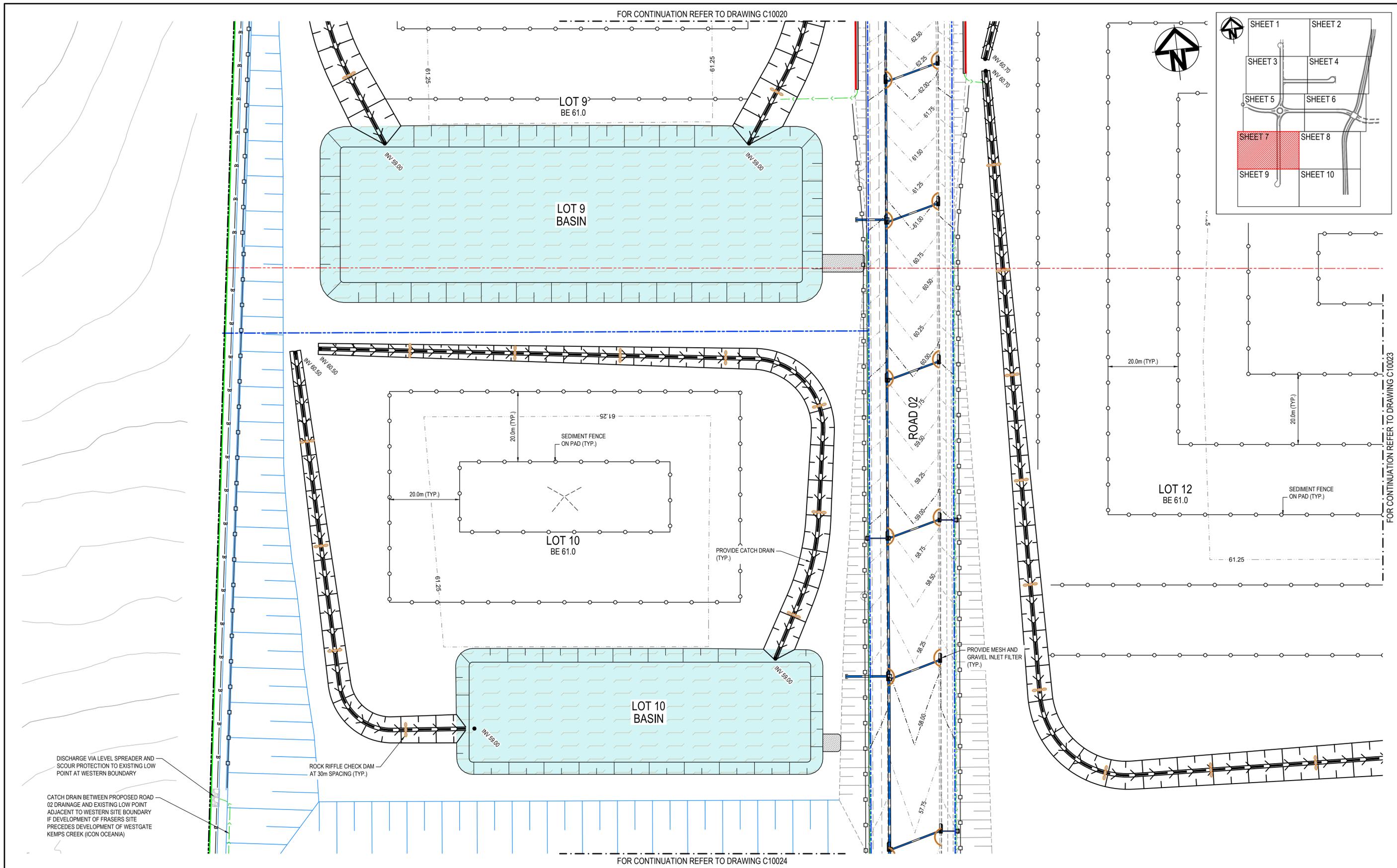
Project  
 SSD-17552047  
 155-251 ALDINGTON ROAD  
 KEMPS CREEK

Title  
 PERMANENT ARRANGEMENT  
 EROSION AND SEDIMENT  
 CONTROL PLAN  
 SHEET 6

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Project - Drawing No.	20-776-C10021	Issue
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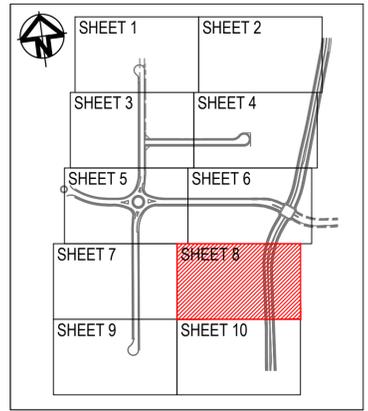
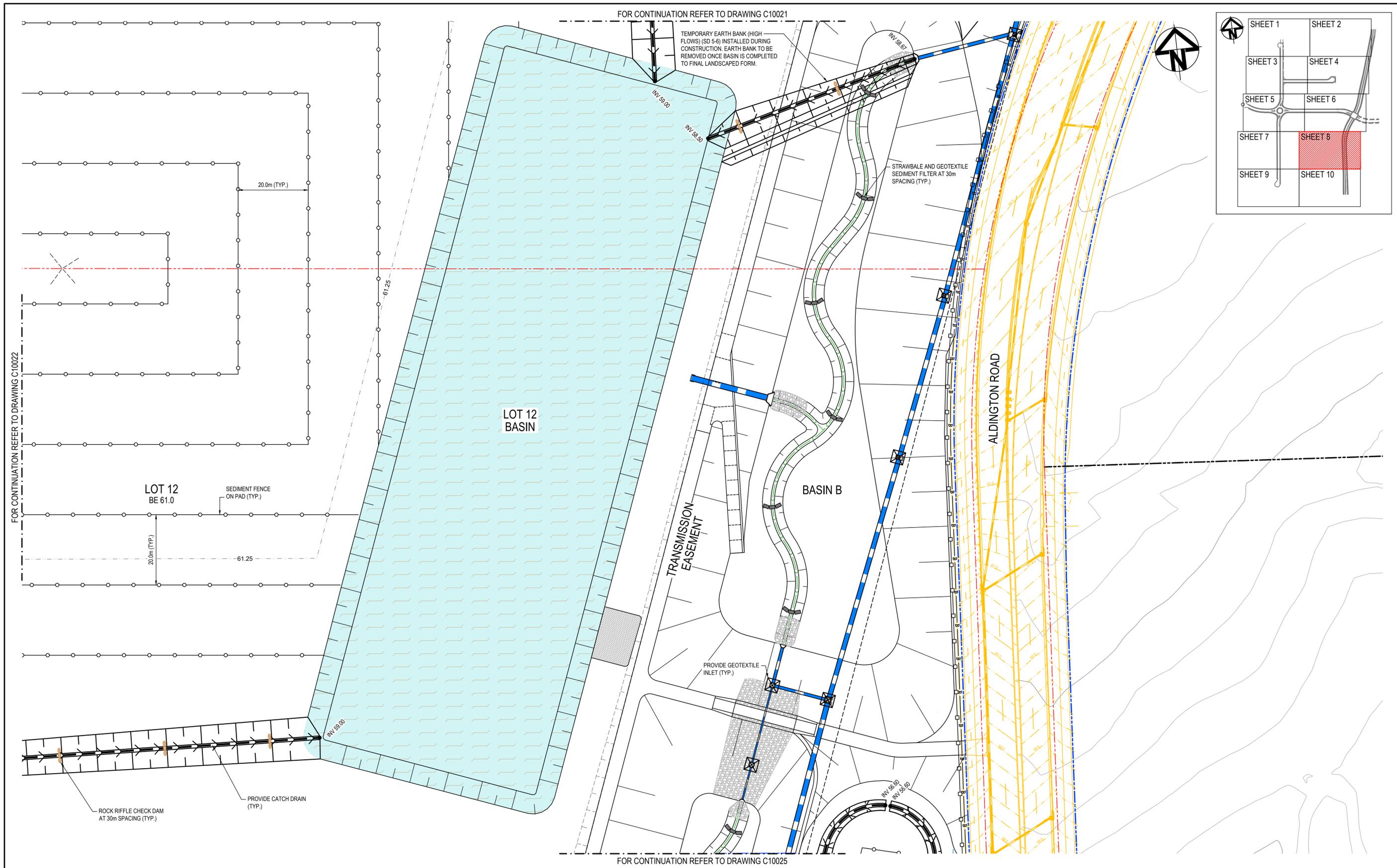
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Grid	GDA 2020
Height Datum	AHD
Drawn	LM
Designed	TM
Checked	AM
Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

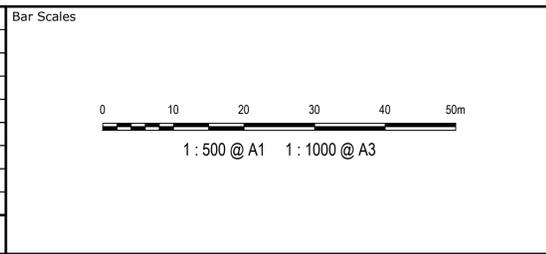
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**PERMANENT ARRANGEMENT**  
**EROSION AND SEDIMENT**  
**CONTROL PLAN**  
**SHEET 7**

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
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Status <b>FOR CONSTRUCTION</b>	A1
Project - Drawing No. <b>20-776-C10022</b>	Issue <b>01</b>

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client

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Grid	GDA 2020	Designed	TM
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Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

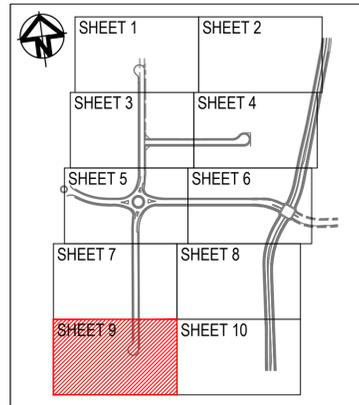
Title  
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**EROSION AND SEDIMENT**  
**CONTROL PLAN**  
**SHEET 8**

Civil Engineers and Project Managers

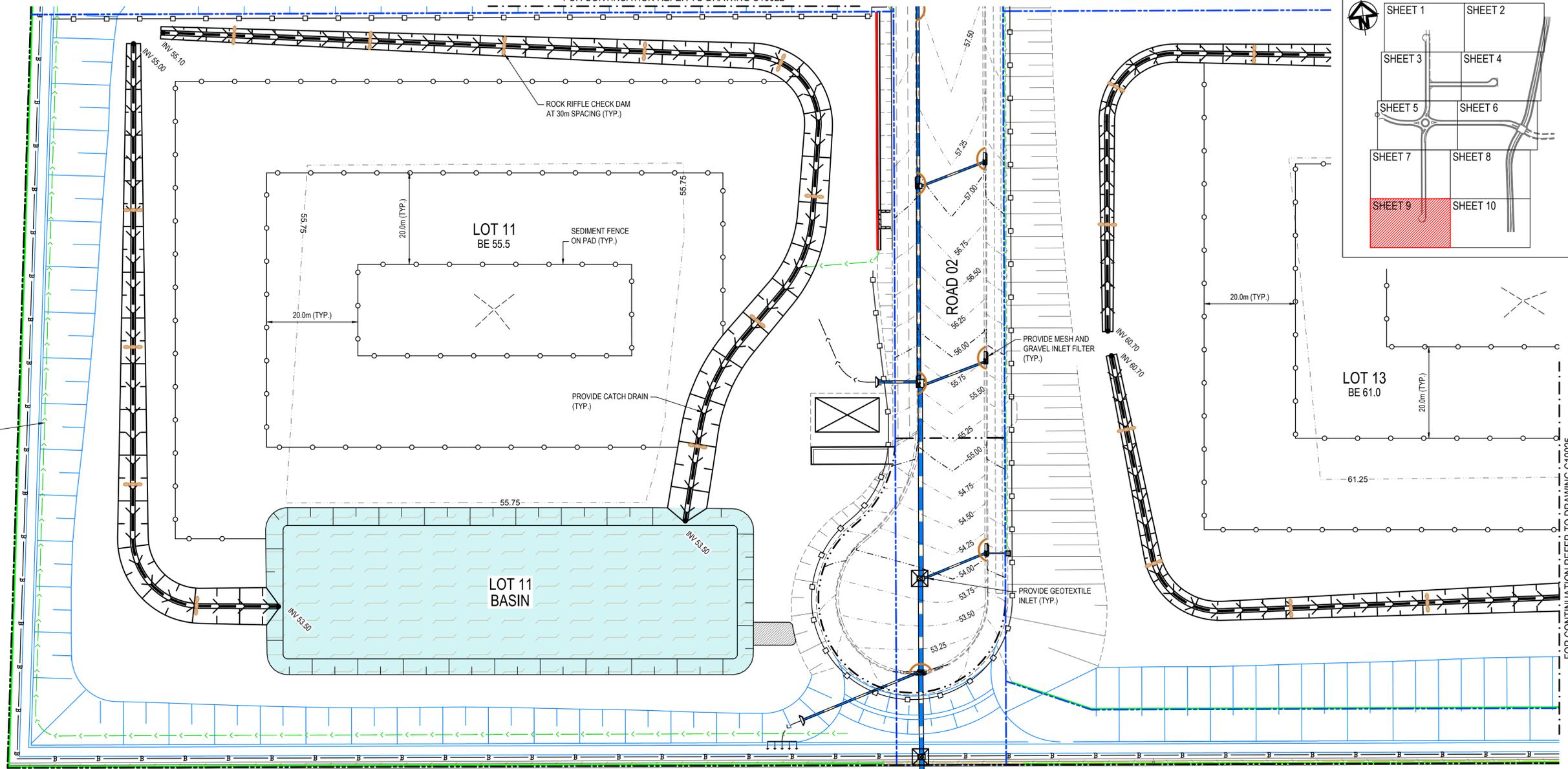
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Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10023	Issue
		01

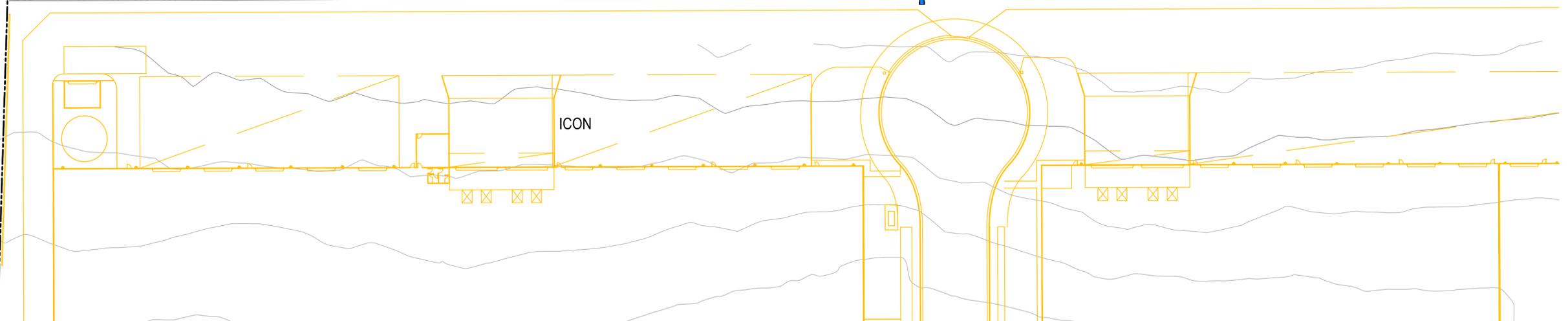
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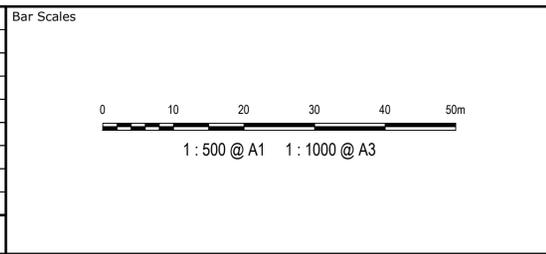
CATCH DRAIN BETWEEN PROPOSED ROAD 02 DRAINAGE AND EXISTING LOW POINT ADJACENT TO WESTERN SITE BOUNDARY IF DEVELOPMENT OF FRASERS SITE PRECEDES DEVELOPMENT OF WESTGATE KEMPS CREEK (ICON OCEANIA)



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Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Scales	1 : 500	
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Height Datum	AHD	
Drawn	LM	
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Approved		

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

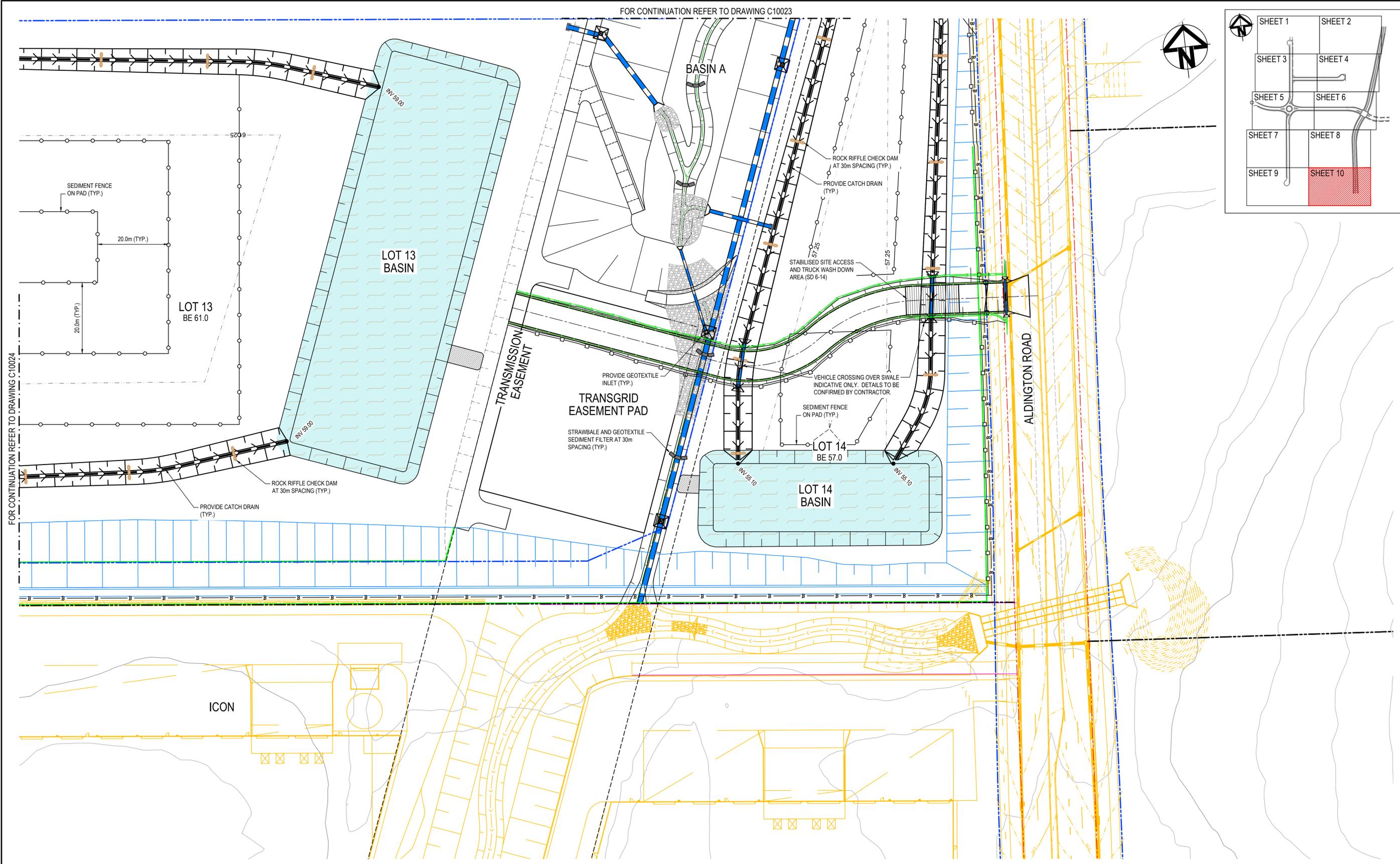
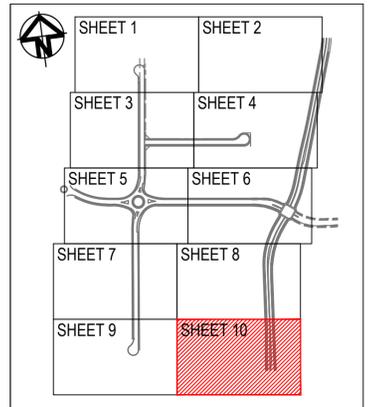
Title  
**PERMANENT ARRANGEMENT**  
**EROSION AND SEDIMENT**  
**CONTROL PLAN**  
**SHEET 9**

Civil Engineers and Project Managers

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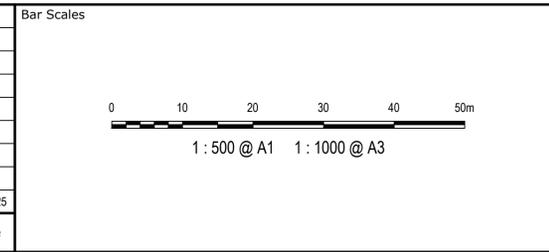
Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10024	Issue
		01

FOR CONTINUATION REFER TO DRAWING C10023



FOR CONTINUATION REFER TO DRAWING C10024

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Grid	GDA 2020	Designed	TM
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		Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

Title  
**PERMANENT ARRANGEMENT**  
**EROSION AND SEDIMENT**  
**CONTROL PLAN**  
**SHEET 10**

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Status	<b>FOR CONSTRUCTION</b>	A1
Project - Drawing No.	20-776-C10025	Issue
		01

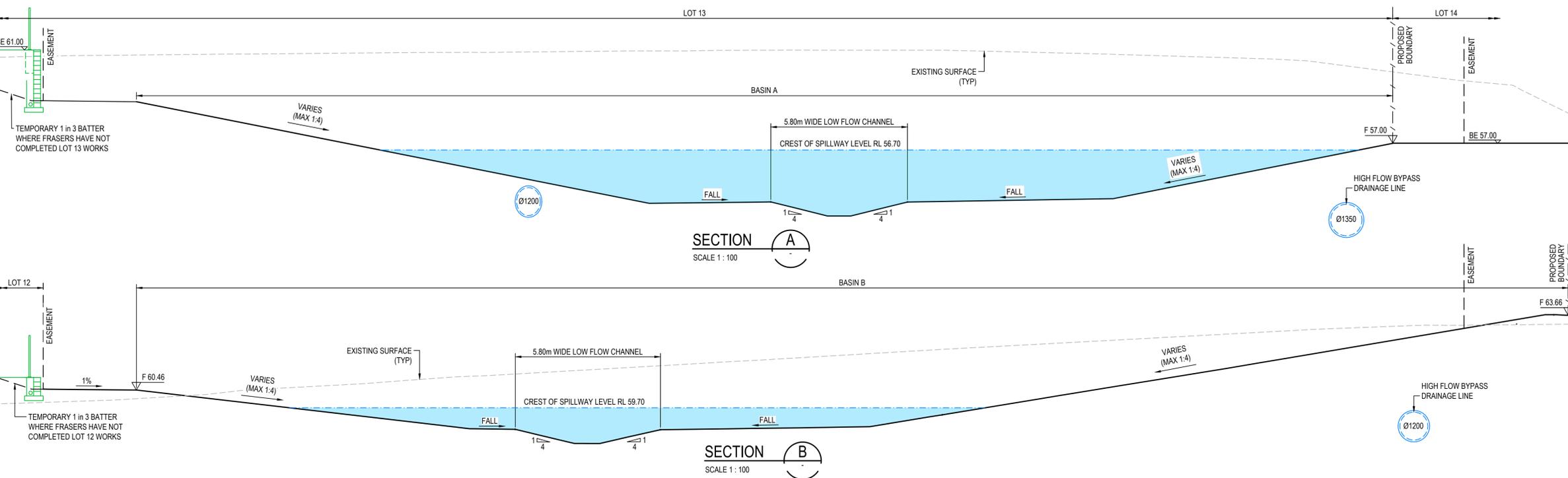
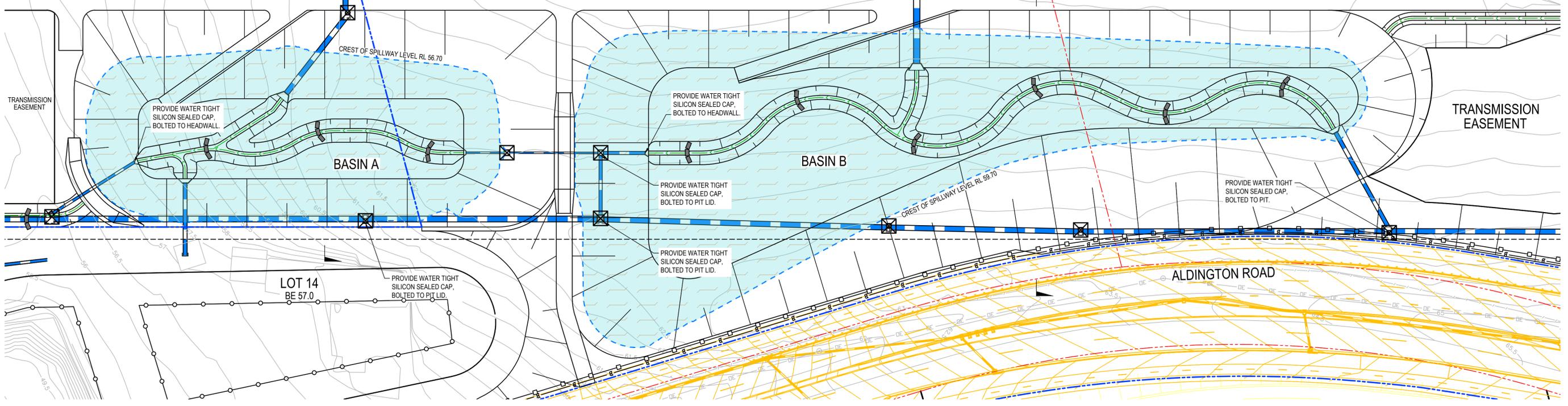
**SEDIMENT BASIN A - SPILLWAY RL 56.70**  
 DESIGN VOLUME - REQUIRED - BASIN A AND B COMBINED = 11,750m<sup>3</sup>  
 DESIGN VOLUME - ACTUAL - BASIN A AND B COMBINED = 14,040m<sup>3</sup>  
 DESIGN SURFACE AREA - REQUIRED = N/A  
 DESIGN SURFACE AREA - ACTUAL = 3,975m<sup>2</sup>

**SEDIMENT BASIN B - SPILLWAY RL 59.70**  
 DESIGN VOLUME - REQUIRED - BASIN A AND B COMBINED = 11,750m<sup>3</sup>  
 DESIGN VOLUME - ACTUAL - BASIN A AND B COMBINED = 14,040m<sup>3</sup>  
 DESIGN SURFACE AREA - REQUIRED = N/A  
 DESIGN SURFACE AREA - ACTUAL = 8,270m<sup>2</sup>

LOT 13  
BE 61.0

LOT 12  
BE 61.0

LOT 14  
BE 57.0

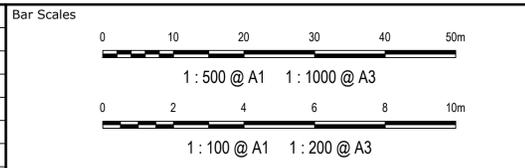


**SEDIMENT AND EROSION CONTROL LEGEND**

- — □ — SEDIMENT FENCE (SD 6-8)
- — ○ — SEDIMENT FENCE ON PAD (SD 6-8)
- B — BARRIER FENCE
- → → → EARTH BANK (LOW FLOW) (SD 5-5)
- >>> — CLEAN WATER DIVERSION SWALE
- ≡ ≡ ≡ ≡ CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
- ||||| RECP : CONCENTRATED FLOW (SD 5-7)
- [ ] — STRAW BALE FILTER (SD 6-7)
- [ ] — MESH AND GRAVEL INLET FILTER (SD 6-11)
- [ ] — ROCK RIFFLE CHECK DAM (SD 5-4)
- □ □ □ GEOTEXTILE INLET (SD 6-12)
- ▨ STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
- [ ] — PROPOSED SITE ACCESS GATE
- [ ] — PIPE CROSSING uPVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Grid GDA 2020	Checked	AM
Height Datum AHD	Approved	

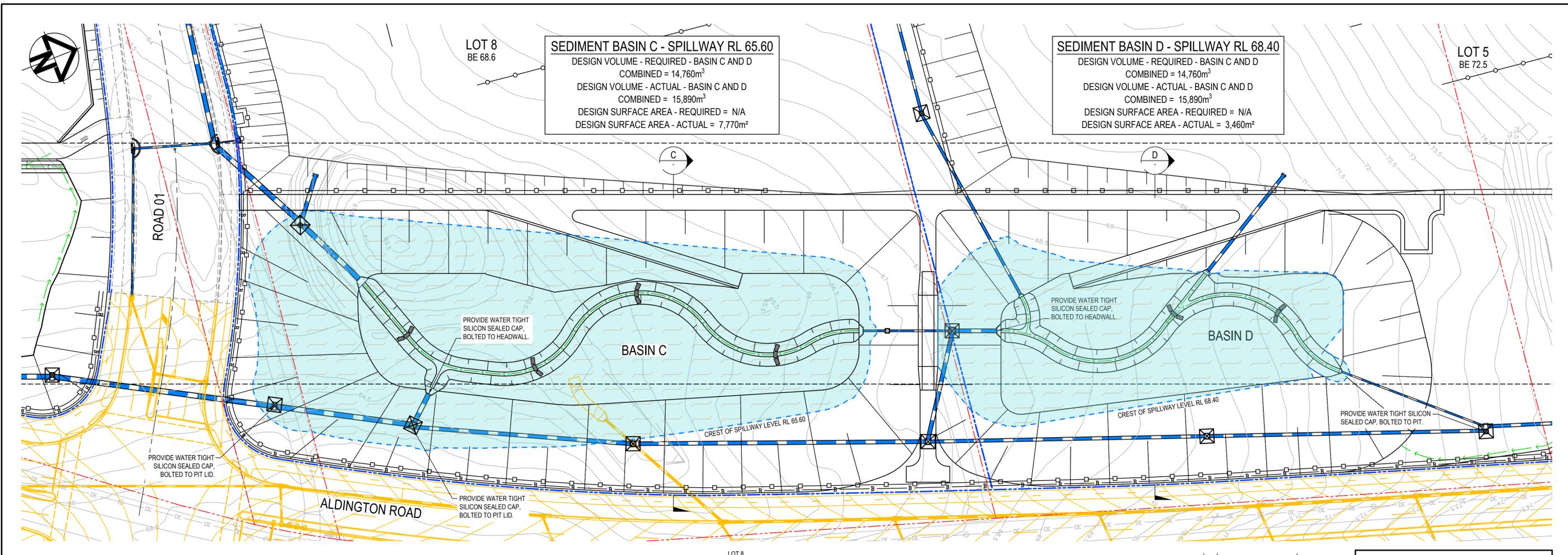
Project  
SSD-17552047  
155-251 ALDINGTON ROAD  
KEMPS CREEK

Title  
EROSION AND SEDIMENT  
BASIN DETAILS  
BASINS A AND B

Civil Engineers and Project Managers

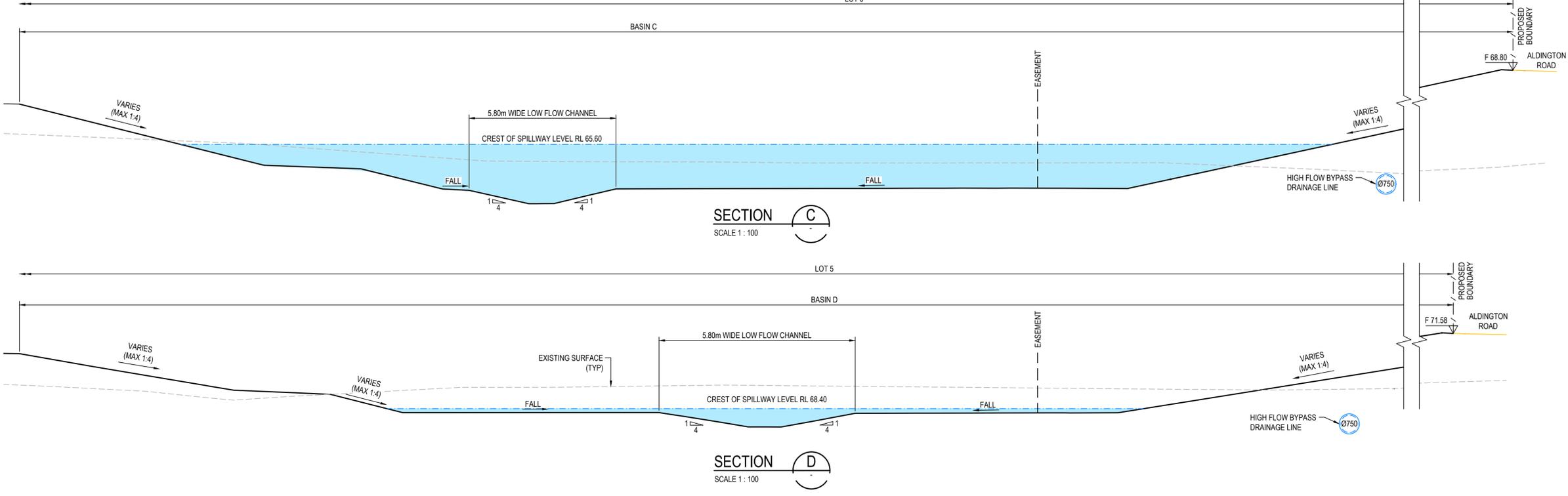
Level 7, 153 Walker Street  
North Sydney NSW 2060  
ABN 96 130 882 405  
Tel: 02 9439 1777  
Fax: 02 9923 1055  
www.atl.net.au  
info@atl.net.au

Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10030	Issue
		01



**SEDIMENT BASIN C - SPILLWAY RL 65.60**  
 DESIGN VOLUME - REQUIRED - BASIN C AND D  
 COMBINED = 14,760m<sup>3</sup>  
 DESIGN VOLUME - ACTUAL - BASIN C AND D  
 COMBINED = 15,890m<sup>3</sup>  
 DESIGN SURFACE AREA - REQUIRED = N/A  
 DESIGN SURFACE AREA - ACTUAL = 7,770m<sup>2</sup>

**SEDIMENT BASIN D - SPILLWAY RL 68.40**  
 DESIGN VOLUME - REQUIRED - BASIN C AND D  
 COMBINED = 14,760m<sup>3</sup>  
 DESIGN VOLUME - ACTUAL - BASIN C AND D  
 COMBINED = 15,890m<sup>3</sup>  
 DESIGN SURFACE AREA - REQUIRED = N/A  
 DESIGN SURFACE AREA - ACTUAL = 3,460m<sup>2</sup>

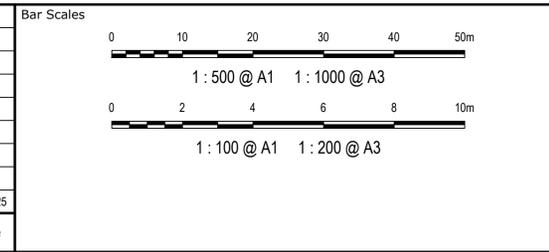


**SEDIMENT AND EROSION CONTROL LEGEND**

- SEDIMENT FENCE (SD 6-8)
- SEDIMENT FENCE ON PAD (SD 6-8)
- BARRIER FENCE
- EARTH BANK (LOW FLOW) (SD 5-5)
- CLEAN WATER DIVERSION SWALE
- CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
- RECP: CONCENTRATED FLOW (SD 5-7)
- STRAW BALE FILTER (SD 6-7)
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- ROCK RIFFLE CHECK DAM (SD 5-4)
- GEOTEXTILE INLET (SD 6-12)
- STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
- PROPOSED SITE ACCESS GATE
- PIPE CROSSING uPVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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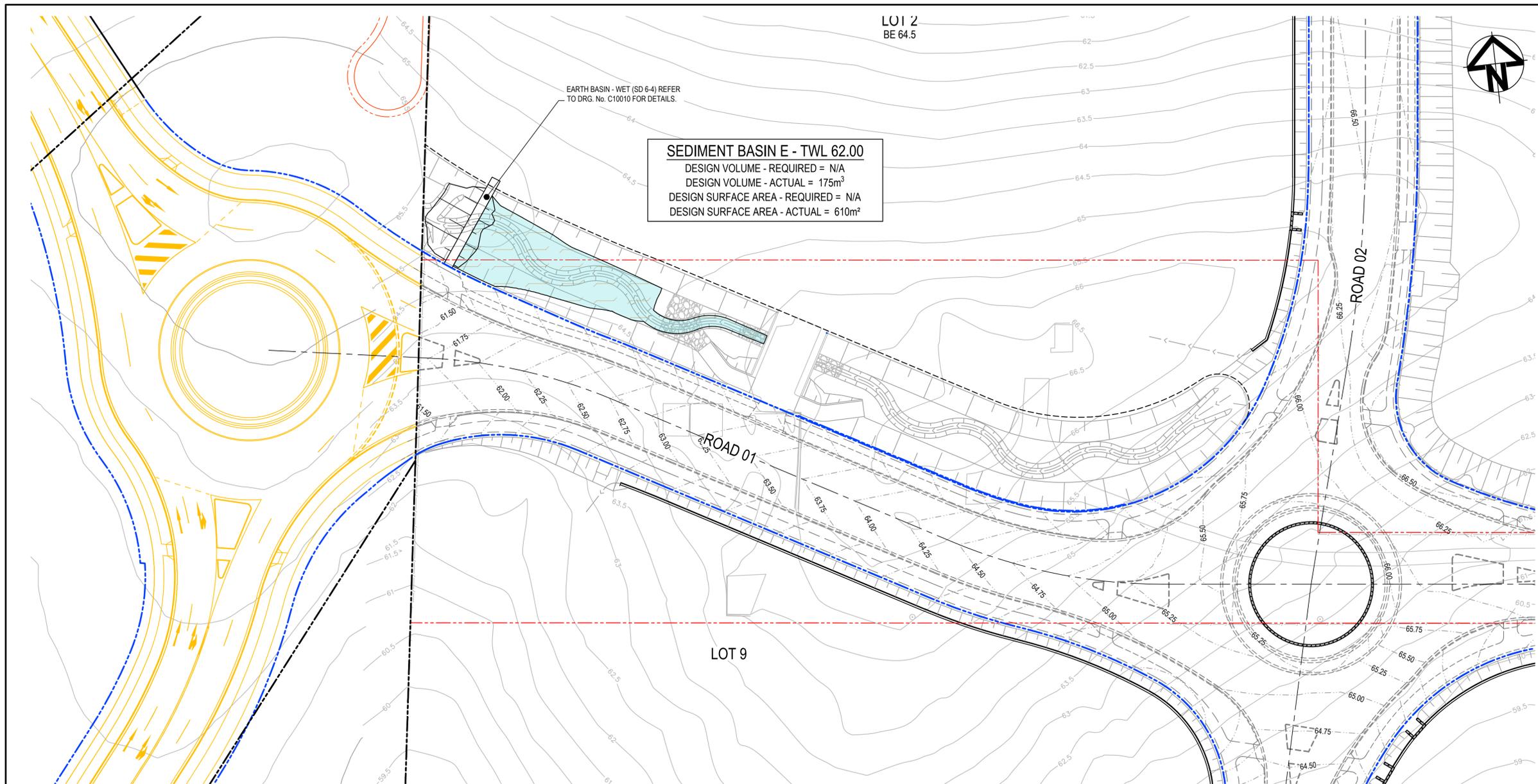


Client	Fraser Property
Scales	1:500 PLAN 1:100 SECTION
Grid	GDA 2020
Height Datum	AHD
Drawn	LM
Designed	TM
Checked	AM
Approved	

Project  
 SSD-17552047  
 155-251 ALDINGTON ROAD  
 KEMPS CREEK

Title  
 EROSION AND SEDIMENT  
 BASIN DETAILS  
 BASINS C AND D

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10031
Issue	01

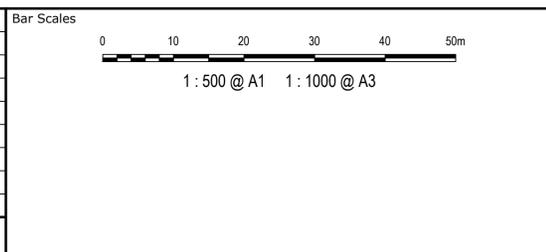


**SEDIMENT AND EROSION CONTROL LEGEND**

- SEDIMENT FENCE (SD 6-8)
- SEDIMENT FENCE ON PAD (SD 6-8)
- BARRIER FENCE
- EARTH BANK (LOW FLOW) (SD 5-5)
- CLEAN WATER DIVERSION SWALE
- CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
- RECP : CONCENTRATED FLOW (SD 5-7)
- STRAW BALE FILTER (SD 6-7)
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- ROCK RIFFLE CHECK DAM (SD 5-4)
- GEOTEXTILE INLET (SD 6-12)
- STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
- PROPOSED SITE ACCESS GATE
- PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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	Designed	TM
	Checked	AM
Grid GDA 2020	Approved	
Height Datum AHD		

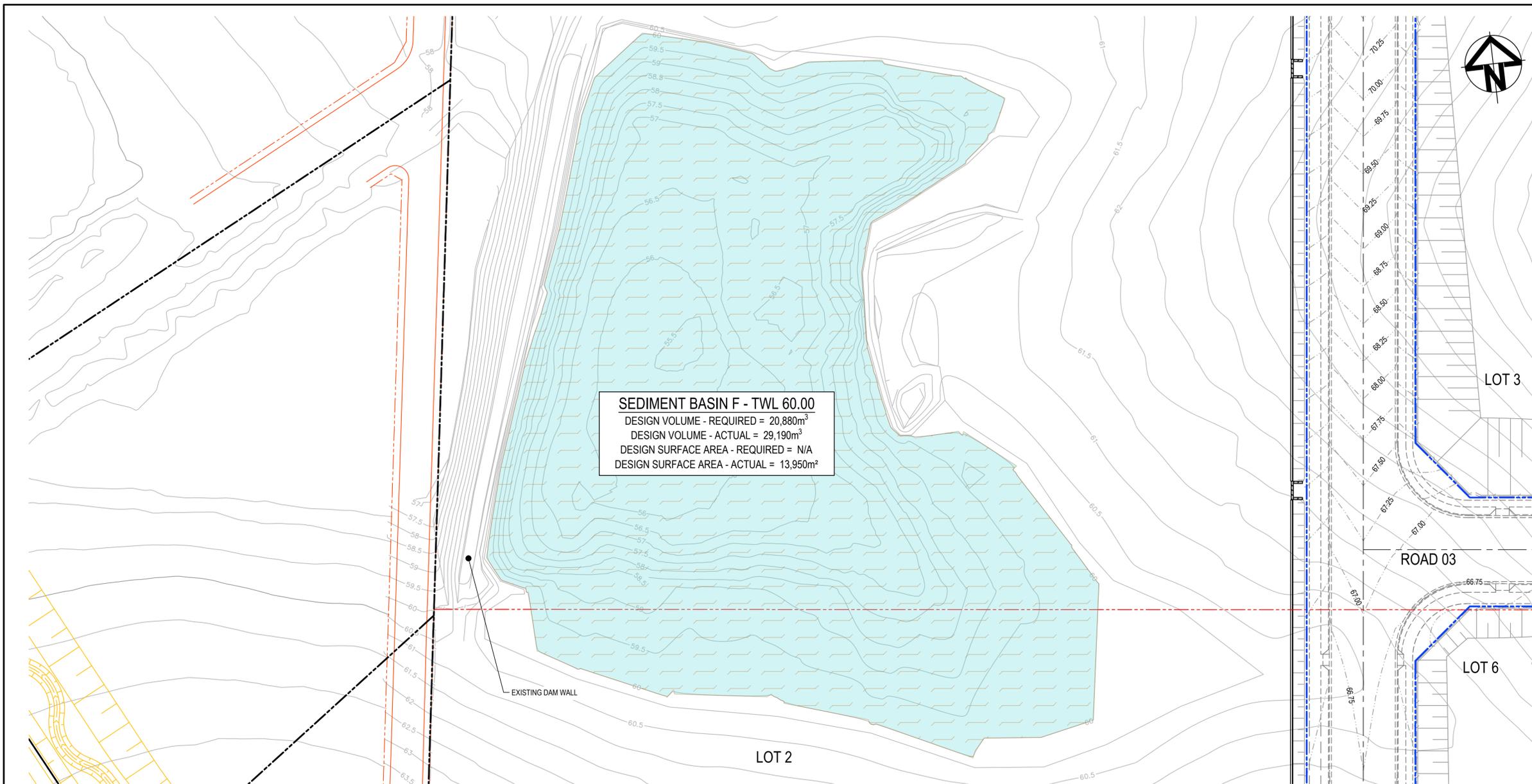
Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

Title  
**EROSION AND SEDIMENT**  
**BASIN DETAILS**  
**BASIN E**

Civil Engineers and Project Managers

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Fax: 02 9923 1055  
www.atl.net.au  
info@atl.net.au

Status <b>FOR CONSTRUCTION</b>	A1
Project - Drawing No. <b>20-776-C10032</b>	Issue <b>01</b>

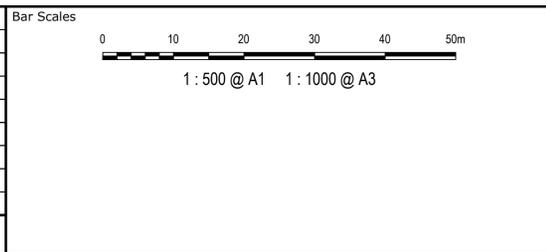


**SEDIMENT BASIN F - TWL 60.00**  
 DESIGN VOLUME - REQUIRED = 20,880m<sup>3</sup>  
 DESIGN VOLUME - ACTUAL = 29,190m<sup>3</sup>  
 DESIGN SURFACE AREA - REQUIRED = N/A  
 DESIGN SURFACE AREA - ACTUAL = 13,950m<sup>2</sup>

SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



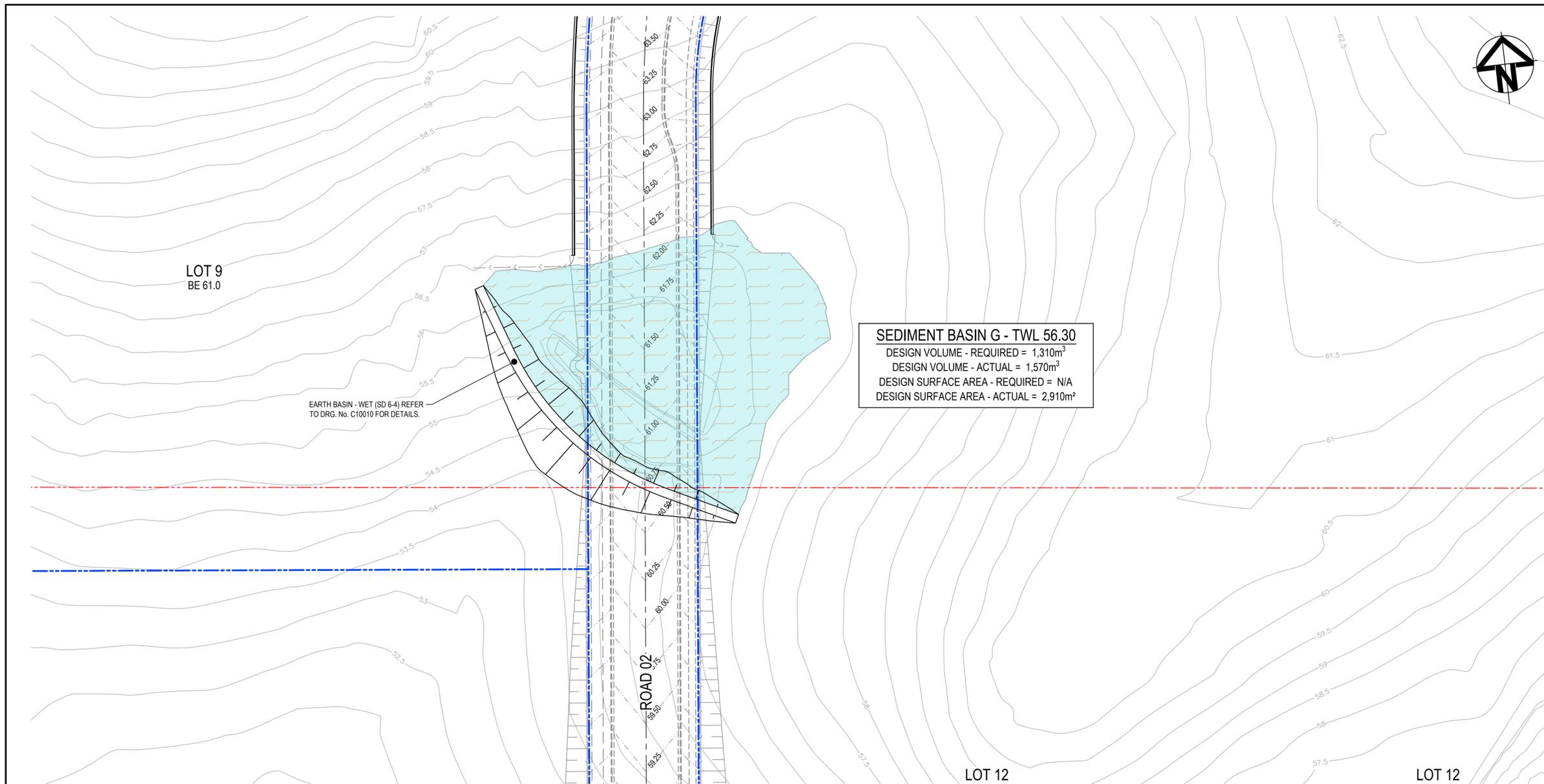
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Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN F

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Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10033
Issue	01



LOT 9  
BE 61.0

EARTH BASIN - WET (SD 6-4) REFER  
TO DRG. No. C10010 FOR DETAILS.

**SEDIMENT BASIN G - TWL 56.30**  
 DESIGN VOLUME - REQUIRED = 1,310m<sup>3</sup>  
 DESIGN VOLUME - ACTUAL = 1,570m<sup>3</sup>  
 DESIGN SURFACE AREA - REQUIRED = N/A  
 DESIGN SURFACE AREA - ACTUAL = 2,910m<sup>2</sup>

ROAD 02

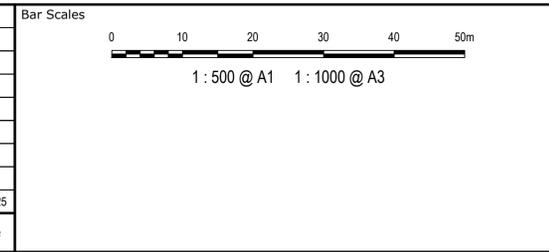
LOT 12

LOT 12

SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING of PVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



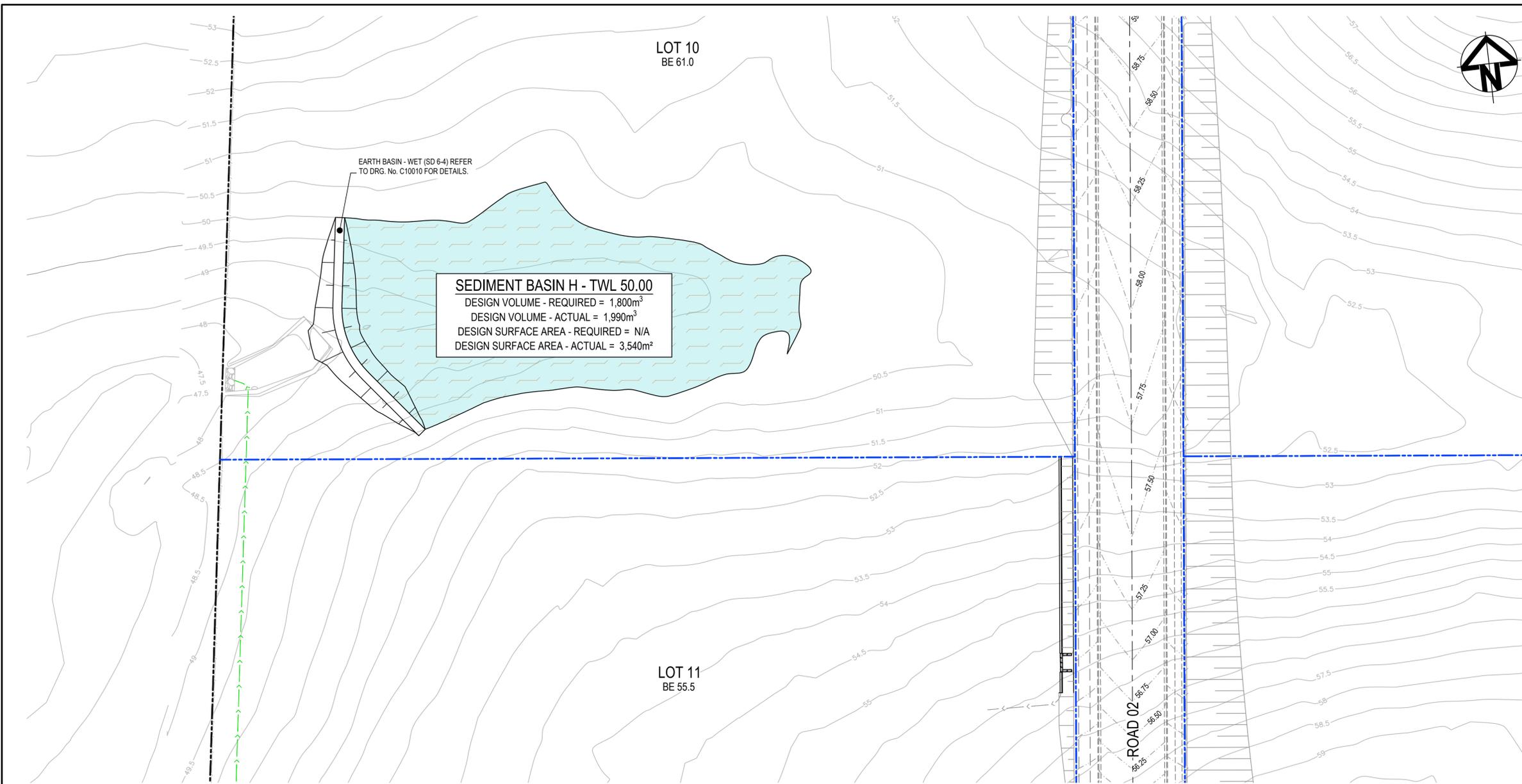
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Height Datum	AHD
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Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN G

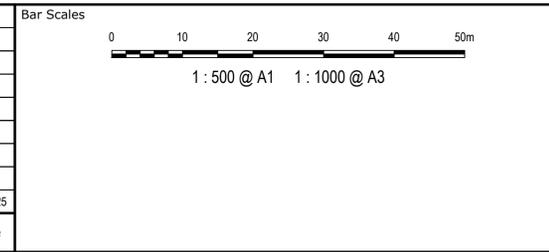
Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10034
Issue	01



SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING of PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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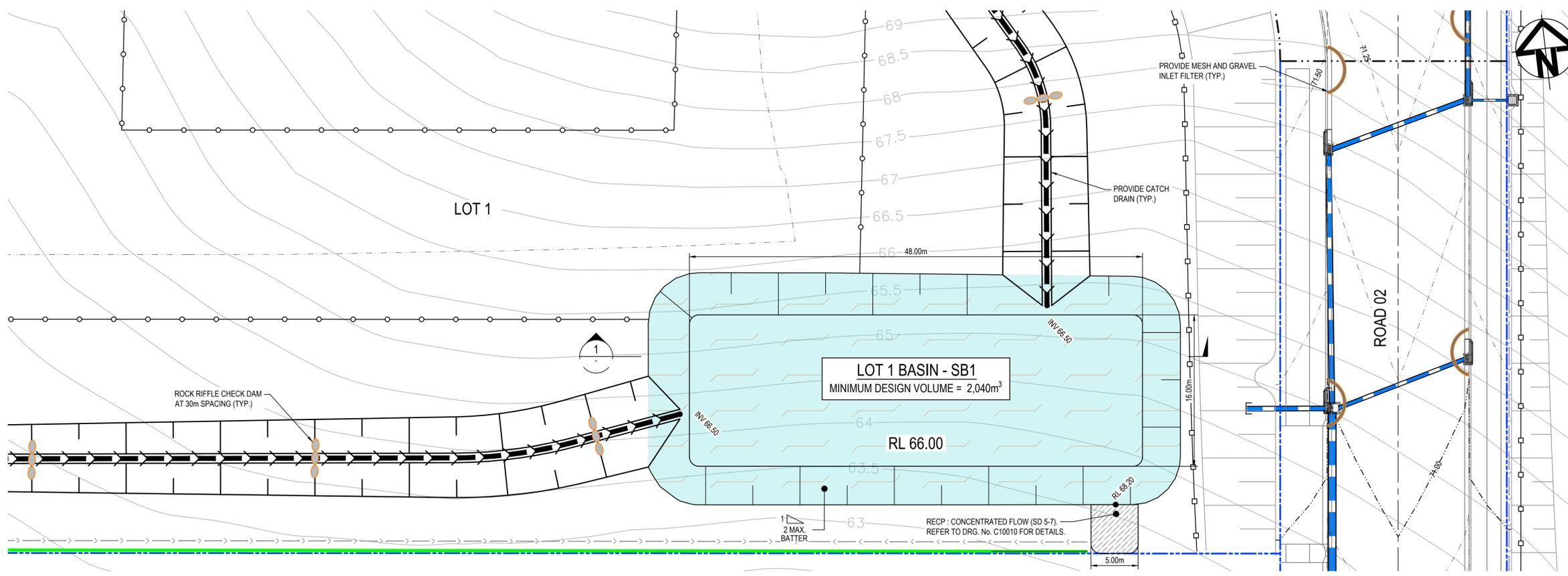


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		Designed	TM
Grid	GDA 2020	Checked	AM
Height Datum	AHD	Approved	

Project  
SSD-17552047  
155-251 ALDINGTON ROAD  
KEMPS CREEK

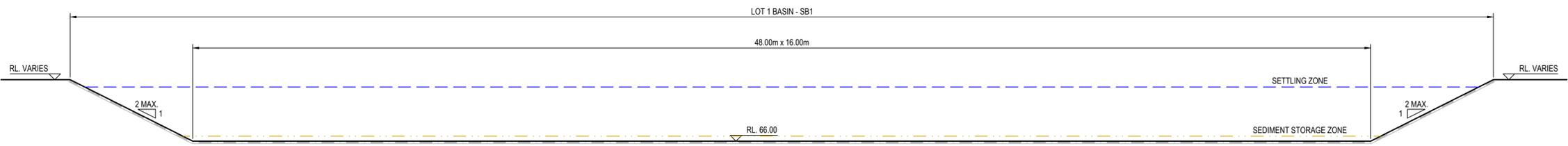
Title  
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BASIN DETAILS  
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Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10035
Issue	01



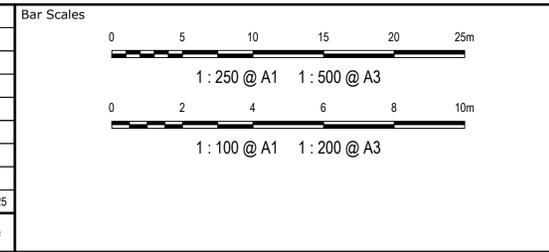
SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP : CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING of PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 1  
 1 : 100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



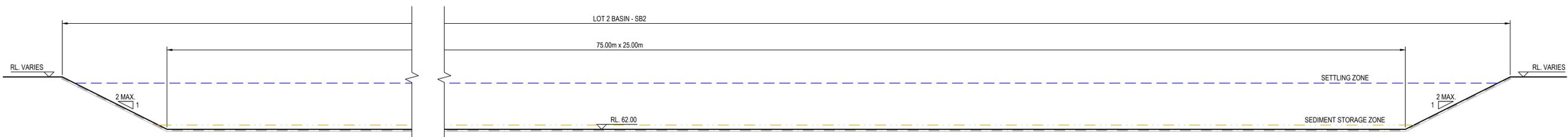
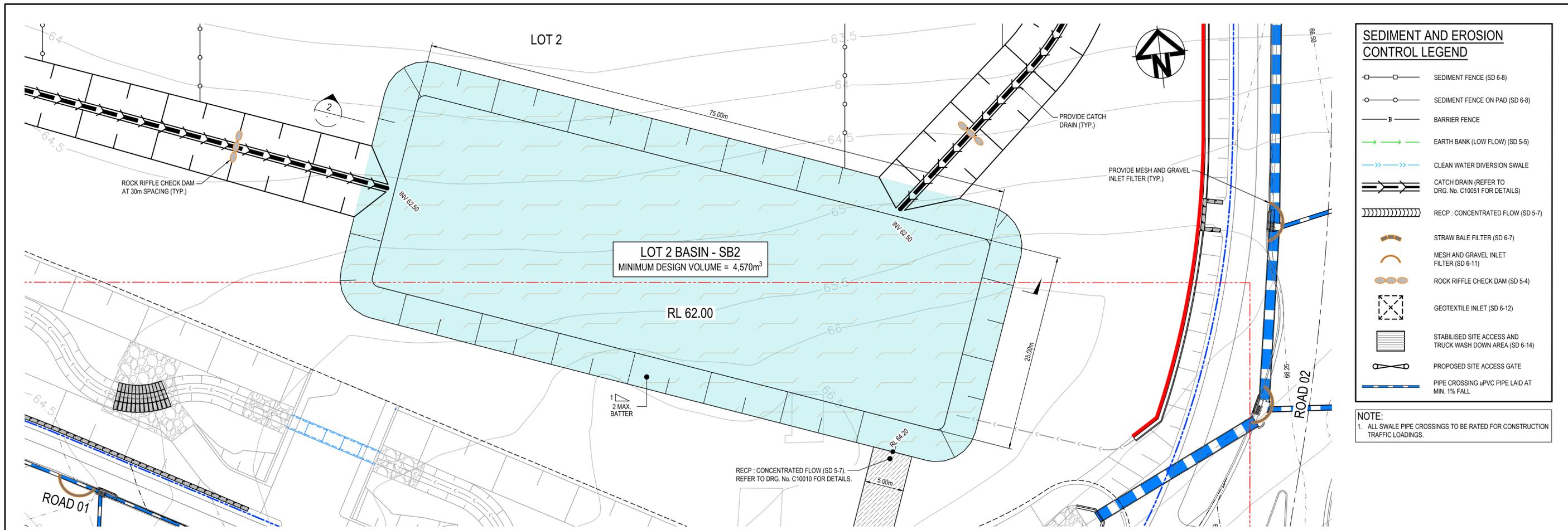
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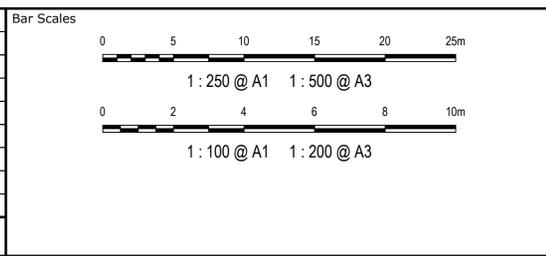
Client	Drawn	LM
	Designed	TM
Scales	Checked	AM
1 : 250 PLAN 1 : 100 SECTION	Approved	
Grid	GDA 2020	
Height Datum	AHD	

Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB1

Civil Engineers and Project Managers	
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Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10036
Issue	01



Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



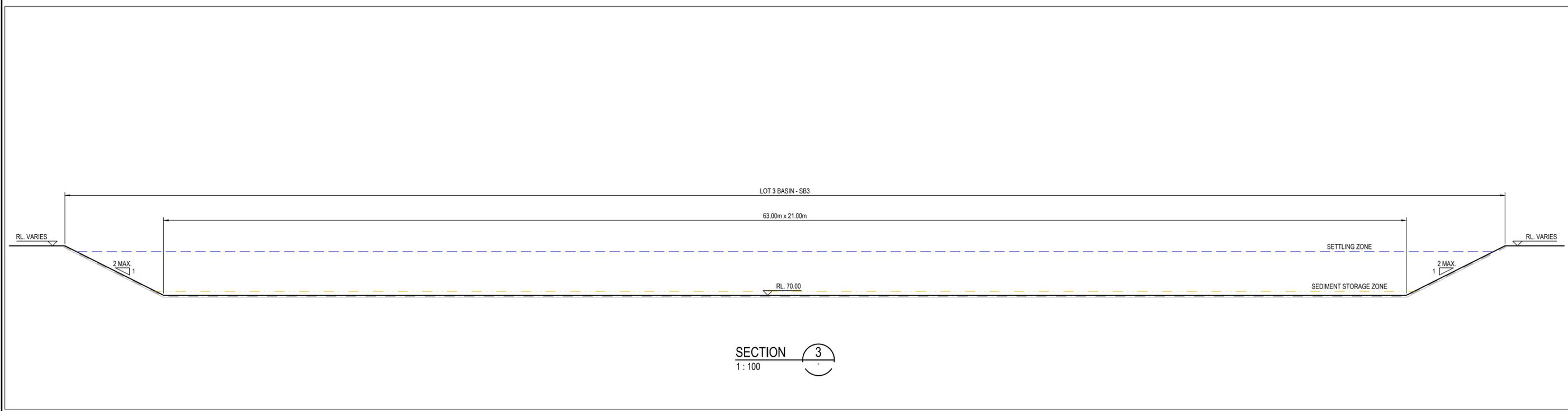
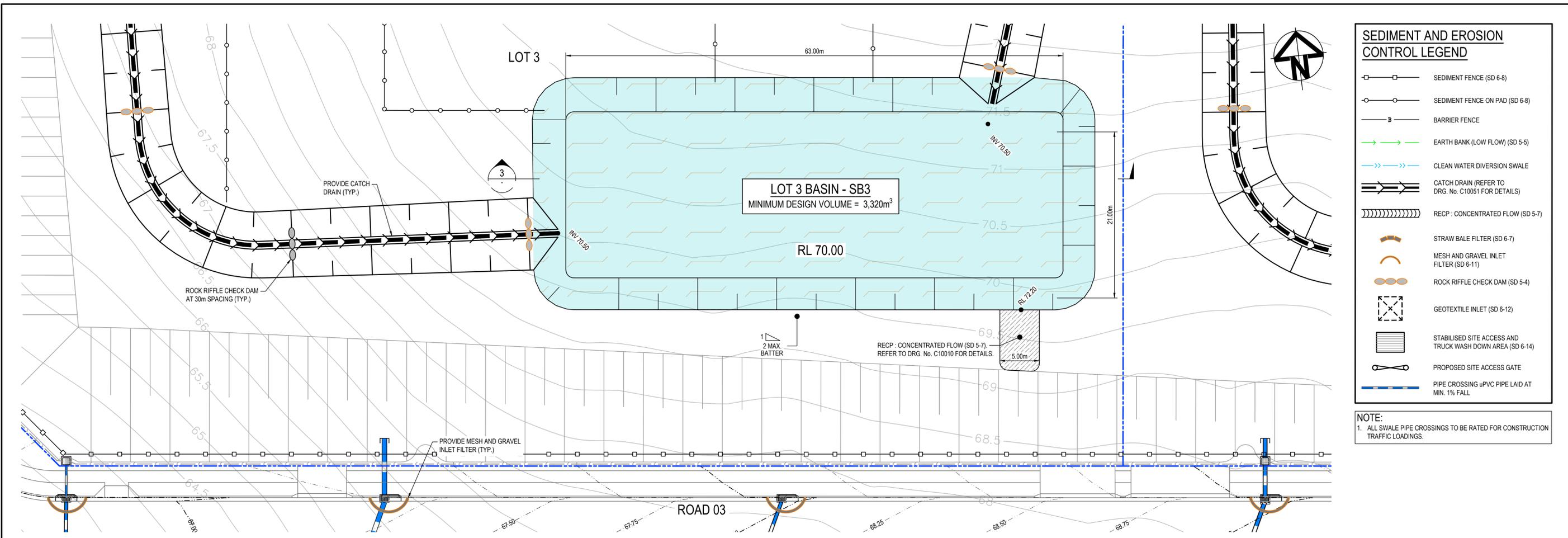
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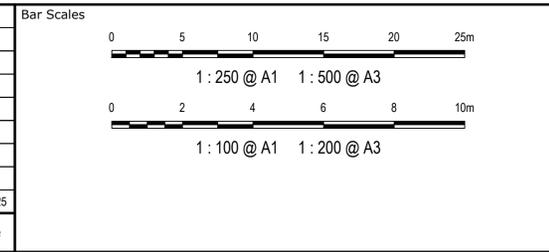
Client	Drawn	LM
	Designed	TM
Scales	Checked	AM
1 : 250 PLAN 1 : 100 SECTION	Approved	
Grid GDA 2020		
Height Datum AHD		

Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB2

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Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10037
Issue	01



Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



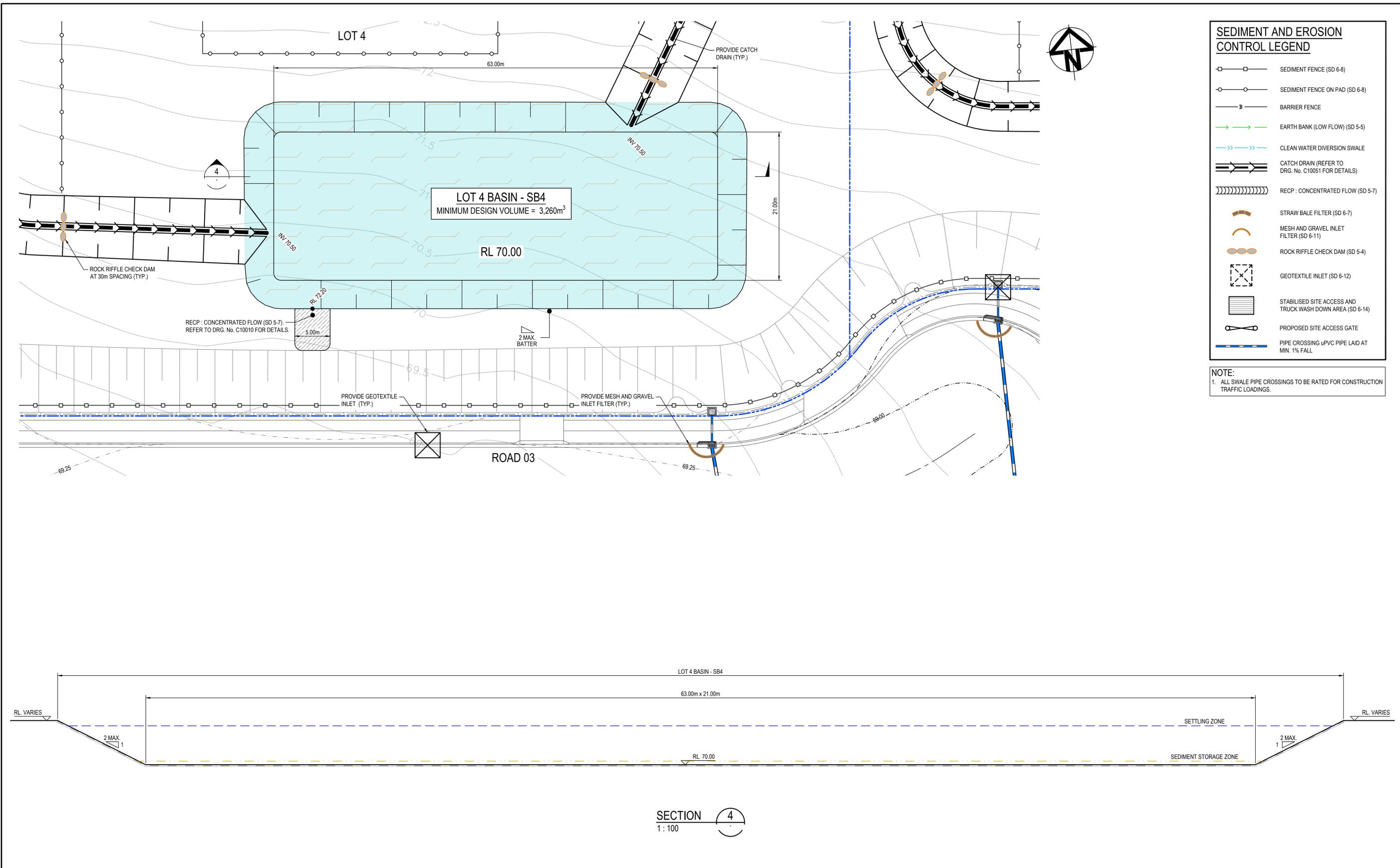
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	Designed	TM
Scales	Checked	AM
1 : 250 PLAN 1 : 100 SECTION	Approved	
Grid	GDA 2020	
Height Datum	AHD	

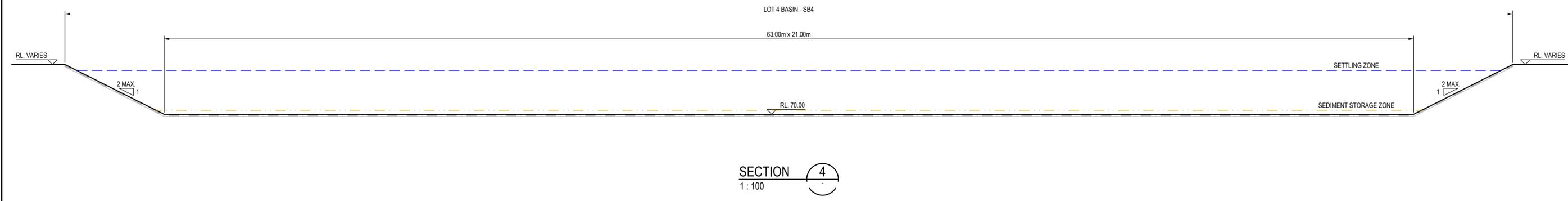
Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB3

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Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10038
Issue	01

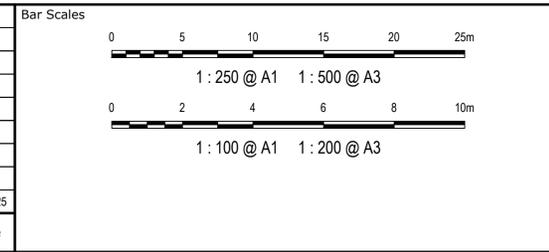


SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP : CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



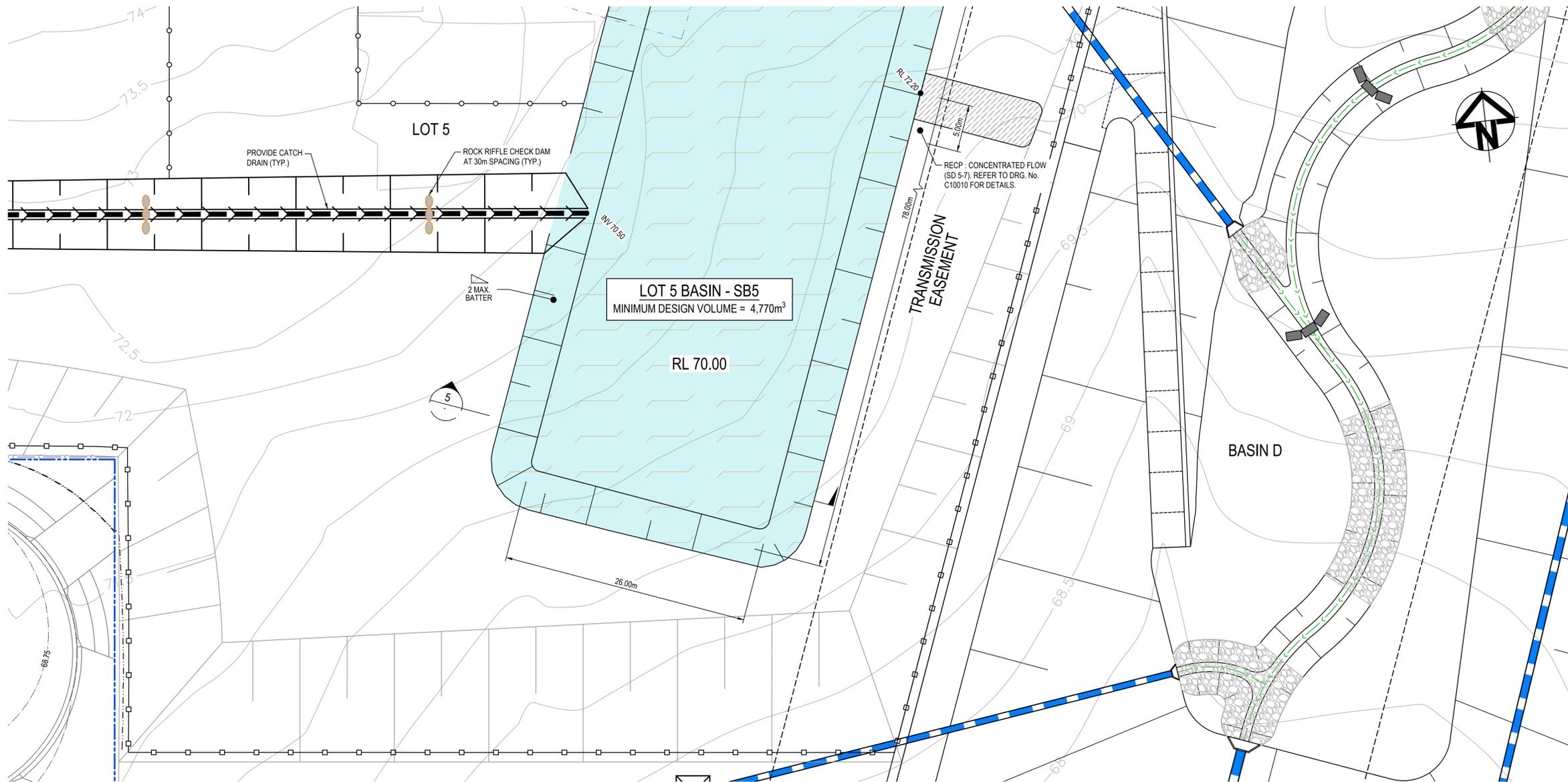
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	Designed	TM
Scales	1 : 250 PLAN	1 : 100 SECTION
Grid	GDA 2020	Checked
Height Datum	AHD	Approved

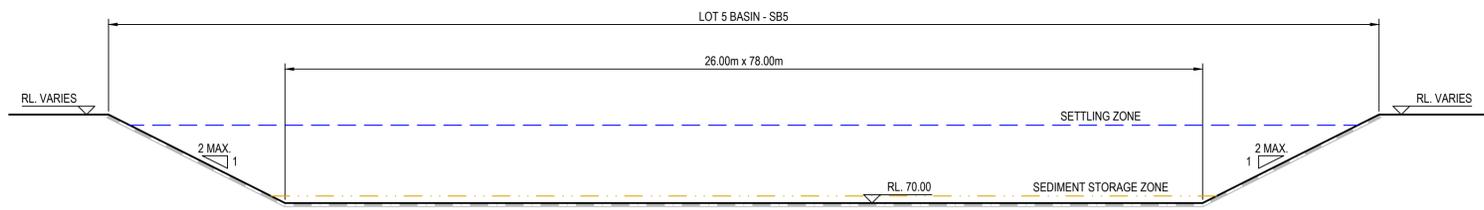
Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB4

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Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10039
Issue	01



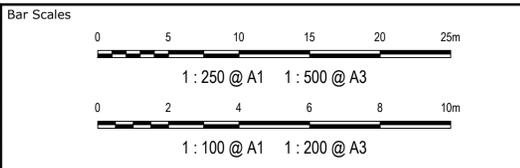
SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING OF PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 5  
1:100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client	Drawn	LM
	Designed	TM
	Checked	AM
	Approved	

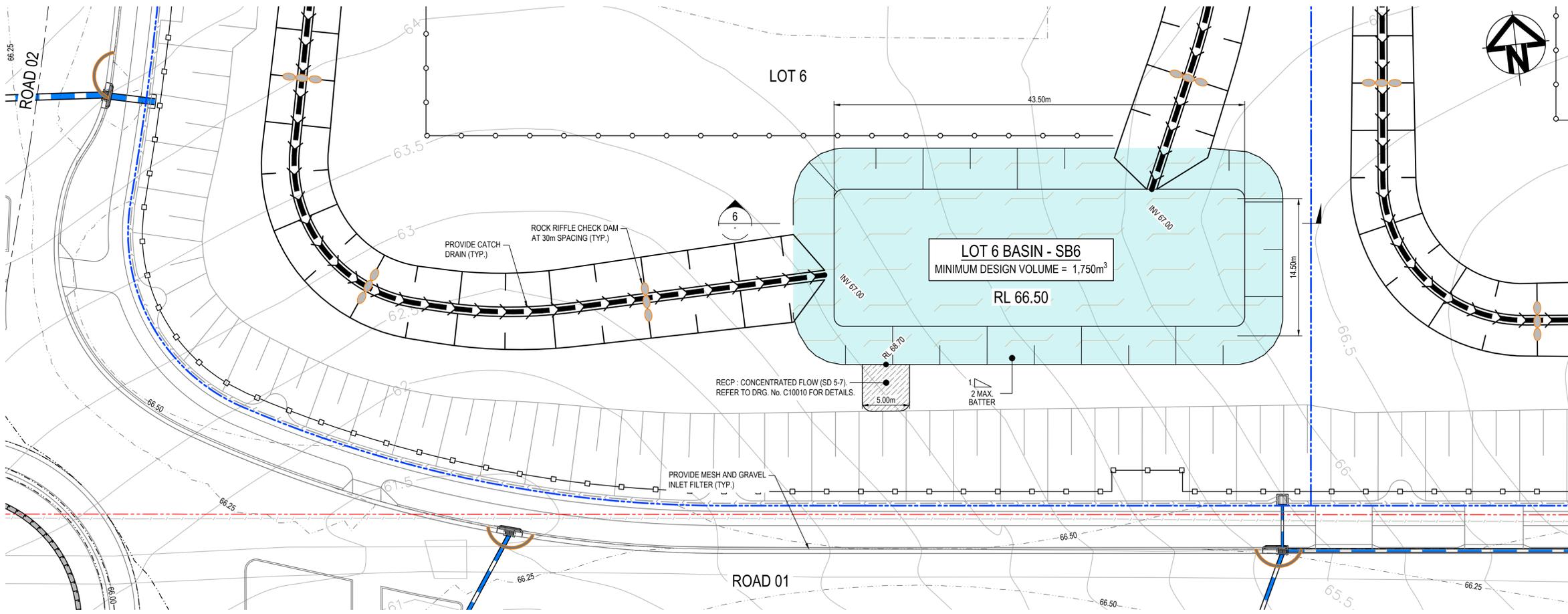
Project  
SSD-17552047  
155-251 ALDINGTON ROAD  
KEMPS CREEK

Title  
EROSION AND SEDIMENT  
BASIN DETAILS  
BASIN SB5

Civil Engineers and Project Managers

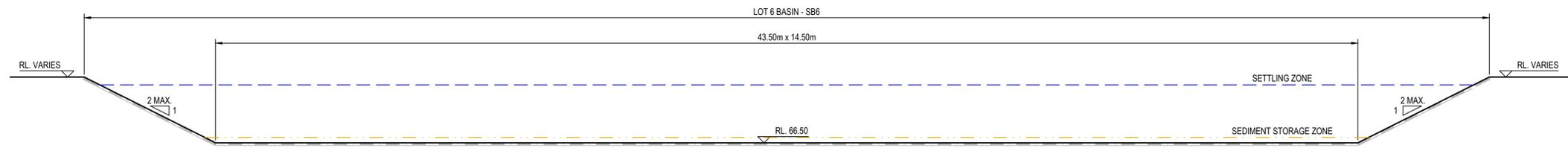
Level 7, 153 Walker Street  
North Sydney NSW 2060  
ABN 96 130 882 405  
Tel: 02 9439 1777  
Fax: 02 9923 1055  
www.atl.net.au  
info@atl.net.au

Status	A1
FOR CONSTRUCTION	
Project - Drawing No. 20-776-C10040	Issue 01



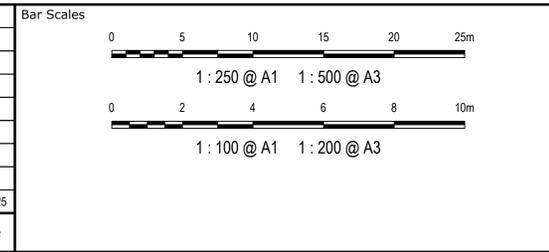
SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING OF PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 6  
1:100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



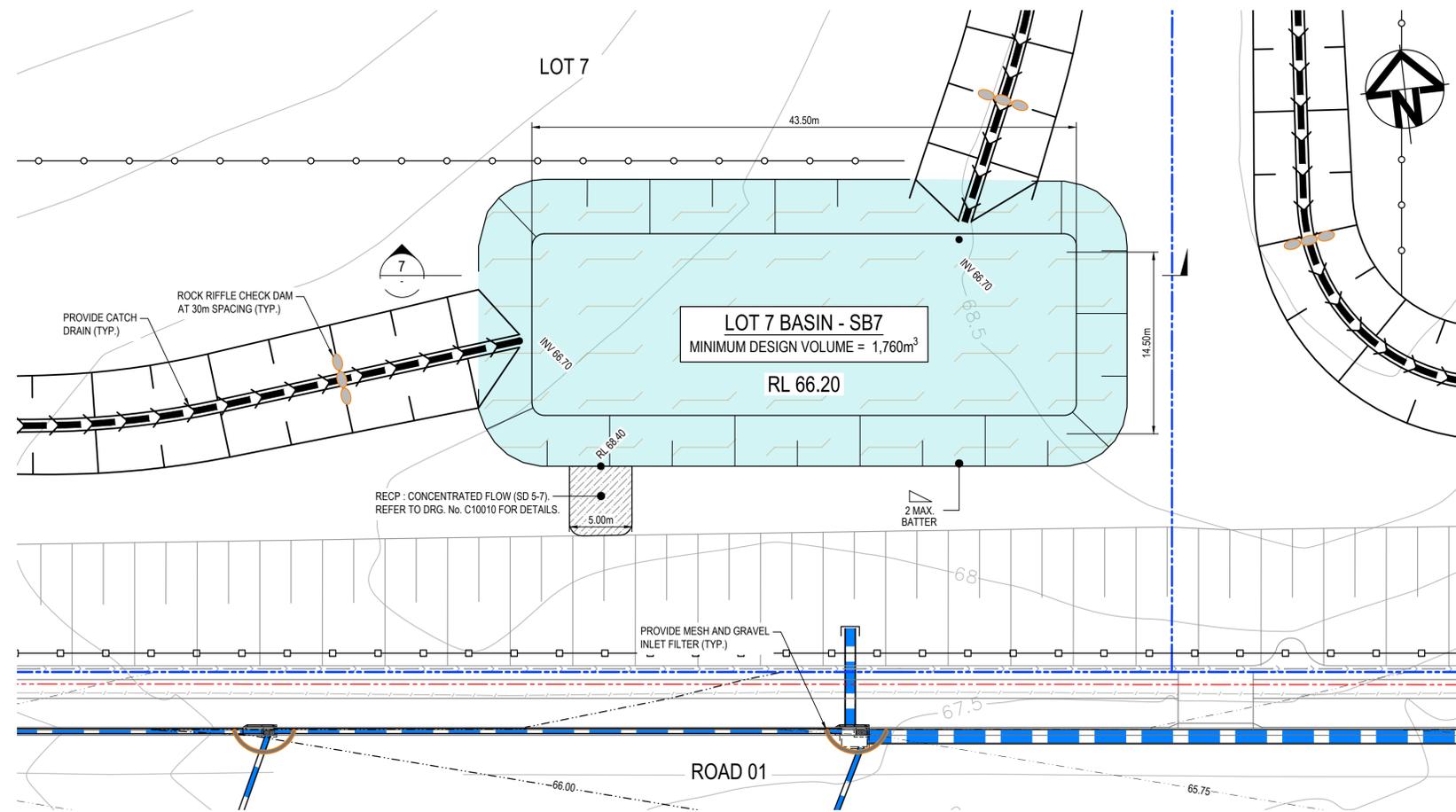
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Client	Drawn	LM
FRASERS PROPERTY	Designed	TM
	Checked	AM
	Approved	

Project	Title
SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK	EROSION AND SEDIMENT BASIN DETAILS BASIN SB6

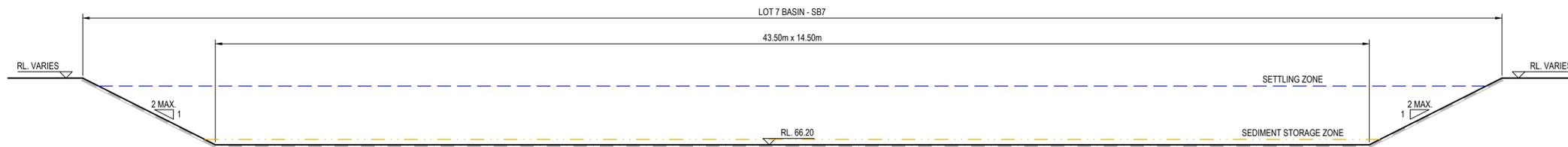
Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.at.net.au info@at.net.au	
Status	A1
Project - Drawing No.	Issue
20-776-C10041	01



### SEDIMENT AND EROSION CONTROL LEGEND

	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECIP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 7  
1:100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25

Bar Scales

0 5 10 15 20 25m

1:250 @ A1 1:500 @ A3

0 2 4 6 8 10m

1:100 @ A1 1:200 @ A3

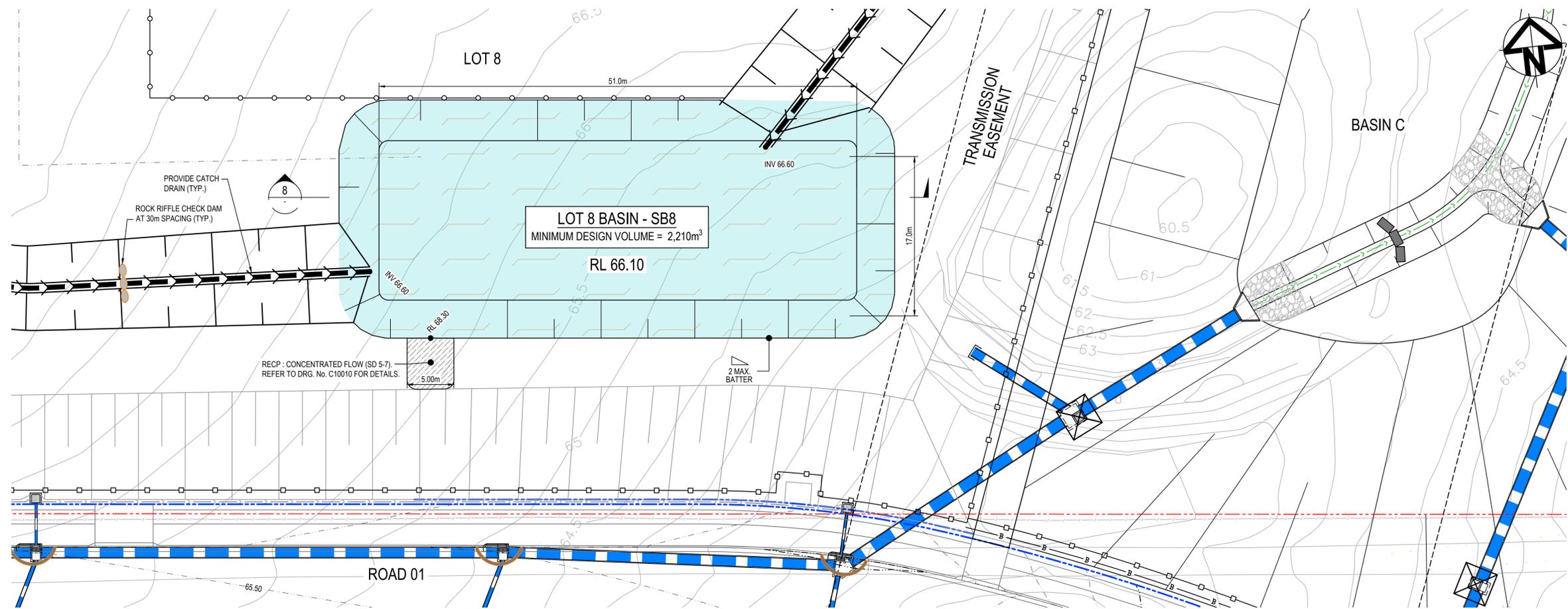
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Client	Drawn	LM
	Designed	TM
	Checked	AM
	Approved	
Scales	1:250 PLAN 1:100 SECTION	
Grid	GDA 2020	
Height Datum	AHD	

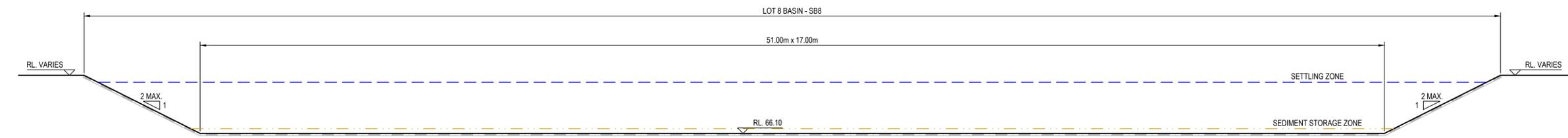
Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB7

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10042
Issue	01



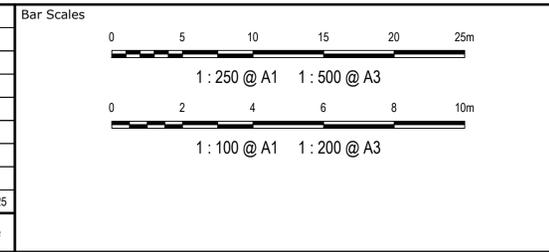
- ### SEDIMENT AND EROSION CONTROL LEGEND
- SEDIMENT FENCE (SD 6-8)
  - SEDIMENT FENCE ON PAD (SD 6-8)
  - BARRIER FENCE
  - EARTH BANK (LOW FLOW) (SD 5-5)
  - CLEAN WATER DIVERSION SWALE
  - CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
  - RECP: CONCENTRATED FLOW (SD 5-7)
  - STRAW BALE FILTER (SD 6-7)
  - MESH AND GRAVEL INLET FILTER (SD 6-11)
  - ROCK RIFFLE CHECK DAM (SD 5-4)
  - GEOTEXTILE INLET (SD 6-12)
  - STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
  - PROPOSED SITE ACCESS GATE
  - PIPE CROSSING of PVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 8  
 1:100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client	Drawn	LM
	Designed	TM
Grid	Checked	AM
Height Datum	Approved	

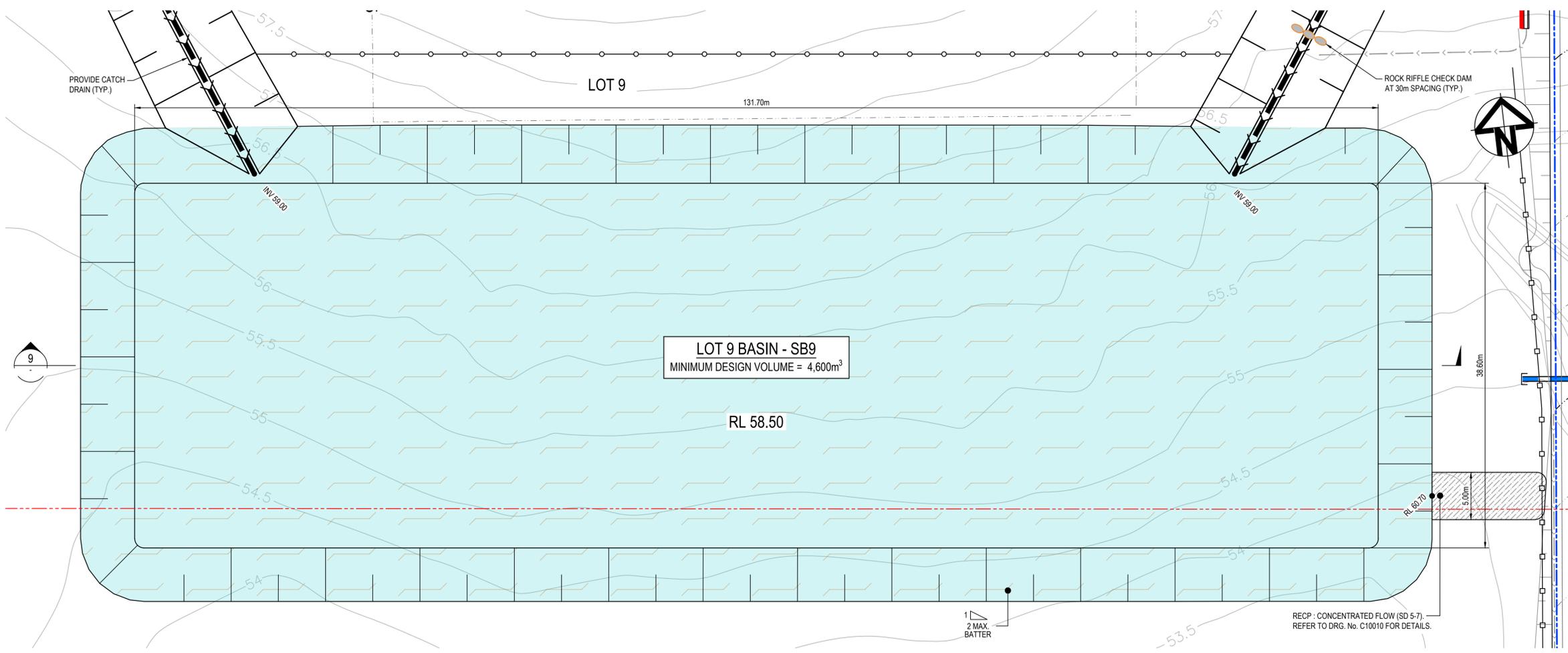
Project  
 SSD-17552047  
 155-251 ALDINGTON ROAD  
 KEMPS CREEK

Title  
 EROSION AND SEDIMENT  
 BASIN DETAILS  
 BASIN SB8

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

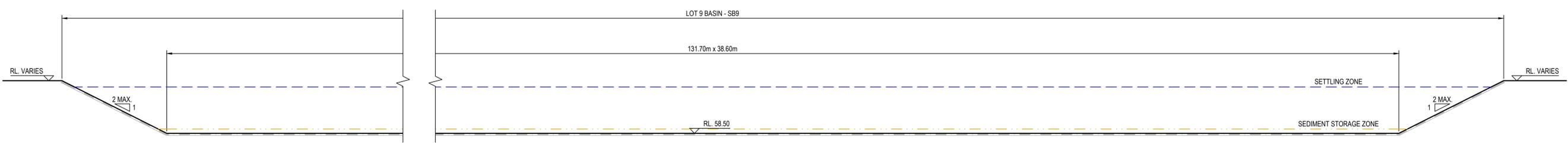
Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10043	Issue
		01



SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP : CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING of PVC PIPE LAID AT MIN. 1% FALL

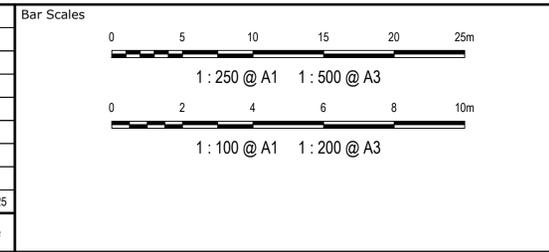
NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

NOTE:  
LOT 9 BASIN WILL ALSO FUNCTION AS AN INTERIM RETENTION POND FOR HARVESTING AND IRRIGATION OF UNDEVELOPED LAND SOUTH OF ROAD 01. THE BASIN HAS BEEN SIZED TO SATISFY BOTH CONSTRUCTION PHASE AND INTERIM OPERATIONAL PHASE WATER QUALITY AND FLOW VOLUME CONTROLS.



SECTION 9  
1 : 100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



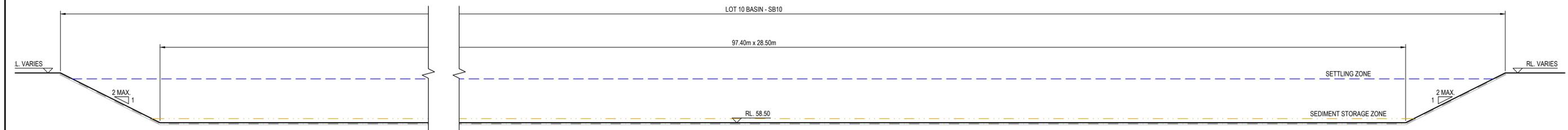
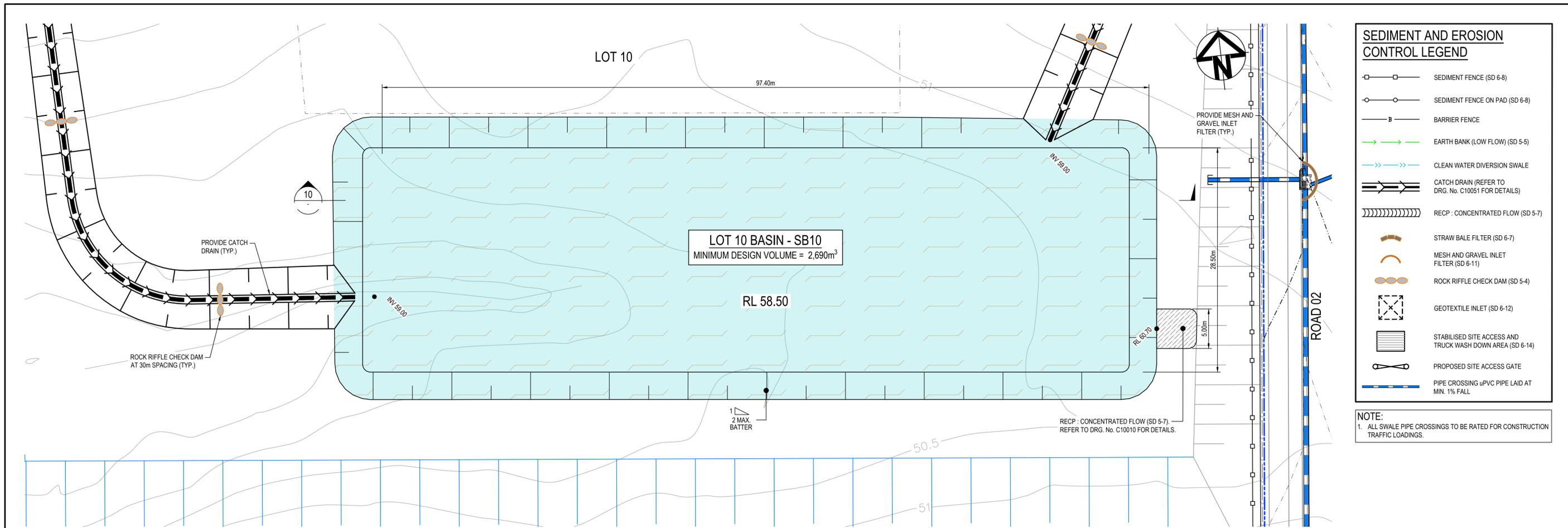
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Client	Scales	Drawn	LM
	1 : 250 PLAN 1:100 SECTION	Designed	TM
	Grid GDA 2020	Checked	AM
	Height Datum AHD	Approved	

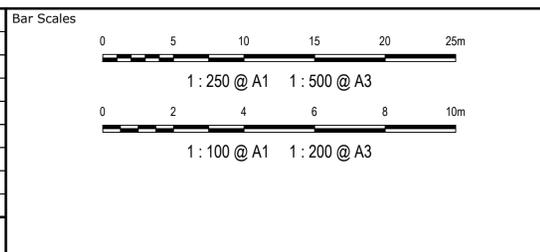
Project	Title
SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK	EROSION AND SEDIMENT BASIN DETAILS BASIN SB9

Civil Engineers and Project Managers	
 Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	A1
Project - Drawing No.	Issue
20-776-C10044	01



**SECTION 10**  
1 : 100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



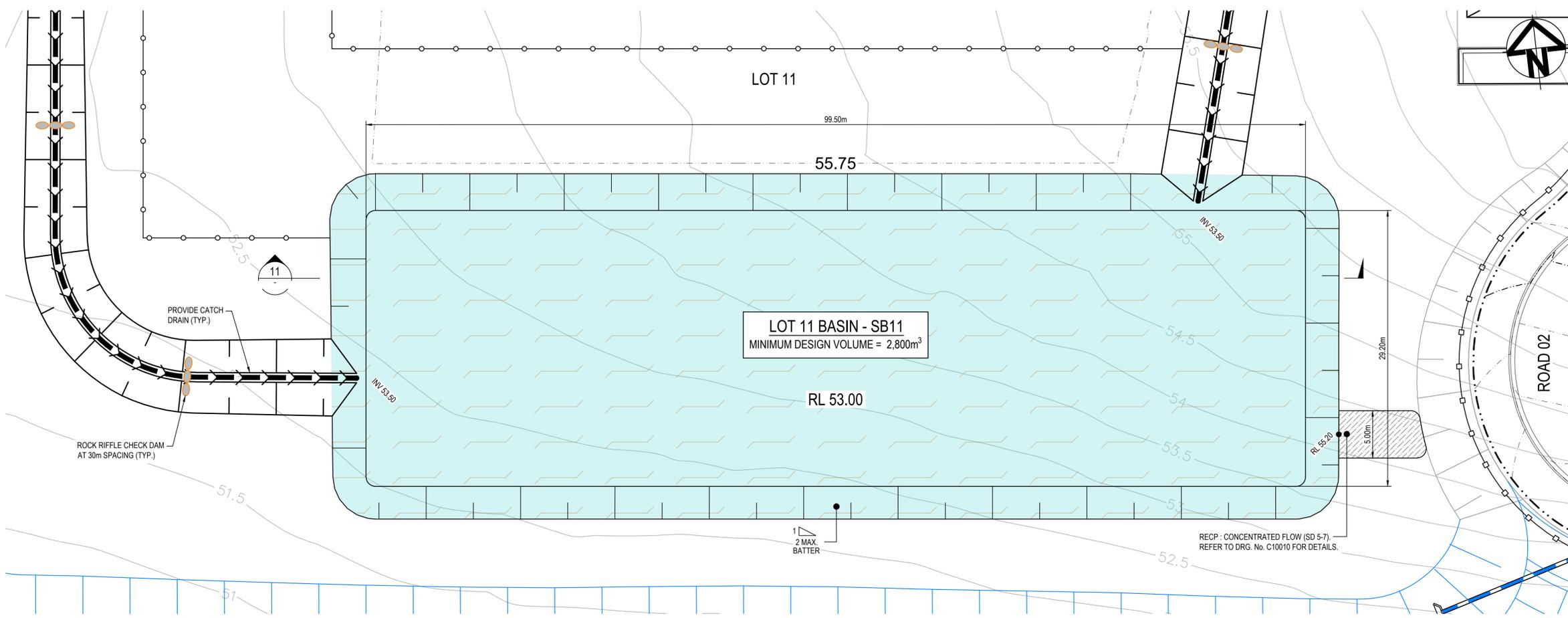
THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L



Client	Drawn	LM
	Designed	TM
Grid	Checked	AM
Height Datum	Approved	

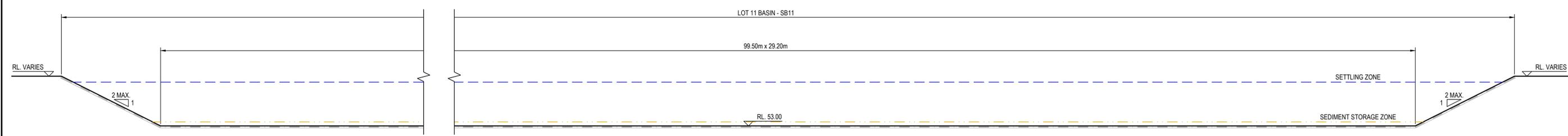
Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB10

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10045
Issue	01



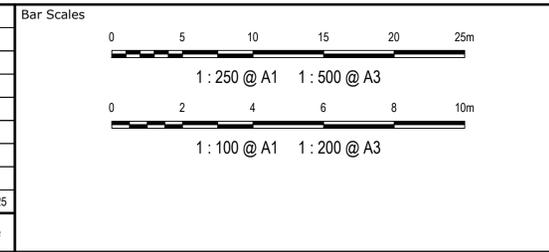
SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP : CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

**NOTE:**  
 1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 11  
 1 : 100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



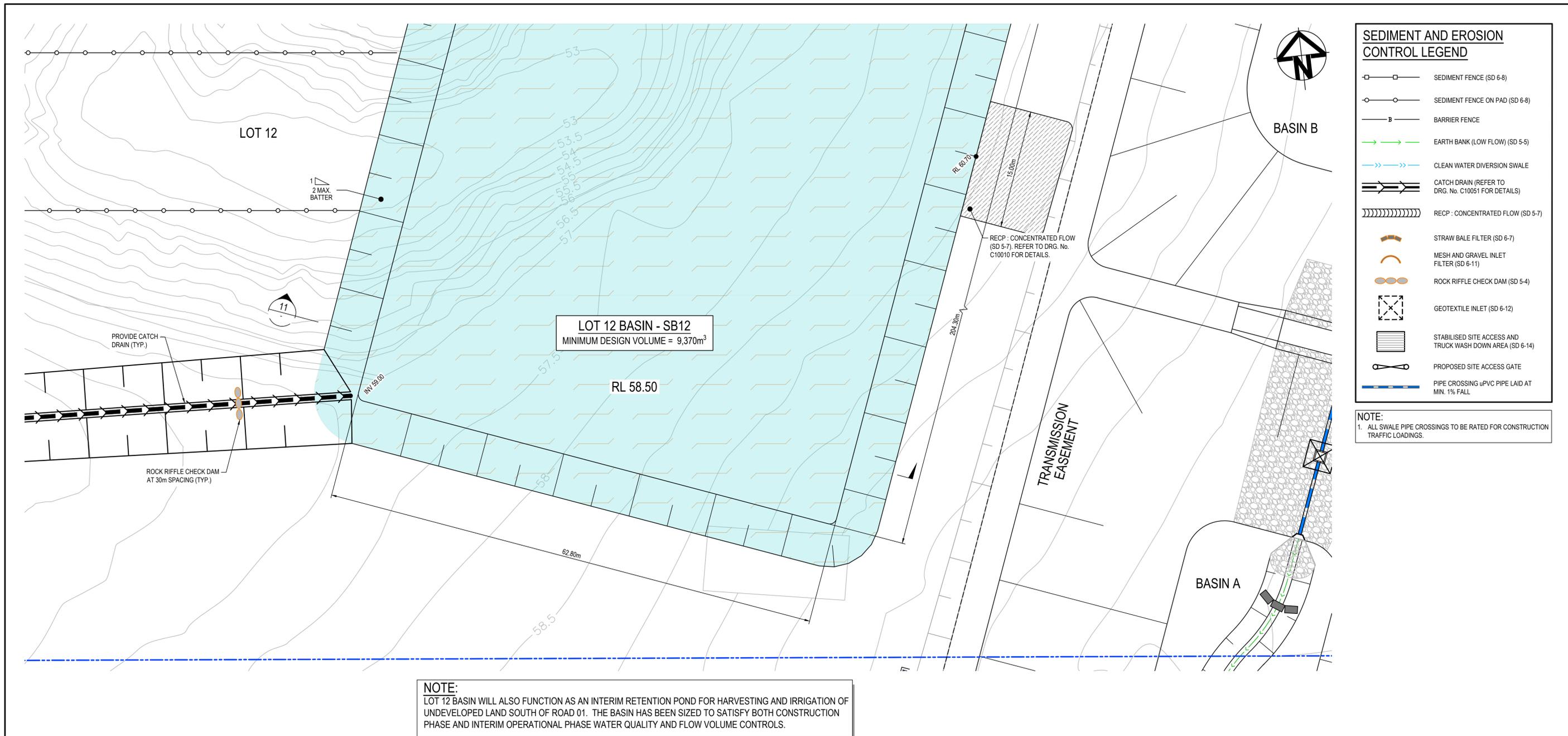
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Client	Drawn	LM
	Designed	TM
	Checked	AM
	Approved	
Scales	1 : 250 PLAN 1 : 100 SECTION	
Grid	GDA 2020	
Height Datum	AHD	

Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB11

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10046
Issue	01

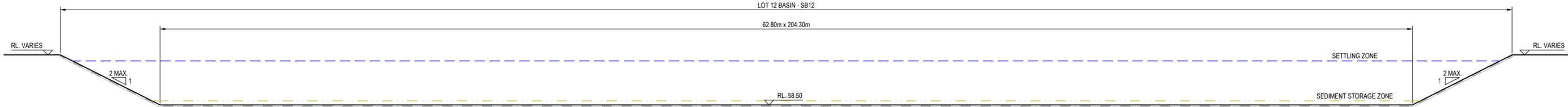


**SEDIMENT AND EROSION CONTROL LEGEND**

- SEDIMENT FENCE (SD 6-8)
- SEDIMENT FENCE ON PAD (SD 6-8)
- BARRIER FENCE
- EARTH BANK (LOW FLOW) (SD 5-5)
- CLEAN WATER DIVERSION SWALE
- CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
- RECP : CONCENTRATED FLOW (SD 5-7)
- STRAW BALE FILTER (SD 6-7)
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- ROCK RIFFLE CHECK DAM (SD 5-4)
- GEOTEXTILE INLET (SD 6-12)
- STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
- PROPOSED SITE ACCESS GATE
- PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

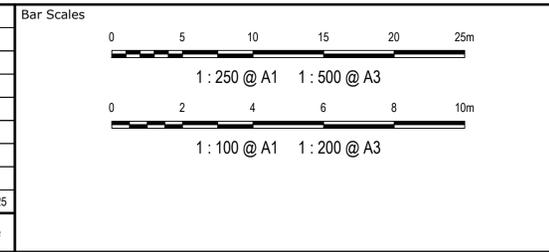
**NOTE:**  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

**NOTE:**  
LOT 12 BASIN WILL ALSO FUNCTION AS AN INTERIM RETENTION POND FOR HARVESTING AND IRRIGATION OF UNDEVELOPED LAND SOUTH OF ROAD 01. THE BASIN HAS BEEN SIZED TO SATISFY BOTH CONSTRUCTION PHASE AND INTERIM OPERATIONAL PHASE WATER QUALITY AND FLOW VOLUME CONTROLS.



**SECTION 12**  
1 : 100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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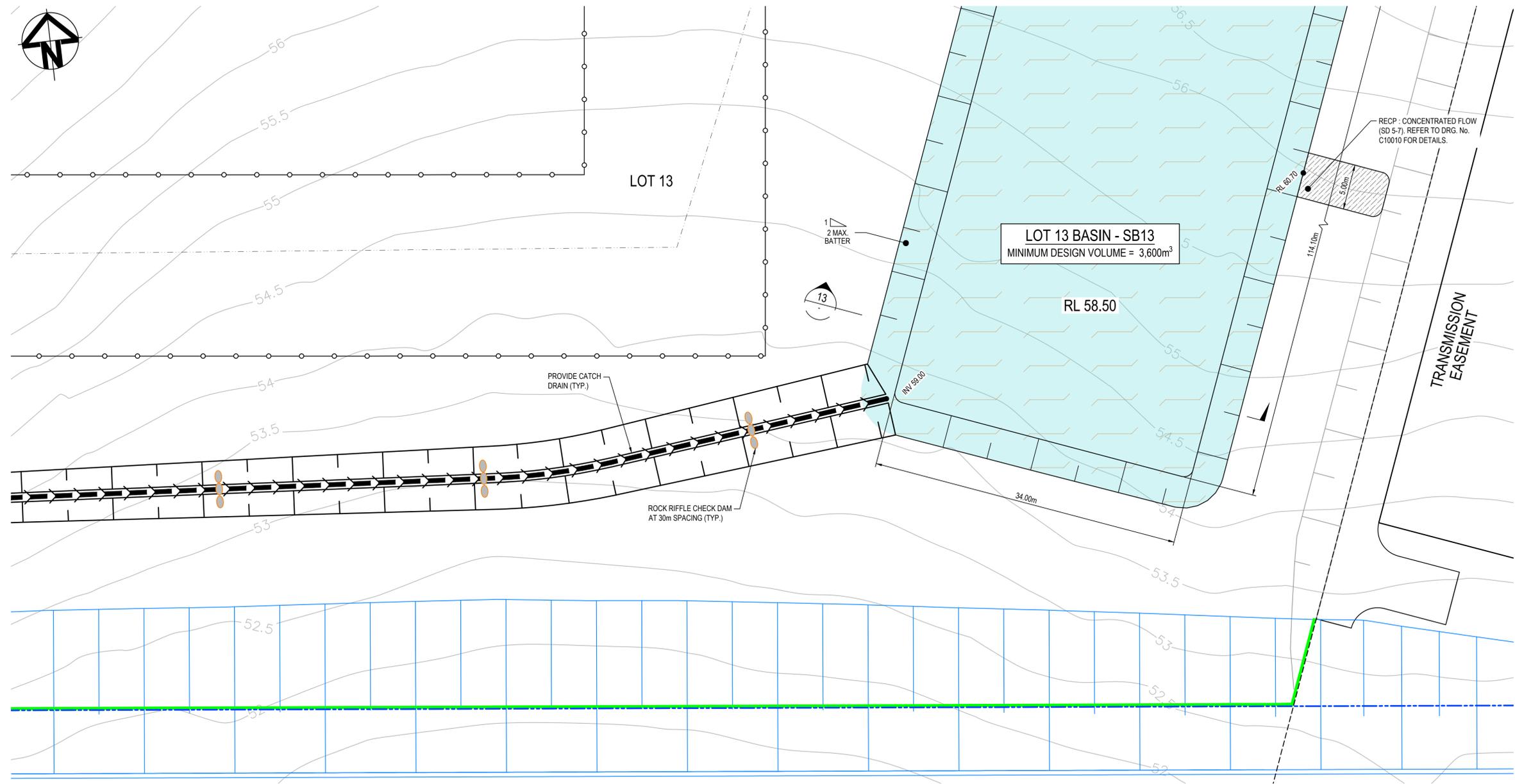


Client	Drawn	LM
	Designed	TM
Scales	Checked	AM
1 : 250 PLAN 1 : 100 SECTION	Approved	
Grid GDA 2020		
Height Datum AHD		

Project  
SSD-17552047  
155-251 ALDINGTON ROAD  
KEMPS CREEK

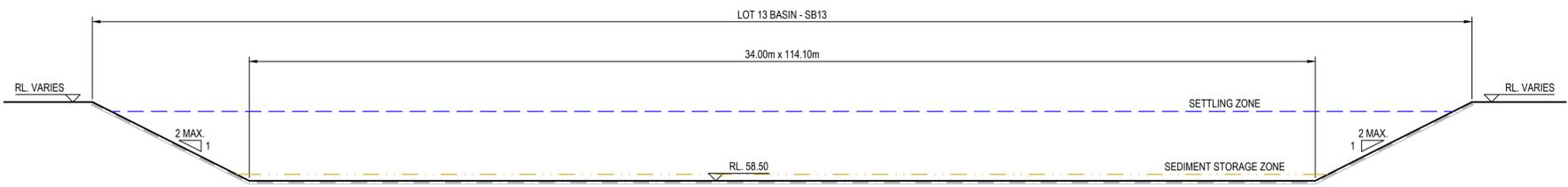
Title  
EROSION AND SEDIMENT  
BASIN DETAILS  
BASIN SB12

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status <b>FOR CONSTRUCTION</b>	A1
Project - Drawing No. 20-776-C10047	Issue 01



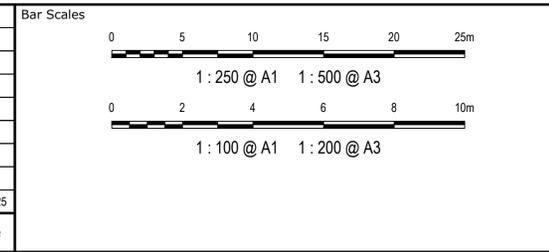
SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 13  
1:100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



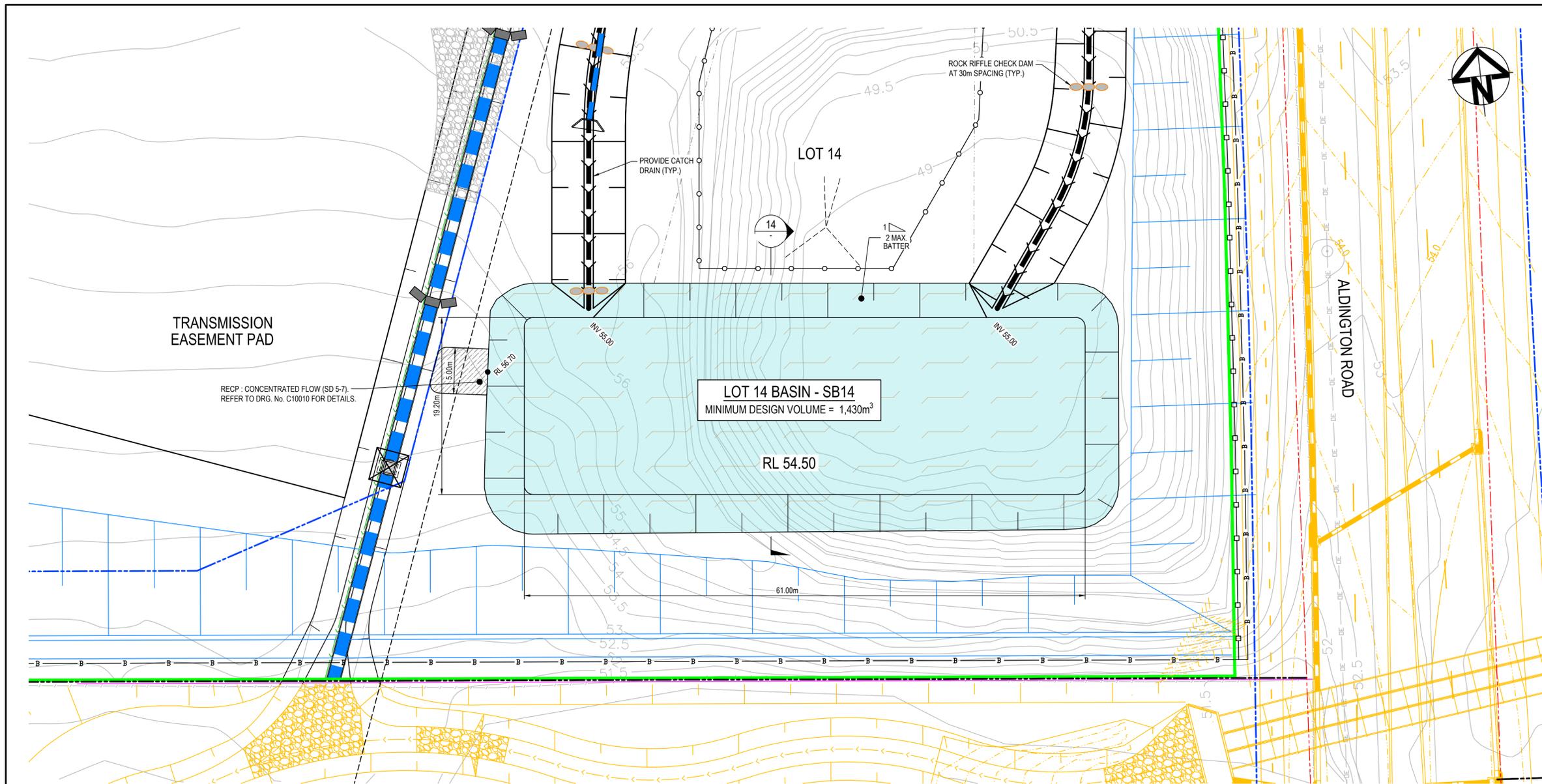
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Client	Drawn	LM
	Designed	TM
Scales	Checked	AM
1:250 PLAN	Approved	
1:100 SECTION		
Grid	GDA 2020	
Height Datum	AHD	

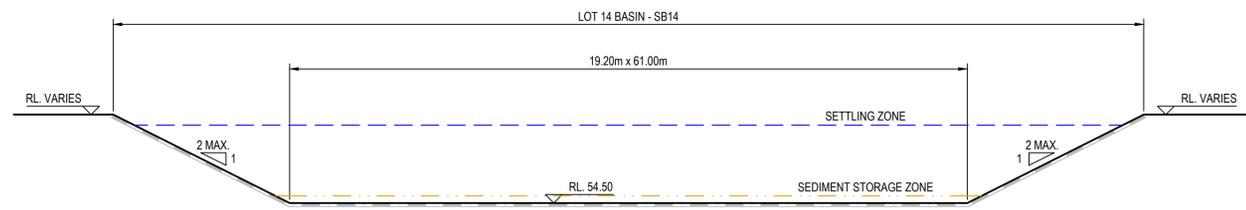
Project	SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK
Title	EROSION AND SEDIMENT BASIN DETAILS BASIN SB13

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	20-776-C10048
Issue	01



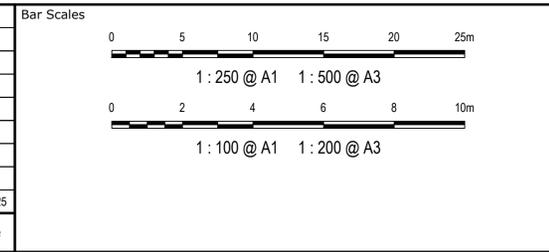
SEDIMENT AND EROSION CONTROL LEGEND	
	SEDIMENT FENCE (SD 6-8)
	SEDIMENT FENCE ON PAD (SD 6-8)
	BARRIER FENCE
	EARTH BANK (LOW FLOW) (SD 5-5)
	CLEAN WATER DIVERSION SWALE
	CATCH DRAIN (REFER TO DRG. No. C10051 FOR DETAILS)
	RECP: CONCENTRATED FLOW (SD 5-7)
	STRAW BALE FILTER (SD 6-7)
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	ROCK RIFFLE CHECK DAM (SD 5-4)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE
	PIPE CROSSING w/PVC PIPE LAID AT MIN. 1% FALL

NOTE:  
1. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.



SECTION 14  
1:100

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client	Scales	Drawn	LM
	1:250 PLAN 1:100 SECTION	Designed	TM
	Grid GDA 2020	Checked	AM
	Height Datum AHD	Approved	

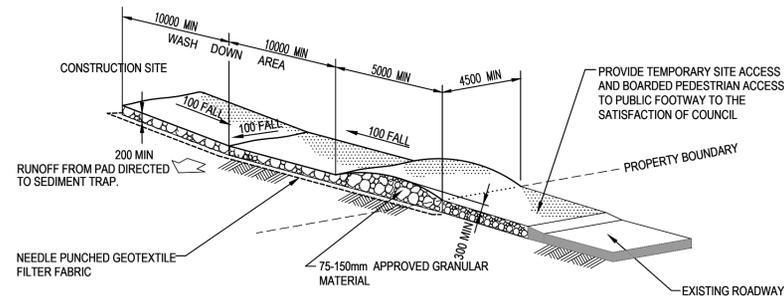
Project	Title
SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK	EROSION AND SEDIMENT BASIN DETAILS BASIN SB14

Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.at.net.au info@at.net.au	
Status	A1
FOR CONSTRUCTION	
Project - Drawing No.	Issue
20-776-C10049	01

	CATCHMENT AREA (ha)	ADOPTED DEEMED TO COMPLY BASIN VOLUME (900m <sup>3</sup> /ha) (m <sup>3</sup> )	MINIMUM BASIN DIMENSIONS AT BASE		
			LENGTH AT BASE (m)	WIDTH AT BASE (m)	SURFACE AREA AT BASE (m <sup>2</sup> )
<b>STAGE 1</b>					
BASIN E	1.60	1440	STORAGE WITHIN FUTURE TRUNK DRAINAGE CHANNEL		
BASIN F	23.20	20880	STORAGE WITHIN EXISTING FARM DAM		
BASIN G	1.45	1310	STORAGE WITHIN EXISTING FARM DAM		
BASIN C	12.70	11430	STORAGE WITHIN PROPOSED OSD BASIN		
<b>STAGE 2</b>					
BASIN H	6.50	5850	STORAGE WITH EXISTING AUGMENTED FARM DAM		
BASIN D	3.70	3330	STORAGE WITHIN PROPOSED OSD BASIN		
<b>STAGE 3</b>					
SB1	2.26	2040	48.0	16.0	768
SB2	5.08	4570	75.0	25.0	1875
SB3	3.68	3320	63.0	21.0	1323
SB4	3.62	3260	63.0	21.0	1323
SB5	5.30	4770	78.0	26.0	2028
SB6	1.93	1750	43.5	14.5	631
SB7	1.95	1760	43.5	14.5	631
SB8	2.45	2210	51.0	17.0	867
SB9	5.11	4600	75.0	25.0	1875
BASIN B	12.30	11070	STORAGE WITHIN PROPOSED OSD BASIN		
<b>STAGE 4</b>					
BASIN A	0.75	680	STORAGE WITHIN PROPOSED OSD BASIN		
SB10	2.98	2690	57.0	19.0	1083
<b>STAGE 5</b>					
SB11	3.11	2800	57.0	19.0	1083
SB12	10.41	9370	111.0	37.0	4107
SB13	4.00	3600	66.0	22.0	1452
SB14	1.58	1430	39.0	13.0	507
<b>NOTES:</b>					
HIGHLIGHTED CELLS DENOTE BASINS WITH NON-UNIFORM GEOMETRY, REFER TO PLANS FOR ARRANGEMENT AND DIMENSIONS					
UNLESS NOTED OTHERWISE, THE FOLLOWING GEOMETRIC PROPERTIES APPLY TO ALL PROPOSED SEDIMENT BASINS					
	LENGTH TO WIDTH RATIO	3:1 (MEASURED AT BASE OF BASIN)			
	INTERNAL BATTER SLOPE	1V:2H			
	SEDIMENT STORAGE DEPTH	0.20m			
	SETTLING ZONE DEPTH	2.00m			
	SPILLWAY WIDTH	5m U.N.O			
	SPILLWAY FREEBOARD	0.3m			

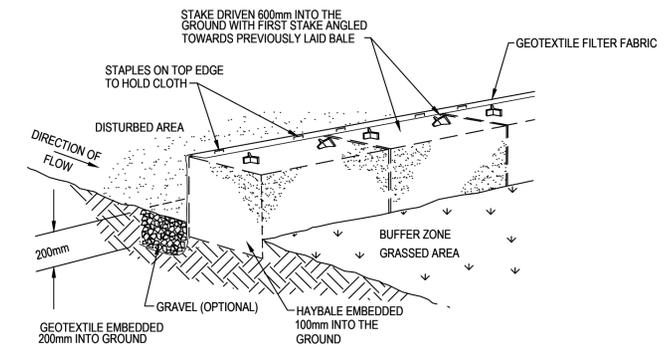
NOTE:  
1. ENLARGED TYPE-D SEDIMENT BASINS WITH A VOLUME OF 900m<sup>3</sup> PER HECTARE OF CONTRIBUTING CATCHMENT HAVE BEEN ADOPTED IN LIEU OF HIGH EFFICIENCY SEDIMENT BASINS (TYPE A OR B).

Bar Scales		THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client 	Scales N.T.S. Grid GDA 2020 Height Datum AHD	Drawn LM Designed TM Checked AM Approved	Project SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK Title EROSION AND SEDIMENT BASIN SPECIFICATIONS	Civil Engineers and Project Managers  Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	Status FOR CONSTRUCTION Project - Drawing No. 20-776-C10050 Issue 01
01	ISSUED FOR CONSTRUCTION			23-07-25				
Issue	Description	Date						



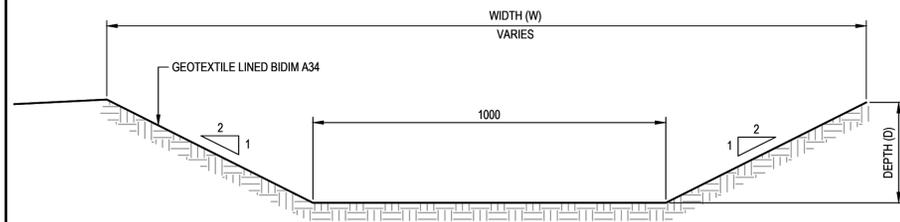
**STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA**

NTS



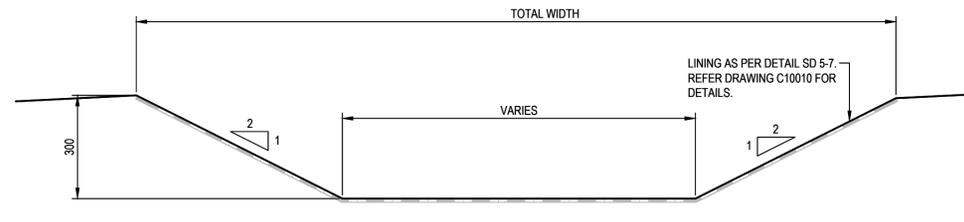
**HAYBALE AND GEOTEXTILE SEDIMENT FILTER**

NTS



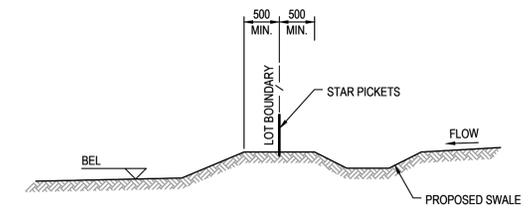
**CATCH DRAIN - (DIRTY WATER)**

SCALE 1:10



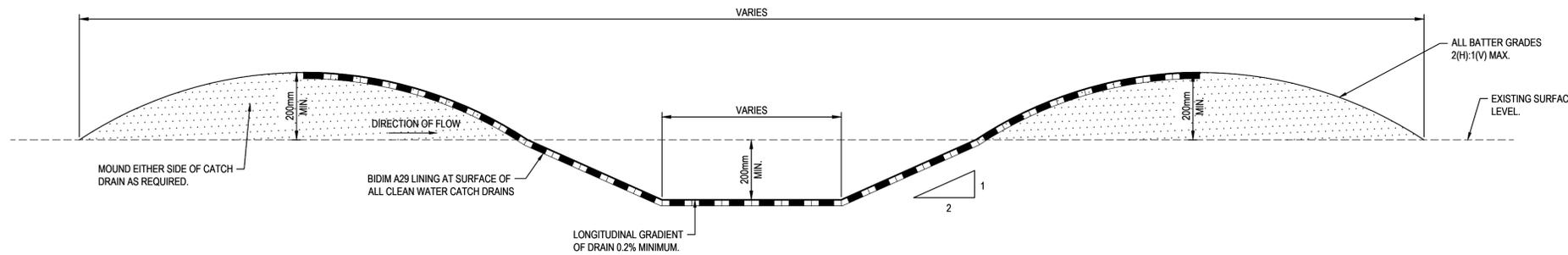
**SPILLWAY DETAIL - (DIRTY WATER)**

SCALE 1:10



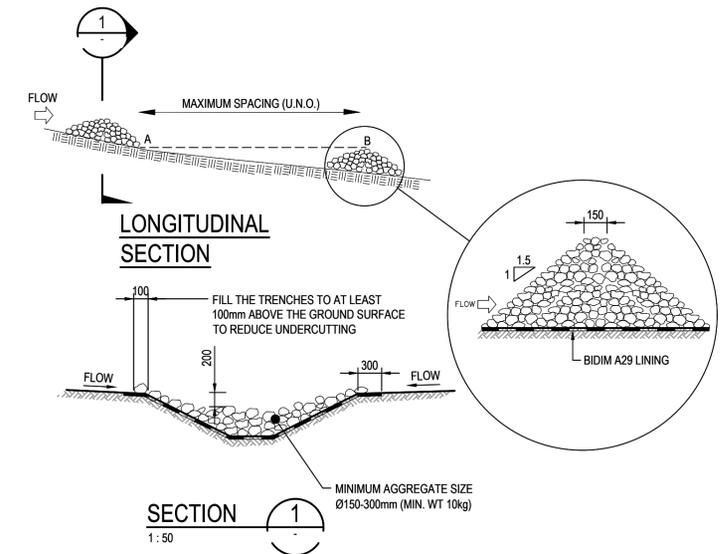
**TYPICAL LOT BOUNDARY DETAIL**

SCALE 1:50



**DIVERSION SWALE - (CLEAN WATER)**

SCALE 1:10



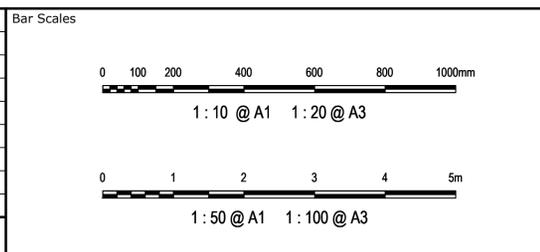
**LONGITUDINAL SECTION**

**SECTION 1**

**ROCK RIFFLE CHECK DAM (SD 5-4)**

SCALE 1:50

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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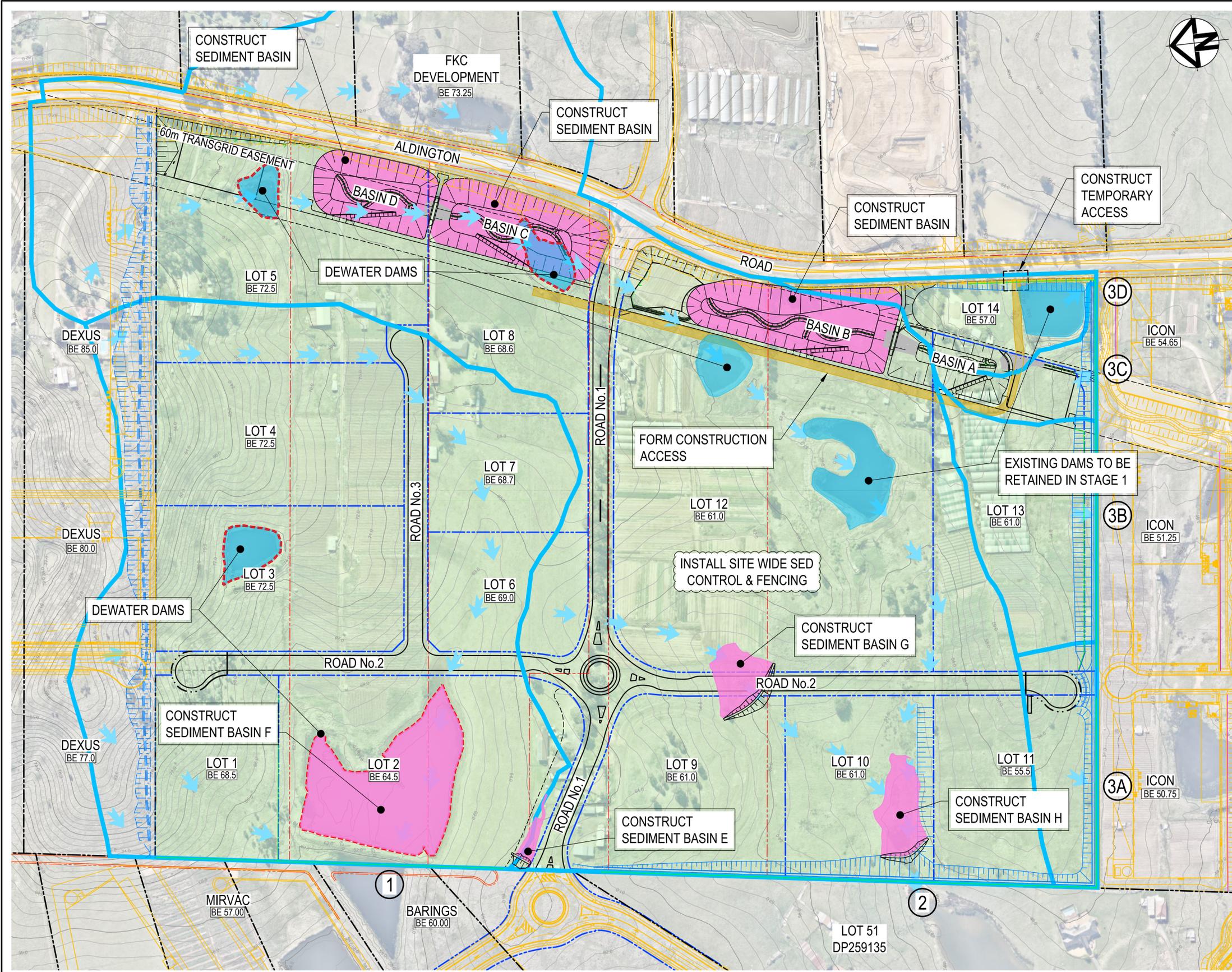


Client	Scales	Drawn	LM
FRASERS PROPERTY	AS SHOWN	Designed	TM
	Grid GDA 2020	Checked	AM
	Height Datum AHD	Approved	

Project	Title
SSD-17552047 155-251 ALDINGTON ROAD KEMPS CREEK	EROSION AND SEDIMENT CONTROL DETAILS SHEET 1

Civil Engineers and Project Managers	
 Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	A1
Project - Drawing No.	Issue
20-776-C10051	01

# STAGE 1

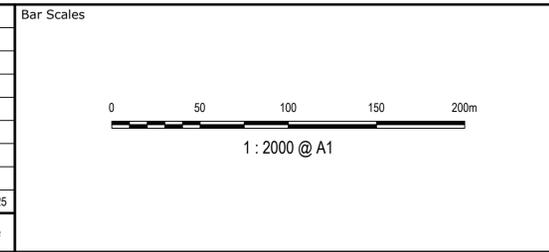


**LEGEND**

- CATCHMENT BOUNDARY
- EARTHWORKS IN PROGRESS
- EARTHWORKS COMPLETE
- INFRASTRUCTURE COMPLETE
- INFRASTRUCTURE IN PROGRESS
- UNDISTURBED AREA
- SEDIMENT BASIN TO BE CONSTRUCTED

CATCHMENTS (ha)	
	EXISTING CATCHMENT
1	24.397
2	44.177
3A	1.573
3B	2.815
3C	0.971
3D	1.738
TOTAL	75.671

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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	Grid	GDA 2020	Designed	TM
	Height Datum	AHD	Checked	AM
			Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

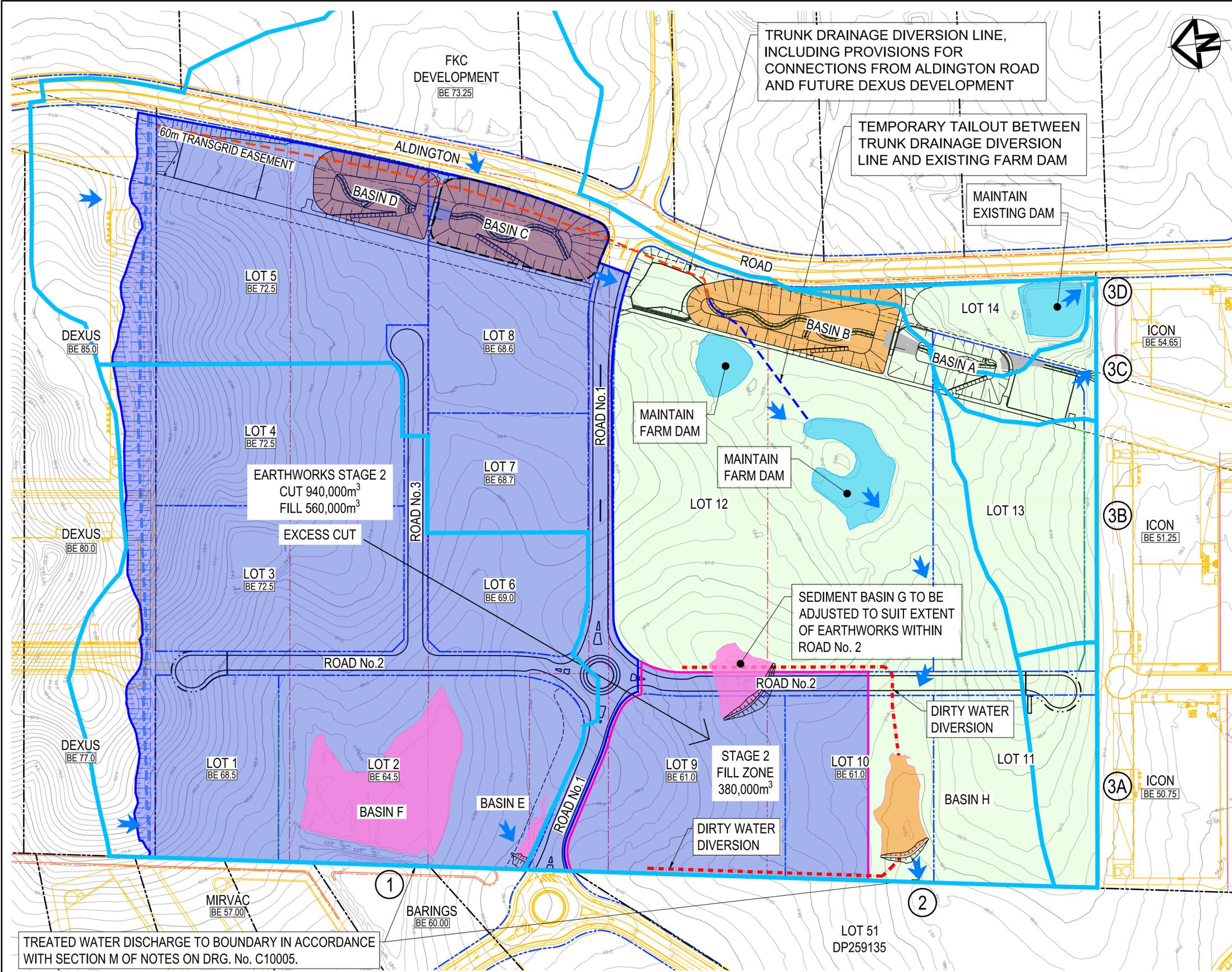
Title  
**CONSTRUCTION STAGING PLAN**  
**STAGE 1**

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

Status	<b>FOR CONSTRUCTION</b>	A1
Project - Drawing No.	20-776-C10061	Issue
		01

# STAGE 2



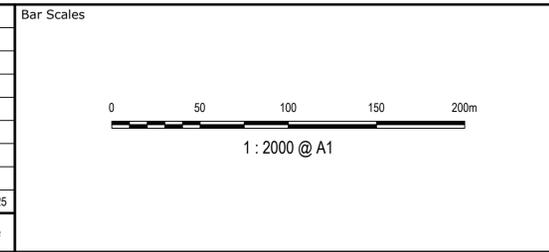
**LEGEND**

- CATCHMENT BOUNDARY
- EARTHWORKS IN PROGRESS
- EARTHWORKS COMPLETE
- INFRASTRUCTURE COMPLETE
- INFRASTRUCTURE IN PROGRESS
- UNDISTURBED AREA
- SEDIMENT BASIN TO BE CONSTRUCTED

	CATCHMENTS (ha)	
	EXISTING CATCHMENT	STAGED CATCHMENT
1	24.397	21.388
2	44.177	47.186
3A	1.573	1.573
3B	2.815	2.815
3C	0.971	0.971
3D	1.738	1.738
<b>TOTAL</b>	<b>75.671</b>	<b>75.671</b>

TREATED WATER DISCHARGE TO BOUNDARY IN ACCORDANCE WITH SECTION M OF NOTES ON DRG. No. C10005.

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client

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		Designed	TM
Grid	GDA 2020	Checked	AM
Height Datum	AHD	Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

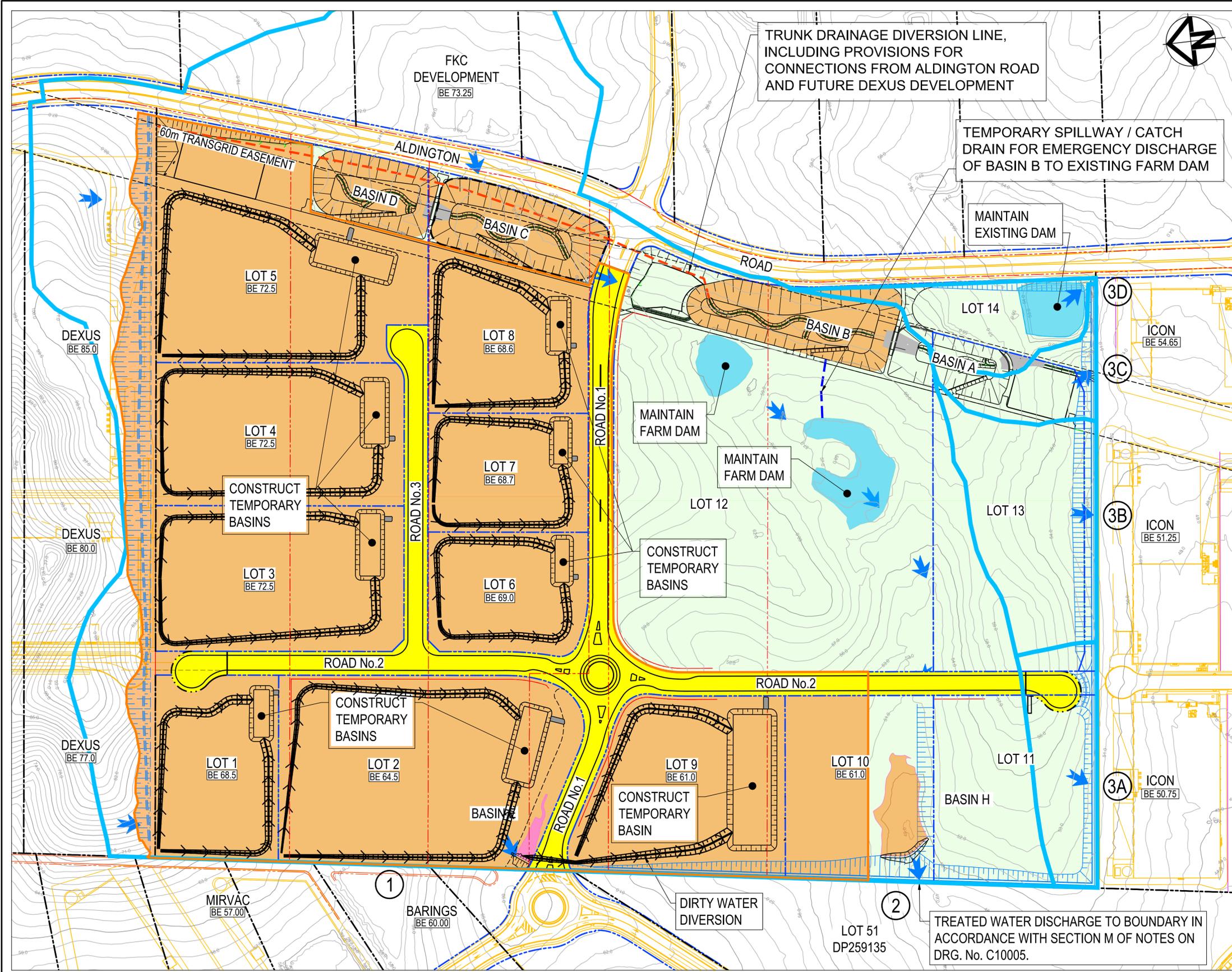
Title  
**CONSTRUCTION STAGING**  
**PLAN**  
**STAGE 2**

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

Status	<b>FOR CONSTRUCTION</b>	A1
Project - Drawing No.	20-776-C10062	Issue
		01

# STAGE 3

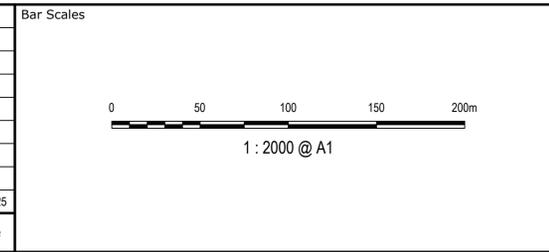


**LEGEND**

- CATCHMENT BOUNDARY
- EARTHWORKS IN PROGRESS
- EARTHWORKS COMPLETE
- INFRASTRUCTURE COMPLETE
- INFRASTRUCTURE IN PROGRESS
- UNDISTURBED AREA
- SEDIMENT BASIN TO BE CONSTRUCTED

	CATCHMENTS (ha)	
	EXISTING CATCHMENT	STAGED CATCHMENT
1	24.397	
2	44.177	68.574
3A	1.573	1.573
3B	2.815	2.815
3C	0.971	0.971
3D	1.738	1.738
TOTAL	75.671	75.671

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client	Drawn	LM
	Designed	TM
	Checked	AM
	Approved	
Scales	1 : 2000	
Grid	GDA 2020	
Height Datum	AHD	

Project  
**SSD-17552047**  
 155-251 ALDINGTON ROAD  
 KEMPS CREEK

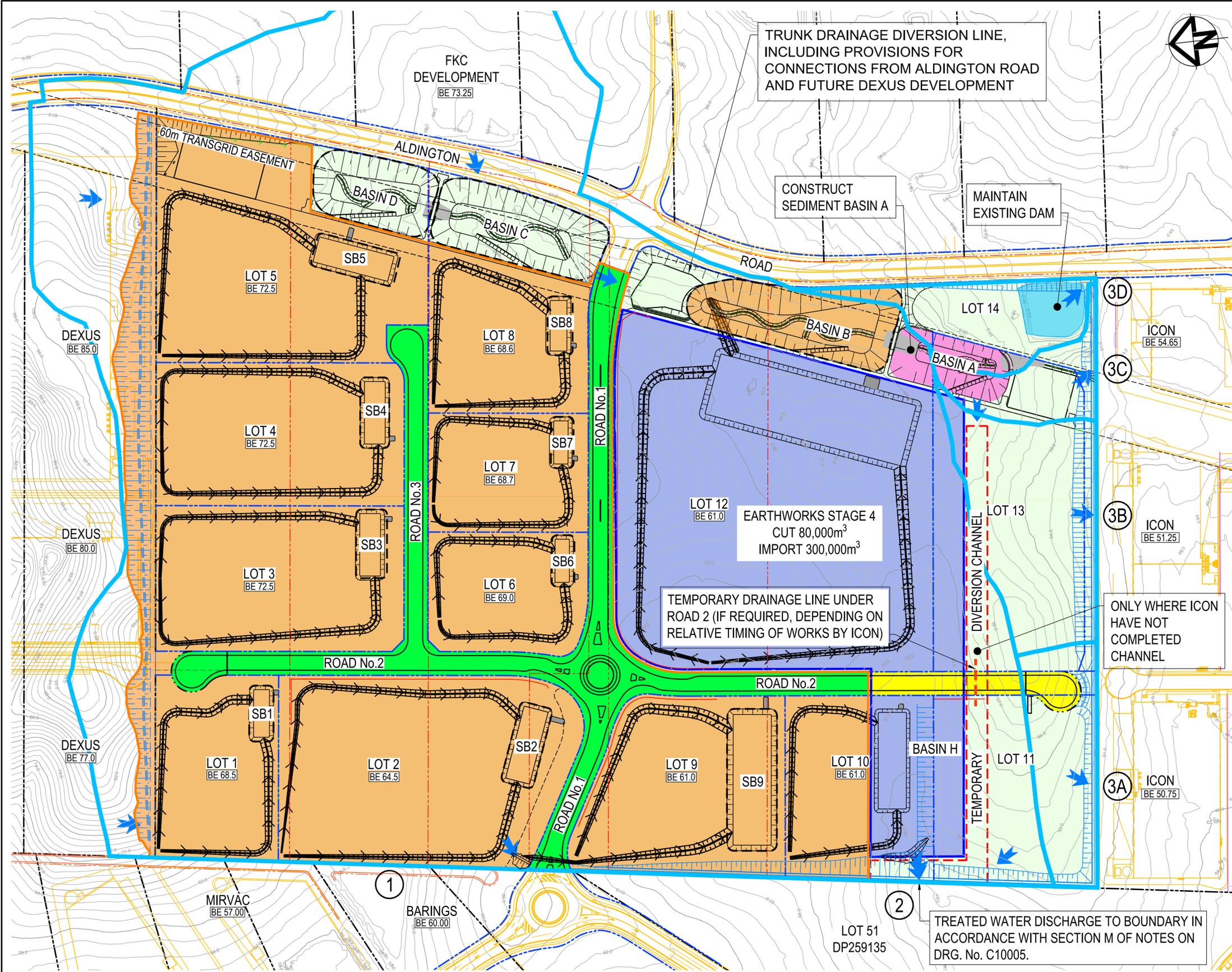
Title  
**CONSTRUCTION STAGING PLAN STAGE 3**

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

Status	<b>FOR CONSTRUCTION</b>	A1
Project - Drawing No.	20-776-C10063	Issue
		01

# STAGE 4

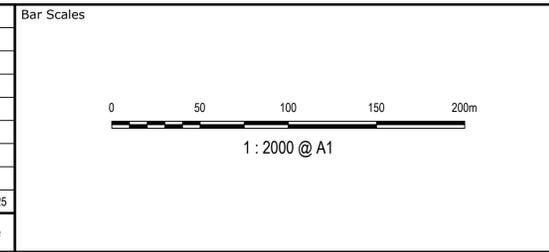


**LEGEND**

- CATCHMENT BOUNDARY
- EARTHWORKS IN PROGRESS
- EARTHWORKS COMPLETE
- INFRASTRUCTURE COMPLETE
- INFRASTRUCTURE IN PROGRESS
- UNDISTURBED AREA
- SEDIMENT BASIN TO BE CONSTRUCTED

	CATCHMENTS (ha)	
	EXISTING CATCHMENT	STAGED CATCHMENT
1	24.397	
2	44.177	68.574
3A	1.573	1.573
3B	2.815	2.815
3C	0.971	0.971
3D	1.738	1.738
TOTAL	75.671	75.671

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client	Client
Scales	1 : 2000
Grid	GDA 2020
Height Datum	AHD
Drawn	LM
Designed	TM
Checked	AM
Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

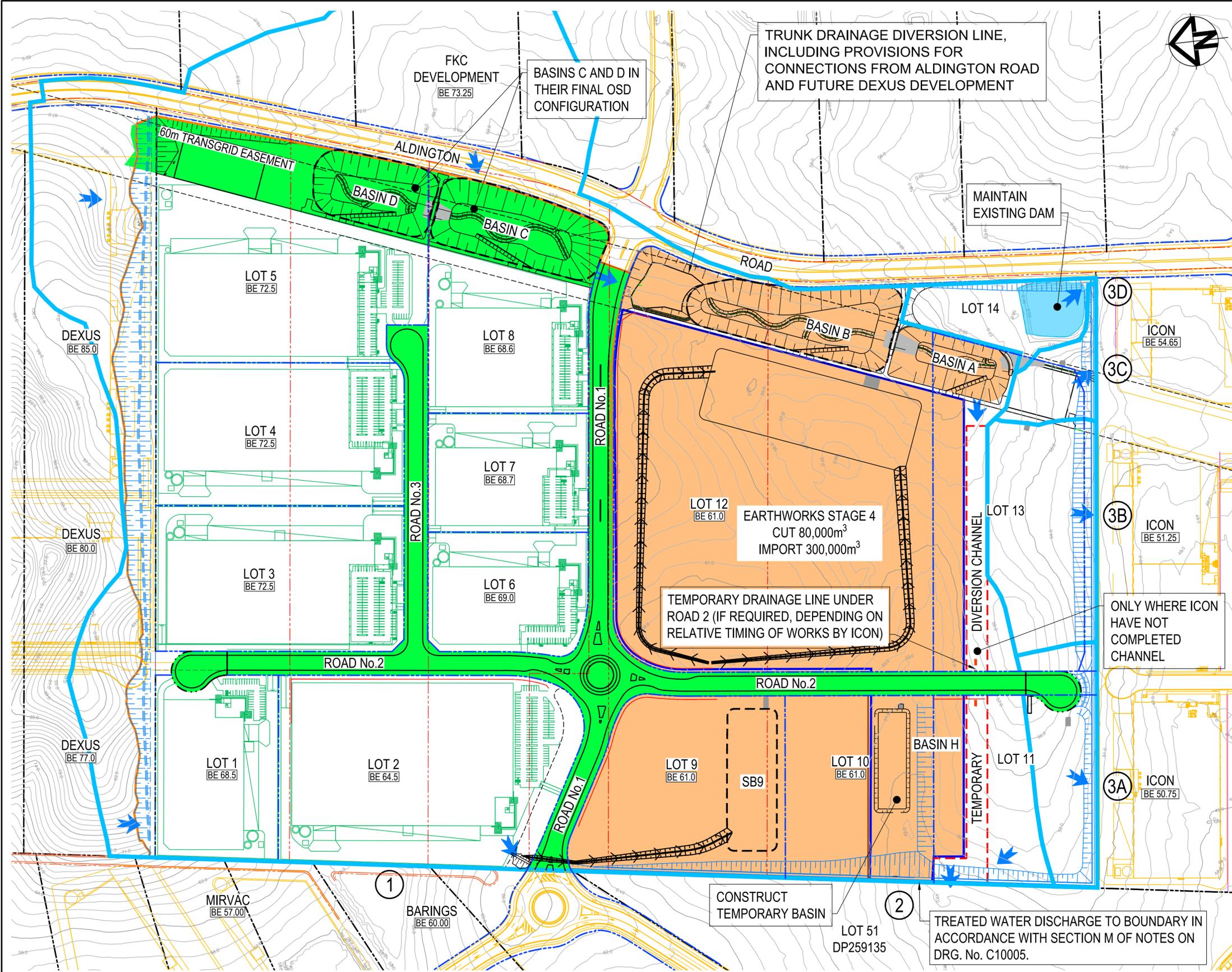
Title  
**CONSTRUCTION STAGING PLAN**  
**STAGE 4**

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

Status	FOR CONSTRUCTION	A1
Project - Drawing No.	20-776-C10064	Issue
		01

# STAGE 4a

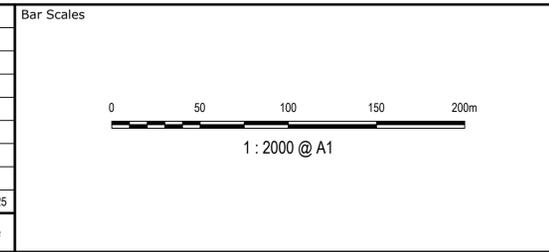


**LEGEND**

- CATCHMENT BOUNDARY
- EARTHWORKS IN PROGRESS
- EARTHWORKS COMPLETE
- INFRASTRUCTURE COMPLETE
- INFRASTRUCTURE IN PROGRESS
- UNDISTURBED AREA
- SEDIMENT BASIN TO BE CONSTRUCTED

	CATCHMENTS (ha)	
	EXISTING CATCHMENT	STAGED CATCHMENT
1	24.397	
2	44.177	69.903
3A	1.573	1.573
3B	2.815	2.396
3C	0.971	0.683
3D	1.738	1.116
TOTAL	75.671	75.671

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client

Scales	1 : 2000	Drawn	LM
		Designed	TM
Grid	GDA 2020	Checked	AM
Height Datum	AHD	Approved	

Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

Title  
**CONSTRUCTION STAGING PLAN**  
**STAGE 4a**

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

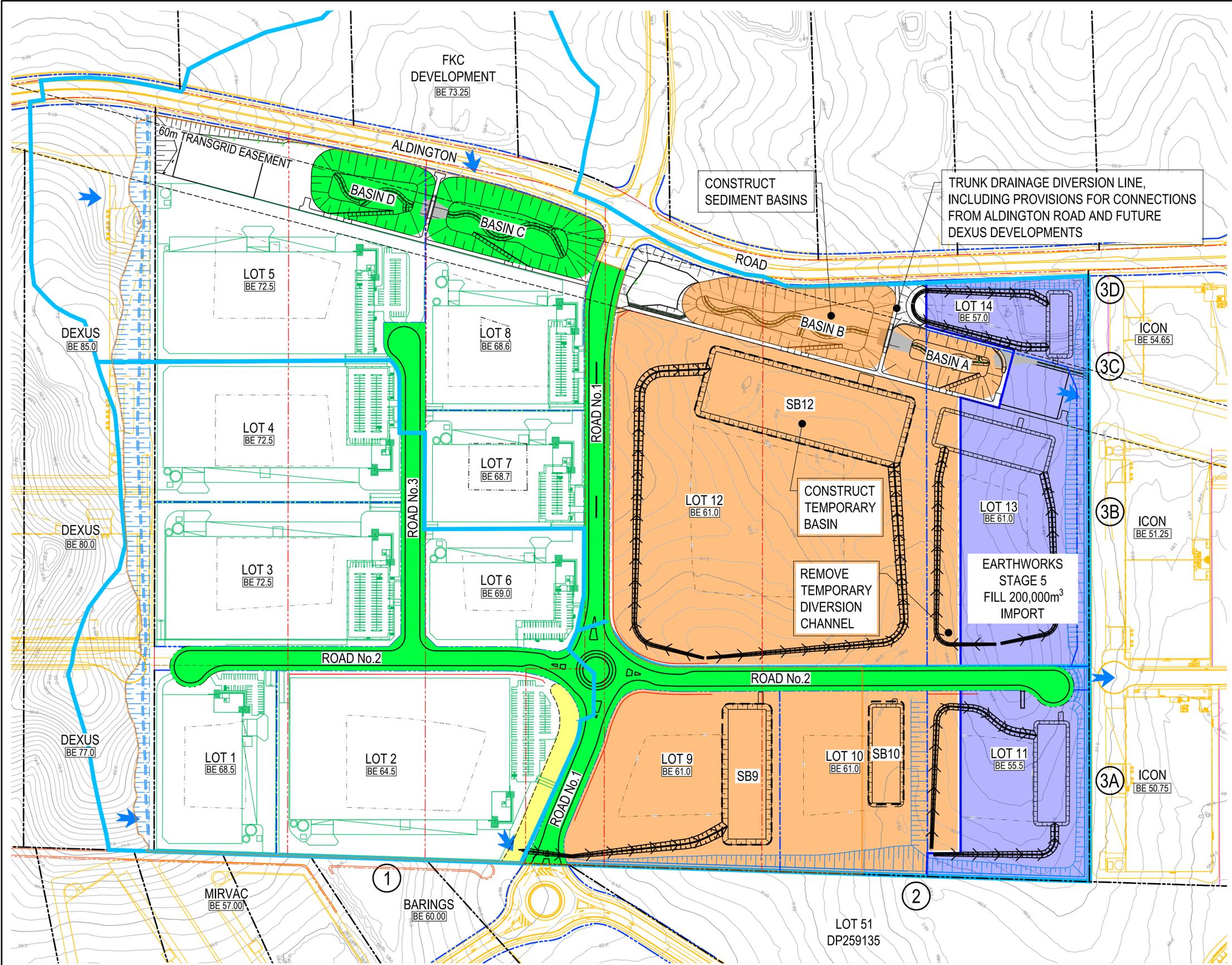
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Project - Drawing No.	20-776-C10065	Issue
		01

# STAGE 5



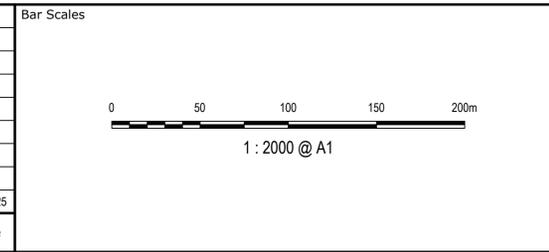
**LEGEND**

- CATCHMENT BOUNDARY
- EARTHWORKS IN PROGRESS
- EARTHWORKS COMPLETE
- INFRASTRUCTURE COMPLETE
- INFRASTRUCTURE IN PROGRESS
- UNDISTURBED AREA
- SEDIMENT BASIN TO BE CONSTRUCTED



CATCHMENTS (ha)		
	EXISTING CATCHMENT	STAGED CATCHMENT
1	24.397	21.384
2	44.177	NIL
3A	1.573	11.508
3B	2.815	NIL
3C	0.971	42.779
3D	1.738	NIL
<b>TOTAL</b>	<b>75.671</b>	<b>75.671</b>

Issue	Description	Date
01	ISSUED FOR CONSTRUCTION	23-07-25



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Client	Scales		Drawn	LM
	1 : 2000	Designed	TM	
	Grid GDA 2020	Checked	AM	
	Height Datum AHD	Approved		

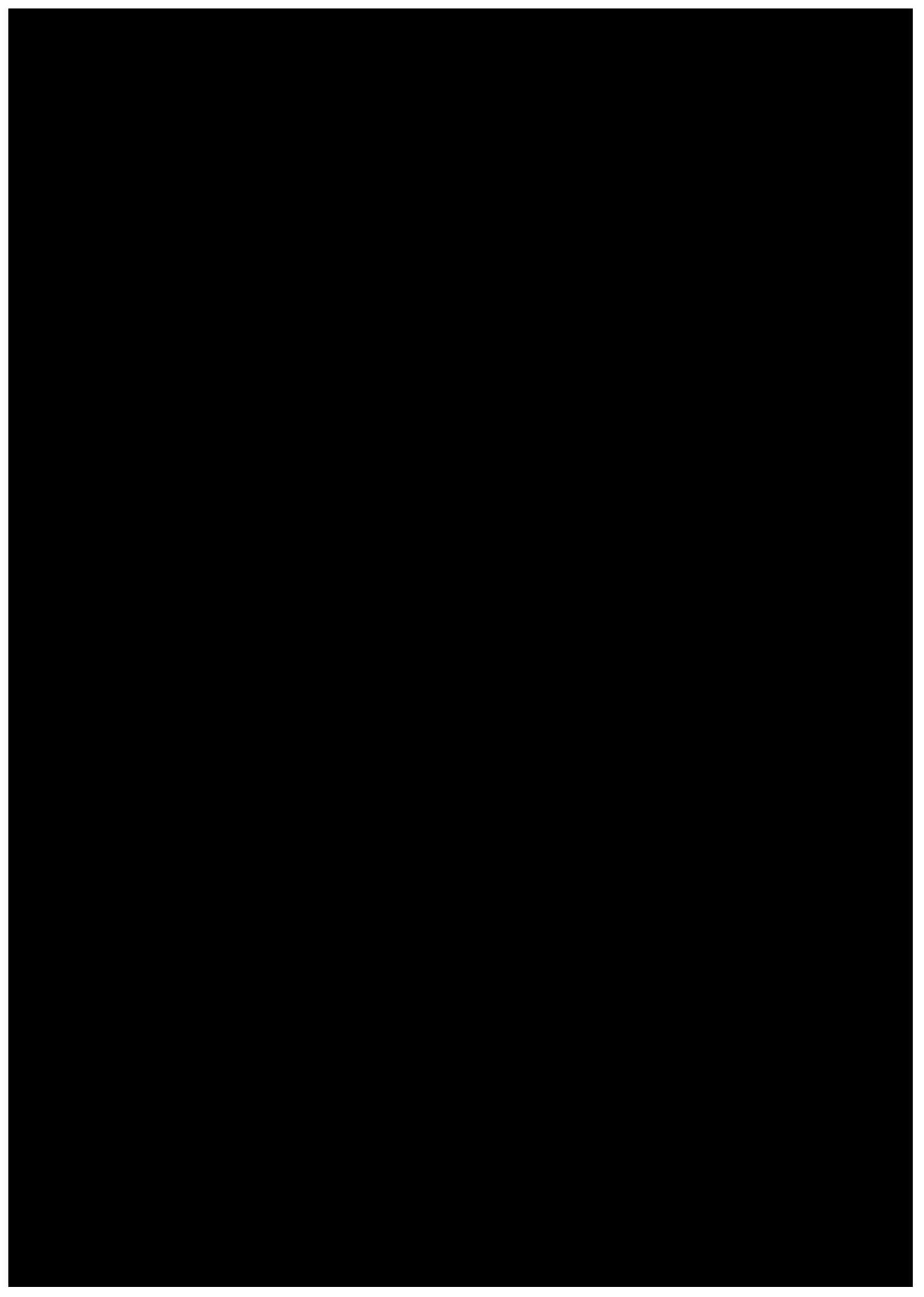
Project  
**SSD-17552047**  
**155-251 ALDINGTON ROAD**  
**KEMPS CREEK**

Title  
**CONSTRUCTION STAGING PLAN**  
**STAGE 5**

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
 North Sydney NSW 2060  
 ABN 96 130 882 405  
 Tel: 02 9439 1777  
 Fax: 02 9923 1055  
 www.atl.net.au  
 info@atl.net.au

Status	<b>FOR CONSTRUCTION</b>	A1
Project - Drawing No.	20-776-C10066	Issue
		01





#### NORTH SYDNEY

LEVEL 7  
153 WALKER STREET  
NORTH SYDNEY NSW 2060  
02 9439 1777  
INFO@ATL.NET.AU

#### PARRAMATTA

SUITE 4 LEVEL 4  
17-21 MACQUARIE STREET  
PARRAMATTA NSW 2150  
02 9068 8517  
INFO@ATL.NET.AU

#### BRISBANE

SUITE A1 LEVEL 20  
127 CREEK STREET  
BRISBANE QLD 4000  
07 3211 9581  
INFO-QLD@ATL.NET.AU

#### MELBOURNE

LEVEL 24  
570 BOURKE STREET  
MELBOURNE VIC 3000  
INFO-VIC@ATL.NET.AU

[atl.net.au](http://atl.net.au)

28 July 2025

**Subject: SSD-17552047 The Edge Estate – Erosion and Sediment Control Consultation (B24(b))**

In accordance with Condition B24 (b), which requires the Erosion and Sediment Control Plan (ESCP) *be prepared in consultation with CPHR, Sydney Water and include written evidence of the outcomes of the consultation process and how the recommendations have been incorporated into the ESCP*; this letter provides record and evidence of compliance to this condition.

A summary of consultation with CPHR is outlined in the table below, and supporting documents provided in Appendix A.

Date	Description
20-Jun-25	AT&L Email - submission of full design package to CPHR for final consultation which includes ESC package.
1-Jul-25	AT&L Email following up on CPHR consultation
7-Jul-25	Frasers Email following up on CPHR consultation
10-Jul-25	CPHR Email - advising ESC still under assessment due to heavy workload.
10-Jul-25	Frasers Email notifying CPHR that consultations will close on 11/7/25 (3 weeks from submission)
16-Jul-25	CPHR Email - provides advice and comments on the ESCP Review.
24-Jul-25	Frasers Email and AT&L CPESC Response letter to address CPHR comments on 16/07/25.

A summary of consultation with Sydney Water is outlined in the table below, and supporting documents provided in Appendix B.

Date	Description
11-Jul-25	Meeting held with Sydney Water, Frasers and AT&L to discuss stormwater and ESC matters. The ESC plan was shared with Sydney Water during the meeting and no concerns were raised regarding the ESC plan.
18-Jul-25	Secondary Meeting held with Sydney Water regarding safety in design, no issues were raised on the ESC plans.
21-Jul-25	Frasers Email, sharing updated design package which have addressed outstanding matters. Email confirms ESC remains unchanged - no issues raised.

Regards,

**Monica Ngo**  
Project Engineer

**Frasers Property Industrial Australia**

[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)

02 9767 2240

**Appendix A: CPHR Consultation Documentation**

## Monica Ngo

---

**From:** Ahmad Ghalayini  
**Sent:** Thursday, 10 July 2025 2:06 PM  
**To:** Susan Harrison; OEH ROG Greater Sydney Region Planning Unit Mailbox  
**Cc:** Pamela Morales; Angela Stewart; Samantha Wilson  
**Subject:** RE: SSD-17552047 BCS ESCP review

Hi Susan,

Thank you for your email.

Though we are closing consultations on 11/07/25, we remain happy to receive your feedback on the package submitted 20/06/25 and ensure our plans align with your expectations so please advise an expected response time.

We will therefore proceed with administering the remaining requirements under conditions B24 & B28 with DPHI.

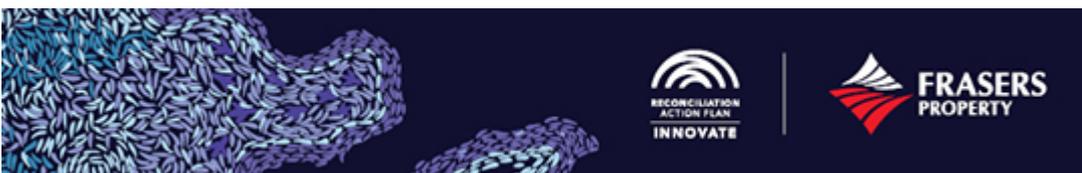
We are more than happy to organise a session where our consultants can present the content of the submission and facilitate the consultation process.

Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

**T** +61 2 9767 2197 **M** +61 475 592 689  
**E** [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Level 15, 180 George Street, Sydney NSW 2000  
[FrasersPropertyIndustrial.com](http://FrasersPropertyIndustrial.com)



At Frasers Property, we acknowledge the Traditional Custodians of the land on which we operate and pays respects Elders past, present, and future.

Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values. The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

---

**From:** Susan Harrison <[Susan.Harrison@environment.nsw.gov.au](mailto:Susan.Harrison@environment.nsw.gov.au)>  
**Sent:** Thursday, 10 July 2025 9:39 AM  
**To:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Cc:** Pamela Morales <[pamela.morales@planning.nsw.gov.au](mailto:pamela.morales@planning.nsw.gov.au)>; Angela Stewart <[angela.stewart@environment.nsw.gov.au](mailto:angela.stewart@environment.nsw.gov.au)>  
**Subject:** SSD-17552047 BCS ESCP review

You don't often get email from [susan.harrison@environment.nsw.gov.au](mailto:susan.harrison@environment.nsw.gov.au). [Learn why this is important](#)

**EXTERNAL EMAIL:** Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hello Ahmad

Thank you for your email. The Edge Estate ESCP review is still currently under assessment. The Branch has a heavy workload and items for response are dealt with in the order they are received. We work as quickly as possible to respond.

If you have any further queries, please email [rog.gsrplanning@environment.nsw.gov.au](mailto:rog.gsrplanning@environment.nsw.gov.au)

Regards  
Susan

**Susan Harrison**  
Senior Team Leader Planning, Greater Sydney  
Regional Delivery  
**Conservation Programs, Heritage and Regulation**  
**Department of Climate Change**  
**Energy, the Environment and Water**

E [susan.harrison@environment.nsw.gov.au](mailto:susan.harrison@environment.nsw.gov.au)

[dcceew.nsw.gov.au](http://dcceew.nsw.gov.au)

Level 14, 4 Parramatta Square,  
Parramatta



I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

---

**From:** Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>  
**Sent:** Monday, 7 July 2025 4:55 PM  
**To:** Angela Stewart <[angela.stewart@environment.nsw.gov.au](mailto:angela.stewart@environment.nsw.gov.au)>  
**Cc:** Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>; OEH ROG Greater Sydney Region Planning Unit Mailbox <[rog.gsrplanning@environment.nsw.gov.au](mailto:rog.gsrplanning@environment.nsw.gov.au)>; Matthew Murphy <[matthew.m@atl.net.au](mailto:matthew.m@atl.net.au)>; Samantha Wilson <[samantha.wilson@frasersproperty.com.au](mailto:samantha.wilson@frasersproperty.com.au)>  
**Subject:** RE: SSD-17552047 BCS ESCP review (DOC24/801778)

Hi Angela,

Tried to call and left a message today as we are after an update on the below email.

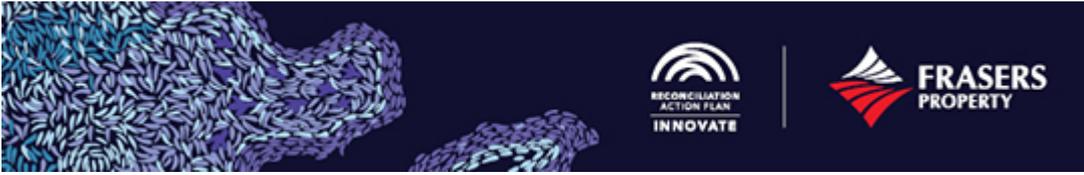
I note we aim to close consultation on conditions B24 & B28 of SSD17552047 by Friday 11/07/25.

Kind Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

T +61 2 9767 2197 M +61 475 592 689  
E [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Level 15, 180 George Street, Sydney NSW 2000  
[FrasersPropertyIndustrial.com](http://FrasersPropertyIndustrial.com)



At Frasers Property, we acknowledge the Traditional Custodians of the land on which we operate and pays respects Elders past, present, and future.

Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values. The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

**From:** Matthew Murphy <[matthew.m@atl.net.au](mailto:matthew.m@atl.net.au)>

**Sent:** Tuesday, 1 July 2025 8:55 AM

**To:** OEH ROG Greater Sydney Region Planning Unit Mailbox <[rog.gsrplanning@environment.nsw.gov.au](mailto:rog.gsrplanning@environment.nsw.gov.au)>

**Cc:** Angela Stewart <[angela.stewart@environment.nsw.gov.au](mailto:angela.stewart@environment.nsw.gov.au)>; Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>; Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>

**Subject:** RE: SSD-17552047 BCS ESCP review (DOC24/801778)

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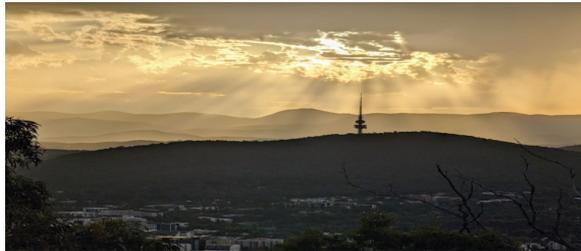
Hi Angela

Just following up to see if you have any feedback on the email below, I tried to call to discuss.

Please call me to discuss when you have some time.

Kind regards,

**Matthew Murphy**  
Senior Project Manager



**Telstra Tower, Canberra NSW**  
Photo by our Senior Civil Engineer - Suzanne Mustafa

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**From:** Matthew Murphy

**Sent:** Friday, 20 June 2025 3:39 PM

**To:** OEH ROG Greater Sydney Region Planning Unit Mailbox <[rog.gsrplanning@environment.nsw.gov.au](mailto:rog.gsrplanning@environment.nsw.gov.au)>

**Cc:** Angela Stewart <[angela.stewart@environment.nsw.gov.au](mailto:angela.stewart@environment.nsw.gov.au)>; [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au); Monica Ngo <[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)>

**Subject:** RE: SSD-17552047 BCS ESCP review (DOC24/801778)

Hi Angela

As discussed, we have recently received the SSD consent for the development along Aldington Rd, this has allowed access to the portal as noted in your email below.

Per our discussion as part of the consent there is a final consultation with CPHR for Conditions 24 and 28.

Package includes the following items

- SSD consent
- ESCP package (10,000)
- Infrastructure package (30,000)
- Trunk channel package (40,000)
- Landscape package (Coco)
- Drains models
- Approved SSD staging plans

[Frasers CPHR review](#)

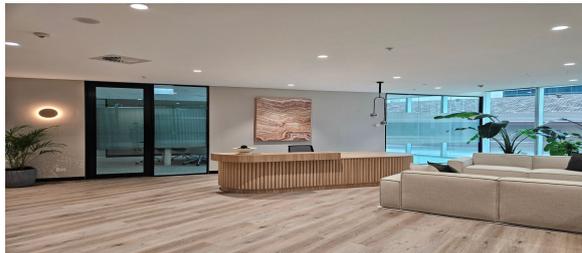
As agreed this consultation process would be best managed over emails rather than through the Portal, with the final documents loaded to the Portal once agreed.

Can I ask for you and your team to please review the attached information and confirm if these details are consistent with the consent and CPHR requirements to allow our private certifier to issue a Subdivision Works Certificate.

Let me know if you have any questions.

Kind regards,

**Matthew Murphy**  
Senior Project Manager



**New Parramatta Location:**  
**Suite 1.02, Level 1, 60 Station St, Parramatta, NSW, 2150**

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**From:** Angela Stewart <[angela.stewart@environment.nsw.gov.au](mailto:angela.stewart@environment.nsw.gov.au)>  
**Sent:** Wednesday, 18 December 2024 2:03 PM  
**To:** Matthew Murphy <[matthew.m@atl.net.au](mailto:matthew.m@atl.net.au)>  
**Cc:** OEH ROG Greater Sydney Region Planning Unit Mailbox <[rog.gsrplanning@environment.nsw.gov.au](mailto:rog.gsrplanning@environment.nsw.gov.au)>; Wafaa Wasif <[Wafaa.Wasif@environment.nsw.gov.au](mailto:Wafaa.Wasif@environment.nsw.gov.au)>; Anthony McLandsborough <[anthony.m@atl.net.au](mailto:anthony.m@atl.net.au)>; [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au); [samantha.wilson@frasersproperty.com.au](mailto:samantha.wilson@frasersproperty.com.au)  
**Subject:** RE: SSD-17552047 BCS ESCP review (DOC24/801778)

Good afternoon Matthew,

Thanks for your email.

Could you please send the revised ESCP via the Major Projects Portal. Please refer to the attached instructions (Steps 1-9) which can also be accessed here: [Frequently Asked Questions | Planning Portal - Department of Planning and Environment \(nsw.gov.au\)](#)

Kind Regards,

**Angela Stewart**  
**Senior Conservation Planning Officer – Greater Sydney Branch**

Regional Delivery  
Biodiversity, Conservation and Science  
Department of Climate Change, Energy, the Environment and Water  
T 02 8229 2918 E [angela.stewart@environment.nsw.gov.au](mailto:angela.stewart@environment.nsw.gov.au)  
4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150  
Working days Monday to Friday  
[dceew.nsw.gov.au](http://dceew.nsw.gov.au)

---

**From:** Matthew Murphy <[matthew.m@atl.net.au](mailto:matthew.m@atl.net.au)>  
**Sent:** Wednesday, 18 December 2024 11:09 AM  
**To:** Marnie Stewart <[Marnie.Stewart@environment.nsw.gov.au](mailto:Marnie.Stewart@environment.nsw.gov.au)>  
**Cc:** Wafaa Wasif <[Wafaa.Wasif@environment.nsw.gov.au](mailto:Wafaa.Wasif@environment.nsw.gov.au)>; Anthony McLandsborough <[anthony.m@atl.net.au](mailto:anthony.m@atl.net.au)>; Ahmad Ghalayini <[ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)>; [samantha.wilson@frasersproperty.com.au](mailto:samantha.wilson@frasersproperty.com.au)  
**Subject:** SSD-17552047 BCS ESCP review (DOC24/801778)

Hi Marnie

I am working with Frasers on the development of the project at 141-251 Aldington road Kemps Creek (SSD-17552047), we have now received consent conditions that require consultation with BCS regarding the ESCP for the proposed development.

See below the specific consent conditions that relate to BCS consultation under **SSD-17552047**.

#### **Condition B26 Erosion and Sediment Control**

B26. Prior to the commencement of any earthworks or other surface disturbance, the Applicant must prepare an Erosion and Sediment Control Plan (ESCP) to the satisfaction of the Planning Secretary. The ESCP must:

- (a) be prepared by a CPESC specialist whose appointment has been approved by the Planning Secretary;
- (b) **be prepared in consultation with BCS**, Sydney Water and include written evidence of the outcomes of the consultation process and how the recommendations have been incorporated into the ESCP;
- (c) be independently reviewed and verified by the ER prior to submission to the Planning Secretary;
- (d) comply with the detailed technical specifications in the Technical guidance for achieving Wianamatta South Creek stormwater management targets (DPE 2022) (the Technical Guidance) or its latest version and the performance criteria in Appendix 3 in this consent;
- (e) detail measures to protect passively irrigated street trees during construction works, if these are installed before construction is completed; and
- (f) be included in the CEMP required by conditions C2 and C5.

See attached link to detailed plans of the proposed ESCP package, including previously agreed staging plans for approval as part of the consultation requirements of the consent.

[Fraser BCS ESCP pack](#)

We request your feedback by COB 15<sup>th</sup> January 2024 so we can incorporate into a final set of drawings for construction.

Please call me if you have any questions on the above.

Kind regards,

**Matthew Murphy**  
Senior Project Manager



**Merry Christmas & Happy New Year!**  
Wishing you all the very best this holiday season and beyond.



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North Sydney NSW 2060

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**AT&L Christmas Closure**  
**23rd December 2024 - 3rd January 2025**

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NSW 2060  
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ABN 96 130 882 405  
[www.atl.net.au](http://www.atl.net.au)

24 July 2025

**Frasers Property**  
Level 15  
180 George Street  
Sydney NSW 2000

**Your Ref:**  
**Our Ref:** LTR014-01-20-776 Response to CPHR re  
ESCP.docx

**Attention:** Ahmad Ghalayini **Email:** [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Dear Ahmad,

**RE: EDGE ESTATE – 155-251 ALDINGTON ROAD, KEMPS CREEK**  
**SSD-17552047 – RESPONSE TO CPHR GROUP LETTER REGARDING ESCP**

This letter outlines a response to comments received from the NSW Conservation Programs, Heritage and Regulation (CPHR) Group in their letter to Frasers Property Industrial dated 15 July 2025 in relation to the Erosion and Sediment Control Plan (ESCP) for The Edge Estate.

Please refer to the enclosed ESCP report, which contains a series of erosion and sediment control drawings in Appendix A.

The table below outlines AT&L's response to the comments provided by CPHR Group.

CPHR Group Comment (15 July 2025)	AT&L Response
<i>1. Review the Technical Guidance for Achieving Wianamatta-South Creek stormwater management targets that outlines what is required in an ESCP, specifically pages 6 and 11.</i>	AT&L has prepared the attached Erosion and Sediment Control Plan (ESCP) and associated drawings (contained in Appendix A of the ESCP) generally in accordance with the requirements of the <i>Technical guidance for achieving Wianamatta-South Creek stormwater management targets</i> . Deviations from the Technical guidance are explained and justified in the ESCP.
<i>2. The ESCP is developed and certified by a Certified Professional in Erosion and Sediment Control (CPESC) or an equivalent qualification with at least 5 years' relevant experience</i>	The ESCP has been developed and certified by Tim Michel of AT&L (CPESC No. 11555). Refer to page 2 of the ESCP report for details and certification.
<i>3. Provide an ESCP report that:</i>	
<i>a. includes relevant sections such as introduction, site characteristics, catchments and drainage, erosion and sediment control strategy, and erosion and sediment control details</i>	Refer to the attached ESCP report inclusive of and introduction (Section 1), site characteristics / conditions (Section 2), catchments (Section 5.3 and Figure 3), ESC strategy (Section 5), and control measures (Section 5.1 to 5.4) and supporting figures and appendices.

CPHR Group Comment (15 July 2025)	AT&L Response
<p><i>b. quantifies and confirms the stormwater targets during the construction phase have been met</i></p> <p><i>i. This will be deemed to be achieved when high efficiency sediment basins are provided in accordance with Best Practice Erosion and Sediment Control – Appendix B (International Erosion Control Association 2018). For alternative solutions, modelling will be required to demonstrate compliance.</i></p>	<p>Enlarged Type D sediment basins have been proposed based on <a href="#">advice received by BCS on the application for the development at 113-153 Aldington Road</a>, a summary of which is provided below:</p> <p><b>Issue: Erosion and Sediment Control</b></p> <p>The Erosion and Sediment Control Plan (ESCP) document seems to restate requirements rather than detail specific strategies, while the plan (sheet C1101) is only applicable once final earthworks levels are reached. <b>The proposed approach of enlarged Type-D basins in lieu of high-efficiency basins is valid but presents additional challenges due to the space requirements (~900m<sup>3</sup>/ha).</b></p> <p><b>Information required</b></p> <p>Provide a revised ESCP which addresses the requirements of the Mamre Road Precinct DCP Section 4.4.2 and <i>Technical guidance for achieving Wianamatta–South Creek stormwater management targets</i> (DPE, 2022), which demonstrates achievement of the targets listed in Table 5 of the DCP. The revised ESCP is to specifically address the following:</p> <ul style="list-style-type: none"> <li>• Provide plans for each major phase of works, including clearing and grubbing, bulk earthworks (existing and final levels), civil works, and stabilisation/practical completion.</li> </ul> <p style="text-align: right;">2</p> <hr/> <ul style="list-style-type: none"> <li>• Identify the type of sediment basin and provide details for all functional components (e.g. forebay, level spreader, spillway, dosing system, flocculant type). Note that if enlarged Type-D basins are proposed then a space allowance of 900m<sup>3</sup>/ha should be provided.</li> <li>• <b>Provide sediment basin calculations demonstrating compliance with the DCP Table 5 targets (or adopt 900m<sup>3</sup>/ha).</b></li> <li>• Provide catchments plans identifying the sub catchments for all major drainage and sediment controls for each phase of works.</li> <li>• Provide calculation tables and sizing/dimensions for all major controls during all phases of works.</li> <li>• Provide a construction sequence identifying the order and timing for both the implementation and decommissioning of all controls, relative to specific site activities/hold points.</li> <li>• Provide details on the timing, methods and performance requirements for stabilisation of each area of site disturbance.</li> <li>• Provide specific advice in relation to dispersive soil management – particularly in relation to excavated drainage controls.</li> <li>• Provide details on how discharges from each basin will be managed so as not to reduce the hydrologic effectiveness of other basins (currently several basins are shown as inter-connected).</li> </ul> <p>It is noted that the Dexu development at 113-153 Aldington Road is located directly north of The Edge Estate, and both sites are located within the same soil landscape (Luddenham), meaning both are characterised by the presence of Type D (dispersive) soils.</p> <p>Refer to Section 5.3 of the attached ESCP report for more details on sediment basins.</p> <p>We note that in previous submissions to BCS Group (now CPHR Group), the use of enlarged type-D basins on the Edge Estate was mentioned such as in LTR013 dated 12/3/25 by AT&amp;L. CPHR Group advice dated 21/3/25 noted AT&amp;L’s response as reasonable, thereby deeming the use of enlarged type-D basins acceptable.</p>
<p><i>c. outlines any soil testing that should be undertaken or provide conservative soil parameters to be adopted. Specific advice on how dispersive soils have been considered and will be managed is also required.</i></p>	<p>Dispersive soil management principles are outlined in Section 4.4 of the ESCP report.</p> <p>As outlined in Section 6.2 of the ESCP, testing of sediment laden surface water runoff should be undertaken to determine the most appropriate coagulant and/or flocculant type and dosage.</p>
<p><i>d. include signed certification by a CPESC or equivalent qualification.</i></p>	<p>Refer to Document Registration in the ESCP report for certification.</p>

CPHR Group Comment (15 July 2025)	AT&L Response
<p>4. Provide ESCP construction staging plans that show:</p> <p>a. existing catchments, pre-development contours plan and arrows that indicate the direction of flow</p> <p>b. staging of earthworks</p> <p>c. final catchments, contours plan with earthworks and arrows that indicate the direction of flow.</p>	<p>Refer to catchment plans and staging plans in Appendix A of the ESCP</p> <p>Refer to Section 2.1 (Figure 2) of the ESCP showing pre-development catchment delineation</p> <p>Refer to drawings 20-776-C10061 to C10066 (last six pages of Appendix A)</p> <p>Refer to Figure 4 on page 11 of the ESCP report.</p>
<p>5. Provide ESCP construction staging plans that:</p>	
<p>a. represent each phase of works including clearing, earthworks (including existing and final levels), civil construction and landscaping</p>	<p>Refer to drawings C10061 to C10066 inclusive in Appendix A of the ESCP for construction phasing.</p>
<p>b. show erosion, drainage, and sediment controls for each phase</p>	<p>Erosion, drainage and sediment controls for each major construction phase are presented in Appendix A of the ESCP</p>
<p>c. identify external catchments and clean water drains</p>	<p>External catchments are presented in the construction phasing plans.</p> <p>The nature of the works and the external catchments is such that clean water diversion around work areas is not considered feasible. Based on this, sediment basins have been sized to treat external catchment areas that will drain through the site (limited to a portion of the Dexu development to the north of The Edge Estate and part of Aldington Road to the east of The Edge Estate).</p>
<p>d. show flow of clean water around the site and flow of dirty water within the site</p>	<p>Dirty water diversion drains are presented in the ESCP drawings in Appendix A.</p> <p>As noted above, no clean water diversions are proposed within or around the site due to limitations including existing and proposed topography, extent of bulk earthworks to facilitate the proposed development, and external works (upgrade of Aldington Road) adjacent to The Edge Estate.</p>
<p>e. provide sizing for major drainage and sediment control including basins</p>	<p>Sizing of major drainage and sediment controls is presented in drawing C10050 in Appendix A of the ESCP.</p>
<p>f. quantify compliance with the stormwater targets.</p>	<p>Confirmation of compliance against the construction phase stormwater quality targets is outlined in Section 3 (Table 1), Section 5.3 and Section 6.2 of the ESCP report.</p> <p>In addition, contingency management measures are outlined in Section 8 of the ESCP report.</p>

\*\*\*\*\*

Should you have any questions, please don't hesitate to contact the undersigned.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Tim Michel', written in a cursive style.

**Tim Michel**

Associate Technical Director | Urban Water Management

0402 253 865

[tim.m@atl.net.au](mailto:tim.m@atl.net.au)

**Appendix B: Sydney Water Consultation Documentation**

## Monica Ngo

---

**From:** Ahmad Ghalayini  
**Sent:** Monday, 21 July 2025 4:13 PM  
**To:** Craig Bush  
**Cc:** Naiem Teghlobi; Lubna Thalib; Darren Galia; Matthew Murphy; Monica Ngo  
**Subject:** RE: [External] RE: Frasers OSD/channel maintenance  
**Attachments:** SSD-17552047 Instrument of Determination.pdf

Hi Craig,

Thanks again for organising the SiD workshop on Friday, it was a very productive session.

I have now updated the shared folder ( [📁 03. Shared with SWC](#) ) as follows:

- **Trunk drainage set** updated based on latest meeting addressing items such as handrails on headwalls and rip rap around drop structure (Requiring satisfaction of Sydney Water B28 & B30 of SSD17552047 – approval attached for reference)
- **Erosion and Sediment Control Plan** (previously accepted in principle and requiring consultation with Sydney Water per condition B24 of SSD17552047) – no change from last review
- Basins DWG file for irrigation design review as agreed on Friday
- Latest landscaping design – no change from last review
- Estate roads stormwater set – included in infrastructure set labelled C30000

Hoping we are still on track for finalising your design review this week.

Kind Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

T +61 2 9767 2197 M +61 475 592 689  
E [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

Level 15, 180 George Street, Sydney NSW 2000  
[FrasersPropertyIndustrial.com](http://FrasersPropertyIndustrial.com)



At Frasers Property, we acknowledge the Traditional Custodians of the land on which we operate and pays respects Elders past, present, and future.

Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values. The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

---

**From:** Craig Bush <Craig.Bush@sydneywater.com.au>  
**Sent:** Wednesday, 16 July 2025 2:44 PM  
**To:** Ahmad Ghalayini <ahmad.ghalayini@frasersproperty.com.au>  
**Cc:** Naiem Teghlobi <Naiem.Teghlobi@frasersproperty.com.au>; Lubna Thalib <LUBNA.THALIB@sydneywater.com.au>; Darren Galia <Darren.Galia@sydneywater.com.au>  
**Subject:** Re: [External] RE: Frasers OSD/channel maintenance

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Hi Ahmad,

I'll pass them onto our commercial team and ask for an estimated timeframe for when they would expect the review to be completed.

On the design review I would assume by the end of next week should be fine, but I'll have a chat to the team tomorrow timeframes to confirm.

Speak soon.

## Craig Bush

Wianamatta Stormwater Lead

Business Development

**Mobile** 0475 063 488

1 Smith Street  
Parramatta NSW 2150

[craig.bush@sydneywater.com.au](mailto:craig.bush@sydneywater.com.au)

I'm in the office Monday and Thursday



Sydney Water respectfully acknowledges the traditional custodians of the land and waters on which we work, live and learn. We pay respect to Elders past and present.

[Read more](#) about our commitment to reconciliation.



---

**From:** Ahmad Ghalayini <ahmad.ghalayini@frasersproperty.com.au>

**Sent:** Tuesday, July 15, 2025 11:39 AM

**To:** Craig Bush <Craig.Bush@sydneywater.com.au>

**Cc:** Naiem Teghlobi <Naiem.Teghlobi@frasersproperty.com.au>; Lubna Thalib

<LUBNA.THALIB@sydneywater.com.au>; Darren Galia <Darren.Galia@sydneywater.com.au>

**Subject:** RE: [External] RE: Frasers OSD/channel maintenance

Hi Craig,

As discussed, please find attached the marked-up Stormwater Developer Works Agreement and the accompanying Key Issues List prepared by our legal team for The Edge Estate (SSD-17552047). We are submitting these now to allow your review in parallel with your team's design assessment.

Could you please confirm an indicative timeframe for your feedback on these documents? We'd appreciate your guidance so we can align program expectations on our side. Notwithstanding the agreement execution being a requirement for a S73 and not design approval, we are aiming to ensure the civil contractor is informed of and aligned with the contents of this agreement.

Once the design is approved, we'll be sending a BoQ template for your review and approval based on which we will get 3 contractor prices. Since we are having our safety in design workshop this Friday, I am targeting we secure your acceptance of the design next week.

Let me know if you require anything further.

Kind Regards,

**Ahmad Ghalayini**  
Project Manager - Infrastructure  
**Frasers Property Industrial**

T +61 2 9767 2197 M +61 475 592 689  
E [ahmad.ghalayini@frasersproperty.com.au](mailto:ahmad.ghalayini@frasersproperty.com.au)

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At Frasers Property, we acknowledge the Traditional Custodians of the land on which we operate and pays respects Elders past, present, and future.

Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values. The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future

---

**From:** Craig Bush <Craig.Bush@sydneywater.com.au>

**Sent:** Tuesday, 1 April 2025 10:06 AM

**To:** Ahmad Ghalayini <ahmad.ghalayini@frasersproperty.com.au>; 'Matthew Murphy' <matthew.m@atl.net.au>; Lubna Thalib <LUBNA.THALIB@sydneywater.com.au>; Darren Galia <Darren.Galia@sydneywater.com.au>

**Cc:** Naiem Teghlobi <Naiem.Teghlobi@frasersproperty.com.au>

**Subject:** RE: [External] RE: Frasers OSD/channel maintenance

---

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Hi Ahmad,

Thanks for the email. I've updated the below based on some feedback from our commercial lead regarding the timing of the Stormwater DSP to confirm the assumptions in the email are correct. I have added some text below in red adding detail/confirming information.

Note we still need to work out the maintenance responsibilities of the trunk drainage channel. I'm not around until after easter, I would suggest we organise a specific meeting to through that to confirm the arrangement in early May. Noting that the channel in the OSD will need to be maintained by Frasers for 2 years post practical completion (which doesn't include interim works – such as sediment basins etc.) so we do have time but it would be good to get a formal agreement.

If you have any questions, please give me a call.

Regards,

**Craig Bush**

Acting Wianamatta Stormwater Lead

Western Sydney Development

**Mobile** 0475 063 488

1 Smith Street  
Parramatta NSW 2150

[craig.bush@sydneywater.com.au](mailto:craig.bush@sydneywater.com.au)

I'm in the office Monday and Thursday

**Sydney**  
**WATER**



Sydney Water respectfully acknowledges the traditional custodians of the land and waters on which we work, live and learn. We pay respect to Elders past and present.

[Read more](#) about our commitment to reconciliation.



---

**From:** Ahmad Ghalayini <ahmad.ghalayini@frasersproperty.com.au>

**Sent:** Monday, 31 March 2025 5:20 PM

**To:** 'Matthew Murphy' <matthew.m@atl.net.au>; Craig Bush <Craig.Bush@sydneywater.com.au>; Lubna Thalib <LUBNA.THALIB@sydneywater.com.au>; Darren Galia <Darren.Galia@sydneywater.com.au>

**Cc:** Naiem Teghlobi <Naiem.Teghlobi@frasersproperty.com.au>

**Subject:** RE: [External] RE: Frasers OSD/channel maintenance

Hi Everyone,

Thank you for your time on Friday. A recap on what has been discussed:

Agreed Points:

- Procurement requirements:
  - FPI shall provide Sydney Water with 3 quotes for the works in the western channel and for the open channel component of the chain of basins in the Transgrid easement to enable reimbursement.
    - **Prior to going out to quote the developer is to:**
      - **Receive Sydney Water endorsement of the final design, including staging (I understand these OSD systems and the western channel are going to be used as sediment basins as well, noting we will not be covering any costs associated to interim works). If these are provided in the link below great but we'll need to provide endorsement that that are satisfactory before you go to quote.**
        - **We can get formal approval of the "for construction set" in the period prior to construction through the E-Developer process.**
      - **Ensure the BOQ for the proposed construction works clearly articulates the components to be funded by Sydney Water and those covered by developer. These are to be provided to Sydney Water for endorsement before going out to quote.**
      - **Prepare procurement documentation as per our procurement policy**
      - **Go out to market to a minimum of 3 suitable contractors.**
  - Sydney Water will elect the price based on the above, FPI can choose the contractor. **Correct**

- This price is to be use the developer works agreement along with a clear scope of the works for Sydney Water reimbursement
- The Final “for Construction” design set and Inspection and Test Plan for the works provided to Sydney Water for endorsement prior to construction commencing.
- Only vegetation within channels will be reimbursed, landscaped irrigation spaces outside the channels will not be included in the reimbursement area – **Correct**.
- Irrigated spaces outside the channels can be landscaped per FPI’s landscaping guidelines. **Correct, however it would still need to reflective the approved DCP planting list, which includes the Airport requirements to reduce bird strike (assuming to be signed off by Council/DPHI).**
- Stormwater DSP is not required for a road dedication administrative S73 but will need to be paid prior to an Occupation certificate or an Industrial Lot Subdivision certificate.
  - The stormwater DSP is to be paid prior to a building/Lot receiving a Section 73 certificate and OC (this will include any associated local road or other areas developed).
  - For the Frasers the Edge development the only components exempt from DSP payment include the electrical easement, the trunk drainage channel, and the corrector road (Aldington Road to Barings). The rest of the Edge is Developable and, in our calculations, to be confirmed once requesting DSP formally, would include a total of 53.222ha of DSP (which is \$46.7m using the current rate of \$877,200/ha).
- Sydney Water confirmed adjusting the boundaries of the FPI/Barrings western channel is acceptable as long as the conveyance width and max flow line is not impacted and the total area reduction is less than a 1,000 m2. **Correct**

Other Queries:

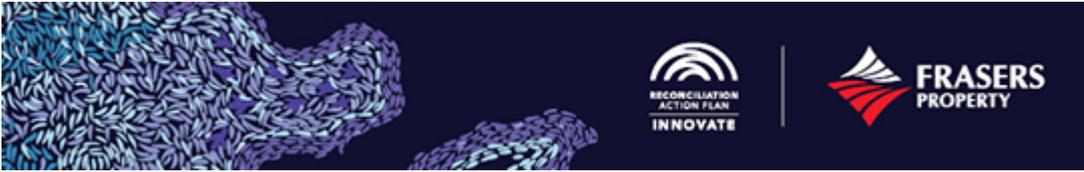
- What is the timing of payment of the PW, RW & WW contributions/DSPs, are they also prerequisites for OC and Industrial Lot subdivision?
  - As indicated above the stormwater/RW DSP is to be paid as a prerequisite to OC.
  - For PW and WW there may be one amount collected on subdivision (to cover potential permissible use) and then a later amount collected to cover the final building's actual demand, this is to be confirmed by Lubna and the WSC.
- Can we stage the stormwater DSP payments as per the subdivision or the occupation certification staging?
  - Yes, but it will need to be paid prior to receiving S73 for any building. So, if there is 10 lots/buildings the DSP will need to be paid for each lot/building and associated areas (including local roads or landscaped areas) at that time.

I note that our drawings have been submitted per the below link and the truck drainage civil set has been submitted in the attached email @'Matthew Murphy', would appreciate if you can share with Sydney Water a consolidated updated set covering the latest discussions inclusive of the coordination with Barings.

 [03. Shared with SWC](#)

Kind Regards,  
**Ahmad Ghalayini**  
 Project Manager - Infrastructure  
**Frasers Property Industrial**

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At Frasers Property, we acknowledge the Traditional Custodians of the land on which we operate and pay respects Elders past, present, and future.

Our email signature artwork, Flow, created by Maddison Gibbs, a proud Barkindji woman, deeply resonates with our values.

The piece represents the connection of land, sea, sky, and time - honouring both the past and looking toward the future.

---

**From:** Ahmad Ghalayini

**Sent:** Tuesday, 25 March 2025 9:59 PM

**To:** 'Craig Bush' <[Craig.Bush@sydneywater.com.au](mailto:Craig.Bush@sydneywater.com.au)>

**Cc:** 'Lubna Thalib' <[LUBNA.THALIB@sydneywater.com.au](mailto:LUBNA.THALIB@sydneywater.com.au)>; 'Matthew Murphy' <[matthew.m@atl.net.au](mailto:matthew.m@atl.net.au)>

**Subject:** RE: [External] RE: Frasers OSD/channel maintenance

Hi Craig,

Thank for your time last week with Barings, looking forward to your feedback on potential for adjusting channel geometry as discussed.

Can we meet this Friday at 2 pm for the following:

- Channel Landscaping reimbursed by Sydney Water
- Irrigation areas planting reimbursement
- Irrigation coverage areas

I will put in a placeholder and happy to cancel/reschedule to suit.

Kind Regards,

**Ahmad Ghalayini**

Project Manager - Infrastructure

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# Appendix D Dam Decommissioning Plan



# Aldington Road Estate, Kemps Creek SSD-17552047

## Dam Decommissioning Management Plan

Prepared for

Frasers Property Industrial Pty Ltd

# Aldington Road Estate, Kemps Creek SSD 17552047 - Dam Decommissioning Management Plan

prepared for

Frasers Property Industrial Pty Ltd.

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## Document control

### Prepared by

Kat Duchatel  
BSc. Env. CEnvP EIANZ #691  
BAM Accreditation no.BAAS17054



13/10/2022

## Revision

Revision	Date	Description	Issued to
01	20/06/2021	DRAFT Dam Decommissioning Management Plan for review	Frasers
02	23/06/2021	Dam Decommissioning Management Plan for submission	Frasers
03	13/10/2022	Dam Decommissioning Management Plan for submission - amended to include additional lots	Frasers

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12 Wanganella Street, Balgowlah NSW 2093  
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# 1 Introduction

## 1.1 Background

Frasers Property Industrial (Frasers) is proposing to construct and operate a warehouse and logistics hub at 155 to 217 Aldington Road, Kemps Creek (the subject land). The proposed development (the proposal) will involve bulk earthworks, vegetation clearing, provision of infrastructure and construction of warehouse and distribution facilities.

The subject land is located within the Penrith City Council local government area (LGA) and comprises several allotments as identified below and shown in Figure 1-1.

- 144-153 Aldington Road, Kemps Creek - Lot 34 DP258949 (part of)
- 155-167 Aldington Road, Kemps Creek - Lot 33 DP258949
- 169-181 Aldington Road, Kemps Creek - Lot 28 DP255560
- 183-197 Aldington Road, Kemps Creek - Lot 27 DP255560
- 199 Aldington Road, Kemps Creek - Lot 26 DP255560
- 201-217 Aldington Road, Kemps Creek - Lot 25 DP255560
- 219-233 Aldington Road, Kemps Creek - Lot 24 DP255560
- 233-255 Aldington Road, Kemps Creek - Lot 10 DP253503

The subject land contains eight farm dams (refer Figure 1-1), which will require decommissioning to facilitate the development.

## 1.2 Purpose of this plan

This Dam Decommissioning Management Plan (the Plan) has been prepared to guide the decommissioning of eight farm dams within the subject land.

The Plan details the procedures that must be undertaken in the planning, preparation and implementation of farm dams within the subject land and addresses relevant legislation, permits and approvals.

These requirements will be met through implementing the procedures described in this Plan, which include:

- Pre-clearance, construction and post construction strategies
- Fauna rescue and relocation protocol
- De-watering guidelines
- Euthanasia and disposal of pest aquatic species
- Weed and pathogen control
- Monitoring and reporting strategies



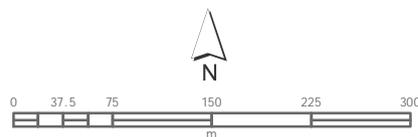
Coordinate System: MGA Zone 56 (GDA 2020) | Image sources: Nearmap 15 June 2022

Legend

-  Subject land
-  DP 255560
-  Farm\_dams

155-251 Aldington Road, Kemps Creek SSD 17552047

Figure 1.1. Subject land farm dams



### 1.3 Relevant legislation

Table 1-2 provides a summary of legislation relevant to the decommissioning of dams located within the subject land.

Table 1-1. Legislative context

Legislative mechanism	Relevance to proposal
Federal legislation	
Environmental Protection and Biodiversity Act 1999 (EPBC Act)	No individual threatened species or populations or communities listed under the EPBC Act occur within the farm dams or would be impacted on as a result of the dam decommissioning activities.
State legislation	
Biodiversity Conservation Act 2016 (BC Act)	No individual threatened species or populations listed under BC Act occur within the farm dams.  Native emergent vegetation within the farm dams has been assessed separately within a Biodiversity Development Assessment Report (BDAR) for the proposal and is being offset in accordance with the NSW Biodiversity Offsetting Scheme.
Biosecurity Act 2015 (Biosecurity Act)	The Biosecurity Act repealed the <i>Noxious Weeds Act 1993</i> , which has provided regulatory controls and powers to manage noxious weeds in NSW. The Biosecurity Act: <ul style="list-style-type: none"> <li>• Applies equally to all land in the state, regardless of whether it is publically or privately owned; and</li> <li>• Introduces the legally enforceable concept of a General Biosecurity Duty (GBD).</li> </ul> For weeds, the General Biosecurity Duty (GBD) means that any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable).  The farm dams do not contain and weed species categorised as priority weeds under the Biosecurity Act.  Other biosecurity risks include introduced fish species such as European carp ( <i>Cyprinus carpio</i> ) and Plague minnow ( <i>Gambusia holbrooki</i> ). These species must be managed compliantly with the Biosecurity Act.
Fisheries Management Act 1994 (FM Act)	The rescue and relocation of fin fish during dam decommissioning requires a permit under Section 37 of the FM Act.  The power to grant an approval under Section 37 of the FM Act is limited by section 220ZW (Licence to harm threatened species, population or ecological community or damage habitat).  Based on ecological assessment conducted for the subject land, it is considered unlikely that any threatened species, populations or

Legislative mechanism	Relevance to proposal
	ecological communities listed under the FM Act occur within the subject land and a licence under section 220ZW not required.
Prevention of Cruelty to Animals Act 1979 (PCA Act)	<p>Under Part 2 Clause 5(3) of the PCA Act, a person in charge of an animal shall not fail at any time:</p> <ul style="list-style-type: none"> <li>a. to exercise reasonable care, control or supervision of an animal to prevent the commission of an act of cruelty upon the animal,</li> <li>b. where pain is being inflicted upon the animal, to take such reasonable steps as are necessary to alleviate the pain, or</li> <li>c. where it is necessary for the animal to be provided with veterinary treatment, whether or not over a period of time, to provide it with that treatment.</li> </ul> <p>These clauses have been provisioned for in Section 4.1 of this Plan.</p>
Protection of the Environment Operations Act 1997 (POEO Act)	<p>Under Part 5.3 of the POEO Act it is an offence to pollute any waters.</p> <p>As there is no watercourse within the subject land, options for dam water disposal will include irrigating onto land, reuse on site, or reuse during construction (for initial dust suppression and soil conditioning).</p>

## 2 Existing Environment

### 2.1 Subject land

The subject land is characterised by cleared pasture, market gardens and rural residences (and associated buildings), isolated patches of native vegetation, scattered paddock trees and areas in which exotic and/or mixed exotic/native trees have been planted. The landscape of the subject land is of gently undulating topography with a gentle slope towards Kemps Creek located approximately one kilometer (km) to the south west / west. Ground levels of approximately 96 m Australian Height Datum (AHD) are present near the north eastern site extent falling to approximately 56 m AHD in the south western site extent.

### 2.2 Hydrology

The subject land is located in the South Creek catchment. The closest down gradient watercourse is Kemps Creek, located approximately 1 km south west/west of the site. Kemps Creek traverses north west joining with South Creek approximately 2.0 km west of the site. The site is predominately surfaced with grass cover, whereby it is anticipated surface water generated during periods of rainfall is likely to result in infiltration into the ground surface at a rate reflective of the silty clay soil permeability. In periods of heavy or prolonged rainfall, excess water is likely to result in overland flow and traverse south west towards Kemps Creek, following the topographic gradient (JBS&G, 2021<sup>1</sup>).

### 2.3 Geology and soils

#### 2.3.1 Geology

The 'Penrith 1:100 000 Geological Map' indicates the subject land is underlain by the Middle Triassic aged Wianamatta Group Bringelly Shale consisting of shale, carbonaceous claystone, claystone, laminate and and coal and tuff. Other units which may be encountered across the study area include Quaternary fluvial sand, silt and clay (around existing and old creeks and waterways), surficial topsoil and residual clays (derived from weathering of shale bedrock) (JBS&G, 2021<sup>1</sup>).

#### 2.3.2 Soil

The subject land predominantly overlies the Luddenham soil landscape with a smaller area of Second Ponds soil landscape at lower elevation to the southwest, which is an erosional landscape typically occurring on hills and low hills on Wianamatta Group Bringelly Shale (shale, sandstone-lithic and siltstone/mudstone) in the Cumberland Plain and Blue Mountains Plateau. Degradation of this landscape is reported as: moderate gully erosion on steep slopes; moderate sheet erosion, with unstable slopes where mass movement may occur.

Second Ponds soil landscape is a transferral landscape, which occur on the foot slopes and plains on Colluvium/Alluvium and Wianamatta Group Shale (shale and colluvium) in the Cumberland Plain. Transferral soil landscapes are formed on deep deposits of mostly eroded parent materials washed from areas upslope. Degradation of this landscape is reported as: locally severe salt scalding and associated erosion on lower slope positions. Localised gully erosion along drainage depressions

#### 2.3.3 Salinity

The site is shown on the Salinity Potential Map for Western Sydney (DIPNR 2002<sup>2</sup>) to lie within an area of moderate salinity potential, with high salinity potential in the vicinity of creek and drainage lines. Areas of moderate salinity generally consist of areas susceptible to saline affectation if disturbed particularly if

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<sup>1</sup> JBS&G Aldington Estate Detailed Site Investigation. Dated 18 May 2021. 60482/137852 (Rev 0)

<sup>2</sup> Department of Infrastructure, Planning and Natural Resources. Salinity Potential in Western Sydney 2002 (DIPNR 2002)

saline groundwater / seepage is intercepted and / or if areas of water logging can occur. Typically scattered saline indicator vegetation occurs in these areas.

A previous geotechnical investigation (Section 4.2) undertook salinity testing and reported soils beneath the site to be non-saline to moderately saline. During the investigation described herein there was no visible indication of saline soils evident at the ground surface, and there was no evidence of salt scarring identified around the dams or other areas of surface water pooled at the site (JBS&G, 2021<sup>1</sup>).

## 2.4 Hydrogeology

Groundwater flow is inferred to be towards the south west/west following topography towards Kemps Creek, however due to the underlying low permeability clays and shales, the potential for groundwater movement is likely to be low. Groundwater levels were measured within monitoring wells during the current investigation at depths between 1.981 and 2.540 m below top of casing (btoc) in clay/weathered shale, although groundwater was not encountered during advancement of soil locations throughout the investigation (JBS&G, 2021<sup>1</sup>).

Review of monitoring well boreholes indicated weathered shale to be wet at between 4.8 and 7.9 m below ground surface (bgs). Therefore, groundwater levels in monitoring wells are related to accumulation of seepage and confining pressure influence (JBS&G, 2021<sup>1</sup>).

Perched (saline) groundwater may be present within localised (shallow) filled areas and generally within the soils in the lower landscape above shale bedrock. Saline groundwater is also anticipated at relatively shallow depths in the lower landscape portions of the site, hosted by fracturing / jointing of the Wianamatta Shales (JBS&G, 2021<sup>1</sup>).

## 2.5 Farm dams

The subject land’s farm dams have been historically constructed to capture surface flows from the undulating topography and prevailing drainage pathways.

It appears that dam construction has involved basin excavation and reworking of natural (excavated) clays to form embankments. Table 2-1 summarises each dam’s location, surface area and estimated depths and volumes and photo plates provided below.

Table 2-1. Subject land farm dams

Dam no.	Location	Area (m <sup>2</sup> )	Depth (m) <sup>3</sup>	Estimated volume (ML) <sup>4</sup>
1	Lot 33 DP258949	1,888	2	1.51
2	Lot 33 DP258949	2,772	2	2.22
3	Lot 28 DP255560	22,727	4	36.43
4	Lot 27 DP255560	2,925	2	2.3
5	Lot 25 DP255560	1,191	1	0.48
6	Lot 25 DP255560	2,585	2	2.07
7	Lot 24 DP255560	8,766	3	10.52
8	Lot 10 DP253503	3,991	2	3.19

<sup>3</sup> Estimated only, depth unknown

<sup>4</sup> Volume (m<sup>3</sup>) = surface area (m<sup>2</sup>) × max depth (m) × 0.4 (where 0.4 accounts for the batter slope on the sides of the dam) / 1000 = megalitres (ML). Source: NSW Local Land Services [www.lls.nsw.gov.au/regions/central-west/articles-and-publications/farm-water](http://www.lls.nsw.gov.au/regions/central-west/articles-and-publications/farm-water)



Dam 1. Lot 33 DP 258949



Dam 2. Lot 33 DP 258949



Dam 3. Lot 28 DP 255560



Dam 4. Lot 27 DP 255560



Dam 5. Lot 25 DP 255560



Dam 6. Lot 25 DP 255560



Dam 7. Lot 24 DP 255560



Dam 8. Lot 10 DP 253503

### 2.5.1 Dam water quality

Surface water quality investigations were conducted by JBS&G Australia Pty Ltd (JBS&G<sup>1</sup>) as a component of detailed site contamination investigations for the proposal.

Surface water samples were collected at a range of between 0.5 - 4.0m from the bank of the dam and analysed for heavy metals, BTEX/TRH, PAHs, Nutrients, ph and TSS.

Guideline values for the protection of fresh water ecosystems (Australia and New Zealand Guidelines for Fresh and Marine Water Quality) were adopted noting the site forms part of the catchment for South Creek - which forms part of the upper catchment to the Hawkesbury River. All surface water receptors are considered to be dominated by fresh water conditions in proximity to the site.

All contaminants of potential concern (COPCs) were reported below the adopted site criteria for 95% specific protection levels for freshwater environments.

## 3 Dam decommissioning

### 3.1 Dewatering

Options for dam water disposal include irrigating onto land, reuse on site, reuse during construction, removal to an authorised waste management facility, and discharge into the stormwater drainage system or local creek.

Downstream waterbodies (from the subject site) are progressively being decommissioning for industrial development and Aldington Road lacks a formal stormwater drainage system. Therefore, it is most likely that dewatering would be staged in line with development progress and provide a source of water for initial dust suppression and soil conditioning.

Irrigation of surrounding land will be feasible for the smaller dams, with the larger Dam Lot 28 recommended as a water supply for dust suppression and soil conditioning (dependent of progression of earthworks). If this approach were to be used, the timeframe for discharge should take into consideration the absorption capacity of the soils (such as the Design Irrigation Rate (DIR) in Australian Standard 1547:2012).

Prior to dam decommissioning the following requirements must be considered:

#### 3.1.1 Environmental protection measures

Prior to the commencement of the dam dewatering, suitable sediment and erosion controls are to be installed and established.

#### 3.1.2 Water quantity

The dam dewatering process will typically utilise an engine driven six inch water pump that has the capability to transfer up to 2,500 litres per minute. The flow rate of the pump should be monitored over the duration of the activity with scope to suitably adjust the pump flow rate to coincide with the required specific rate of water disposal.

Floats and lines should be fitted to the pump heads to ensure that the head can be readily moved to avoid the suction of sediment instead of water.

Should discharge offsite be facilitated, the following would be required:

- The Project Engineer is to detail the quantity and flow rate of discharge to safely manage flows; and
- Screening of the pump to prevent the spread of pest fish species. A maximum mesh size of 500 microns is recommended however mesh of this size will become blocked by debris relatively quickly. Installation of an outer silt curtain will assist.

Water levels in each dam will need to be monitoring to ensure refuge habitat for aquatic fauna is maintained at all times up until the dam is ready for decommissioning and a program in place to capture and relocate aquatic fauna.

Dewatering should cease at approximately 50cm depth. This would represent a 'hold point' at which time inspection of the dam should be undertaken by the Project Ecologist to determine whether further dewatering is required or decommissioning can proceed.

#### 3.1.3 Water quality

Surface water has not been identified to be contaminated and therefore application to land by irrigation or use for dust suppression or similar during development works is considered appropriate. If surface water (dams) is to be pumped to stormwater it shall be sampled by the environmental consultant for analysis in accordance with a dam dewatering plan to be prepared and compliance with the ANZG (2019) toxicity trigger values (TTVs) for the 95% Protection of Marine Ecosystems. If it does not meet these values, appropriate waste disposal practices with a suitably licensed and experienced waste contractor is required.

### 3.1.4 Sediment quality

Prior to disturbing the sediment of each dam, the sediment must be assessed against the National Environmental Protection Measure (NEPM) 2013. Relevant geotechnical assessment to determine compaction and filling of decommissioned dams shall be undertaken.

### 3.1.5 Temporary sediment placement

Temporary bunded or silt fenced areas are to be provided alongside each dam for the placement of any sediments removed by excavators for immediate sorting by ecologist(s) to retrieve any fauna present.

The exact dimensions of each temporary holding area will be dependent on the extent of excavation required for decommissioning and the size of each dam and will be directed by the Project Ecologist on site.

## 3.2 Decommissioning Procedures

### 3.2.1 Requirements

- A qualified ecologist with relevant permit under Section 37 of the FM Act must be present on-site during, and following, the dewatering to ensure that appropriate action can be taken about care and relocation of fauna residing in the dam.
- Sufficient support personnel must also attend to ensure that the handling, storage and relocation is achieved with minimal stress to aquatic fauna.
- Dewatering works are to cease when ecologist(s) leave to release fauna. Fauna are not to be handled or removed in the absence of an ecologist.
- Fauna are not to be handled or removed in the absence of an ecologist.

It is recommended that a site meeting be held with the ecologist, contractor and management to ensure that resourcing required is understood.

### 3.2.2 Approach

The exact method of final dewatering will vary depending on the shape and configuration of each dam being decommissioned (i.e., the local topography and bathymetry of each dam). The following procedures are recommended for final dewatering in combination with aquatic fauna rescue.

- Typically, a trench will be excavated in isolation from the dam's remaining standing water, retaining a berm or where a dam wall exists the trench should be excavated on the landside of the dam wall.
- The berm or dam wall will be breached, and aquatic fauna captured via netting. For the larger dams it is recommended that fyke netting be installed immediately upstream of the wall. Several nets would be required for rotation as aquatic fauna are progressively captured.
- The wall is then carefully breached to allow water flow into the trench. Fin fish, including eels will naturally migrate towards the flowing water and be captured in nets.
- As water levels lower it is likely that pools of stranded water will occur as a result of undulations in the dam bed. In order to access such pools:
  - An excavator should be used to gradually build a berm into the dam from which access is made possible to breach pools and enable flow to continue.
  - Nets should be relocated as necessary.
  - Additional trench excavation may be required depending on the size of the dam and nature of the dam bed.
  - Sediments removed for construction of trenches should be carefully scooped up by excavator for immediate sorting by ecologist(s) to retrieve any fauna present. Sediments should be placed in temporary bunded, or silt fenced areas.

- Ecologist support would also traverse the dam during the de-watering to collect aquatic fauna where accessible, if required.

### 3.3 Fauna release locations

Potential release locations for aquatic fauna will be subject to consultation and approval by DPI Fisheries. This is particularly relevant to the relocation of eel species, which are predatory and have the potential to impact on the receiving environment should large numbers of eels require relocation.

Suitable relocation sites must have the following characteristics:

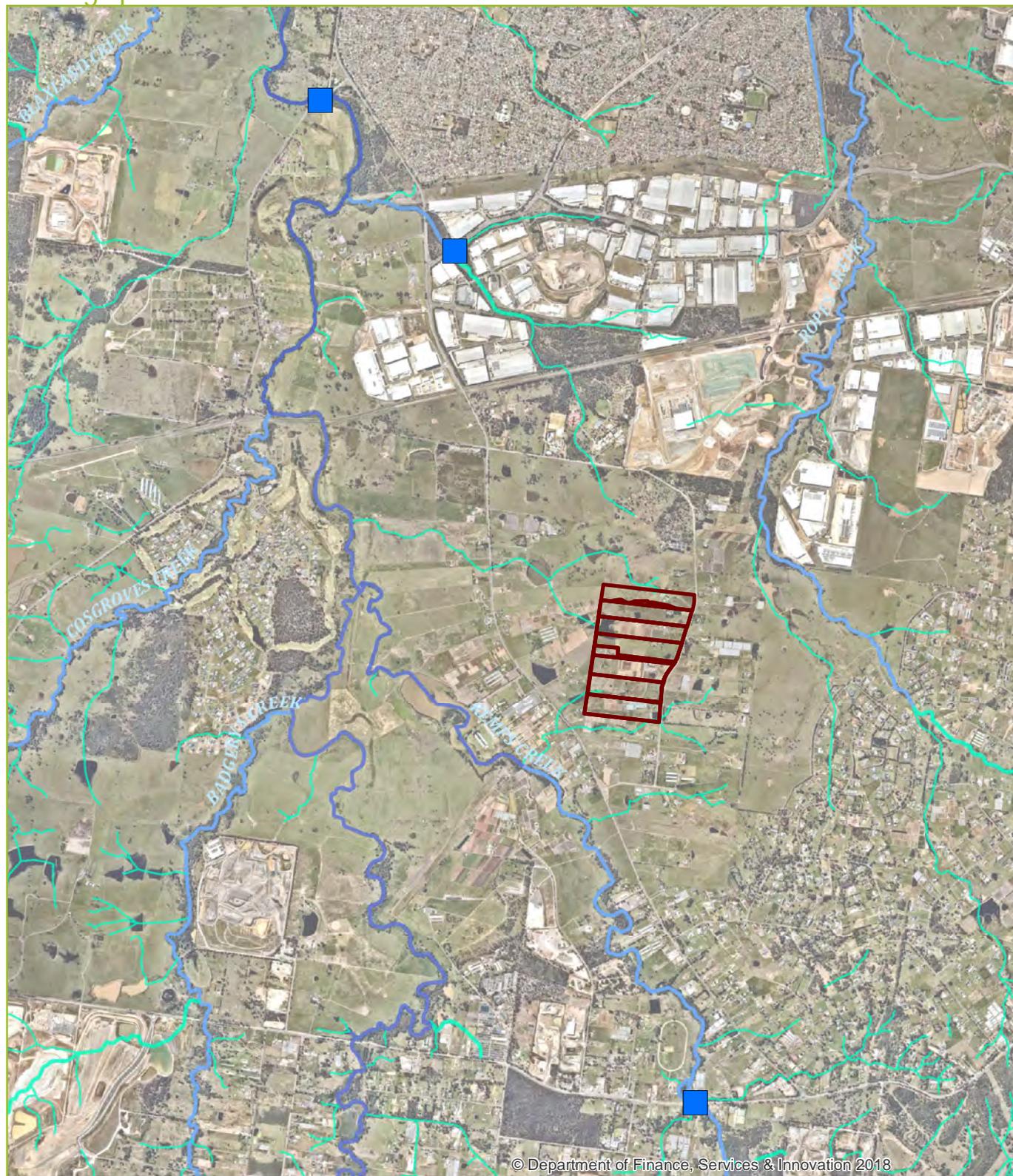
- Accessibility and relatively short distance and subsequent limited time period in which transport of aquatic fauna would be required from the dam to the release site.
- The geomorphology of the release sites, which should provide a relatively wide and deeper section and permanence of standing water.
- An open system, which will enable released aquatic fauna to migrate freely from the point of release to reduce competition and predatory impacts at the release site.

Three potential release locations (see Table 3-2 and Figure 3-1) have been identified on the following basis:

- Location within drainage lines to the South Creek.
- Accessibility and relatively short distance and subsequent limited time period in which transport of aquatic fauna would be required from the dam to the release site.
- The geomorphology of the release sites, which provides a relatively wide and deeper section and permanence of standing water.
- An open system, which will enable released aquatic fauna to migrate freely from the point of release to reduce competition and predatory impacts at the release site.

Table 3-1. Potential release sites

Site ID	Watercourse	Location	Distance from subject dams
1	Kemps Creek	Elizabeth Drive, Kemps Creek	5.9 kms
2	South Creek	Luddenham Road, Orchard Hills	7.2 kms
3	South Creek tributary	Erskine Park Road, Erskine Park	5.4 kms

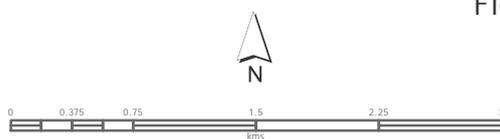


Coordinate System: MGA Zone 56 (GDA 94) | Image sources: Nearmap 15 April 2021

### Aldington Road Estate SSD 17552047

Figure 3.1. Potential release sites

-  Subject land
-  Potential\_release\_locations



## 4 Aquatic fauna

### 4.1 Aquatic fauna handling procedures

- Captured aquatic fauna would be temporarily stored in vehicle-based holding tanks for transportation to the release site.
- Holding tanks would vary in size and water depth and duration of temporary storage would be dependent on species captured.

A description of the specific requirements for handling different types of fauna is detailed below.

#### 4.1.1 Amphibians

Hygiene precautions as detailed in the NSW Department of Environment and Climate Change (2008) (now OEH) must be observed when handling frogs.

- Frogs should only be handled when necessary.
- Gloved hands would be made wet in the local water or in wet grass/vegetation so that loss of skin secretions is minimised when frogs are first picked up.
- Frogs will be captured in aerated plastic bags (can be used as a glove) and kept as one per bag for release.
- Frogs should be released at night to disadvantage predators, however if this is not feasible, they should be released into dense pool/pond side vegetation.

#### 4.1.2 Turtles

Scoop nets may be utilised to capture turtles from the water. However from experience turtles respond quickly to water draw down and voluntary start to leave the dam and are relatively easy to capture by hand.

- If direct handling is required, captured individuals should be gripped from the side, with a firm grip on both their shell (carapace) and belly (plastron).
- Captured individuals are to be transferred into plastic buckets containing water from the dam for relocation.
- Turtle shells will be wiped down with a sponge to remove any carp eggs that may be attached.
- Turtles would be transported separately to avoid the risk of shell damage and hence infection.
- Any injured turtles are to be taken to a local veterinary service for treatment.

#### 4.1.3 Fin Fish

- Generally, all native fish would be handled as little as possible. Handling of fish would be in accordance with the NSW Department of Primary Industries (2017) guide to acceptable procedures and practices for aquaculture and fisheries research (4th Edition).
- The removal of the fish's protective mucous covering and reducing temperature shock would be minimised by wetting hands first with dam water.
- Fish would be placed into holding tanks which:
  - allow fish to rest comfortably
  - minimize the risk of escape or injury
  - be adequately aerate;
  - maintain constant temperature

- minimise the risk of disease transmission
- The time for which the fish is held should be minimal.
- Wherever possible, fish must be captured whilst still in the water.
- Holding areas must be safe, quiet and hygienic.
- Fish must be assessed regularly if prolonged restraint or confinement is required.
- Fish should be transported in a dark environment, with very low light intensity to reduce stress.
- When releasing fish from holding tanks, fish must be supported by both hands and gently lowered into the water.
- Any captured pest species are to be humanely euthanased, and the carcasses disposed in an appropriate manner to prevent any potential contamination of soil or waterbodies.

#### 4.1.4 Dealing with injured native aquatic fauna

Injured fauna will be taken to an appropriately trained animal carer. The trained animal carer will be contacted prior to the start of dewatering to ensure they are able and willing to accept any injured fauna.

#### 4.1.5 Euthanasia

Aquatic fauna would only be euthanized if severely injured and suffering or if they are exotic pest species.

Pest fish will be euthanized by an appropriately licensed ecologist in the manner most appropriate to the fish species encountered and disposed of, if required, at a landfill site.

Pest fish may be euthanized using an overdose of Aquil-S, which anaesthetises the fish with the overdose continuing to take the individual through to medullary collapse and subsequently death. Small bodied fish species that may be captured in high abundances, such as Eastern Gambusia, may be euthanized using an ice slurry. Large specimens of Carp or Goldfish may be required to be euthanized using blunt force trauma.

If the exotic Red-eared Slider Turtle *Trachemys scripta elegans* is identified, individuals are to be captured and humanely contained. The DPI Biosecurity Line (1800 680 244) is to be contacted to report the sighting and advise whether DPI will collect the specimens.

## 4.2 Biosecurity risk minimisation

### 4.2.1 General biosecurity duty

Management, contractors and employees are required to fulfil their general biosecurity duty, which may simply be to ensure that their vehicles, boots and equipment are clean of any potential biosecurity risks.

It is expected that management, contractors and employees should know all biosecurity risks associated with the industry, business and relevant day-to-day work activities.

Biosecurity risks relevant to the decommissioning of each dam are to be minimised and mitigated as detailed in the following sections.

### 4.2.2 Introduction and / or spread of aquatic weeds

The following mitigation measures shall be implemented to ensure that the contractor's biosecurity duty is fulfilled and spread of existing weeds or introduction of new weed infestations is prevented.

- Hygiene protocols should be implemented to ensure that plant and machinery enter / leave the site clean to prevent the spread of weed species. In particular, Contractors that have recently engaged in work activities within waterbodies (watercourses, wetlands, farm dams) must ensure that all equipment and vehicles are free of sediment and plant material.
- Monitoring of the site and general surrounds for aquatic weed infestations should be undertaken prior to disturbance of each dam by the Project ecologist.

- Generally, the re-use of topsoil and/or sediments removed during excavation of dams that are found to contain aquatic weeds should not be reused on the subject land unless encapsulated by burying.
- Weed contaminated soils can be buried away from any pavement, structure, watercourse or drainage path and covered with fill (free of weeds) of a minimum 500 mm compacted thickness.

#### 4.2.3 Spread of aquatic pest fauna

The Project ecologist will be responsible for the identification and euthanasia of any aquatic pest fauna rescued from each dam using methods provided in Section 4.1.5.

### 4.3 Monitoring and Reporting

#### 4.3.1 Monitoring

All related activities are to be continually monitored throughout the dam decommissioning process. This shall include inspection of sediment and erosion controls and other protection controls implemented to ensure that these measures remain fully functional for the duration of the process.

#### 4.3.2 Reporting

As part of the Project records legible environmental records of all environmental activities associated with the dam decommissioning are to be maintained to demonstrate compliance with relevant legislation. The records must include:

- Induction and training records
- Records of related amendments to the Project CEMP
- Ecologist post-decommissioning reports, which are to include:
  - Number of each species of native fauna removed from the dam
  - Relocation point of recorded native fauna
  - Number of native species injured or euthanased
  - Number of pest species euthanased
  - Analysis of the effectiveness of decommissioning and fauna rescue methods
- Reports of any stop work incidents (relating to unexpected finds), associated actions taken, and follow-up actions.

#### 4.3.3 Performance Targets

The following targets have been established for the management of decommissioning impacts during the Project, to ensure full compliance with the relevant legislative requirements, approvals, licences or permits:

- No disturbance to flora and fauna outside the proposed decommissioning works area.
- No introduction or spread of biosecurity risks to and from the subject land.
- All aquatic fauna species encountered during construction are handled humanely in accordance with industry standards.
- No pollution or siltation enters drainage pathways and / or the stormwater system.

## 5 Conclusion

The proposed dam decommissioning activities will not result in any pollution of waters as there are no proximal watercourses into which dam water can be discharged.

The preferred option for disposal of dam water is a combination of on-site irrigation and use for dust suppression and soil conditioning, however this may not be practical for all dams. Discharge to the stormwater drainage system will require additional consideration of water quality (to ensure it is of a quality permissible for discharge) and water quantity information (e.g. details of quantity and flow rate of discharge).

Site investigations of the subject land have concluded that decommissioning of dams will not impact on any threatened species or habitat of importance to any threatened species. Clearing of native vegetation present within the dams is being offset under the NSW Biodiversity Offset Scheme, separately to this Plan.

The dams do not contain any priority weeds, but are likely to contain pest fish species, which are a biosecurity risk under the Biosecurity Act. This risk will be minimised through the identification and euthanasia of pest fauna rescued from each dam. Euthanasia of any species regardless of native or exotic origin, reasonable steps as are necessary will be undertaken to alleviate any pain in compliance with Part 2 Clause 5(3) of the PCA Act.

Prior to decommissioning of any dams within the subject land, consultation with the Department of Fisheries is required with regards to the relocation of fin fish to the proposed watercourse release sites.

Providing the procedures and mitigation measures provided in this Plan are implemented, the proposed dam decommissioning activities can be undertaken in compliance with all relevant legislation.

## 6 References

Department of Environment and Climate Change (2008) Hygiene protocol for the control of disease in frogs. Information Circular Number 6. DECC (NSW), Sydney South.

ANZCART (2001). Guidelines for euthanasia of animals used for scientific purposes

ANZECC (Australian and New Zealand Environment and Conservation Council) and ARMCANZ (Agriculture and Resource Management Council of Australia and New Zealand) (2000). Australian Guidelines for Water Quality Monitoring and Reporting. National Water Quality Management Strategy Paper No. 7, ANZECC and ARMCANZ, Canberra.

JBS&G (2021) Detailed Site Investigation Aldington Road Estate 155-167, 169-181, 183-197, 199 and 201-217 Aldington Road, Kemps Creek, NSW 18 May 2021 60482/137852 (Rev 0) JBS&G Australia Pty Ltd

National Health and Medical Research Council (2013). Australian code for the care and use of animals for scientific purposes, 8th edition. Canberra: National Health and Medical Research Council.

National Health and Medical Research Council (2013) Australian code for the care and use of animals for scientific purposes 8th Edition

JBS&G (2021) Detailed Site Investigation Aldington Road Estate 155-167, 169-181, 183-197, 199 and 201-217 Aldington Road, Kemps Creek, NSW 18 May 2021 60482/137852 (Rev 0) JBS&G Australia Pty Ltd



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# Appendix E Construction Noise and Vibration Management Plan

**Design  
for a better  
*future* /**

Aspect Environmental Pty Limited  
**Edge South Kemps Creek**  
Construction Noise and  
Vibration Management Plan

wsp

July 2025

Confidential

# Question today Imagine tomorrow Create for the future

## Edge South Kemps Creek Construction Noise and Vibration Management Plan

Aspect Environmental Pty Limited

### WSP

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Rev	Date	Details
A	28/02/2025	Draft issue for client review
B	26/06/2025	Issue for client review
C	11/07/2025	Issue for ER review

	Name	Date	Signature
Prepared by:	M. Bechara	11/07/2025	
Reviewed by:	B. Ison	11/07/2025	
Approved by:	B. Ison	11/07/2025	

WSP acknowledges that every project we work on takes place on First Peoples lands.  
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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# Executive Summary

This management plan was prepared in response to a request by Aspect Environmental Pty Limited to update an existing Construction Noise and Vibration Management Plan (CNVMP) previously prepared by Acoustic Works (*Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024*). The original CNVMP was submitted to support the proposed earthworks and construction of an industrial subdivision at 141-251 Aldington Road, Kemps Creek in accordance with the Development Consent for The Edge Estate (SSD-17552047).

The relevant Conditions of Consent are listed in Table 0.1 and includes reference to the relevant sections of this CNVMP where the condition has been addressed.

Table 0.1 Relevant Conditions of Consent

Condition	Reference Section in CNVMP											
<p>B40. The applicant must comply with the hours detailed in Table 2:</p> <table border="1"> <caption>Table 2 Hours of Work</caption> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Earthworks and construction</td> <td>Monday – Friday</td> <td>7 am to 6 pm</td> </tr> <tr> <td>Saturday</td> <td>8 am to 1 pm</td> </tr> <tr> <td>Operation</td> <td>Monday – Sunday</td> <td>24 hours</td> </tr> </tbody> </table>	Activity	Day	Time	Earthworks and construction	Monday – Friday	7 am to 6 pm	Saturday	8 am to 1 pm	Operation	Monday – Sunday	24 hours	Section 3.2.1
Activity	Day	Time										
Earthworks and construction	Monday – Friday	7 am to 6 pm										
	Saturday	8 am to 1 pm										
Operation	Monday – Sunday	24 hours										
<p>B41. Works outside of the hours identified in condition B40 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 Planning 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 or to prevent environmental harm.</p>	Section 7.4											
<p>B42. The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (ICNG) (DECC, 2009) (as may be updated or replaced from time to time). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in Appendix 2.</p>	Section 6											
<p>B43. Prior to commencement of earthworks and construction of each warehouse building in the development, the Applicant must prepare a Construction Noise Management Plan for the development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with conditions C2 and C5 and must:</p> <p>(a) be prepared by a suitably qualified and experienced noise expert;</p> <p>(b) be approved by the Planning Secretary prior to the commencement of earthworks and construction;</p> <p>(c) describe procedures for achieving the noise management levels in the ICNG (DECC, 2009) (as may be updated or replaced from time to time);</p>	<p>(a) Page 2 of this document. Prepared by Member of the of the Australian Acoustical Society (MAAS #1417, #1029).</p> <p>(b) This document to be approved prior to use. Condition declared in Section 3.2.1</p> <p>(c) Section 6.</p>											

Condition	Reference Section in CNVMP
<p>(d) describe the measures to be implemented to manage high noise generating works such as rock breaking and piling, in close proximity to sensitive receivers;</p> <p>(e) include strategies that have been developed with the community for managing high noise generating works;</p> <p>(f) describe the community consultation undertaken to develop the strategies in condition B43(e);</p> <p>(g) detail the timing, duration and frequency of monitoring to be undertaken to demonstrate the earthworks and construction meet the construction noise management levels in the ICNG; and</p> <p>(h) include a complaints management system that would be implemented for the duration of earthworks and construction.</p>	<p>(d) Section 6 – N10</p> <p>(e) Section 6 – N1, N11 Appendix A</p> <p>(f) Section 6 – by the Principal Contractor in accordance with N1, N11.</p> <p>(g) Section 7.2</p> <p>(h) Sections 6 – N7, N11</p>
<p>B44. The Applicant must:</p> <p>(a) not commence earthworks or construction of the development until the Construction Noise Management Plan required by condition B43 is approved by the Planning Secretary; and</p> <p>(b) implement the most recent version of the Construction Noise Management Plan approved by the Planning Secretary for the duration of earthworks and construction.</p>	<p>Noted – earthworks and construction not to commence until CNVMP is approved by the Planning Secretary.</p>
<p>C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <p>(a) a condition compliance table for that plan;</p> <p>(b) detailed baseline data, where relevant;</p> <p>(c) details of:</p> <ul style="list-style-type: none"> <li>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>(ii) any relevant limits or performance measures and criteria; and</li> <li>(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;</li> </ul> <p>(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(e) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>(i) impacts and environmental performance of the development; and</li> <li>(ii) effectiveness of the management measures set out pursuant to paragraph (d) above;</li> </ul> <p>(f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(g) a program to investigate and implement ways to improve the environmental performance of the development over time;</p>	<p>(a) Table 0.1</p> <p>(b) Section 2</p> <p>(c) Sections 3, 6.2</p> <p>(d) Section 6.2</p> <p>(e) Sections 7, 7.2, and 7.5</p> <p>(f) Section 7.3</p> <p>(g) Section 7.6</p>



# 1 Introduction

WSP Australia Pty Ltd (WSP) has been engaged by Aspect Environmental Pty Ltd to provide an updated Construction Noise and Vibration Management Plan (CNVMP) for the construction of a proposed industrial subdivision, located at 141-251 Aldington Road, Kemps Creek, NSW.

The assessment has been conducted with consideration to the following documents and guidelines:

- *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009) (ICNG)
  - *Noise Policy for Industry* (NSW Environmental Protection Authority, 2017) (NPfI)
  - *Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006) (AVaTG)
  - *Australian Standard AS1055:2018 Acoustics – Description and Measurement of Environmental Noise*
  - *Previously submitted Construction Noise and Vibration Management Plan (Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024)* (CNVMP)
  - *Development Consent SSD-17552047 (ref: EF 20/30129)*
- 

## 1.1 Project background

The project scope of works is as follows:

- Site establishment;
  - Earthworks;
  - Construction.
- 

## 1.2 Scope and purpose

This CNVMP has been developed to satisfy the Development Consent requirements relating to construction noise and vibration. This CNVMP aims to achieve the following:

- Identify the relevant acoustic policy and acoustic related legislative requirements
- Identify potential noise impacts and sensitive receivers associated with the Project
- Identify potential vibration impacts associated with the Project
- Outline systems and management measures to reduce or eliminate identified noise or vibration impacts
- Outline the responsibilities of those involved in the control of noise and vibration impacts
- Outline an effective monitoring, auditing and reporting framework to assess the effectiveness of the controls implemented.

## 2 Site analysis

The site environment and key elements in relation to noise assessments are presented in the following sections.

### 2.1 Site location and sensitive receivers

The site is located at 141-251 Aldington Road, Kemps Creek, NSW and is bounded by Aldington Road to the east.

Receivers sensitive to noise have been identified in the area surrounding of the Project. Sensitive receiver locations are identified in Table 2.1. A summary of the nearest receivers by type and distance to proposed site are presented in Table 2.1.

Table 2.1 Identified nearest noise sensitive receivers

Receiver / location	Address	Type of receiver	Approximate distance from project site (m)
R2	930-966 Mamre Road, Kemps Creek	Residential	132
R4A&B	230-242 Aldington Road, Kemps Creek	Residential and Place of Worship	326
RA	87-109 Bakers Lane, Kemps Creek	Educational	1,800
RB	85 Bakers Lane, Kemps Creek	Residential	2,000
RC	45 Bakers Lane, Kemps Creek	Educational	1,800
RD	Mandalong Close, Orchard Hills	Educational	3,500
RE	2-8 Twin Creeks Drive, Luddenham	Recreational	3,300
RF	217 Horsley Road, Horsley Park	Educational	3,400

### 2.2 Noise survey

Unattended noise monitoring results from the previously submitted CNVMP from Acoustic Works were utilised for the purpose of this assessment. The unattended noise monitors were placed a 930-966 Mamre Road (Monitor A / NM01) and 253 Aldington Road (Monitor B / NM02) as shown in Figure 2.1. Monitor A recorded noise levels between 20<sup>th</sup> and 28<sup>th</sup> May 2019 and Monitor B recorded noise levels between 25<sup>th</sup> May and 2<sup>nd</sup> June 2021. Acoustic Works states that these locations were chosen as they were considered representative of the nearest residential receivers.

#### 2.2.1 Unattended noise locations

The unattended noise monitoring locations as nominated by Acoustic Works were as follows:

- NM01: 930-966 Mamre Road, Kemps Creek
- NM02: 253 Aldington Road, Kemps Creek.

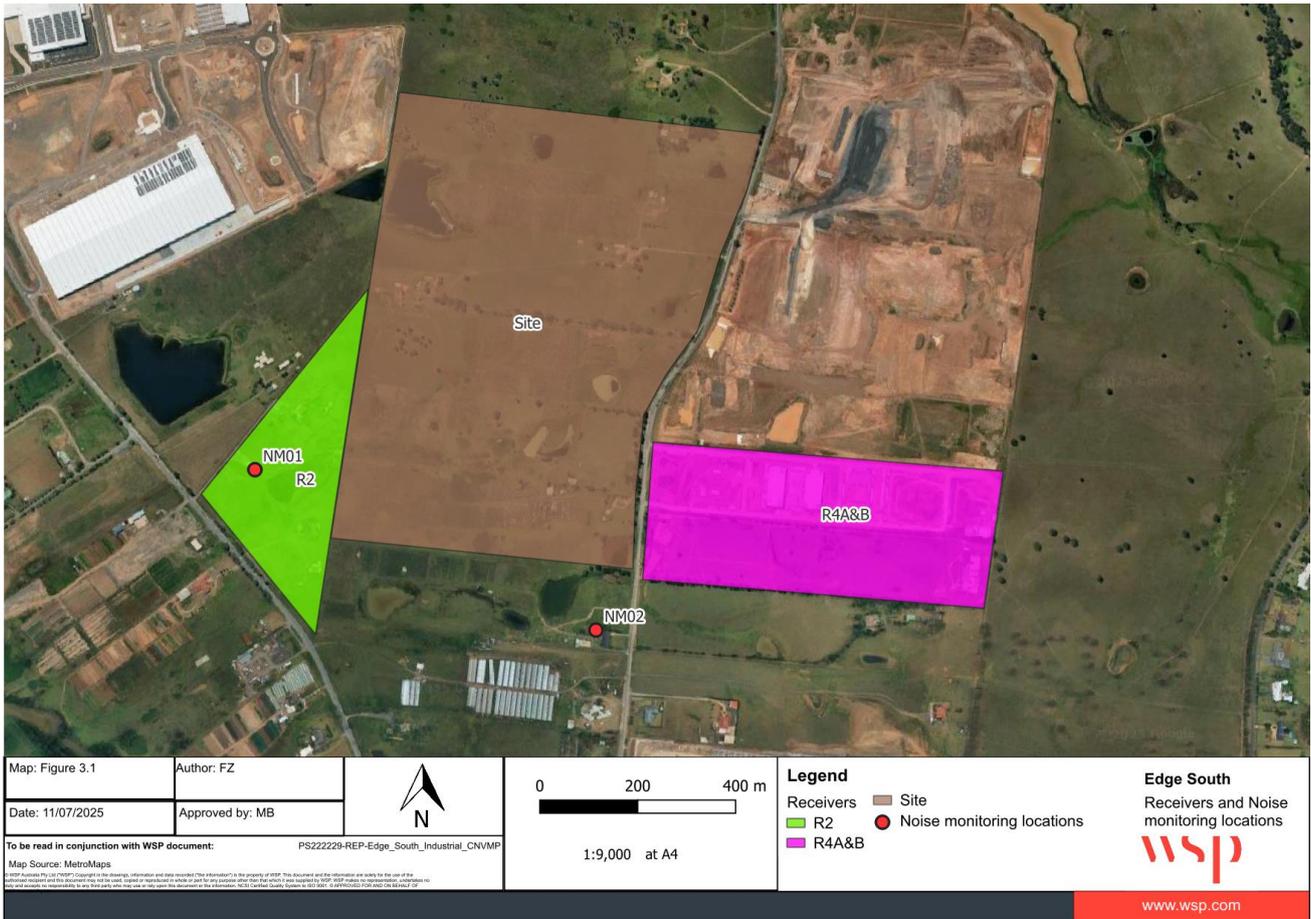


Figure 2.1 Nearest sensitive receivers and unattended noise monitoring locations



Figure 2.2 Regional context and more distant receivers

### 2.2.1.1 Measurements results

The results from the noise monitoring location are provided in Table 2.2 as per the Acoustic Works report.

Table 2.2 Summary of unattended noise measurements

Location ID	Time Period <sup>1</sup>	Rating Background Level, dBA RBL
NM01 20/05/2019 to 27/05/2021	Day	41
	Evening	45
	Night	38
NM02 25/05/2021 to 01/06/2021	Day	38
	Evening	37
	Night	34

(1) Day: 7 am to 6 pm (Monday- Saturday) and 8am to 6pm (Sundays and Public Holidays); evening: 6 pm to 10 pm; and night: all other time periods (as per the NPFI).

## 2.2.2 Discussion of survey results

The site survey conducted by Acoustic Works concludes that Noise Monitor A (NM01) was considered representative of Receiver 2 and Noise Monitor B (NM02) was considered representative of Receiver 4B.

Meteorological conditions nominated in the Acoustic Works report were as follows:

Table 2.3 Meteorological conditions nominated in the Acoustic Works report – (Noise Monitor A/NM01)

Day	Date	Rainfall (mm)	Wind			
			9am		3pm	
			Speed (km/h)	Direction	Speed (km/h)	Direction
Monday	20/05/19	0	4	ENE	11	N
Tuesday	21/05/19	0.2	Calm	-	11	NNE
Wednesday	22/05/19	0	4	NNE	17	E
Thursday	23/05/19	0	4	SE	9	N
Friday	24/05/19	0	4	E	9	NNE
Saturday	25/05/19	0	4	N	7	NNE
Sunday	26/05/19	0	9	NNW	15	WSW
Monday	27/05/19	0	17	NNW	33	W
Tuesday	28/05/19	0	11	W	13	WSW

Table 2.4 Meteorological conditions nominated in the Acoustic Works report – (Noise Monitor B/NM02)

Day	Date	Rainfall (mm)	Wind			
			9am		3pm	
			Speed (km/h)	Direction	Speed (km/h)	Direction
Tuesday	25/05/21	0	2	W	4	N
Wednesday	26/05/21	0	9	SW	13	WSW
Thursday	27/05/21	0	7	W	15	SW
Friday	28/05/21	0	17	SW	17	S
Saturday	29/05/21	0	15	SW	20	SSW
Sunday	30/05/21	0	15	SW	7	SW
Monday	31/05/21	0	4	SW	2	E
Tuesday	01/06/21	0	Calm	-	4	N

# 3 Policy overview

The relevant noise and vibration legislation and guidelines for the project is presented in the following section.

## 3.1 Design standards

Noise criteria applicable to the project are derived from various Australian Standards, local and state policies and industry guidelines.

Table 3.1 Summary of noise sources and applicable policies and guidelines

Assessment	Applicable policies and guidelines	Relevant aspects of development
Background noise monitoring to establish construction noise criteria	NSW EPA Noise Policy for Industry (NPI)	Ambient background noise monitoring procedures
Construction noise	NSW Interim Construction Noise Guideline (NSW ICNG)	Noise from construction activities
Construction vibration	Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006) (AVaTG) DIN 4150-3 (1999-02) Structural vibration – Effects of vibration on structures	Human comfort. Structural damage guideline values of vibration velocity.

## 3.2 Construction criteria

### 3.2.1 Conditions of Consent

The Conditions of Consent have been issued by the delegate of the Minister for Planning and Public Spaces for SSD-17552047 on the 3<sup>rd</sup> June 2025 which nominates the following acoustic conditions relevant to construction noise and vibration:

*B40. The Applicant must comply with the hours detailed in Table 2.*

**Table 2** Hours of Work

Activity	Day	Time
Earthworks and construction	Monday – Friday	7 am to 6 pm
	Saturday	8 am to 1 pm
Operation	Monday – Sunday	24 hours

*B41. Works outside of the hours identified in condition B40 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 Planning 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 or to prevent environmental harm.*

*B42. The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (ICNG) (DECC, 2009) (as may be updated or replaced from time to time). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in Appendix 2.*

*B43. Prior to commencement of earthworks and construction of each warehouse building in the development, the Applicant must prepare a Construction Noise Management Plan for the development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with conditions C2 and C5 and must:*

*(a) be prepared by a suitably qualified and experienced noise expert;*

*(b) be approved by the Planning Secretary prior to the commencement of earthworks and construction;*

*(c) describe procedures for achieving the noise management levels in the ICNG (DECC, 2009) (as may be updated or replaced from time to time);*

*(d) describe the measures to be implemented to manage high noise generating works such as rock breaking and piling, in close proximity to sensitive receivers;*

*(e) include strategies that have been developed with the community for managing high noise generating works;*

*(f) describe the community consultation undertaken to develop the strategies in condition B46(e);*

*(g) detail the timing, duration and frequency of monitoring to be undertaken to demonstrate the earthworks and construction meet the construction noise management levels in the ICNG; and*

*(h) include a complaints management system that would be implemented for the duration of earthworks and construction.*

*B44. The Applicant must:*

*(a) not commence earthworks or construction of the development until the Construction Noise Management Plan required by condition B43 is approved by the Planning Secretary; and*

*(b) implement the most recent version of the Construction Noise Management Plan approved by the Planning Secretary for the duration of earthworks and construction.*

### **3.2.2 Construction noise criteria**

The applicable assessment criteria for noise are found in the *Interim Construction Noise Guideline (ICNG)*.

A quantitative assessment requires the development of noise management levels (NML) based on the minimum rating background noise levels (RBLs) and a comparison of predicted construction noise levels against the NML.

Recommended standard hours represent the times of the day when receivers are likely to be less sensitive to noise impacts. Where work is proposed outside of standard hours, justification is required and more stringent NMLs apply. For all other receiver types, the NMLs only apply when the receiver is typically occupied. Table 3.2 sets out the application of the management levels for noise at residences.

Table 3.2 Application of the ICNG noise management levels

<b>Setting and Applying NMLs at residences</b>		
<b>Time of Day</b>	<b>NML, <math>L_{eq,15min}</math> dBA</b>	<b>How to Apply</b>
Recommended standard hours: Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm 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 $L_{Aeq(15 min)}$ 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	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 may require respite periods by restricting the hours that the very noisy activities can occur, taking into account times identified by the community when they are less sensitive to noise and 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.

Table 3.43 presents the NMLs for residential receivers based on the results of the unattended noise survey (Section 2.2).

Table 3.3 Noise management levels at residential receivers

<b>TIME<sup>1,2</sup></b>	<b>RBL dBA</b>		<b>NOISE MANAGEMENT LEVEL</b>		<b>HIGHLY NOISE AFFECTED LEVEL</b>
	<b>R2</b>	<b>R4B</b>	<b><math>L_{eq,15min}</math> dBA</b>		<b><math>L_{eq,15min}</math> dBA</b>
	<b>R2</b>	<b>R4B</b>	<b>R2</b>	<b>R4B</b>	<b>All residential receivers</b>
Standard hours	41	38	51	48	75
Out-of-hours works – day	41	38	46	43	-
Out-of-hours works – evening	45	37	50	42	-
Out-of-hours works – night	38	34	43	39	-

Note 1: Standard ICNG hours are defined as Monday to Friday (7am – 6pm), Saturday (8am – 1pm)

Note 2: It is noted construction works will only occur during standard hours.

Table 3.3 presents the NMLs for other sensitive receivers.

Table 3.4 Noise management levels at other noise sensitive receivers

Land use	NOISE MANAGEMENT LEVEL		ASSESSMENT LOCATION
	Leq,15min dBA		
Classrooms at schools and other educational institutions	45		Internal
Passive Recreation	60		External

Note 1: Noise management levels apply when the sensitive receiver is in use (e.g. during the sensitive receiver's trading hours)

Feasible and reasonable safeguards and management measures should be implemented where NMLs are exceeded either during or outside of recommended standard hours for construction work.

### 3.2.3 Construction vibration criteria

Construction vibration can lead to:

- cosmetic building damage (and structural damage in extreme cases)
- loss of amenity due to perceptible vibration, termed human comfort
- impacts on the condition and structural integrity of buildings or infrastructure.

Importantly, cosmetic damage is regarded as minor in nature; it is readily repairable and does not affect a building's structural integrity. It is described as hairline cracks on drywall surfaces, hairline cracks in mortar joints and cement render, enlargement of existing cracks, and separation of partitions or intermediate walls from load bearing walls. If there is no significant risk of cosmetic building damage, then structural damage is not considered a significant risk and is not assessed.

#### 3.2.3.1 Development Consent Vibration Condition

Based on Condition NV-6 of the Development Consent for SSD-17552047, the maximum allowable vibration levels at the nearest sensitive receivers would be a peak particle velocity of 6mm/s. If monitors are installed onsite they shall be set to a maximum limit of 3mm/s to provide adequate warning and to avoid exceedances of the maximum noise limits.

#### 3.2.3.2 Cosmetic damage

*Australian Standard AS2187.2-2006 Explosives – Storage, Transport and Use* provides guidance for the assessment of cosmetic damage to buildings caused by vibration. This section of the standard is based on the *British Standard BS 7385-2:1993 – Evaluation and measurement for vibration in buildings* and is used as a guide to assess the likelihood of building damage from ground vibration including piling, compaction, construction equipment and road and rail traffic.

Table 3.5 presents the guideline limits for cosmetic damage for short term vibration.

Table 3.5 Transient vibration guide values for cosmetic damage (BS 7385)

Type of building	Peak component particle velocity in frequency range of predominant pulse	
	4 – 15 Hz	15 Hz and above
Reinforced or framed structures Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	

Unreinforced or light framed structures	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above
Residential or light commercial type buildings		

Note: values referred to are at the base of the building

The guidance values in Table 3.5 relate predominantly to transient vibration which does not give rise to resonant responses in structures, and to low-rise buildings. Where the dynamic loading caused by continuous vibration is such as to give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values in Table 3.5 may need to be reduced by up to 50 per cent.

Further reference is made to *DIN 4150-3 (1999-02) Structural vibration – Effects of vibration on structures* to establish the criteria for structural building damage. Whilst no Australian standard or acoustic guidelines refer to DIN 4150-3 for cosmetic damage caused by vibration, it provides a more conservative criteria for assessment and comparison. These values are outlined in Table 3.6.

Table 3.6 Structural damage guideline values of vibration velocity (DIN 4150)

Type of structure	Guideline values for velocity (mm/s)			
	1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz	Vibration at the highest floor at all frequencies
Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50 <sup>1</sup>	40
Dwellings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15

1) At frequencies above 100 Hz, the values given in this column may be used as minimum values

### 3.2.3.3 Buried pipework

Utility assets may be located in the vicinity of the site. DIN 4150-3 details guideline values for evaluating the effects of vibration on buried pipework, which is presented in Table 3.7.

Table 3.7 Guideline vibration values for buried pipework

Pipe material	Guideline values for velocity measured on the pipe (mm/s)
Steel (including welded pipes)	100
Clay, concrete, reinforced concrete, pre-stressed concrete, metal (with or without flange)	80
Masonry, plastic	50

This section of the standard also outlines that additional considerations should be made where mechanical processes in the ground could have deleterious effects on pipes, or where there are junctions with other structures.

### 3.2.4 Human comfort

*Assessing Vibration – A technical guideline* (OEH, 2006) (AVTG) presents the limits (vibration dose values) above which there is considered to be a risk that the amenity and comfort of people occupying buildings would be adversely affected by construction work.

The applicable criteria for intermittent vibration are shown in Table 3.8 as vibration dose value ( $m/s^{1.75}$ ).

The vibration guideline also specifies limits for continuous and impulsive vibration. These vibration limits are expressed in acceleration ( $m/s^2$ ) and peak particle velocity (mm/s) as presented in Appendix C of the AVTG and reproduced in Table 3.9.

Table 3.8 Vibration limits for human exposure from intermittent vibration

LOCATION	ASSESSMENT PERIOD <sup>1</sup>	VIBRATION DOSE VALUE ( $M/S^{1.75}$ )	
		Preferred Values	Maximum Values
Residences	Daytime	0.2	0.4
	Night-time	0.13	0.26
Offices, schools, educational institutions, and places of worship	Anytime	0.4	0.8

- (1) Daytime is 7.00am to 10.00pm and night-time is 10.00pm to 7.00am
- (2) Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring.

Table 3.9 Preferred and maximum values for continuous and impulsive vibration

Location	Assessment Period	RMS Acceleration $m/s^2$				Peak Particle Velocity $mm/s$	
		Preferred Values		Maximum Values		Preferred Values	Maximum Values
		Z-Axis	X and Y Axes	Z-Axis	X and Y Axes		
<b>Continuous Vibration</b>							
Residences	Daytime	0.010	0.0071	0.020	0.017	0.28	0.56
	Night-time	0.007	0.005	0.014	0.010	0.20	0.40
Offices, schools, educational institutions, and places of worship	Day or night-time	0.020	0.014	0.040	0.028	0.56	1.1
<b>Impulsive Vibration</b>							
Residences	Daytime	0.3	0.21	0.60	0.42	8.6	17.0
	Night-time	0.10	0.071	0.20	0.14	2.8	5.6
Offices, schools, educational institutions, and places of worship	Day or night-time	0.64	0.46	1.28	0.92	18.0	36.0

- (1) Daytime is 7.00am to 10.00pm and night-time is 10.00pm to 7.00am

# 4 Construction noise impacts

## 4.1 Predicted earthworks and construction noise impacts

Predicted earthworks and construction noise impacts were obtained from Section 9.1 and 9.2 of the Acoustic Works report (*Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024*) and is presented in Table 4.1. Exceedances of relevant NMLs are presented in bold font.

Table 4.1 Summary of Acoustic Works predicted noise levels for earthworks

Receiver	NML		Predicted Noise Levels	
	Leq,15min dBA		Leq,15min dBA	
	Day – Standard Hours	Day – Highly Noise Affected	Earthworks	Construction
R2	51	75	<b>55</b>	<b>56</b>
R4A	45 <sup>(1)</sup>	-	41	42
R4B	48	75	41	42

(1) A +10 dBA inside to outside correction was applied to the internal NML in accordance with the NPfI.

### 4.1.1 Earthworks and construction noise discussion

Based on the predicted noise impacts prepared by Acoustic Works, earthworks and construction noise impacts are predicted to exceed the NMLs but are predicted to comply with the Highly Noise Affected limit of 75 dBA. Therefore, consultation with the residences nominated in Table 2.1 is recommended. The main cause for the exceedances were associated with general earthworks machinery (excavators, backhoe, bulldozers, graders, etc.) and from concreting activities during construction. Noise management measures have been provided in Section 6.

## 4.2 Cumulative construction noise impacts

Receivers may be impacted by cumulative construction noise impacts from this development and other nearby construction sites. WSP notes that there are up to 72 Masterplans in the Mamre Road Precinct and construction has been completed on some of these sites and others are still ongoing. Accurately predicting the cumulative construction noise impacts from multiple sites is unfeasible and unreasonable for the following reasons:

- Different builders assigned to different projects
- Construction schedules and staging could change at any time at the builder’s discretion. There is no requirement that forces a builder to construct at the same time as another builder.
- Equipment used on other sites is unknown

In the event two construction sites were operating the same type of equipment simultaneously and had the same separation distance to a sensitive receiver, noise impacts at that receiver would increase by 3dB. Given that the noise impacts predicted by Acoustic Works (Section 4.1) are 19dB(A) below the highly noise affected limit of 75dB(A), up to 90 construction sites would have to be operating the same equipment simultaneously in order for it to exceed the highly noise affected limit (assuming the same acoustic propagation and attenuation).

It may be reasonable and feasible to manage high noise generating activities with nearby residences and adjoining construction sites to proactively manage cumulative noise impacts to the nearest sensitive receivers. Refer to Section 6 for management controls and mitigation.

# 5 Construction vibration impacts

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## 5.1 Predicted earthworks and construction vibration impacts

Predicted earthworks and construction vibration impacts at the nearest sensitive receivers were obtained from Section 10.1 and 10.2 of the Acoustic Works report (*Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024*) and is presented as follows:

- Earthworks at 253-267 Aldington Road – PPV 2 - 3mm/s
- Construction works is predicted to be within the cosmetic building damage criteria of 10mm/s

### 5.1.1 Construction vibration discussion

Predicted vibration impacts from the Acoustic Works report are predicted to be within the limits nominated in Section 3.2.3 and 3.2.4 of this report. It is understood that these predictions are for the receiver property boundary, and it is noted that the nearest residential building was 50m further from the proposed work area, but has since been demolished for future industrial land use. Based on the Acoustic Works predictions to the boundary, ground vibration is predicted to meet both the cosmetic damage and human comfort criteria at the residence itself. Vibration management measures have been provided in Section 6.

# 6 Construction noise and vibration management

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## 6.1 Overview

The construction noise assessment outlined in the Acoustic Works report (*Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024*) and presented in Section 4.1 has predicted exceedances of the nominated NMLs throughout the duration of the works.

Management measures have been provided in Section 6.2 to manage any construction noise levels and potential risk from vibration.

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## 6.2 Management measures

The mitigation and management measures outlined in Table 6.1 will be implemented to reduce predicted impacts from noise and vibration.

Table 6.1 Mitigation and management controls

Condition	Type of action	Management measure	Applies	Project stage	Responsibility
N1	Implement community consultation measures and strategy	<p>Community information leaflets about the works and activities should be prepared regarding potential noise impacts and letter box dropped to the identified noise sensitive receivers at least 2 weeks prior to construction commencement by the Contractor.</p> <p>This information leaflet should include:</p> <ul style="list-style-type: none"> <li>— the expected level and duration of noise impact</li> <li>— any expected high noise generation works and estimated duration of these works</li> <li>— project working hours</li> <li>— contact details for the construction community liaison officer.</li> </ul> <p>Should there be any changes to high noise generation works, an updated leaflet shall be letter box dropped to nearest residential receiver(s) and construction sites. All community consultation shall be conducted in accordance with the Community Consultation Strategy &amp; Complaints Handling Procedure (CCCHP) prepared by SLR.</p>	Noise	Planning	Site manager
N2	Plant and equipment	The noise levels of plant and equipment items are to be considered during the selection of plant. Any portable plant (e.g. compressors) should be located as far as practical from nearby residences. All fixed onsite mechanical plant (e.g. air conditioning for site offices) must be designed to satisfy noise requirements prior to installation.	Noise	Planning	Site manager
N3	Plan worksites and activities to minimise noise and vibration	Plan traffic flow, parking and loading/unloading areas to minimise reversing movements within the site. Forward-in / forward-out movements are preferred.	Noise	Planning	Site manager
N4	Construction hours and scheduling	<p>Where feasible and reasonable, construction and deliveries will be carried out during the standard daytime working hours. Work generating high noise levels (such as concrete saws, pencil vibrator, etc.) should be scheduled during less sensitive time periods or in consultation with the nearest sensitive receivers.</p> <p>All construction works shall be conducted in accordance with the hours nominated in the ICNG and as nominated in the Conditions of Consent as follows:</p>	Noise	Planning and Construction	Site manager

Condition	Type of action	Management measure	Applies	Project stage	Responsibility
		<p>(a) 7 am to 6 pm Monday to Friday;</p> <p>(b) 8 am to 1 pm Saturdays; and</p> <p>(c) at no time on Sundays and NSW public holidays.</p>			
N5	Site inductions	<p>All employees, contractors and subcontractors are to receive a noise specific induction as part of their site induction. The induction must at least include:</p> <ul style="list-style-type: none"> <li>— All relevant project specific and standard noise mitigation measures</li> <li>— Relevant licence and approval conditions</li> <li>— Permissible hours of work</li> <li>— Any limitations on high noise generating activities</li> <li>— Location of nearest sensitive receivers</li> <li>— Construction employee parking areas</li> <li>— Designated loading/unloading areas and procedures</li> <li>— Site opening/closing times (including deliveries)</li> <li>— Environmental incident procedures</li> </ul>	Noise	Construction	Site manager
N6	Behavioural practices	<p>No swearing or unnecessary shouting or loud stereos/radios on site.</p> <p>No dropping of materials from height, throwing of metal items and slamming of doors.</p> <p>Workers congregating before 7am shall be mindful of nearby residences and keep conversational levels to a minimum.</p>	Noise	Construction	Site manager
N7	Complaint record management	<p>Residential receivers nominated within this plan should be provided with a contact number for the person responsible for handling complaints.</p> <p>In the event a noise or vibration complaint is received, the person responsible for handling complaints is to:</p> <ul style="list-style-type: none"> <li>— Handle the complaints in accordance with the Community Consultation Strategy (CCS) and Construction Environmental Management Plan (CEMP)</li> </ul>	Noise Vibration (Appendix 2 – Item NV-1, NV-5)	Construction	Site manager

Condition	Type of action	Management measure	Applies	Project stage	Responsibility
		<ul style="list-style-type: none"> <li>— Respond to the complaint in an appropriate and friendly manner.</li> <li>— Investigate the source of the complaint.</li> <li>— Take action to immediately reduce the noise or vibration level, if it is reasonable complaint (this may involve moving the noise or vibration source further away from affected premises, replacing the equipment or installing high performance silencers; Or</li> <li>— Contacts a suitably qualified acoustic consultant to provide advice for reducing noise impacts from the source of the complaint.</li> </ul> <p>The person responsible for handling complaints is to record all complaints into a register and shall document the following:</p> <ul style="list-style-type: none"> <li>— The time and date the complaint was received.</li> <li>— The name, address and contact number of the complainant (if provided).</li> <li>— Description of the noise or vibration causing the complaint including the likely source activity, duration of the event, time and date the event occurred, any other details, etc.</li> </ul> <p>Once the noise or vibration issue has been rectified, the person responsible for handling complaints is to contact the complainant (if appropriate) to advise on any noise mitigation treatment or management controls that were implemented (if applicable) to reduce the noise impact.</p>			
N8	Maintenance of plant	<p>All plant and tools are to be regularly maintained and checked to ensure that they are running correctly and not producing excessive noise emissions.</p> <p>Periodic inspection of equipment shall be conducted to ensure that they have been maintained correctly and are not generating excessive noise and vibration.</p> <p>If a complaint is raised regarding a particular piece of plant, the plant shall be inspected for working condition, with particular attention given to the condition of equipment operating components engine covers or enclosures, and exhaust system. If machinery is in good condition, a high performance silencer may be installed.</p>	Noise Vibration (Appendix 2 – Item NV-1, NV-5)	Construction	Site manager
N9	All vehicles	<p>All truck deliveries are not to congregate outside of the site before 7.00am.</p> <p>Vehicles that arrive before 7am shall not sit with engines idling – All engines shall be turned off.</p>	Noise	Construction	Site manager

Condition	Type of action	Management measure	Applies	Project stage	Responsibility
		Truck drivers will limit compression braking as far as practicable.			
N10	High noise generating activities	<p>High noise generating activities such as rock breaking and concreting activities should be conducted at nominated times during the day where it may cause the least amount of disturbance to the nearest sensitive receivers nominated in Section 2.1. Therefore, close liaising with residences and nearby construction sites should be conducted prior to the commencement of high noise generating activities to minimise potential impacts of cumulative noise impacts.</p> <p>Concrete boom pump activities are predicted to be the highest noise generating activity during construction of the base build followed by concrete pencil vibrators. Based on the results of noise monitoring program (N12), further mitigation may be required that may include one or more of the following options:</p> <ul style="list-style-type: none"> <li>— 2m high temporary acoustic barriers can be installed on the perimeter of the site and the nearest residences – Approximately 8-15dB(A) reduction at ground floor receivers.</li> <li>— Silencers can be installed on the boom pump exhaust – Up to 8dB(A) reduction.</li> <li>— Use electric concrete vibrators instead of pneumatic or diesel operated – Up to 15dB(A) reduction</li> </ul> <p>In the event rock breaking is required using a <math>\geq 15T</math> rock breaker attachment, then operator attended noise measurements should be conducted at the nearest residential receiver to determine the minimum working distances. If further reduction is required, rock breakers can be acoustically treated using Hustec Rock Breaker Shroud or acoustically equivalent products to reduce noise impacts to the nearest sensitive receivers. The Rock Breaker Shroud should achieve up to an 8dB reduction. This task should also be undertaken in consultation with nearby construction sites to manage potential cumulative noise impacts.</p>	Noise (Appendix 2 – Item NV-1)	Construction	Site manager
N11	Community Consultation Strategy	In addition to N1, ongoing community consultation shall be conducted in accordance with the Community Consultation Strategy & Complaints Handling Procedure (CCCHP) prepared by SLR.	Noise Vibration	Construction	Site manager

Condition	Type of action	Management measure	Applies	Project stage	Responsibility
N12	Noise monitoring	<p>Unattended noise monitoring of construction activities shall be conducted at adjoining residential receiver (R2) for a period of 6 months at the commencement of earthworks on the condition approval to do so is granted by the residence. Where permission is not provided, monitoring should be undertaken at the boundary of this property.</p> <p>Weekly noise reports shall be prepared and compared against the NMLs presented in this report. In cases where NMLs have been exceeded, further mitigation measures may be implemented depending on the type of activity causing the exceedance.</p> <p>The site manager or responsible person should keep a log of a noise generating activities occurring on a daily basis to assist in identifying if any exceedance is site specific. Audio loggers may also be used to assist in noise source identification.</p> <p>Refer to Section 7.2.1 for monitoring methodology.</p>	Noise	Construction	Site manager/Acoustic consultant
V1	Plant and equipment	<p>The smallest equipment practicable or alternative lower vibration generating equipment should be used for work. Specifically non-vibrating compaction methods have been assessed and are required to be used.</p> <p>Any moveable vibrating plant (e.g. compressors) should be located as far as practical from the adjacent residential premises.</p>	Vibration (Appendix 2 – Item NV-5)	Planning	Site manager
V2	Attended vibration measurements and continued unattended vibration monitoring	<p>On site attended vibration testing should be conducted if rock breaking activities are to occur.</p> <p>If complaints are received from a residence (and if their log matches the times that site specific activities were occurring), then continued vibration monitoring should be undertaken at the complainant’s address (located at the nearest point of the dwelling to the works being conducted on site) to ensure that vibration generating activities cease if the criteria is exceeded.</p>	Vibration (Appendix 2 – Item NV-8)	Construction	Site manager/Acoustic consultant
V3	Dilapidation	A dilapidation assessment should be conducted prior and after the proposed construction works at adjoining residential receiver (R2).	Vibration (Appendix 2 – Item NV-3)	Prior and post construction	Site manager

### 6.2.1 *Management measures effectiveness*

The majority of the conditions presented in Table 6.1 are management controls including proactive monitoring of noise levels to validate the Acoustic Works predictions and determine if further treatment or management controls are required. Therefore they will not reduce the noise impacts predicted in Section 4. Noise mitigation recommendations for activities that are predicted to exceed the NMLs have been provided in NM10 with the predicted reduction provided. Based on the predicted noise levels prepared in the Acoustic Works report, implementing the noise mitigation controls in Table 6.1 is predicted to comply with the NMLs at the nearest sensitive receivers.

# 7 Compliance management

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## 7.1 Training

All employees, contractors and utility staff working on site will undergo site induction training relating to environmental issues, including noise and vibration management. The induction training will address the following elements related to noise and vibration management:

- The existence and requirements of this NVMP
- Work hours and the requirement for strict compliance
- Delivery hours, trucking routes and loading / unloading locations
- Noise mitigation measures (if applicable, noting that no exceedances of the NMLs are predicted at this stage)
- Project environmental responsibilities
- Location of sensitive noise and vibration receivers
- The importance of regular plant maintenance.

Records would be kept of all personnel undertaking the site induction and training, including the contents of the training, date and name of trainer/s in accordance with Section 7.5.

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 Environmental or Safety Manager or delegated representatives.

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## 7.2 Noise and vibration monitoring

### 7.2.1 Noise monitoring

Short-term attended noise measurements will be monitored at locations representative of impacted properties in response to noise complaints to verify compliance with the noise objectives identified in Section 3.2.1 and Item NV-2 of Consent Appendix 2. The short-term attended noise measures shall be able to establish the difference between the ambient noise level and the noise source being investigated.

Unattended noise monitoring has been recommended at each of the adjoining residential receivers (R1, R2 and R3) for a 6 month period at the commencement of earthworks.

Any noise measurement should be conducted by a qualified acoustic specialist and in accordance with *AS1055-2018: Acoustics - Description and measurement of environmental noise* (AS1055-2018), ICNG and NPfI guidelines. The results of monitoring will include:

- Date, time and location of monitoring
- Name of person conducting the monitoring or installing the unattended noise monitor
- Statistical descriptors to be recorded for 15 minute intervals include  $L_{Aeq}$ ,  $L_{AMax}$  and  $L_{A90}$  levels and the primary noise sources contributing to each statistic
- Instrumentation to be fitted with wind shields, and calibrated prior to measurements to measure drift
- Details of site activity, environmental noise characteristics and weather to be noted
- Where required, noise monitoring of mobile plant to be carried out in accordance with AS2102.1 1990 *Acoustics- Measurement of airborne noise emitted by earth-moving machinery and agricultural tractors- stationary test conditions*

Noise instrumentation to comply with the requirements of AS 1259.2-1990. "Acoustics- Sound Level Meters, Part 2- Integrating and Averaging" and carry appropriate NATA certification.

### 7.2.2 Vibration monitoring

In accordance with Appendix 2 of the Consent Conditions, vibration monitoring shall adhere to the following:

All vibration monitors will be set to a maximum measurement interval of 5 minutes and record over the construction period commencing at 6am to 7pm every day. The vibration monitor shall be set to provide vibration impact warnings at 2/3 of the criteria (10mm/s). Additional battery packs should be installed to vibration monitors to extend the operation of the monitor to a minimum of 6 weeks with recharge.

The Principal Contractor shall provide a monthly report to the Developer of data extracted from the vibration monitors in a format suitable for submission to the Council which includes the following information:

- Date and duration of measurements.
- Time of measurements or measurement period.
- Person(s) performing measurements or placing equipment used for long term monitoring. - Equipment used for measurements.
- Location of measurements including photos.
- Measured values including graphed PPV for the period of monitoring.
- Corrected values (where applicable).
- Notes regarding vibrating sources.
- Notes regarding any extraneous sources that may have influenced measurements.
- Detail of instrumentation and calibration.
- Meteorological conditions.
- Explanation of any high levels below the criteria including exceedances
- Action taken for any exceedance including changes to site operations

In the event validated vibration complaints are received (as per Table 6.1,V02), or in the event rock breaking activities ( $\geq 15T$ ) are proposed, either attended or unattended vibration monitoring shall be conducted. Vibration monitoring will include:

- Date, time and location of monitoring
- Name of person conducting the monitoring
- Equipment used for measurements including calibration details
- Description of the source of vibrations (where applicable)
- One-third octave band frequency analysis (1Hz to 80Hz) reported as z-axis r.m.s acceleration in units of  $m/s^2$ . For each measurement this should include starting and ending time and brief description of events occurring within the measurement time frame.
- Unattended vibration monitoring shall have an SMS warning system to alert the site manager, project manager, acoustic consultant and/or others of any exceedances.
- Instrumentation must be within the specified calibration date.

Details of site activity, environmental noise characteristics and weather to be noted. All records are to be kept in accordance with Section 7.5 and will be produced to any authorised officer upon request.

Where noise monitoring indicates exceedances of the Project construction noise criteria outlined in Section 3.2, the non-conformance procedures outlined in Section 7.3 shall be followed.

---

## 7.3 Non-compliances and contingency management plan

All results of noise and vibration monitoring will be recorded and reviewed by the Site Manager. Issues of concern or non-compliance will be documented and discussed with the Project Manager with the view of resolving the issue or determining a way forward. In accordance with Appendix 2 of the Consent (NV-4), where an SMS alert indicates exceedance of the criteria nominated in Section 3.2, use of the onsite plant responsible for the vibration shall cease until the cause is identified and mitigated, including alternative construction methods if possible.

Where identified exceedances impacts the safety of people or property, work at the concerned site shall cease immediately. Typical emergency situations that may result in substantial noise and/or vibration impacts may include substantial noise events during out of hours works or vibration causing significant structural damage to nearby assets. These events are considered highly unlikely, however in the event of such an event occurring:

- 1 Work would cease immediately
- 2 Any occupants would be evacuated with due consideration to safety
- 3 The area would be secured to prevent unauthorised access
- 4 A structural assessment would be undertaken and the results compared with any previous dilapidation survey
- 5 Where the damage is associated with construction, rectification work would be implemented or compensation agreed.

An Environmental Incident Report form would be completed by the Site Manager for any incident causing a noise and / or vibration impact on local residences (noise and vibration) or nearby assets (vibration). This form should identify the cause of the incident, the investigation of corrective actions and close out of the problem. A copy of this report shall be provided to the Principal.

---

## 7.4 Out of hours works

Condition B41 allows out of hours works in the following circumstances:

- works that are inaudible at the nearest sensitive receivers;
- works agreed to in writing by the Planning 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 or to prevent environmental harm.

If out-of-hours works are required in circumstances other than those allowed within Condition B41, these will need to be considered and assessed based on specific works proposed (location, plant/equipment and duration) prior to the commencement of the work.

---

## 7.5 Reporting

Records relating to noise and vibration shall include details related to noise and vibration management, including:

- Training / inductions records
- Equipment inspections
- Noise or vibration compliance monitoring reports
- Audit or reviews
- Communication regarding noise management
- Details of complaints.

In the event of exceedances of NMLs, subsequent acoustic compliance monitoring reports should outline the source of the related exceedance, and the relevant mitigation and/or management measures to be implemented.

---

## 7.6 Plan review and continual improvement

Continual improvement of this plan will be achieved by the continual evaluation of environmental management performance against proposed control measures, environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. This CNVMP will be reviewed when a major change in the scope of works occurs, including after key project milestones or if monitoring indicates that noise or vibration goals are not being met. Each review will assess the effectiveness of current controls and identify opportunities to improve noise and vibration performance. Improvements may involve using lower noise equipment and/or construction methods, adjusting work practices to reduce impacts, and updating training and induction materials (as per Section 7.1) so all personnel are aware of the revised practices. Records of reviews and updates to this CNVMP will be maintained and communicated to the project team.

The continual improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management which leads to improved environmental performance
- Determine the root cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative action
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

Changes to this plan will be approved by the principal contractor representatives and stakeholders (if required) and documented in the document control section for each revision. A copy of the updated plan and changes will be distributed to all relevant stakeholders.

# 8 Conclusion

---

## 8.1 Summary

A Construction Noise and Vibration Management Plan has been conducted for the proposed industrial development located at 141-251 Aldington Road, Kemps Creek, NSW. The project specific criteria have been nominated as required by statutory requirements.

Based on the predictions prepared in the Acoustic Works report (*Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024*), earthworks and Construction noise impacts at sensitive receivers are predicted to exceed the NMLs nominated in Section 3.2.1 at times with management controls nominated in Section 6 to minimise potential impact at sensitive receivers.

Based on the predictions prepared in the Acoustic Works report (*Acoustic Works, Project number 1023083, Revision R02D, dated 01/07/2024*), vibration levels are predicted to comply with the relevant criteria at the nearest sensitive receiver. Attended vibration measurements of construction activities is recommended to confirm the minimum allowable distances for vibration generating activities. Attended or unattended vibration monitoring shall be conducted for the duration of the works in the event a validated complaint from a sensitive receiver has been received (as per Table 6.1, V02).

A management strategy has been recommended in Section 7 that provides attention to noise complaints and includes a system for achieving reasonable outcomes.

# 9 Limitations

This Report is provided by WSP Australia Pty Limited (*WSP*) for Aspect Environmental Pty Limited (*Client*) in response to specific instructions from the Client and in accordance with WSP's proposal dated 12 February 2024 and agreement with the Client dated 13 February 2024 (*Agreement*).

---

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---

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## **Appendix A - Community Consultation**

The following letter dated 23/07/25 was delivered to noise sensitive receivers identified in Figure 2.1 of this CNVMP by letter box drop (to R2) and email (to R4A&B), as required by the below conditions:

- Condition B34(e) - include strategies that have been developed with the community for managing high noise generating works;
- Condition B34(f) - describe the community consultation undertaken to develop the strategies in Condition B43(e);

23 July 2025

Dear Resident, Mamre Road Precinct Community,

**Subject: SSD-17552047 The Edge Estate, Aldington Road – High Noise Generating Works**

We are writing to inform you of upcoming construction works related to the development of an industrial warehouse estate, The Edge Estate (South), on 142-255 Aldington Road, Kemps Creek, developed by Frasers Property Industrial Australia Pty Limited (“Frasers”) and approved under SSD-17552047.

The project is expected to commence in 4<sup>th</sup> Quarter, 2025, and includes the construction associated road networks, earthworks, and the building of warehouses. This letter aims to provide you with key information about the expected noise impacts and request any feedback regarding the management of high noise generating works.

**Expected Noise Impacts**

Construction works may generate noise that is noticeable in the surrounding area. While we strive to minimise any disruptions, there will be some noise associated with various stages of the project. The level and duration of noise impacts will vary depending on the specific activities being carried out.

Table 4.1 Summary of Acoustic Works predicted noise levels for earthworks

Receiver	NML		Predicted Noise Levels	
	Leq,15min dBA		Leq,15min dBA	
	Day – Standard Hours	Day – Highly Noise Affected	Earthworks	Construction
R2	51	75	55	56
R4A	45 <sup>(1)</sup>	-	41	42
R4B	48	75	41	42

(1) A +10 dBA inside to outside correction was applied to the internal NML in accordance with the NPfI.

**Strategy for management of High Noise Generating Works**

High noise generating activities such as rock breaking and concreting activities will be conducted at nominated times during the day where it may cause the least amount of disturbance to the nearest sensitive receivers. Close consultation with residences and nearby construction sites will be conducted prior to the commencement of high noise generating activities to minimise potential impacts of cumulative noise impacts.

Concrete boom pump activities are predicted to be the highest noise generating activity during construction of the warehouses followed by concrete pencil vibrators. In addition to the project's standard noise monitoring program, further mitigation may be required that may include one or more of the following options:

- 2m high temporary acoustic barriers can be installed
- Silencers can be installed on the equipment
- Use electric concrete vibrators

In the event rock breaking is required using a larger rock breaker attachment, and a complaint is received from the nearest residential receiver, then operator attended noise measurements should be taken at the nearest residential receiver to determine the minimum working distances. If further noise reduction is required, rock breakers can be acoustically treated using Hustec Rock Breaker Shroud or acoustically equivalent products to reduce noise impacts to the nearest sensitive receivers.

The construction working hours are restricted to the times below in accordance with the consent approval:

*Table 2 Hours of Work*

<b>Activity</b>	<b>Day</b>	<b>Time</b>
Earthworks and construction	Monday – Friday	7 am to 6 pm
	Saturday	8 am to 1 pm

We welcome any feedback regarding the abovementioned strategy to manage high noise generating works by the 13<sup>th</sup> August 2025.

Please do not hesitate to contact me on the below contact details.

Regards,



**Monica Ngo**  
Project Engineer

**Frasers Property Industrial Australia Pty  
Limited**

[monica.ngo@frasersproperty.com.au](mailto:monica.ngo@frasersproperty.com.au)  
02 9767 2240

Appendix A: Noise Sensitive Receivers relevant to SSD-17552047

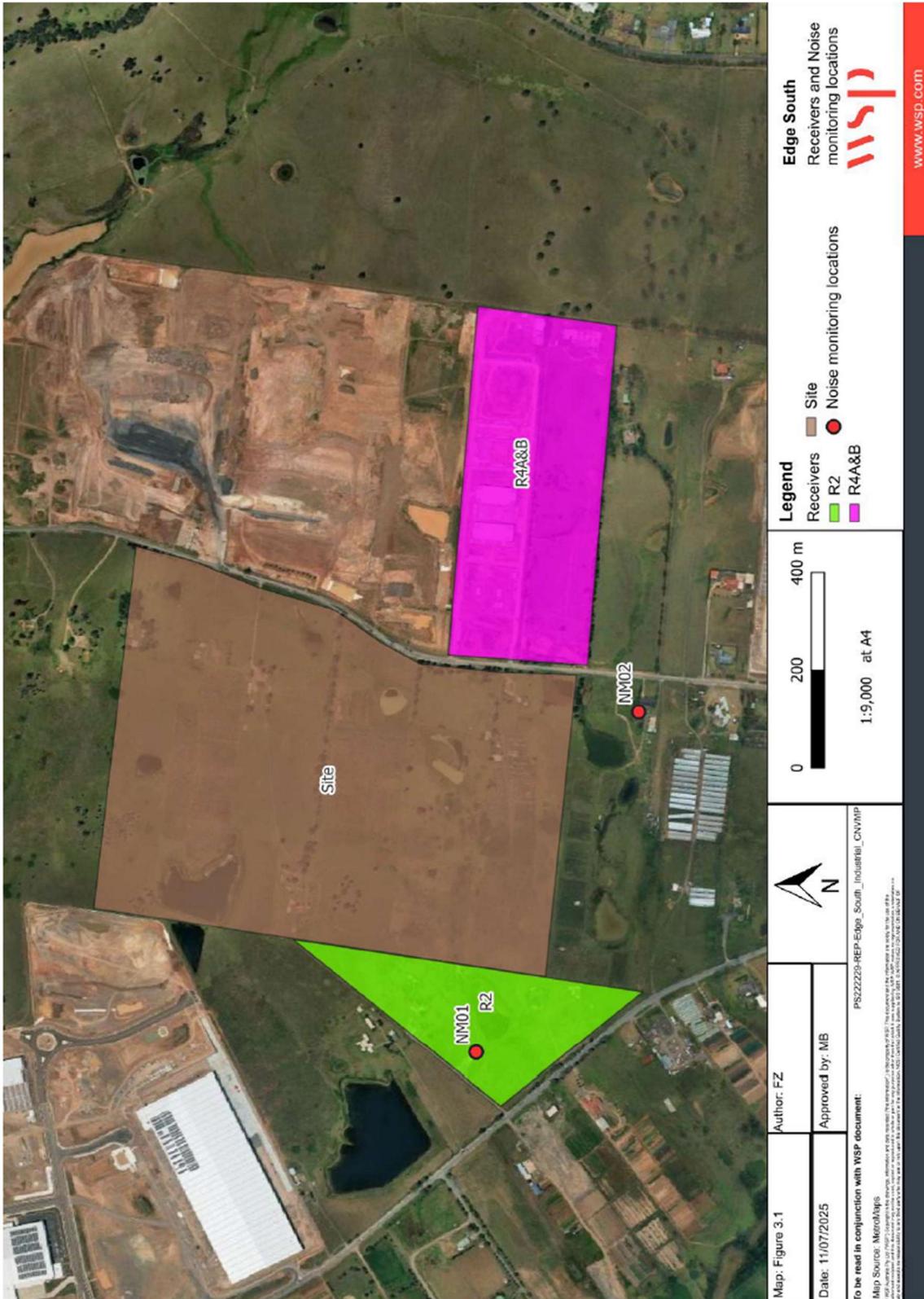


Figure 2.1 Nearest sensitive receivers and unattended noise monitoring locations

# Appendix F Construction Air Quality Management Plan

Ms Monica Ngo  
Project Engineer, Infrastructure  
Fraser's Property Industrial Constructions Pty Ltd  
Level 15, 180 George Street  
SYDNEY NSW 2000

7 October 2025

---

**Subject: The Edge Estate - Construction Air Quality Management Plan**

Dear Ms Ngo

I refer to the Construction Air Quality Management Plan submitted to the Department of Planning, Housing and Infrastructure (Department) in accordance with Condition B51 of the development consent for The Edge Estate (SSD-17552047). I also acknowledge your response to the Department's review comments and request for additional information.

The Department has carefully reviewed the document and is satisfied that it meets the requirements of Condition B51. Accordingly, as nominee of the Planning Secretary, I approve the 'Aldington Road Industrial Estate Construction Air Quality Management Plan', prepared by Northstar (ref. 23.1122.FR1V5), version 5, dated 1 October 2025.

You are reminded that if there are any inconsistencies between the Construction Air Quality Management Plan and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Rebecka Williams on 02 8275 1723 or email [rebecka.williams@dpie.nsw.gov.au](mailto:rebecka.williams@dpie.nsw.gov.au)

Yours sincerely



David Schwebel  
**Acting Team Leader**  
**Industry Assessments**  
As nominee of the Planning Secretary



# northstar



This document has been prepared for **Frasers Property Industrial** by:

**Northstar Air Quality Pty Ltd,**

**Head Office: Suite 1504, 275 Alfred Street, North Sydney, NSW 2060**

**Riverina Office: PO Box 483, Albury, NSW 2640**

[northstar-env.com](http://northstar-env.com) | Tel: 1300 708 590

## Aldington Road Industrial Estate

### Construction Air Quality Management Plan

Addressee(s):	Frasers Property Industrial
Site Address:	141-251 Aldington Road, Kempas Creek NSW 2178
Report Reference:	23.1122.FR1V5
Date:	1 October 2025
Status:	Final

## Quality Control

Study	Status	Prepared by	Checked by	Authorised by
INTRODUCTION	Final	Northstar Air Quality	NPG, MD	MD
LEGAL AND OTHER REQUIREMENTS	Final	Northstar Air Quality	NPG, MD	MD
THE DEVELOPMENT	Final	Northstar Air Quality	NPG, MD	MD
EXISTING CONDITIONS	Final	Northstar Air Quality	NPG, MD	MD
AIR QUALITY STANDARDS	Final	Northstar Air Quality	NPG, MD	MD
AIR QUALITY MANAGEMENT	Final	Northstar Air Quality	NPG, MD	MD
REVIEW AND IMPROVEMENT	Final	Northstar Air Quality	NPG, MD	MD

## Report Status

Northstar References		Report Status	Report Reference	Version
Year	Job Number	(Draft: Final)	(R.x)	(V.x)
23	1122	Final	R1	V5
Based upon the above, the specific reference for this version of the report is:				23.1122.FR1V5

## Final Authority

This report must be regarded as draft until the above study components have been each marked as final, and the document has been signed and dated below.



**Martin Doyle**

**1 October 2025**

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## 1. INTRODUCTION

Frasers Property Industrial has engaged Northstar Air Quality Pty Ltd (Northstar) to provide a Construction Air Quality Management Plan (CAQMP) that has been prepared in support of the development of a warehouse and logistical hub to be located at 141-251 Aldington Road, Kemps Creek (the Development).

It is noted that land occupying 141-153 Aldington Road is owned by Dexus and forms part of the State Significant Development (SSD) Application SSD-32722834 (the "Dexus site"). However, this site has been included within this CAQMP in order to enable transitional earthworks across both of these sites.

This CAQMP outlines the strategy (encompassing mitigation measures, monitoring and documentation) for the effective control of air quality through the construction phase of the Development. Specifically, the CAQMP identifies the potential sources of air emissions associated with proposed construction activities to be conducted at the Development during construction and outlines a series of measures that are to be implemented in order to mitigate against and minimise fugitive dust and particulate emissions.

An air quality impact assessment (AQIA) was performed (Northstar Air Quality, 2024) as part of SSD-17552047 for the Development. The AQIA included a risk-based assessment of potential impacts from construction related activities which may give rise to dust and particulate releases. The AQIA determined that with the implementation of appropriate controls, the risk of impacts associated with fugitive dust emissions from the construction of the Development would be minimised. A further level of quantitative assessment was performed in relation to the construction phase, at the request of the NSW Department of Planning, Housing and Infrastructure (DPHI). That assessment sought to provide an indication of where air quality monitoring equipment should be located during the construction phase.

This CAQMP details the air quality management requirements that must be satisfied in order to demonstrate compliance with specified Approval Conditions with regard to dust minimisation and is part of a series of management plans contained within the Construction Environmental Management Plan (CEMP). The CEMP serves as the overarching document overseeing environmental management for the Development.

The CAQMP has been performed by Northstar, a specialist air quality consultancy with extensive experience in the provision of air quality management plans. A CV for the principal author (Martin Doyle) is provided in Appendix A.

It is noted that construction works for the Development may not commence until the CAQMP is approved by the Planning Secretary.

## 1.1. Objectives and Targets

The objectives of this CAQMP are to provide a management framework to minimise and mitigate potential emissions of air pollutants from the Development using appropriate best practice measures and to ensure that impacts on air quality are minimised and within the scope permitted by the Approval.

To achieve these objectives, the summarised targets in Table 1 have been proposed for the management of air quality impacts during construction.

**Table 1 Proposed targets and Key Performance Indicators (KPI) associated with the management of air quality**

Measure	Target / KPI	Timeframe	Responsibility	Documentation
Air quality monitoring indicates triggers activated	<ul style="list-style-type: none"> <li>Any triggers of air quality monitoring actioned immediately</li> <li>Review controls applied and increase controls or modify activities</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Visible dust emissions leaving the site boundary	<ul style="list-style-type: none"> <li>Any emissions of visible dust leaving the site boundary investigated immediately</li> <li>Review controls applied and increase controls or modify activities</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Spillage or track out onto public roads	<ul style="list-style-type: none"> <li>Any spillage or track out on public roads to be cleaned immediately</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Maintenance of all plant and equipment used on site in a proper and efficient condition  Operation of all plant and equipment used on site in a proper and efficient manner	<ul style="list-style-type: none"> <li>All plant and equipment to be maintained in accordance with manufacturer specifications</li> <li>All plant and equipment to be operated efficiently</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Complaints regarding air quality	<ul style="list-style-type: none"> <li>Zero validated complaints</li> <li>Any complaints would be investigated (see Section 7.2)</li> </ul>	At all times	Site supervisor	Complaints register

Measure	Target / KPI	Timeframe	Responsibility	Documentation
Meeting Project Approval Conditions regarding air quality	<ul style="list-style-type: none"> <li>Compliance with conditions</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Construction Compliance Report

## 2. LEGAL AND OTHER REQUIREMENTS

Provided below are the key relevant legislation, guidelines, and other relevant documentation and Approval Conditions, as they relate to air quality impacts during construction of the Development.

### 2.1. Legislation

Legislation relevant to the management of air quality for the Development includes:

- *Environmental Planning and Assessment Act 1979 (EP&A Act);*
- *Protection of the Environment Operations Act 2022 (POEO Act);*
- *Protection of the Environment Operations (Clean Air) Regulation (POEO CAR) 2022; and,*
- *State Environmental Planning Policy (Western Sydney Employment Area) 2009.*

A detailed discussion of how specific requirements outlined within the abovementioned legislation is applicable to the Development with regard to air quality is provided within the AQIA performed as part of SSD-17552047.

It is noted that as required under Condition B55 of the Approval Conditions the Development 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 Protection of the Environment Operations (Clean Air) Regulation 2022 (NSW).”* (refer Section 2.3).

### 2.2. Guidelines and Relevant Documents

Guidelines and other documentation relevant to the management of air quality for the Development includes:

- *NSW EPA Local Government Air Quality Toolkit – Air Quality Guidance Note – Construction sites (NSW EPA, 2024);*
- *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022);* and,
- *Guidance on the assessment of dust from demolition and construction (IAQM, 2024).*

### 2.3. Development Approval Conditions

Development Approval Conditions have been issued by the NSW DPHI for the Development. The Conditions which apply to air quality are reproduced in Table 2.

Table 2 Development Approval Conditions – air quality

Approval reference	Conditions	Report reference
<b>Dust Minimisation</b>		
B49	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	This document
B50	During construction, the Applicant must ensure that: <ul style="list-style-type: none"> <li>(a) exposed surfaces and stockpiles are suppressed by regular watering or other alternative suppression method;</li> <li>(b) all trucks entering or leaving the site with loads have their loads covered;</li> <li>(c) trucks associated with the development do not track dirt onto the public road network;</li> <li>(d) public roads used by these trucks are kept clean; and</li> <li>(e) land stabilisation works are carried out progressively on-site to minimise exposed surfaces.</li> </ul>	Section 6.3
<b>Construction Air Quality Management Plan</b>		
B51	Prior to the commencement of earthworks and construction of each warehouse building in the development, the Applicant must prepare a Construction Air Quality Management Plan (CAQMP) to the satisfaction of the Planning Secretary. The CAQMP must form part of the CEMP required by conditions C2 and C5 and must:	This document
	(a) be prepared by a suitably qualified and experienced person(s);	Section 1
	(b) detail and rank all emissions from all sources during construction of the development, including particulate emissions;	Section 3.4
	(c) describe a program that is capable of evaluating the performance of the construction and determining compliance with key criteria, including installation of real-time air quality monitors on the site boundary;	Section 1.1 Section 6
	(d) identify the locations of the real-time air quality monitors including at receiver R13 as shown in Figure 16 in Appendix 5;	Section 6.2.1
	(e) identify the control measures that will be implemented for each emission source;	Section 6.3
	(f) nominate the following for each of the proposed controls: <ul style="list-style-type: none"> <li>(I) key criteria;</li> <li>(II) monitoring method;</li> <li>(III) location, frequency, and duration of monitoring</li> </ul>	Section 1.1 Section 6.2

Approval reference	Conditions	Report reference
	(g) outline procedures that will be implemented in relation to: <ul style="list-style-type: none"> <li>(I) record keeping.</li> <li>(II) reporting to the Environmental Representative required under condition A41;</li> <li>(III) complaints register.</li> <li>(IV) response procedures; and</li> <li>(V) compliance monitoring.</li> </ul>	Section 7
	(h) include a Trigger Action Response Plan (TARP) that must include: <ul style="list-style-type: none"> <li>(I) the objectives of the TARP;</li> <li>(II) triggers for:               <ul style="list-style-type: none"> <li>- continuously monitored PM<sub>10</sub> concentrations;</li> <li>- meteorological conditions;</li> <li>- visible dust plumes;</li> <li>- on-site activities that have the potential for elevated dust emissions;</li> </ul> </li> <li>(III) a procedure to identify likely dust-generating sources;</li> <li>(IV) source-specific actions to reduce dust generation rates;</li> <li>(V) a procedure to determine the effectiveness of the implemented actions;</li> <li>(VI) a procedure to implement additional controls if required, to ensure the development complies with the conditions of this consent; and</li> <li>(VII) a procedure to record evidence / observations of the effectiveness of the implemented actions to manage the triggers, and evidence to demonstrate that the objectives of the TARP have been achieved; and</li> </ul>	Section 6
	(i) detail contingency measures to be implemented to reduce any exceedances of relevant performance indicators or criteria and include a timetable for implementation.	Section 6.4
B52	The applicant must: <ul style="list-style-type: none"> <li>(a) not commence earthworks until the CAQMP required by condition B51 is approved by the Planning Secretary; and</li> <li>(b) implement the most recent version of the CAQMP approved by the Planning Secretary for the duration of earthworks and construction.</li> </ul>	Section 1
<b>Independent Air Quality Audit (IAQA)</b>		
B53	Within three months of the commencement of earthworks and every three months thereafter until the completion of earthworks, the Applicant must commission and pay the full cost of an Independent Air Quality Audit to	Section 7.3

Approval reference	Conditions	Report reference
	<p>review the air quality performance of the development. The IAQA must, and:</p> <ul style="list-style-type: none"> <li>(a) be undertaken by a suitably qualified (i.e. CAQP and/or CEnv), experienced and independent expert whose appointment has been endorsed by the Planning Secretary;</li> <li>(b) analyse the performance of the CAQMP, including the TARP;</li> <li>(c) audit the performance of the CAQMP, including the TARP in achieving its objectives;</li> <li>(d) identify any deficiencies in the CAQMP including the TARP in achieving its objectives and propose changes to improve the performance of the CAQMP to achieve those objectives;</li> <li>(e) review the air quality monitoring and mitigation requirements and air quality monitoring data for the audit period;</li> <li>(f) analyse any incidents, non-compliances and complaints that occurred or were made during the audit period; and</li> <li>(g) if necessary, recommend and prioritise measures to improve the air quality controls on-site for subsequent stages of the earthworks program, such that sensitive receivers would be protected against adverse air quality impacts from the development.</li> </ul>	
B54	<p>Within 6 weeks of the completion of the IAQA required by Condition B53, the Applicant must submit a copy of the audit report to the Planning Secretary with a response to any recommendations contained in the audit report. The response must include a timeframe for implementing the recommendations of the IAQA.</p>	Section 7.3
<b>Air Quality Discharges</b>		
B55	<p>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 <i>Protection of the Environment Operations (Clean Air) Regulation 2022</i> (NSW).</p>	Section 2.1, Section 6

## 3. THE DEVELOPMENT

The following provides a description of the context, location, and scale of the Development and provides a description of the processes to be conducted during the construction phase. This section also identifies the potential for emissions to air associated with the Development.

### 3.1. Environmental Setting

The Development is located at 141-251 Aldington Road, Kemps Creek in the Penrith Local Government Area (LGA) and is situated approximately 5 kilometres (km) from Badgerys Creek, 20 km from Paramatta and 39 km from the Sydney Central Business District (CBD).

A map showing the location of the Development is provided in Figure 1 (overleaf).

The closest residential property is approximately 52 metres (m) from the Development site boundary to the southwest.

### 3.2. Description of Development

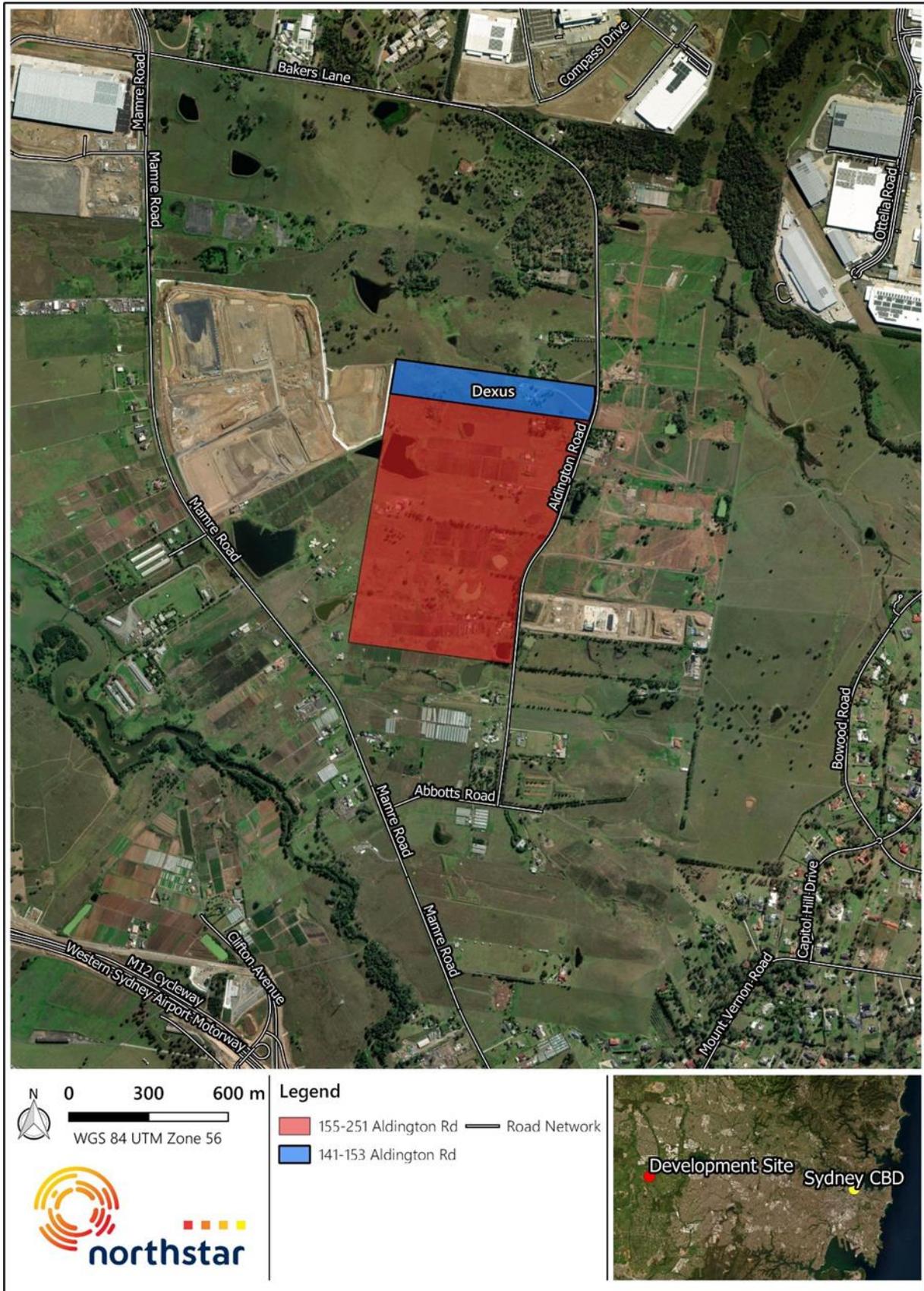
The overall scope of the Development is outlined as follows:

- Bulk earthworks involving cut and fill works;
- Vegetation clearing;
- Construction of eight warehouses;
- Subdivision of land to form 14-lot Torrens titles; and
- Estate wide infrastructure works comprising civil works and utilities.

The Development would be operational on a 24-hour, 7-day basis.

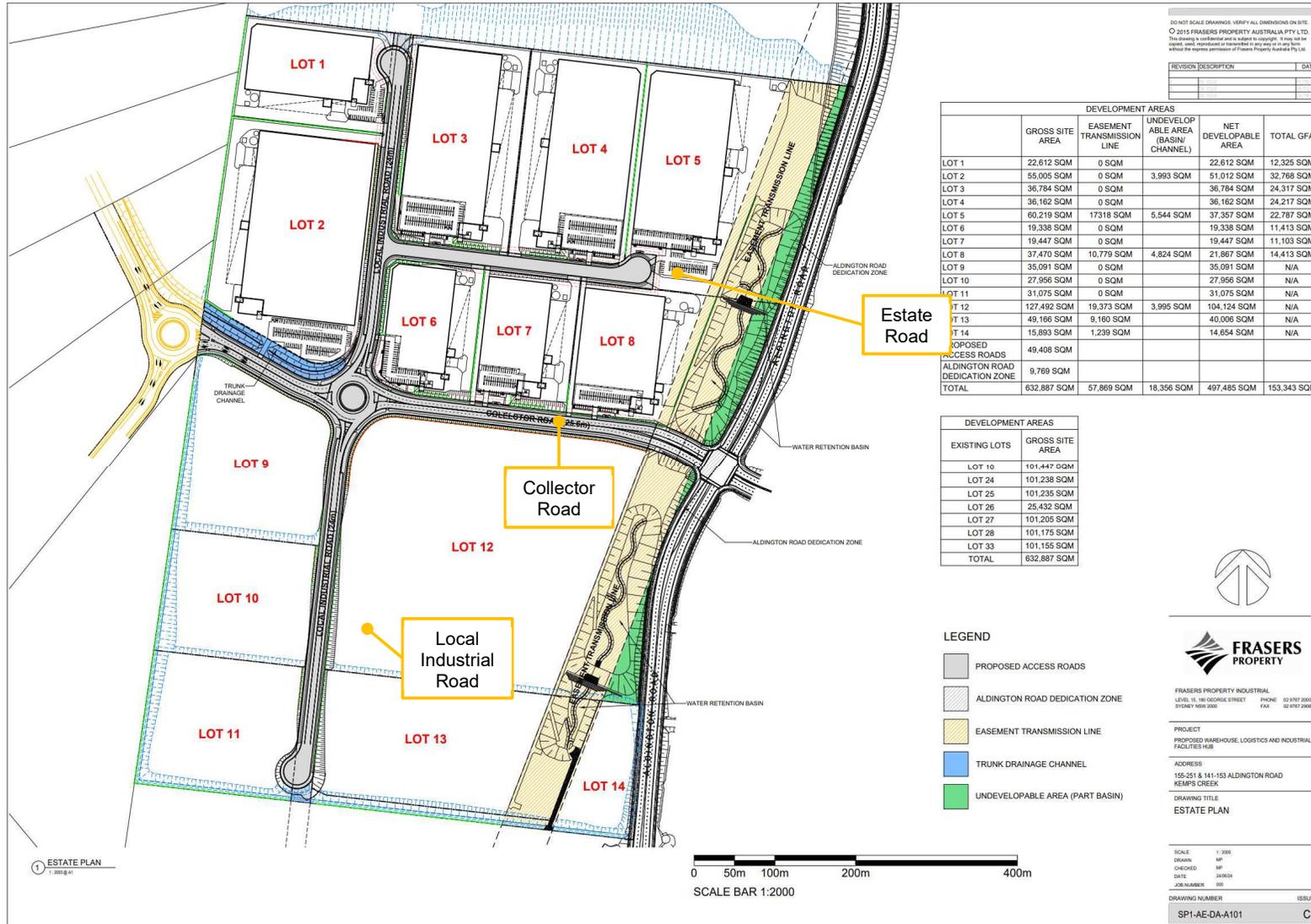
The Development site layout plan is provided in Figure 2.

Figure 1 Development site location



Source: Northstar

Figure 2 Development site layout



Source: Frasers Property Industrial

### 3.3. Identification of Potential Emissions to Atmosphere

During the construction phase of the Development, the following activities may have the potential to impact upon air quality:

- Demolition of any existing structures contained within the Development site;
- Earthworks including stripping and stockpiling of topsoil and cut and fill;
- Importation of fill from off-site sources;
- Movement of non-road mobile machinery (NRMM), plant and equipment across the Development site and heavy vehicles on unpaved areas; and
- Construction of hardstand areas, internal road network, warehouse distribution and office structures.

The activities described above could give rise to dust and particulate matter releases, and gaseous emissions through the combustion of fuel in vehicles, plant and machinery including NRMM.

The UK Institute of Air Quality Management (IAQM) notes that *"The most common impacts are dust soiling and increased ambient [particulate] concentrations due to dust arising from activities on the site."* (IAQM, 2024) Of the activities outlined above, emissions associated with earthworks and the movement of heavy vehicles on unpaved areas are considered to have the greatest potential to impact on local air quality conditions, and it is these activities which are examined in detail in this CAQMP. However, the controls outlined in this CAQMP consider all sources of emissions (refer Section 6.3) with regard to local air quality.

The risk of dust emissions derived from a demolition / construction site that may cause a loss of amenity and / or health impacts is related to the following (IAQM, 2024):

- The nature of the activities being undertaken;
- The duration of the activities;
- The size of the site;
- The meteorological conditions (wind speed, direction, rainfall). Adverse impacts are more likely to occur downwind of the site and during drier periods;
- Soil moisture content and soil type and erodibility;
- The proximity of receptors to the activities;
- The sensitivity of the receptors to dust; and
- The adequacy of the mitigation measures applied to reduce or eliminate dust.

In addition, the risk of air quality impacts arising from exhaust emissions are related to the following:

- The number and type of plant and equipment being used;
- The duration of use of each item of plant and equipment;
- Appropriate operation and maintenance of plant and equipment; and
- Compliance of plant and equipment with relevant emission standards.

The anticipated volume of earthworks activities performed for the Development are presented in Table 3.

**Table 3 Anticipated volume of earthworks activities**

Description	Units	Value	Comments
Slash, clear and grub site	m <sup>2</sup>	632 860	Gross area of Development site
Strip topsoil and stockpile	m <sup>3</sup>	91 000	Provided by the Applicant
Cut to fill	m <sup>3</sup>	1 083 900	
Crushing	m <sup>3</sup>	38 696	
Import and compact fill	m <sup>3</sup>	456 700	

A number of ancillary activities such as construction of retaining walls, stormwater infrastructure, electrical installation, landscaping and construction of offices and internal road network will also be carried out, although the earthworks activities outlined in Table 3 would result in the greatest potential for emissions to air, and it is these activities which have been examined in detail.

The NRMM, plant and equipment to be used during the construction of the Development will include:

- Scrapers.
- Excavators.
- Dozers.
- Dump trucks.
- Compactors.
- Graders.
- Rollers.
- Crushers.
- Front-end Loaders (FEL).
- Water carts.

Additionally, it is anticipated that up to 25 trucks per day would be involved in importing fill to the Development site during peak earthworks activities, with these trucks being predominately 'truck and dog' configuration.

### 3.4. Quantification of Potential Emissions to Atmosphere

As required by the Development Approval Conditions, this CAQMP provides a quantification of emissions associated with construction activities and identifies the emission control measures which would be applied to each source.

Emissions have been estimated adopting activity data as outlined in Table 3, and emission factors for materials handling processes, movement of trucks on unpaved site roads, and wind erosion contained within the US EPA AP-42 emission factor compendium (US EPA, 1995 and updates). These factors are appropriate for adoption in Australia and are routinely adopted in the assessment of operations of a similar nature.

As outlined in Section 3.3, the abovementioned activities have the greatest potential to generate significant emissions of dust during the construction phase of the Development. Additionally, emission factors associated

with other construction phase activities such as demolition or construction of buildings are generally not included within published emission factor documents and correspondingly, emissions from those activities cannot be accurately quantified.

Emissions of total suspended particulate (TSP), particulate matter with an aerodynamic diameter of <10 microns (PM<sub>10</sub>), and ≤2.5 microns (PM<sub>2.5</sub>) have been calculated without the inclusion of controls. Emission controls have then been identified and applied to the sources of emissions to determine the likely reductions which could result through the implementation of those measures.

The proposed emission controls to be adopted during the construction of the Development that are associated with justifiable emission control efficiencies have been presented in Table 4. It is noted that the relevant emission control efficiencies have been sourced from the following literature:

- *National Pollutant Inventory Emission Estimation Technique Manual for Mining Version 3.1* (DCCEEW, 2012); and
- *NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining* (Katestone Environmental, 2011).

It is noted that a range of additional control measures are proposed for the Development for which justifiable control efficiencies are not available (see Section 6.3).

**Table 4 Proposed emission controls with associated control efficiencies**

Measure	Aim	Anticipated emission control efficiency (%)	Reference
Watercarts and handheld water sprays on site to control dust regularly	Minimise dust generation on haul roads, exposed areas and during materials handling activities	50	(DCCEEW, 2012)
Minimise drop heights from truck dumping to 1.5 m	Minimise dust generation during vehicle unloading	30	(Katestone Environmental, 2011)
Sprinkler system operating on crusher	Minimise dust generating during crushing activities	50	(DCCEEW, 2012)

A number of assumptions have been adopted to estimate the emissions resulting from the construction works in conjunction with the anticipated volume of earthworks presented in Table 3. It is noted that the adopted assumptions generally represent a conservative approach to estimating the emissions and correspondingly, the actual emissions generated from construction works are likely to be less than those presented in this CAQMP. The assumptions are provided below in Table 5.

**Table 5 Assumptions adopted to estimate emissions**

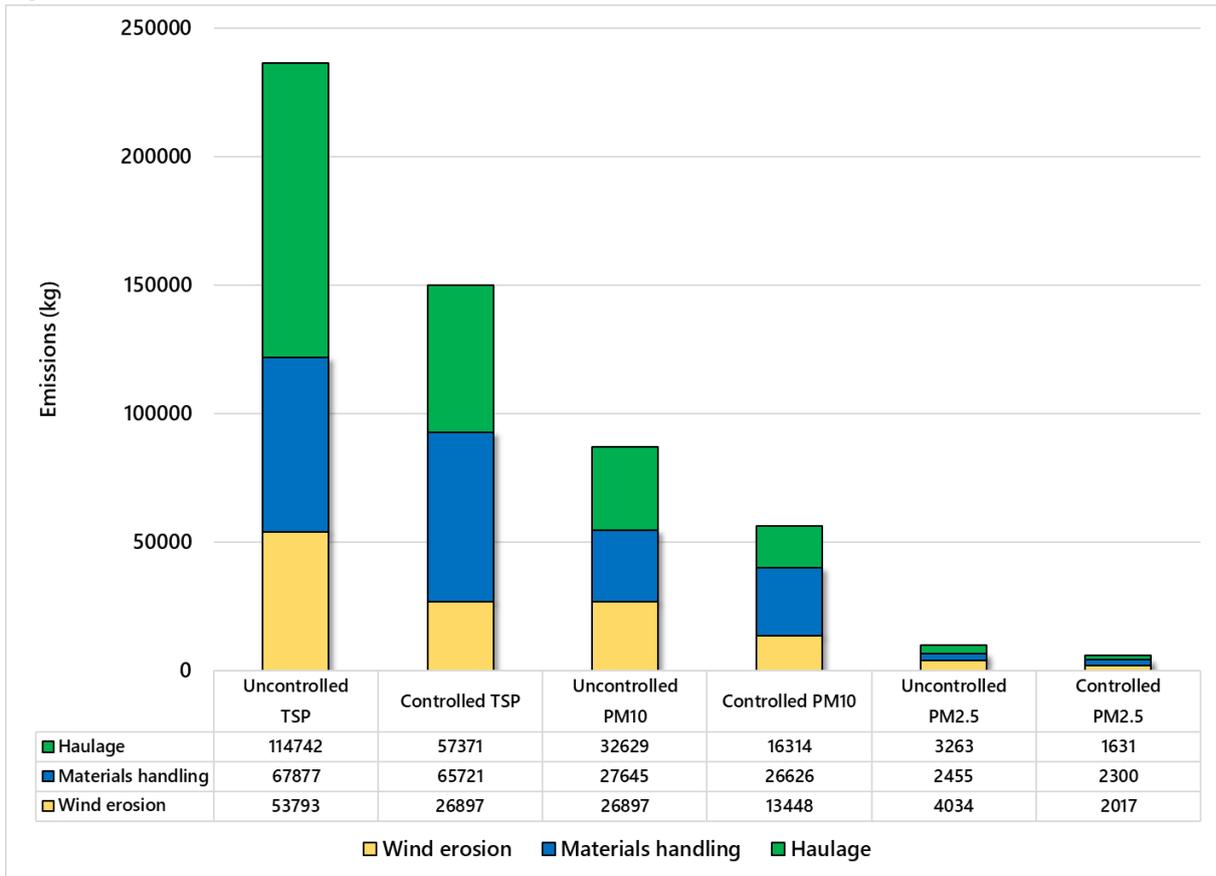
Parameter	Assumption	Comment
Total duration of earthworks	277 days	Estimated from information received from earthworks contractor
Hours of construction	11 hours (7:00am to 6:00pm)	Assumed hours
Payload of trucks importing fill material	40 tonnes	Assumed payload
Payload of dump trucks moving material	90 tonnes	Assumed payload estimated from information received from Development management
Dozer operating hours per day	75% of construction hours	Assumed hours
Truck on site path length	0.33 kilometres	Measured from site entrance to centre of Development site
Dump truck on site path length	0.63 kilometres	Measured from centre of Development site to furthest corner

Figure 3 presents the anticipated emissions for the expected period of earthworks, before (uncontrolled) and after the application of the proposed control measures outlined in Table 4 (controlled). Emissions of particulate matter are calculated to be dominated by haulage activities, should these not be appropriately controlled.

The application of the emission control measures results in reductions in all three particulate size fractions (i.e. TSP, PM<sub>10</sub> and PM<sub>2.5</sub>), as presented in Figure 3. The potential reduction in emissions through application of the proposed emissions controls is as follows:

- TSP – 63 %
- PM<sub>10</sub> – 65 %
- PM<sub>2.5</sub> – 61 %

Figure 3 Particulate emissions – uncontrolled and controlled

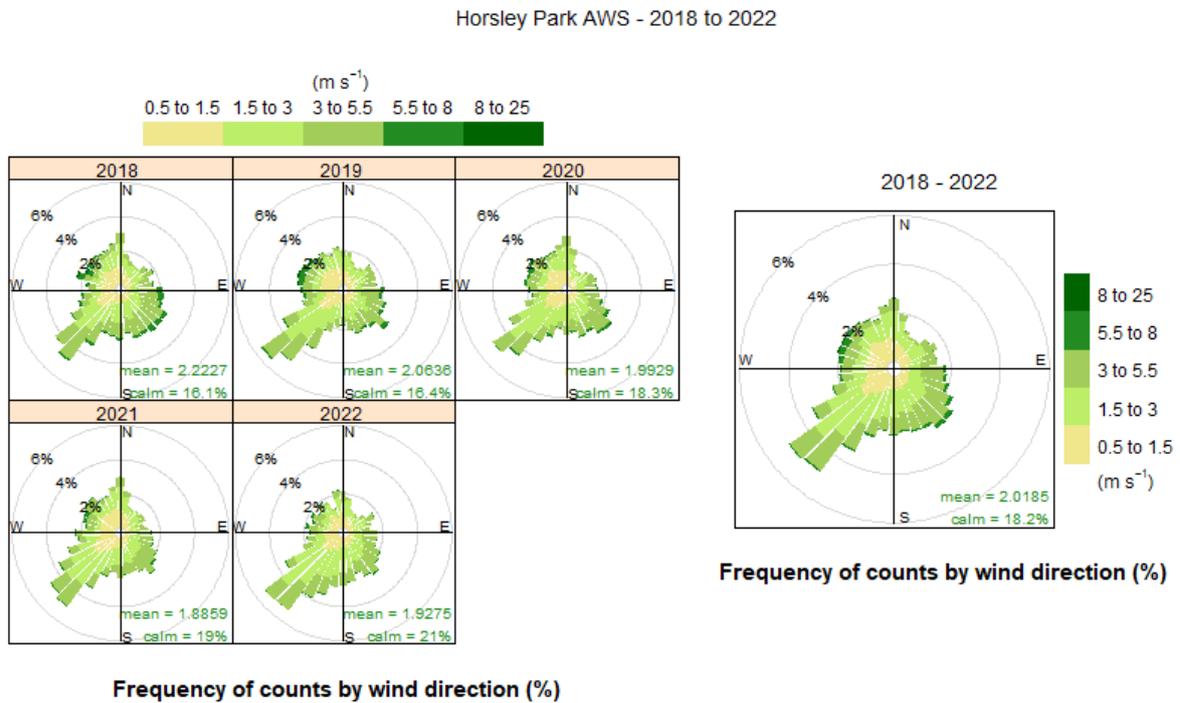


## 4. EXISTING CONDITIONS

### 4.1. Meteorology

The meteorology of the area surrounding the Development site was characterised in the AQIA submitted in support of the SSD Application (Northstar Air Quality, 2024) through the use of observations collected by the Australian Government Bureau of Meteorology (BoM) at the Horsley Park Equestrian Centre Automatic Weather Station (AWS) located approximately 5.9 kilometres (km) from the Development site. Wind roses showing the frequency of wind speed and direction from 2018 to 2022 are shown in Figure 4.

**Figure 4 Annual wind roses Horsley Park Equestrian Centre AWS (2018 to 2022)**



The wind roses indicate that from 2018 to 2022, winds at Horsley Park Equestrian Centre show similar patterns across the years, with a predominant south-westerly wind direction.

The majority of wind speeds experienced at the Horsley Park Equestrian Centre AWS between 2018 and 2022 are generally in the range 0.5 meters per second ( $m\ s^{-1}$ ) to  $5.5\ m\ s^{-1}$  with the highest wind speeds (greater than  $8\ m\ s^{-1}$ ) occurring from north-westerly directions. Winds of this speed are rare and occur during 0.2 % of the observed hours during the years. Calm winds (less than  $0.5\ m\ s^{-1}$ ) are more common and occur during 18.2 % of hours across the years.

For context in relation to construction dust, the predominant south-westerly wind direction observed at the Horsley Park Equestrian Centre AWS (refer Figure 4) indicates that sensitive receptors to the northeast of the site would be likely to be impacted more often than other receptor locations.

## 4.2. Air Quality

The air quality of the area surrounding the Development site was characterised in the in the AQIA submitted in support of the SSD Application (Northstar Air Quality, 2024) through the use of observations collected at the Air Quality Monitoring Station (AQMS) located at St Marys operated by the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW).

Particulate matter (as PM<sub>10</sub> and PM<sub>2.5</sub>) data for the period covering 2018 to 2022 are presented in Figure 5 and Figure 6 respectively. These data indicate that that particulate matter concentrations were significantly higher than the NSW EPA criteria in late 2019 and early 2020. This was predominantly driven by exceptional weather events such as drought conditions and bushfires (NSW DPIE, 2021).

It is noted that the monitoring program to be adopted for the construction phase of the Development as outlined in Section 6 includes real-time monitoring of particulate matter. Correspondingly, the historical data collected at St Marys AQMS presented below would not be considered as part of that monitoring program. However, it has been provided to provide a characterisation of the background air quality environment without consideration of potential impacts generated from the Development. For context, it is noted that the area surrounding the Development is periodically affected by regional events such as drought conditions and bushfires.

**Figure 5** PM<sub>10</sub> measurements, St Marys 2018-2022

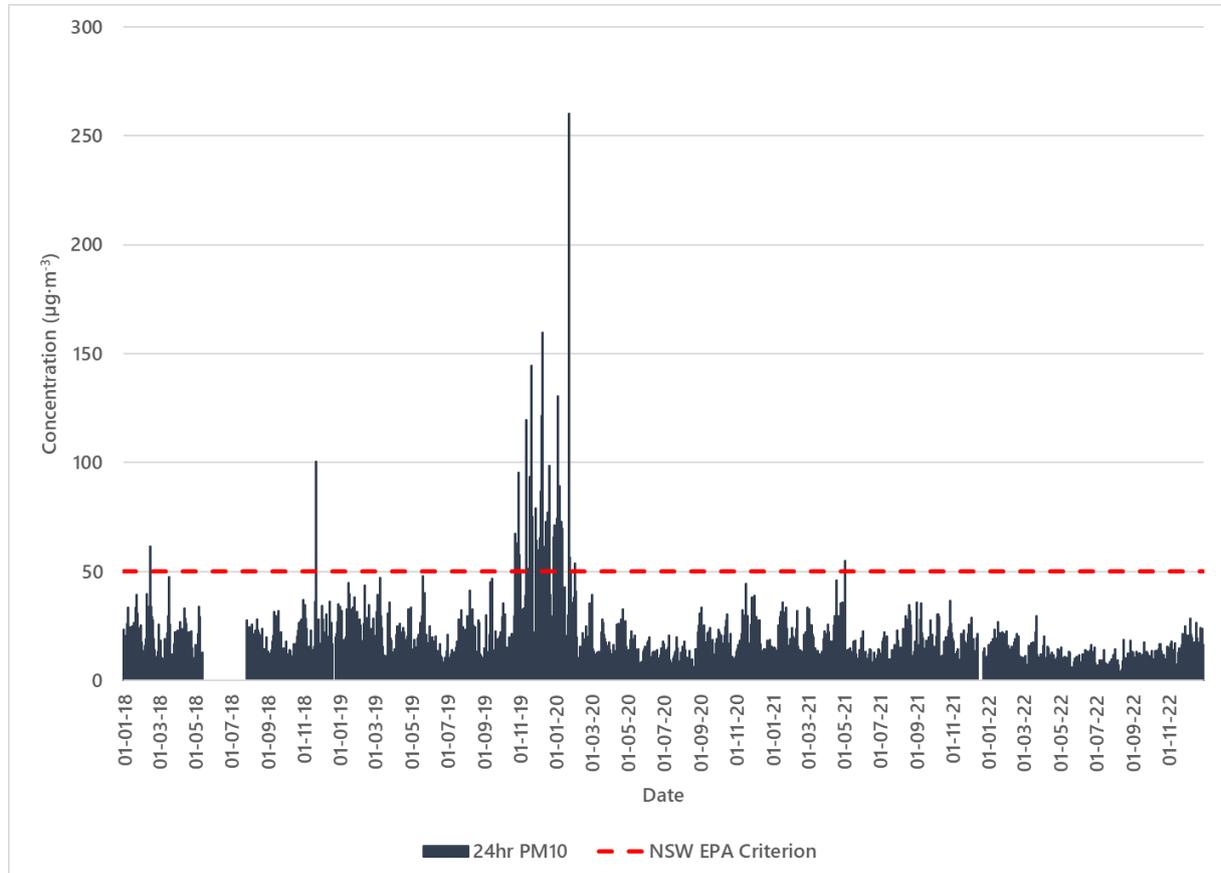
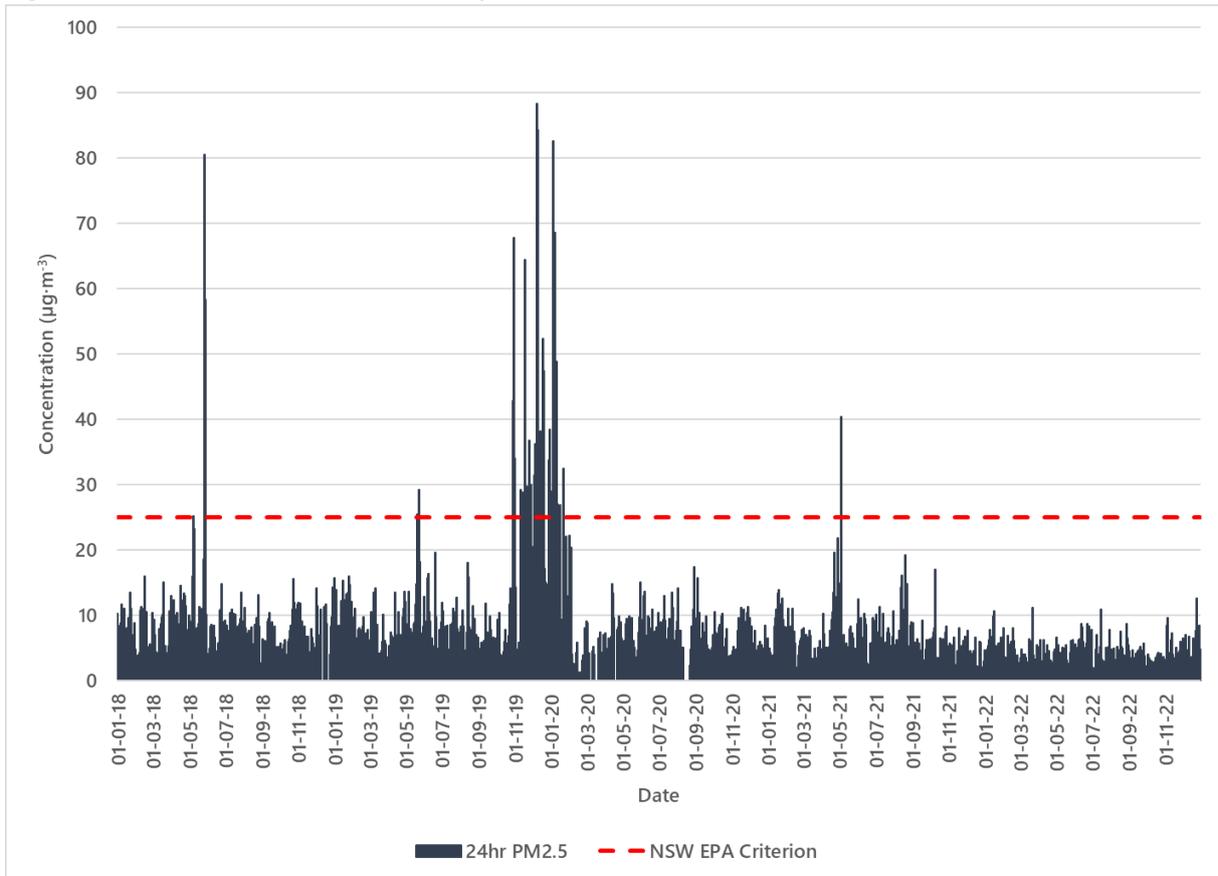


Figure 6 PM<sub>2.5</sub> measurements, St Marys 2018-2022



## 5. AIR QUALITY STANDARDS

State air quality guidelines adopted by the NSW Environment Protection Authority (NSW EPA) are published in the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (Approved Methods (NSW EPA, 2022)). The Approved Methods lists the statutory procedures and techniques that are to be used to model and assess emissions of criteria air pollutants from stationary sources across NSW.

The criteria listed in Section 7.1 and Section 7.2 of the Approved Methods are derived from a range of sources (including National Health and Medical Research Council (NHMRC), National Environment Protection Council (NEPC), Department of Environment (DoE), World Health Organisation (WHO), and Australian and New Zealand Environment and Conservation Council (ANZECC)).

It is noted that the primary pollutants of concern associated with the construction of the Development are as follows:

- PM<sub>10</sub>;
- PM<sub>2.5</sub>;
- TSP; and
- Deposited dust.

The impact assessment criteria for the abovementioned pollutants as set out in Section 7.1 of NSW EPA (2022) are presented in Table 6 below. The standards applicable to the monitoring to be undertaken through this CAQMP are presented in **bold** text.

**Table 6 NSW EPA Approved Methods - impact assessment criteria**

Pollutant	Averaging period	Units	Criterion	Notes
<b>Particulates (as PM<sub>10</sub>)</b>	<b>24 hours</b>	<b>µg·m<sup>-3</sup> (A)</b>	<b>50</b>	Numerically equivalent to the Ambient Air Quality National Environment Protection (AAQ NEPM) <sup>(B)</sup> standards and goals.
	<b>Annual</b>	<b>µg·m<sup>-3</sup></b>	<b>25</b>	
Particulates (as PM <sub>2.5</sub> )	24 hours	µg·m <sup>-3</sup>	25	
	Annual	µg·m <sup>-3</sup>	8	
Particulates (as TSP)	Annual	µg·m <sup>-3</sup>	90	
Particulates (as dust deposition)	Annual <sup>(C)</sup>	g·m <sup>-2</sup> ·month <sup>-1</sup>	2	
	Annual <sup>(D)</sup>	g·m <sup>-2</sup> ·month <sup>-1</sup>	4	

- Notes:**
- (A): micrograms per cubic metre of air
  - (B): National Environment Protection (Ambient Air Quality) Measure
  - (C): Maximum increase in deposited dust level
  - (D): Maximum total deposited dust level

## 6. AIR QUALITY MANAGEMENT

The air quality management measures to be adopted during the construction of the Development have been determined through the quantification of emissions and the identification of major emissions sources as outlined in Section 3.4. Measures have also been identified through review of the Approval Conditions, (NSW EPA, 2022) and (IAQM, 2024).

Key performance indicators (KPI) for the Development are provided in Section 1.1. For the CAQMP as a whole, the following is provided, as required by the Approval Conditions:

- Monitoring method.
- Location, frequency and duration of monitoring.
- Record keeping.
- Reporting to the Environmental Representative.
- Complaints register.
- Response procedures.
- Compliance monitoring.

### 6.1. Key Performance Indicators

As previously outlined, the key objectives of the CAQMP are to ensure that impacts to air quality associated with the Development are minimised and within the scope permitted by the Approval. To achieve these objectives, the summarised targets in Table 1 (replicated in Table 7) have been proposed for the management of air quality impacts during construction as follows.

**Table 7 KPI's associated with the management of air quality**

Measure	Target / KPI	Timeframe	Responsibility	Documentation
Air quality monitoring indicates triggers activated	<ul style="list-style-type: none"> <li>• Any triggers of air quality monitoring actioned immediately.</li> <li>• Review controls applied and increase controls or modify activities</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Visible dust emissions leaving the site boundary	<ul style="list-style-type: none"> <li>• Any emissions of visible dust leaving the site boundary investigated immediately</li> <li>• Review controls applied and increase controls or modify activities</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Spillage or track out onto public roads	<ul style="list-style-type: none"> <li>• Any spillage or track out on public roads to be cleaned immediately</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist

Measure	Target / KPI	Timeframe	Responsibility	Documentation
Maintenance of all plant and equipment used on site in a proper and efficient condition  Operation of all plant and equipment used on site in a proper and efficient manner	<ul style="list-style-type: none"> <li>All plant and equipment to be maintained in accordance with manufacturer specifications</li> <li>All plant and equipment to be operated efficiently</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
Complaints regarding air quality	<ul style="list-style-type: none"> <li>Zero validated complaints</li> <li>Any complaints would be investigated (see Section 7.2)</li> </ul>	At all times	Site supervisor	Complaints register
Meeting Project Approval Conditions regarding air quality	<ul style="list-style-type: none"> <li>Compliance with conditions</li> </ul>	At all times	Site supervisor	Environmental inspection checklist Construction Compliance Report

Air quality impacts during construction are anticipated to be minor and manageable through the implementation of the control measures outlined in Section 6.3. The success of the CAQMP would, in part, be determined through compliance with the KPIs outlined above. To ensure that the Development is operated in accordance with Development Conditions, real-time monitoring is proposed at four locations on the boundary of the Development site, for the duration of works. A description of the proposed monitoring program is outlined in Section 6.2.

## 6.2. Air Quality Monitoring

A Trigger Action Response Plan (TARP) has been developed as part of the CAQMP, which describes the actions to be taken when specific triggers are exceeded.

The purpose of the TARP is to provide a process to identify conditions that may lead to unacceptable dust impacts if not adequately managed, and to provide proactive and reactive actions to manage that risk. Triggers have been defined to assist the contractor to meet dust management obligations when:

- Ground-level concentrations at the monitoring locations have the potential to be elevated due to activities onsite; and
- Activities onsite are generating visible dust outside of the normal observed range.

The monitoring program is designed to enable and facilitate proactive modification of site activities to ensure that unacceptable air quality impacts are not experienced at surrounding receptor locations. In conditions when the background particulate environment is significantly affected by external sources (such as dust storms or bushfire), then modification of activities may not result in any meaningful reductions in off-site impacts associated with the activities on site. However, the TARP has been designed to enable pro-active control of the development impact in all conditions and includes wind speed triggers to allow modification of activities in increasing wind speeds.

It is important to note that whilst the TARP is designed to provide alerts to site personnel when particulate concentrations are elevated and likely to be associated with site activities, it is the responsibility of the site personnel to actively identify what the potential causes of those elevated particulate concentrations might be. The air quality monitoring data can only provide the magnitude of any impact, but cannot identify the source of those impacts. Therefore, an understanding of the activities being performed on site throughout the day is the responsibility of site personnel (daily inspections), which provides areas where additional mitigation measures can be applied to result in the greatest reductions in emissions. The TARP is not designed to be a 'set and forget' system, nor is it a 'one size fits all' approach. The value of the system relies on the selection of the most appropriate mitigation measures, and this AQMP seeks to provide guidance in that respect.

### 6.2.1. Monitoring Network

Continuous real-time data would be collected by the network and provided as user-defined averages. To meet the objectives of the TARP, 1-hour, 24-hour and annual averages will be obtained.

The locations of the air quality and meteorological monitors have been selected to allow the incremental (i.e. construction related) particulate matter concentration to be calculated in a range of wind directions, taking into account the locations of emissions sources, surrounding sensitive receptor locations and prevailing meteorology.

The monitoring network would consist of four monitors located along the site boundary to allow the determination of upwind/downwind impact in all wind directions. A map showing the location of the monitoring equipment is presented in Figure 7.

It is noted that an additional monitoring location is situated at receptor R13 (as identified within the AQIA (Northstar Air Quality, 2024)), identified as M5 (refer Figure 7) as required under Condition B51(d).

It is additionally noted that the relocation of the monitoring stations may be permitted as required based on site activities. Approval by a suitably qualified air quality consultant would be required prior to relocation.

The siting of air quality monitoring would be in accordance with AS 3580.1.1 *Methods for sampling and analysis of ambient air, Guide to siting air monitoring equipment*, taking into account the objectives of the monitoring program and site constraints.

Siting of meteorological monitoring would be performed with reference to AS 3580.14 *Methods for sampling and analysis of ambient air, Meteorological monitoring for air quality monitoring applications*, as far as practicable, and taking into account site constraints and the purposes of the monitoring program.

**Figure 7 Location of monitoring equipment**



Source: Northstar

The air quality monitoring method / equipment supplier has not yet been selected, although it is recommended that an optical monitoring method would be most suitable, due to its portability and cost. Optical monitoring systems can often measure several size fractions simultaneously, in real-time. The range, resolution and accuracy of the selected monitoring system should be as presented in Table 8, where possible.

**Table 8 Air quality monitoring parameters, range, resolution and accuracy**

Parameter	Range	Resolution	Accuracy
TSP	0 – 1 000 $\mu\text{g}\cdot\text{m}^{-3}$	1 $\mu\text{g}\cdot\text{m}^{-3}$	$\pm 10\%$ (< 500 $\mu\text{g}\cdot\text{m}^{-3}$ )
PM <sub>10</sub>	0 – 1 000 $\mu\text{g}\cdot\text{m}^{-3}$	1 $\mu\text{g}\cdot\text{m}^{-3}$	$\pm 10\%$ (< 500 $\mu\text{g}\cdot\text{m}^{-3}$ )

Wind speed and direction would be measured at one location (nominally location M4). The range, resolution and accuracy of any wind speed and direction measurements would be as outlined in Table 9, where possible.

**Table 9 Meteorological monitoring parameters, range, resolution and accuracy**

Parameter	Range	Resolution	Accuracy
Wind speed	0 – 60 m·s <sup>-1</sup>	0.01 m·s <sup>-1</sup>	±0.1 m·s <sup>-1</sup>
Wind direction	0 – 360°	1°	±2°

Wind speed and wind direction monitoring would be performed at 10 m AGL, in accordance with best practice.

### 6.2.2. Trigger Levels

Table 10 outlines the tiered trigger levels which allows an appropriate management response / action associated with increasing risk of off-site dust impacts. A hierarchy of management and mitigation options would be initiated should the trigger levels be reached. To allow an appropriate management response / action associated with increasing risk of off-site particulate impacts, a ‘traffic light’ system is proposed, adopting a cascading action level.

Where the measured 1-hour average PM<sub>10</sub> concentration is greater than 50 µg·m<sup>-3</sup> at any monitoring station, the Down-Wind Increment (DWI) will be calculated to determine the calculated ‘site contribution’.

It is noted that there may be instances where the 1-hour PM<sub>10</sub> concentration is greater than or equal to 50 µg·m<sup>-3</sup>, but the DWI cannot be calculated (due to lack of data collection or when, based on wind direction, there is no suitable downwind monitor). It is recommended that in this instance, a secondary trigger based on wind speed should be adopted as presented in Table 10.

Additionally, action responses associated with each trigger level are also outlined in Table 10 to identify dust generating activities and apply emissions control methods adopted for the Development, as specified in Section 6.3.

For clarity, the action responses for each trigger level would require the Site Supervisor to review all activities occurring at the Development to identify which emission sources may be contributing to elevated dust concentrations. For the purposes of this TARP, emission sources have been disaggregated into the following categories:

- Wind erosion;
- Materials processing;
- Materials handling; and
- Haulage.

Given that various emissions sources may contribute to elevated dust concentrations on separate occasions, the TARP has been designed so that emissions controls may be deployed with consideration of the dust generating activities occurring at the Development during different phases of construction. Therefore, the control methods outlined in Section 6.3 have been assigned an emission source category in accordance with

the categories listed above. In some cases, control methods may act to reduce emissions associated with all categories and as such, those have been labelled as control methods for 'all sources'.

Table 10 Trigger levels

Action level	Primary trigger	Secondary trigger	Action response
None	Concentration at any monitor $< 50 \mu\text{g}\cdot\text{m}^{-3}$ <i>and</i> No visible dust observed leaving the site boundary	Wind speeds $< 5.4 \text{ m}\cdot\text{s}^{-1}$ ( $< 19.4 \text{ km}\cdot\text{hr}^{-1}$ )	<ul style="list-style-type: none"> <li>No response required beyond the continued implementation of standard dust controls.</li> </ul>
Action 1	Concentration at any monitor $\geq 50 \mu\text{g}\cdot\text{m}^{-3}$ <i>and</i> [ 1-hour average DWI $< 5 \mu\text{g}\cdot\text{m}^{-3}$ <i>or</i> Visible dust observed leaving the site boundary ]	Wind speeds $\geq 5.5 \text{ m}\cdot\text{s}^{-1}$ ( $\geq 19.8 \text{ km}\cdot\text{hr}^{-1}$ )	<ul style="list-style-type: none"> <li>Review activities being performed and determine through a visual inspection which activities may be generating elevated dust emissions. Determine whether any additional emission controls (refer to Table 11) can be applied to those activities.</li> <li>Apply additional emission controls appropriate to the identified activities. For example:               <ul style="list-style-type: none"> <li>Deploy water carts to haulage routes if wheel generated dust is visibly observed.</li> <li>Cover stockpiles if wind erosion is observed.</li> </ul> </li> <li>Closely monitor <math>\text{PM}_{10}</math> to determine DWI.</li> </ul>
Action 2	Concentration at any monitor $\geq 50 \mu\text{g}\cdot\text{m}^{-3}$ <i>and</i> [ 1-hour average DWI $\geq 5 \mu\text{g}\cdot\text{m}^{-3}$ and $< 10 \mu\text{g}\cdot\text{m}^{-3}$ <i>or</i> Visible dust observed leaving the site boundary <i>or</i> Receipt of a justified complaint ]	Wind speeds $\geq 6.8 \text{ m}\cdot\text{s}^{-1}$ ( $\geq 24.5 \text{ km}\cdot\text{hr}^{-1}$ )	<ul style="list-style-type: none"> <li>Review activities being performed and determine through a visual inspection which activities may be generating elevated dust emissions and reduce rate of activity.</li> <li>Increase the rate of emission control (refer Table 11) where appropriate for example:               <ul style="list-style-type: none"> <li>Increase water supply to sprinkler during crushing activities.</li> <li>Further reduce speed limits for vehicles and plant on unpaved surfaces.</li> <li>Further minimise drop heights from trucks and plant during unloading.</li> </ul> </li> </ul>

Action level	Primary trigger	Secondary trigger	Action response
<b>Action 3</b>	Concentration at any monitor $\geq 50 \mu\text{g}\cdot\text{m}^{-3}$ <i>and</i> [ 1-hour average DWI $> 10 \mu\text{g}\cdot\text{m}^{-3}$ <i>or</i> Visible dust observed leaving the site boundary <i>or</i> Receipt of a justified complaint ]	Wind speeds $\geq 8 \text{ m}\cdot\text{s}^{-1}$ ( $\geq 28.8 \text{ km}\cdot\text{hr}^{-1}$ )	<ul style="list-style-type: none"> <li>• Closely monitor <math>\text{PM}_{10}</math> to determine DWI.</li> <li>• Review activities being performed and determine through a visual inspection which activities may be generating elevated dust emissions. Temporarily cease operations associated with those activities such as crushing, excavation or haulage.</li> <li>• Closely monitor <math>\text{PM}_{10}</math> to determine DWI.</li> </ul>

### 6.2.3. TARP Record Keeping

As required by Development Condition B51(h), the Development will keep a record of instances when the trigger levels associated with the TARP (refer Table 10) have been exceeded as follows:

- Trigger level exceeded and associated action level;
- Parameters contributing towards exceedance of trigger level (e.g. activities occurring on-site, wind speed and direction). Photographs of the site immediately following trigger level exceedance would assist in further assessment;
- Additional emission control measures implemented; and
- Review of DWI PM<sub>10</sub> concentrations following the implementation of emission control measures to determine impacts are reduced to acceptable levels i.e. PM<sub>10</sub> concentrations indicate additional controls are no longer required.

### 6.3. Emission Control Measures

The emission controls measures to be employed at the Development site during construction are outlined in Table 11. These are categorised to allow the Site Supervisor to easily select additional measures for implementation, or increase the rate of application if already implemented, should the TARP triggers require (refer Table 10).

Table 11 Air quality management measures adopted during Development construction

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
<b>Wind Erosion</b>				
AQ1	Watercarts and handheld water sprays on site to control dust, especially on exposed surfaces and stockpiles	Section 3.4	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ2	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
AQ3	Keep site fencing, barriers and scaffolding clean using wet methods.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ4	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ5	Cover, seed, or fence stockpiles to prevent wind erosion.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ6	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ7	Bag and remove any biological debris or damp down such material before demolition.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ8	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ9	Exposed surfaces and stockpiles are suppressed by regular watering or other alternative suppression method.	Approval Conditions	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ10	Land stabilisation works are carried out progressively on-site to minimise exposed surfaces.	Approval Conditions	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ11	Progressive stripping of site ahead of workface to limit the amount of exposed surface.	-	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ12	Dust suppressant / hydromulching to areas where final level achieved.	-	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ13	Sediment and erosion controls as per civil design and Blue Book.	-	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
<b>Materials Processing</b>				
AQ14	Sprinkler system operating on crusher.	Section 3.4	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ15	Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
<b>Materials Handling</b>				
AQ16	Minimise drop heights from truck dumping to 1.5 m.	Section 3.4	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ17	Use enclosed chutes and conveyors and covered skips.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ18	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ19	Avoid dry sweeping of large areas.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
<b>Haulage</b>				
AQ20	Watercarts and handheld water sprays on site to control dust, especially on exposed surfaces and stockpiles.	Section 3.4	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ21	Ensure all vehicles switch off engines when stationary - no idling vehicles.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ22	Impose and signpost a maximum-speed-limit of 25 km·h <sup>-1</sup> on surfaced and 15 km·h <sup>-1</sup> on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate. Speed limits should also be verbally communicated during construction meetings.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ23	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ24	Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
AQ25	Ensure vehicles entering and leaving the site are covered to prevent escape of materials during transport.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ26	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ27	Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.	(IAQM, 2024)	Site supervisor	Construction Compliance Report Environmental inspection checklist Site supervisor's daily checklist
AQ28	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	(IAQM, 2024)	Site supervisor	Construction Compliance Report

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ29	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the exit, wherever site size and layout permits.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ30	All trucks entering or leaving the site with loads have their loads covered.	Approval Conditions	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ31	Trucks associated with the development do not track dirt onto the public road network.	Approval Conditions	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ32	Public roads used by these trucks are kept clean.	Approval Conditions	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ33	Street sweeping where required.	-	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ34	Truck wash at exit.	-	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
<b>All Sources</b>				
AQ35	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
AQ36	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/ mitigation, using non-potable water where possible and appropriate.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ37	Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ38	Access gates to be located at least 10 m from receptors where possible.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
<b>Administrative</b>				
AQ39	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ40	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ41	Display the head or regional office contact information.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ42	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the relevant regulatory bodies.	(IAQM, 2024)	Note: this document fulfills this measures	
AQ43	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
AQ44	Make the complaints log available to the local authority when asked.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ45	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ46	Hold regular liaison meetings with other high-risk construction sites within 500 m of the site boundary, to ensure plans are coordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ47	Undertake daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of site boundary.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ48	Carry out regular site inspections to monitor compliance with the CAQMP / CEMP, record inspection results, and make an inspection log available to the local authority when asked.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
AQ49	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ50	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist
AQ51	Avoid site runoff of water or mud after treatment and cleaning.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ52	Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ53	Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	(IAQM, 2024)	Site supervisor	Construction Compliance Report

ID	Control measure	Reference	Responsibility	Monitoring/audit/inspection
AQ54	Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ55	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	(IAQM, 2024)	Site supervisor	Construction Compliance Report
AQ56	Avoid bonfires and burning of waste materials.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ57	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ58	Avoid explosive blasting, using appropriate manual or mechanical alternatives.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ59	Record all inspections of haul routes and any subsequent action in a site log book.	(IAQM, 2024)	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist
AQ60	Inspect all plant and equipment regularly to ensure that it is maintained in accordance with manufacturers specifications.	-	Site supervisor	Environmental inspection checklist
AQ61	Inspect the operation of all plant and equipment to ensure that it is being operated in a proper and efficient manner.	-	Site supervisor	Environmental inspection checklist Site supervisor's daily checklist

## 6.4. Contingency Plan

As required by Condition B51(i) of the Development, a contingency plan to manage any unpredicted impacts and their consequences is required to ensure that ongoing impacts reduce to levels below the impact assessment criteria as quickly as possible.

It is considered that the requirement for a contingency plan is fulfilled by the implementation of the TARP as outlined in Section 6.2

## 6.5. Training

All personnel, including employees, contractors, and sub-contractors, are required to complete a project induction containing relevant environmental information before they are authorised to work on the Development.

Air quality specific information to be covered in the project induction will include:

- Obligations under the Development Approval Conditions (including the CAQMP), including the identification of potential sources of air pollutants of concern and the mitigation measures to be implemented, including measures (e.g., use of water, cover exposed areas) during weather conditions where high levels of dust are probable;
- Responsibilities relating to the management of air quality under the POEO Act and POEO CAR;
- Typical construction activities that may impact air quality and associated environmental safeguards; and
- Incident response procedures.

## 7. REVIEW AND IMPROVEMENT

A daily inspection of the Development site will be performed by the Site Supervisor and will include relevant checks to ensure that the air quality management measures outlined in Table 11 are achievable. Any identified remedial actions will be promptly addressed.

Monitoring of dust emissions will be performed through the daily site inspection and visible observations by the Site Supervisor. The dust control observations will be made during the morning and repeated as required to adequately account for changing conditions. A 'Daily Checklist' will be used to record each day's visible dust plume observations, noting any potential sources that may change due to changing conditions or require further observation.

If conditions change significantly on-site subsequent to the performance of the daily check, further 'ad-hoc' checks will also be performed and documented in the same manner.

Training of staff and contractors will include dust management as outlined in Section 6.5.

Through observations made during the site check, or through notification by staff or contractors, the Site Supervisor will have the authorisation to review operations performed on-site and alter site activities and/or additional controls necessary to effectively manage those risks.

Key Performance Indicators for the construction of the Development would be associated with the triggers in Table 7.

### 7.1. Incidents, Non-Compliance, Corrective and Preventive Action

Environmental inspection and observation results are interpreted to identify actual and potential non-conformances and events that may result in nuisance, environmental harm and unacceptable loss of amenity or community complaints. The Environmental Representative and / or a public regulatory authority may also raise a non-compliance or improvement notice.

Where incidents / non-compliances are identified during regular inspections, corrective actions are raised, tracked, and closed out through the inspection records.

Following the identification of an incident / non-compliance, corrective and/or preventative actions will be identified and assigned to the appropriate person with set periods. Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable. An appropriate register will be used to assign, track and close out corrective actions.

## 7.2. Complaints Register

Frasers Property Industrial will operate a telephone complaint register during the operating hours of the Development site during construction, with the number publicly notified via the Frasers Property Industrial website. All complaints must be investigated, and feedback will be provided to the petitioner or the pertinent agency in a timely manner.

For any complaint received relating to air quality impacts from the construction activities, the following measures will be taken:

- Site Supervisor to review and follow up all the complaints regarding dust within one business day of receiving the complaint.
- Fill out the appropriate complaint form, including location of complaint and noting the time and date of the complaint/s and the identity and contact details of the complainant (if agreed to provide them).
- Perform a site inspection, noting all dust producing activities taking place and the mitigation methods being used. If the complaint was related to an event in the recent past, if possible, note any dust or odour producing activities that were underway at that time and initiate any remedial action necessary.
- As soon as possible, visit the area from where the complaint originated to ascertain if the issue persists.
- It is important to verify if another source of dust other than the construction activities of the project is causing the complaint and collect appropriate evidence of this (photos and/or videos as appropriate).
- Once investigations have been completed, contact the complainant to explain any problems found and remedial actions taken.
- If necessary, update any relevant procedures to prevent any recurrence of problems and record any remedial action taken.

### 7.2.1. Record Keeping

The Site Supervisor will be required to keep a record of any complaints made to the Development site by any person(s) with regard to air quality and dust emissions that may be fugitively released during construction. A complaint register will be maintained and will be produced to any NSW EPA authorised officer, if requested. Records of individual complaints will include:

- Date and time of complaint.
- Method by which the complaint was made.
- Personal details of the complainant (if provided).
- Nature of the complaint.

- The details of an initial response to the complaint.
- Action taken and any follow up actions.
- If no action was taken, the reason why no action was taken.
- Weather conditions corresponding to the time of the complaint will also be noted in the logbook for assessment purposes.

### 7.3. Independent Air Quality Audit

As required by Conditions B53 and B54, an independent air quality audit (IAQA) must be performed for the Development as follows:

*“B53. Within three months of the commencement of earthworks and every three months thereafter until the completion of earthworks, the Applicant must commission and pay the full cost of an Independent Air Quality Audit to review the air quality performance of the development. The IAQA must, and:*

*(a) be undertaken by a suitably qualified (i.e. CAQP and/or CEnv), experienced and independent expert whose appointment has been endorsed by the Planning Secretary;*

*(b) analyse the performance of the CAQMP, including the TARP;*

*(c) audit the performance of the CAQMP, including the TARP in achieving its objectives;*

*(d) identify any deficiencies in the CAQMP including the TARP in achieving its objectives and propose changes to improve the performance of the CAQMP to achieve those objectives;*

*(e) review the air quality monitoring and mitigation requirements and air quality monitoring data for the audit period;*

*(f) analyse any incidents, non-compliances and complaints that occurred or were made during the audit period; and*

*(g) if necessary, recommend and prioritise measures to improve the air quality controls on-site for subsequent stages of the earthworks program, such that sensitive receivers would be protected against adverse air quality impacts from the development.*

*B54. Within 6 weeks of the completion of the IAQA required by Condition B53, the Applicant must submit a copy of the audit report to the Planning Secretary with a response to any recommendations contained in the audit report. The response must include a timeframe for implementing the recommendations of the IAQA.”*

It is noted that the performance of the IAQA would additionally meet the requirements of Condition C1(e).

## 7.4. Reporting to the Environmental Representative

As required by Condition B51(g), the Development will provide the Environmental Representative (ER) with all documentation requested to perform their functions, including:

- Air quality monitoring data; and
- Complaints data (as per Section 7.2).

As required by NSW DPHI, air quality monitoring results would be reviewed every three months in accordance with Conditions B53 and B54.

## 7.5. Compliance with Statutory Requirements

This CAQMP has been provided to ensure that the Development will comply with statutory requirements associated with air quality. Specifically, compliance with the NSW EPA air quality standards outlined in Section 5 and the Development Approval Conditions (refer Table 2).

Correspondingly, if the Development fails to comply with statutory requirements, the CAQMP must be reviewed and updated in accordance with Condition C1(h).

## 8. REFERENCES

- DCCEEW. (2012). *National Pollutant Inventory Emission Estimation Technique Manual for Mining Version 3.1*.
- IAQM. (2024). *Guidance on the assessment of dust from demolition and construction*.
- Katestone Environmental. (2011). *NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining*.
- Northstar Air Quality. (2024). *155-251 & 141-153 Aldington Road, Kemps Creek - Air Quality Impact Assessment*.
- NSW DPIE. (2021). *New South Wales Annual Compliance Report 2020*.
- NSW EPA. (2022). *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*.
- NSW EPA. (2024). *Local Government Air Quality Toolkit, Air quality guidance note, Construction sites*.
- US EPA. (1995). *Compilation of Air Pollutant Emission Factors*.

## APPENDIX A

CV

## Martin Doyle

Director

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0447 452 777



### qualifications

- PhD Air Quality Meteorology (University of East Anglia, UK, 2004)
- BSc (Hons) Environmental Science (University of East Anglia, UK, 1998)
- Certified Air Quality Professional (CAQP), Clean Air Society of Australia and New Zealand (CASANZ)

### special expertise

Martin provides a range of expertise including:

- Air quality and greenhouse gas impact assessment
- Dispersion modelling studies including a range of specialist software
- Ambient air quality and meteorology studies
- Satellite remote sensing
- Geographical Information Systems (GIS)
- Indoor air quality and occupational exposure assessment
- Process & air pollution control due diligence and testing
- Odour impact assessment and audit
- Climate change impact assessment
- Expert testimony and witness
- Independent peer review and audit

### background

Martin has over 25 years of experience in the field of air quality, from academic research to public and private environmental consultancy. He completed his doctorate in 2004 in air pollution meteorology and was a Senior Research Associate at the University of East Anglia, which has the UK's highest rating for the quality of environmental research undertaken. His work has been included in UK Department of the Environment, Food and Rural Affairs Air Quality Expert Group state-of-science reports on PM<sub>10</sub> and NO<sub>2</sub>.

His major areas of expertise include air quality monitoring (including monitoring network design and data analysis), emissions inventory development, atmospheric dispersion modelling (using TAPM, CALPUFF, AUSPLUME, CALINE and AERMOD), greenhouse gas assessment and climate change impact assessment, independent peer review and performance of audits.

Martin has significant experience across all sectors (see overleaf) and broad experience in assessment of air pollutants including odour.

Use of Geographical Information Systems (GIS) and other software to present data to non-specialists in easy to understand formats is one of Martin's key interests.

selected project experience

**Agribusiness**

- Intensive Poultry Facility, Peer Review, NSW
- Blayney Abattoir, NSW
- Bourke Small Stock Abattoir, NSW
- The Ranch Poultry Complex, NSW
- Abattoir and Rendering Plant, NSW
- Maylands Poultry Farm, NSW
- Milk Production Facility, NSW
- Serpentine Poultry Farm Expansion, WA
- Westmere Grains, VIC

Clients in this sector include: CAPRA Development, Dairy Farmers, Darmad, Saines Lucas Solicitors, Scolexia, Thomas Foods International Tamworth.

**Resources & Waste**

- Great White Kaolin Project, AQIA, SA
- Dubbo Project, AQIA, NSW
- Dargues Gold Mine, AQIA, NSW
- Wyangle Quarry, AQIA, NSW
- Glenella Quarry, AQIA, NSW
- Milbrae Quarries (various), AQIA, NSW
- Albion Park Quarry AQMP, NSW
- Albion Park Quarry Expansion AQIA, NSW
- Karuah South Quarry, AQIA, NSW
- Bangus Quarry, AQIA, Tumblong, NSW
- Ralston Quarry, AQIA, NSW
- North Star Quarry, AQIA, NSW
- Glenella Quarry, AQIA, NSW
- Woodview Quarry, AQIA, NSW
- Willowtree Quarry, AQIA, NSW
- Doves Quarry, AQIA and PRP, NSW
- Ralston Quarry, AQIA, NSW
- Gow Street Recycling Centre, NSW Dust Audit & Management Plan
- Sunnyside Processing Facility, AQIA and PRP, NSW
- Frank Bragg Gravel Quarries, AQIA, NSW

- Copi Mineral Sand Project, AQIA, NSW
- Thorley Quarry RRF, AQIA, NSW
- Bin City Recycling Centre, AQIA, NSW
- Curby Pilot Program, AQRA, NSW
- WormTech Carrathool, AQIA, NSW
- Kariong Sand and Soil Supplies RRF, NSW
- Bingo Eastern Creek Flare Project, NSW
- Resource Recovery Facility, St Marys NSW
- Materials Recycling Facility, Operational Dust Management Plan, Padstow
- SUEZ Lucas Heights Leachate Treatment Plant, NSW
- SR Solutions Glass Recycling Facility, NSW
- Traco Tyre Recycling Facility, NSW
- MET Construction Materials Recycling Facility, NSW
- Confidential, Integrated Mining and Waste Development, NT
- East Arm Waste Transfer Station Risk Assessment, NT
- Erskine Park Waste Transfer Station, NSW
- Bingo Waste Transfer Stations (St Marys, Mortdale), NSW
- Bingo Waste Transfer Station, Greenacre NSW, Odour and Dust Audit
- Poochera Kaolin Project, AQIA, SA
- Bingo, Eastern Creek NSW, AQMP and Odour Audit
- Glenfield Waste Services Materials Recycling Facility, NSW
- Kemps Creek Alternative Waste Treatment Facility, NSW
- Stopwaste, GHG Assessment
- Stopwaste, Soft Plastic Pilot Program, AQRA
- Wastewise, Odour Management Plan, VIC
- Brooks Parade WWPS, Odour Assessment, NSW
- Bin City Recycling Centre, AQIA, NSW
- Polytrade Smithfield MRF, AQIA, NSW
- Polytrade Smithfield Drilling Mud Dewatering, AQRA, NSW
- BRS Liquid Waste Odour Management Pan, NSW
- Tomingley Gold Extension, AQIA, NSW

- Twinza Oil Project, PNG (GHG)
- Wafi Golpu Project, PNG (GHG)
- P'nyang Project, PNG (GHG)
- Freida River Project, PNG
- Mandalong Southern Extension Project, NSW
- Springvale Mine Extension Project, NSW
- Angus Place Mine Extension Project, NSW
- Lidsdale Siding Extension Project, NSW
- Airly Mine Extension Project, NSW
- Clarence Colliery REA V Project, NSW
- Northern Coal Logistics Project, NSW
- Neubeck Coal Project, NSW
- Karuah Quarry East Expansion Project, NSW
- Jandra Quarry Expansion Project, NSW
- Woodsreef Mine Rehabilitation Project, NSW
- Eastern Creek Organic Resource Recovery Facility, NSW
- Centennial Coal Company, PRP Assessments, NSW
- Peabody Energy, PRP Assessments, NSW
- Solomon Project, WA
- Carrow/Koppio Project, SA
- Area C Iron Ore Mine, WA
- Ace Landscapes Dust Management, NSW
- Redhill Waste Management Facility, WA
- Dromana Landfill, Mornington Peninsula, VIC
- Tropicana Gold Mine, WA
- Woodlawn Bioreactor Project, NSW
- Bigryli Uranium Exploration Project, NT
- Narrabri Coal Project, NSW
- Roy Hill Iron Ore Project, WA
- Glebe Island Bulk Sands Project, NSW
- Duralie Coal Mine Extension Project, NSW
- Cavehill Quarry, VIC
- Central Coast Sands, NSW
- Donalds Mineral Sands, VIC
- Brickworks (Client Confidential), VIC
- Sepon Gold and Copper Mine, Laos
- Werris Creek Coal Mine, NSW
- East Guyong Quarry, NSW
- Darling Downs Sand Extraction Project, QLD
- Belmont and Sunnyside Coal, NSW

- Whitehaven CHPP, NSW
- Wagga Wagga Sand and Gravel Extraction, NSW
- Roy Hill Iron Ore, WA
- Solomon Iron Ore Project, WA
- Leongatha Quarry Extension, VIC (GHG)
- Narrabri CSG Power Plant, NSW (GHG)
- Sunnyside Coal Project, NSW (GHG)

Clients in this sector include: Ace Landscapes, Anglo Gold Ashanti, APP Corporation, BHP BIO, Boral, Centennial Coal Company, Cleanaway, Cleary Bros, Coffey International, Energy Metals, Environmental Earth Sciences, Environmental Property Services, EMRC, Erias Group, ExxonMobil, Fortescue Metals Group, Groundwork plus, Hanson, Holcim, NSW Department of Mines, Peabody Energy, Roy Hill Iron Ore, RW Corkerys, SUEZ Australia, Tellus Holdings Ltd, Veolia, Whitehaven Coal, Xstrata.

### Property

- Data centre developments (various), NSW
- Modular Brewery, Odour Assessment, WA
- Eastern Creek Retail Park, Odour Advice, NSW
- Baked Provisions Odour Assessment, NSW
- Newcastle Golf Club Retirement Village AQRA, NSW
- Frango Chickens (various), AQIA, NSW
- Horsley Drive Business Park Warehouse and Distribution Facility, NSW
- Anzac Parade Student Accommodation, Risk Assessment, NSW
- Greystanes Industrial Development, AQIA, NSW
- Kemps Creek Precinct, AQIA, NSW
- Woolworths Distribution Centres (various), AQIA, NSW
- Childcare Centre Air Quality Assessment (numerous), NSW
- Poultry Farm Odour Assessment, Austral NSW
- Marsden Park North Development, NSW
- Survitec Development Application, NSW
- Tyres4U Development Application, NSW

- Leppington Precinct Development, NSW
- Emerald Hills Development, NSW
- Trinity Point Marina Project, NSW
- South Orange Urban Release Area, NSW
- Warehouse & Distribution Facility, Chullora NSW
- Berrys Bay Marina Project, NSW
- Culburra STP, NSW
- Oakdale Central Development, NSW
- Oakdale West Development, NSW
- Acacia Ridge Campus AQ Investigation, QLD
- Wilton Junction Land Use Mapping, NSW
- Bungaribee Estate Data Centre, NSW
- Orange Pump Station No.1, NSW
- North Orange Pump Station, NSW
- Crowne Plaza Newcastle Brewery Odour, NSW
- Crowne Plaza Hunter Valley Brewery Odour Assessment, NSW
- P&N Beverages Odour Assessment, NSW
- Hurricanes Bar & Grill Odour Management, Darling Harbour, Bondi, Brighton-le-Sands, NSW
- Ridges World Square Schwartz Brewery Odour Audit, NSW
- Newtown Hotel Odour Audit, NSW
- Club Burwood, Smoking Balcony AQ Assessment, NSW
- Leppington Part Precinct, NSW
- Currarong Sewerage Scheme - CEMP audit, NSW
- Brooklyn Child Care Centre, NSW
- Emirates Wolgan Valley Resort - CEMP audit, NSW
- Fairfield RSL - Environmental Audit, NSW
- VOC Monitoring, Reserve Bank of Australia, NSW
- Great Barrier Reef Marine Park Authority, QLD (GHG)

Clients in this sector include: ADW Johnson, Cardno, City of Sydney Council, Commercial & Industrial Property Group, Elton Consulting, Frasers Property Group, Geolyse, Goodman, Hosking Munro, JBA Planning, Meriton, Mirvac, QLD DPW, Shine Pre-School, Urbis, Worley Parsons.

### Transport & Infrastructure

- Sydney Metro EIS Peer Review, NSW
- WestConnex Peer Review, NSW
- NorthConnex Peer Review, NSW
- Lower Main North Quadruplication Lite, NSW
- Epping to Chatswood Rail Line, NSW
- Enfield Intermodal Logistics Centre, NSW
- Northern Coal Logistics, NSW
- Capital Metro Stage 1 EIS, ACT
- Solomon Project Road Transportation Study, WA
- Sydney Harbour Bridge Lead Paint Removal Compliance and Verification, NSW
- North Ryde Transport Orientated Development, NSW
- Enfield to Chatswood Rail Line, NSW
- M1 Motorway Service Station, NSW
- Mitchell's Transportation Efficiency Project, WA
- Enfield Intermodal Logistics Centre, NSW
- M2 Upgrade, Sydney NSW
- Majura Parkway, ACT
- Clarrie Hermes Drive Extension, ACT

Clients in this sector include: Strathfield Council, Centennial Coal, EG Property Group, Fortescue Metals Group, Goodman, Hornsby Shire Council, Leightons Contractors, McDonalds Australia, Mitchell's, NSW Ports, P&N Beverages, Parsons Brinkerhoff, SMEC, Strathfield Council, Sydney Harbour Bridge Alliance, Transport for NSW, Urbis.

### Industry

- E-waste recycling centre, NSW
- Asphalt Plant and Storage Yard, Tomago NSW
- Capital Asphalt, Independent Review, ACT
- Pre-cast Concrete Facility, Wetherill Park, NSW
- Somerton Fuel Depot, AQIA, VIC
- Concrete Batching Plant, Picton NSW
- Crematorium, Mayfield NSW
- Crematorium, Kemp's Creek NSW

- Boral Kooragang Island Materials Recycling Facility, NSW
- Frenchs Forest Bushland Crematorium, NSW
- Boral Scoresby Opportunities and Constraints assessment, VIC
- BlueScope Steel PRP Assessment, NSW
- Pentarch Munitions Disposal Project, NSW
- Shoalhaven Starches Odour Audit, NSW
- Boral Granville Concrete Batching Plant, NSW
- Tuggeranong Crematorium, ACT
- Vopak Terminals PRP Assessment, NSW
- Eastern Asphalt Plant, Bairnsdale VIC
- Givaudan Odour Management, NSW
- Allens Asphalt, QLD
- SIMS Metal, QLD
- Metals Recycling Facility, NSW

Clients in this sector include: Austral Bricks, BlueScope Steel, Boral, Canberra Cemeteries, Environmental Property Services, Givaudan, Ignite Architects, Pentarch, Shoalhaven Starches, Vopak.

### Energy

- Reeves Plains Power Station, SA
- Port Hedland Power Station, WA
- Solomon Project, WA
- West Qurna II Gas Field Development, Iraq
- Munmorah & Bayswater B Independent Peer Review, NSW
- Santos Fairview CS1&2 LNG, QLD
- Bamarang Power Station, NSW (including Plume Rise Assessment)
- Powergen, UK
- TXU Energi, UK

Clients in this sector include: Alinta Energy, Coffey International, Fortescue Metals Group, GHD, NSW Department of Planning and Environment, Infratil Energy, Santos.

### publications

Rahaman F, Lawrence K, Starke G, Graham G & Doyle M, *Estimation of Odour Emissions from Broiler Farms – An Alternative Approach* Proceedings of the 21<sup>st</sup> Clean Air Society for Australia and New Zealand, Sydney 2013

Graham G, Lawrence K & Doyle M, *Development of Odour Impact Assessment Methodologies Accounting for Odour ‘Offensiveness’ or Hedonic Tone* Proceedings of the 21<sup>st</sup> Clean Air Society for Australia and New Zealand, Sydney 2013

Doyle M & Dorling SR, *Particulate Pollution: New Perspectives on Measurement, Source Apportionment and Policy*, Proceedings of the 5th Urban Air Quality Conference, Valencia, Spain, 2005

Doyle M & and Dorling SR, *Meteorological Classification and Aggregation Approaches in Support of Models-3 Air Quality Simulations*, Proceedings of the 4th International Conference on Urban Air Quality, Prague, Czech Republic, pp424-427, 2003

Chatterton T, Dorling SR, Doyle M et al. *A Rigorous Inter-comparison of Ground-level Ozone Predictions*, Atmospheric Environment 37, 3237-3253, 2003

Doyle M & and Dorling SR, *Visibility Trends in the UK 1950 -1997*, Atmospheric Environment, 36, 3161-3172, 2002

Doyle M & and Dorling SR, *Satellite and Ground Based Monitoring of Aerosol Plumes, Water, Air and Soil Pollution*, Volume 2, Numbers 5-6, pp615-629, 2002

## air quality | environment | sustainability

<b>air quality</b>	Northstar specialises in all aspects of air quality, dust, and odour management, covering monitoring, modelling and assessment, due diligence and process specification, licencing and regulatory advice, peer review and expert witness.
<b>environment</b>	Our team has extensive experience in environmental management, covering environmental policy and management plans, licencing, compliance reporting, auditing, data, and spatial analysis.
<b>sustainability</b>	We look beyond compliance to add value and identify opportunities. Our services range from sustainability strategies, ecologically sustainable development reporting and assessment, to bespoke greenhouse gas and energy estimation and reporting.

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# Appendix G Asbestos Management Plan

Our ref: SSD-17552047-PA-10

Ms Monica Ngo  
Project Engineer, Infrastructure  
Frasers Property Industrial Constructions Pty Ltd  
Level 15, 180 George Street  
SYDNEY NSW 2000

1 September 2025

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**Subject: Asbestos Management Plan – The Edge Estate**

Dear Ms Ngo

I refer to the Asbestos Management Plan submitted in accordance with Condition B68, Schedule 2 of the consent for The Edge Estate (SSD-17552047).

The Department has carefully reviewed the document and is satisfied that it meets the requirements of Condition B68. Accordingly, as nominee of the Planning Secretary, I approve the Asbestos Management Plan, prepared by JBS&G Australia Pty Ltd, revision 2, dated 23 June 2025.

You are reminded that if there are any inconsistencies between the Asbestos Management Plan and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Rebecka Williams on phone number 02 8275 1723 or email: [rebecka.williams@dpie.nsw.gov.au](mailto:rebecka.williams@dpie.nsw.gov.au).

Yours sincerely



**David Schwebel**  
**Acting Team Leader**  
**Industry Assessments**

As nominee of the Planning Secretary



**141-251 Aldington Road, Kemp's Creek, NSW**

**Frasers Property Australia Pty Ltd**

**Asbestos Management Plan**

**JBS&G 66105 | 168,663 Rev 2**

**23 June 2025**





**We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.**

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.

**Caring for Country** The Journey of JBS&G  
**Artist:** Patrick Caruso, Eastern Arrernte



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## **Appendices**

**Appendix A**

**Example AMP Induction Form**

**Appendix B**

**Example Asbestos Removal Works Record**

## Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AMP	Asbestos Management Plan
COC	Chain of Custody
EPA NSW	Environmental Protection Authority, New South Wales
HBMS	Hazardous Building Materials Survey
JBS&G	JBS&G Australia Pty Ltd
LAA	Licensed Asbestos Assessor
LOR	Limit of Reporting
NATA	National Association of Testing Authorities, Australia
PPE	Personal Protective Equipment
SWA	Safe Work Australia
SWNSW	SafeWork New South Wales
WHS (WH&S)	Workplace Health and Safety

## Conditions Compliance Table

Condition	Reference Section in AMP
C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	
(a) a condition compliance table for that plan;	This table
(b) detailed baseline data, where relevant;	Not Applicable
(c) details of:	
(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	<b>Section 1.3</b>
(ii) any relevant limits or performance measures and criteria; and	<b>Section 3</b>
(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;	Refer to the overarching CEMP "Environmental Performance Indicators"
(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	<b>Section 4</b> <b>Section 5</b> <b>Section 6</b>
(e) a program to monitor and report on the:	Refer to the overarching CEMP "Environmental Performance Indicators"
(i) impacts and environmental performance of the development; and	
(ii) effectiveness of the management measures set out pursuant to paragraph (d) above;	
(f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Refer to the Unexpected Finds Procedure within the overarching CEMP
(g) a program to investigate and implement ways to improve the environmental performance of the development over time;	Refer to the overarching CEMP "Environmental Performance Indicators"
(h) a protocol for managing and reporting any:	
(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);	<b>Section 8</b>
(ii) complaint;	
(iii) failure to comply with statutory requirements; and	
(i) a protocol for periodic review of the plan.	<b>Section 1.2</b> <b>Section 4</b>
B68. Prior to the commencement of earthworks, the Applicant must prepare an Asbestos Management Plan (AMP) for the development to the satisfaction of the Planning Secretary. The AMP must form part of the CEMP required by condition C2 and must:	
(a) be prepared by a suitably experienced person(s) or a SafeWork NSW licenced asbestos assessor; and	<b>Section 1.1</b>
(b) be prepared in accordance with the Detailed Site Investigation Aldington Road Estate 155-167; 169-181; 183- 197; 199; 201-217; 219-233 and 235-251 Aldington Road, Kemps Creek, NSW prepared by JBS&G Australia Pty Ltd, dated 16 March 2022.	<b>Section 2.1</b> <b>Section 2.2</b>

# 1. Introduction

## 1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Frasers Property Industrial Pty Ltd (Frasers, the client), to prepare an Asbestos Management Plan (AMP) for the structures located at 141-251 Aldington Road, Kemps Creek, NSW (the site). The site location is shown in **Figure 1** and the site layout is shown in **Figure 2**.

Previous environmental investigations completed at the site by JBS&G (JBS&G 2022a<sup>1</sup>) identified the presence of asbestos containing materials (ACM) in surficial soils (<0.1 m bgs) and affixed to stockpiled concrete slabs below the adopted health criteria but representing an aesthetic issue at Areas of Environmental Concern (AEC) 1a, 1b (BH412\_0.0- 0.4), 1e and 6c (affixed to stockpiled concrete slabs), and the residential/buildings area of 219-233 and 235-251 Aldington Road.

A State Significant Development Application (SSDA, SSD-17552047<sup>2</sup>) has been approved for the construction and operation of eight warehouses and ancillary office space. Associated works include demolition, remediation and bulk earthworks, construction of stormwater and road infrastructure, landscaping and subdivision. A Remedial Action Plan (RAP) was prepared specific to the development proposal, as documented in JBS&G (2022b<sup>3</sup>) and submitted with the SSDA. The approved development consent includes an ancillary civil works zone located on the southern portion of 141 to 153 Aldington Road, Kemps Creek, NSW 2178.

As such, the RAP was updated (JBS&G 2024a<sup>4</sup>), to reflect the current redevelopment plans and to address specific remedial measures, site management requirements and the validation approach in relation to works to be undertaken in the Ancillary Works Zone to ensure that the site, upon completion of remedial works, will be suitable for the project.

Validation of remedial works at the site was completed by JBS&G (JBS&G 2024b<sup>5</sup>) in accordance with the RAP (JBS&G 2024a). Works involved the remediation and validation of the identified asbestos impacted areas of the site to demonstrate the successful remediation, and demonstrate that the site is suitable for the proposed commercial and industrial land use.

Since the completion of the remedial and validation works as documented in JBS&G 2024b, remaining structures at the site include 10 sheds of varying sizes and construction, four of which were located in the northern portion of the site and six in the southern portion of the site.

A hazardous building materials survey (HBMS) conducted by JBS&G (JBS&G 2024c<sup>6</sup>) identified the presence of non-friable ACM within the remaining structures at the site. The HBMS included the sampling of suspected ACM and details of the identified ACM locations, conditions and quantities.

Specifically, as detailed in JBS&G 2024c, ACM was identified in the following four structures:

- North Shed C;

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<sup>1</sup> *Detailed Site Investigation – Aldington Road Estate 155-167, 169-181, 183-197, 199, 201-217, 219-233 and 235-251 Aldington Road, Kemps Creek, NSW.* JBS&G Australia Pty Ltd reference 60482/143618 Revision A dated 16 March 2022. JBS&G (2022a).

<sup>2</sup> *Development Consent, SSD-17552047,* Minister for Planning and Public Spaces, 3 June 2025 (SSD-17552047).

<sup>3</sup> *Remedial Action Plan – Aldington Road Estate 155-167, 169-181, 183-197, 199, 201-217, 219-233 and 235-251 Aldington Road, Kemps Creek, NSW.* JBS&G Australia Pty Ltd reference 60482/153876 dated 16 March 2022. JBS&G (2022b).

<sup>4</sup> *Remedial Action Plan – Aldington Road Estate, Edge South Development, Aldington Road, Kemps Creek, NSW.* JBS&G Australia Pty Ltd reference 65376/157278 dated 5 February 2024 Rev 2, JBS&G (2024a).

<sup>5</sup> *Validation Report – 155-251 Aldington Road, Kemps Creek, NSW.* JBS&G Australia Pty Ltd, reference 66105/159245 Rev 1, dated 26 July 2024, JBS&G (2024b)

<sup>6</sup> *Hazardous Building Materials Survey, 155-251 Aldington Road, Kemps Creek, NSW.* JBS&G Australia Pty Ltd, 24 May 2024, Rev 0, Ref: 66105-159,800. (JBS&G 2024c)

- North Shed D;
- South Shed A; and
- South Shed B.

All structures at the site are scheduled for future demolition, however, as the site may be accessed prior to the commencement of demolition works and is considered a workplace. This AMP has been prepared by a SafeWork NSW Licensed Asbestos Assessor (LAA) to comply with current Work Health and Safety (WHS) legislative requirements for workplaces with known ACM present.

This AMP has also been prepared to comply with the approved SSDA consent conditions, specifically Condition B68, where:

*Prior to the commencement of earthworks, the Applicant must prepare an Asbestos Management Plan (AMP) for the development to the satisfaction of the Planning Secretary. The AMP must form part of the CEMP required by condition C2 and must:*

*(a) be prepared by a suitably experienced person(s) or a SafeWork NSW licenced asbestos assessor; and*

*(b) be prepared in accordance with the Detailed Site Investigation Aldington Road Estate 155-167; 169-181; 183- 197; 199; 201-217; 219-233 and 235-251 Aldington Road, Kemps Creek, NSW prepared by JBS&G Australia Pty Ltd, dated 16 March 2022.*

It is noted that the asbestos contamination identified within JBS&G 2022a has been appropriately remediated and validated as documented in JBS&G 2024b. Therefore, this AMP is based on the identified ACM as reported in JBS&G 2024c. As per JBS&G 2024c, additional occurrences of asbestos or ACM may be present at the site in previously inaccessible areas.

In accordance with Condition B68(a), this report has been prepared by a SafeWork NSW Licensed Asbestos Assessor (Stuart Lumsden LAA No. 001140).

## 1.2 Objectives

The objective of this AMP is to outline the procedures required to:

- Minimise the risk of exposure to asbestos for current and future site occupants, visitors, maintenance contractors as well as workers involved in the project's future demolition works; and
- Manage any maintenance, controls, removal and disposal of asbestos materials as required.

The AMP must be understood by, and made available to, all persons involved in the management, operation and maintenance of the site, including externally engaged contractors and maintenance personnel. Personnel at the site, nominated to have responsibilities under this AMP, should be aware of the presence, location and status of asbestos materials at the site and the associated management requirements.

The AMP should be referred to regularly and updated and maintained by the Site AMP Manager (refer **Section 4**) when any asbestos materials are disturbed, removed or repaired. The AMP should be updated on a regular basis by a competent occupational hygienist /asbestos assessor as nominated by the Site AMP Manager.

The requirements of this AMP are intended to apply for the ongoing operation of the site as a construction site and to any activities within the site which could involve disturbance or exposure of ACM until such time that the ACM is removed from the site. Any additional asbestos materials identified will be managed by the Unexpected Finds Protocol.

## 1.3 Legislation

This AMP has been prepared with reference to the following:

- *Work Health and Safety Act 2011 (WHS Act);*
- *Work Health and Safety Regulation 2017 (WHS Reg);*
- *Code of Practice: How to Safely Remove Asbestos and Code of Practice (SWNSW 2022a);*
- *Code of Practice: How to Manage and Control Asbestos in The Workplace (SWNSW 2022b);*
- *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2<sup>nd</sup> Edition [NOHSC:3003(2005)];*
- *Workplace Exposure Standards for Airborne Contaminants (SafeWork Australia, 2024);*
- *Guidelines on the Interpretation of Workplace Exposure Standards for Airborne Contaminants (SafeWork Australia, 2013);*
- *Australian Standard AS 1715-2009 Selection, use and maintenance of respiratory protective equipment; and*
- *Australian Standard AS 1716:2012 Respiratory Protection Devices.*

## 2. Summary Site Condition

### 2.1 Site Description

The site sits within the Edge South development, which is located along Aldington Road in Kemps Creek and has an overall area of approximately 63.6 hectares. The site is legally identified as shown in **Table 2.1**.

**Table 2.1 Site Identification Details**

Lot/DP	Address	Area (ha)
<b>Aldington Road – Edge South</b>		
33/258949	155 to 167 Aldington Road, Kemps Creek, NSW, 2178	10.1
28/255560	169 to 181 Aldington Road, Kemps Creek, NSW, 2178	10.2
27/255560	183 to 197 Aldington Road, Kemps Creek, NSW, 2178	10.2
26/255560	199 Aldington Road, Kemps Creek, NSW, 2178	2.6
25/255560	201 to 217 Aldington Road, Kemps Creek, NSW, 2178	10.2
24/255560	219 to 233 Aldington Road, Kemps Creek, NSW 2178	10.2
10/253503	235 to 251 Aldington Road, Kemps Creek, NSW 2178	10.1
Approximate Site Area (ha)		63.6
<b>Ancillary Works Zone</b>		
Part 34/258949	141 to 153 Aldington Road, Kemps Creek, NSW 2178	10.1

The site has historically been utilised as rural residential property with light agricultural use, and all structures remaining on the site have been associated with this usage, generally consisting of sheds/garages or other storage structures.

As detailed in JBS&G 2024c, ACM was identified within 4 of the 10 structures inspected. These structures are shown on **Figures 3a** and **3b** and were identified as:

- North Shed C;
- North Shed D;
- South Shed A; and
- South Shed B.

This AMP applies only to the building materials associated with the structures identified above and does not include any other areas of the site including the sub-slab soils, surrounding soils, mechanical items and hazardous building materials other than asbestos. As discussed in **Section 1.1**, with the exception of the building materials associated with the structures identified above, all known in-ground asbestos contaminated soils have been removed from the site.

### 2.2 Known Extent of ACM

Non-friable ACM has been confirmed to be present within four structures at the site via laboratory testing and visual assessment in various quantities and locations and is outlined in the site Hazardous Materials Register (JBS&G 2024c) and summarised below:

#### North Shed C:

- Loose asbestos containing fibre cement sheeting debris identified to the ground surface.

**North Shed D:**

- Asbestos containing corrugated fibre cement sheeting was identified to the northern external walls;
- An asbestos containing fibre cement pipe was identified to the barbeque brick pit chimney; and
- Loose asbestos containing compressed fibre cement pipes were identified to the ground surface adjacent to the barbeque brick pit.

**South Shed A:**

- Asbestos containing fibre cement sheeting to the internal and external wall linings was identified throughout the outhouse with some areas of visible damage observed.

**South Shed B:**

- An isolated quantity of asbestos containing black mastic was identified to the external metal sheeting southern wall of the structure.

### 3. General Asbestos Information

Asbestos is a general term that covers a number of fibrous minerals. Asbestos is the fibrous form of mineral silicates belonging to the serpentine and amphibole groups with the most common types being crocidolite (blue asbestos), amosite (brown or grey asbestos) and chrysotile (white asbestos).

Asbestos and asbestos containing materials were used in a variety of domestic and commercial applications from the 1950s up until the mid 1980's, however, it was not until 31 December 2003, that asbestos and all products containing asbestos were banned throughout Australia. It is currently illegal to import, store, supply, sell, install, use or reuse materials that contain asbestos.

ACM can be classified as being present in either a non-friable form or friable form.

Non-friable ACM is defined in SWNSW 2022b as being *"...material containing asbestos that is not friable asbestos. Including materials containing asbestos fibres reinforced with a bonding compound"*.

Friable asbestos is defined in SWNSW 2022b as being *"...material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry, and contains asbestos"*.

Asbestos materials in a non-friable form (e.g. contained within cement or resins) do not present an immediate health risk, if they remain undisturbed and in a good condition. It is the inhalation of fibres from friable forms of asbestos or dusts generated by disturbing/breaking non-friable materials may lead to the risk of asbestos related disease.

## 4. AMP Responsibilities

This AMP and the requirements set out within shall apply during all future site operations at or within the structures at the site until such time as the ACM is removed from the site or is otherwise shown to not present a risk to human health if exposed.

The requirements of this AMP are intended to apply for the ongoing operation of the site as a construction site and to any activities within the site which could involve disturbance or exposure of ACM.

The following detail is provided below on the key responsibilities for specific personnel.

### 4.1 Site Owner/Controller

It is the responsibility of the Site Owner/Controller to ensure that:

- A person in a senior management position in the organisation is appointed as Site AMP Manager and given the responsibility for ensuring the maintenance of the provisions of this AMP. The Site AMP Manager may appoint appropriate personnel to implement the day to day AMP requirements but will remain the responsible manager to whom the appointed personnel must report;
- Site personnel or contractors that undertake works that may disturb or damage the identified non-friable ACM or are required to remove any amount of non-friable ACM to complete their works are inducted into the AMP and are aware of their responsibilities with regards to health and safety and protection of the environment. An example AMP Induction Form is contained in **Appendix A**; and
- Any incidents that occur with reference to the identified non-friable ACM are reported in a timely manner to the appropriate statutory authorities, as necessary in accordance with current legislation.

### 4.2 Site AMP Manager

The Site AMP Manager shall be responsible for:

- Ensuring the Site Asbestos/Hazardous Materials Register is kept up to date and any changes to the status of ACM at the site are recorded in the register. An example Asbestos Removal Works Register is contained in **Appendix B**;
- Ensuring known and identified occurrences of ACM are appropriately labelled (**Section 5.2**) and the replacement of labels if required;
- Ensuring any re-inspection requirements are met (**Section 5.3**); and
- Review the AMP on a regular basis as part of the ongoing management of the site. This should be conducted at least once every five years or earlier if required.

In the event that works are required to be conducted which may disturb or damage the identified ACM or require the removal of any amount of ACM, the Site AMP Manager shall be responsible for:

- Ensuring that any persons or sub-contractors, who are engaged on the site, are inducted into the AMP and are aware of their responsibilities in relation to the presence of ACM;
- Management of all related operations, employees and subcontractors;
- Ensure compliance with all requirements outlined in this AMP and statutory requirements;
- Where necessary, co-ordinate exposure or control monitoring, data assessment and reporting;
- Where necessary, review relevant environmental reports and inspections and initiating any actions to rectify;
- Participate in incident investigations regarding the project works;

- Participate in meetings and programs regarding the project works.
- Oversee the implementation of control measures at the site for the duration of the project works.
- Ensure that there is no residual risk of exposure to remaining asbestos following the completion of the project works; and
- Consultation and communication with all relevant stakeholders / persons in relation to works affecting ACM.

### 4.3 Licenced Asbestos Removal Contractors

Where necessary, the Site AMP Manager will engage an appropriately licenced contractor as prescribed by the WHS Regulation to conduct asbestos abatement work. The contractor must obtain all relevant permits and notifications ( e.g. SafeWork NSW notification to remove non-friable asbestos), prepare all relevant safety and procedural plans (e.g. Safe Work Method Statements and Asbestos Removal Control Plans), and perform all works in accordance with licensing requirements and standard industry practice. The contractor must ensure that periodic health monitoring is provided to employees undertaking asbestos removal works.

In accordance with the WHS Regulation, non-friable ACM that require abatement, should be undertaken by either a Class A (friable and non-friable) licensed asbestos contractor for friable works or a Class B (non-friable only) licensed asbestos contractor.

### 4.4 Hazmat Consultant / Licensed Asbestos Assessor

The Site AMP Manager may engage a suitably qualified consultant to assist in the following areas:

- Conduct surveys to assess the risk involved with any proposed works where disturbance of ACM is likely to occur prior to commencement of proposed works;
- Periodically review ACM on the site as per regulatory requirements, conduct re-inspections and update the hazardous materials register;
- Develop documentation, i.e. plans, specifications, etc. for removal of ACM;
- Advise on PPE requirements for specific asbestos removal and abatement projects;
- Provide hygiene services during abatement works (i.e. asbestos fibre air monitoring, clearance inspections); and
- Review the AMP on a regular basis as part of the ongoing management of the site as required.

### 4.5 All Other Site Personnel

It is the responsibility of all other site personnel, including staff, contractors and visitors to:

- Comply with the requirements of this AMP and any associated procedures.
- Attend and comply with any AMP related training when required.
- Ensure no ACM is removed from the site without prior notification to and approval from the Site AMP Manager.
- Report any asbestos related incidents to the Site AMP Manager.

## 5. Implementation of AMP

The following sections detail the requirements for the management of asbestos materials identified at the site, as detailed in the Site Hazardous Materials Report and Register (JBS&G 2024c) for the ongoing operation of the site.

### 5.1 General

*In-situ* non-friable ACM at the site must be maintained in a good and stable condition for the duration of the sites future operation to ensure there is no asbestos exposure hazard presented. To remain in a good and stable condition, the remaining *in-situ* non-friable ACM must be suitably sealed with no exposed or damaged edges or surfaces and be in a location that is not likely to be damaged by general site use.

### 5.2 Labelling and Signage

*In-situ* non-friable ACM must be labelled with asbestos warning signs in accordance with Australian Standard AS1319 *Safety Signs for the Occupational Environment*. Examples of typical warning signs are shown below.



In addition to this, asbestos warning signs should be installed at all entrances to the structure to inform personnel of the presence of ACM. In the event that all occurrences of ACM cannot be labelled, a 'permit to work' system must be implemented to ensure occurrences of ACM are identified to any site personnel prior to commencing works.

### 5.3 Re-Inspections

Re-inspections of the in-situ non-friable ACM should be undertaken at least once every 5 years by a competent person or a Licensed Asbestos Assessor (LAA). The purpose of the reinspection is to undertake a visual assessment of the status and condition of the remaining in-situ non-friable ACM. The results of the re-inspections shall determine if remedial works (e.g. removal, encapsulation) is required.

The existing Site Asbestos Register shall be updated after each re-inspection with the details of the re-inspection, including the date of re-inspection, the competent person or LAA's name and comments to reflect the observations made during the re-inspection and any required actions recommended.

### 5.4 Record Keeping

The Site AMP Manager shall keep detailed records of all works related to the *in-situ* non-friable ACM at the site including, but not limited to:

- Copies of all asbestos survey and/or other relevant survey reports.
- Site induction / AMP induction records indicating that site employees/occupants have been made aware of the present asbestos hazard at the site (**Appendix A**).
- Records of any asbestos removal works that may have taken place at the site (**Appendix B**).
- Clearance certificates with any accompanying airborne asbestos fibre monitoring reports indicating that the asbestos removal areas are suitable to be reoccupied.

All records and documents relating to asbestos at the site are to be retained by the site owner in accordance with their internal record keeping procedures for 70 years after the ACM is removed or the building is demolished.

In addition, records are to be monitored regularly to identify non-conformance.

### 5.5 Training

With reference to Section 6.3 of the *Code of Practice: How to Manage and Control Asbestos in the Workplace* (2022b), all persons responsible for implementation of the AMP, as well as contractors undertaking works which may potentially disturbed hazardous materials and relevant employees working in proximity to the hazardous materials should be provided with hazardous materials awareness training. The training will increase their general awareness of hazardous materials and provide useful information relating to the long-term management and treatment of hazardous materials at the site.

Training should be site specific, however should generally cover the following:

- Background information and the health risks of exposure to hazardous materials;
- The types, uses and likely occurrences of hazardous materials in buildings, plant and/or equipment;
- Legislative requirements and responsibilities of all personnel on the site;
- Typical sources and general locations of hazardous materials located at the site;
- Use and location of the hazardous materials register at the site;
- A summary of the structure and function of the AMP i.e. the processes and procedures to follow to prevent inadvertent exposure to any hazardous materials; and
- Management recommendations and controls for any hazardous materials located at the site.

The objectives of the hazardous materials awareness training would be to:

- Increase the awareness and knowledge of building management personnel with respect to their statutory obligations with respect to the management of hazardous materials at the site;
- Provide valuable introductory information to staff/contractors who may have a requirement to handle hazardous materials or enter areas where hazardous materials are present; and
- Assist the employer in addressing their statutory duties with respect to providing information, instruction and training to those exposed to risk.

## 6. Asbestos Removal Works

The following sections detail the requirements for the removal and handling of ACM identified within the structures as detailed in the Hazardous Materials Register (JBS&G 2024c) in the event that remedial works are proposed to occur or any disturbance of the identified ACM is required.

### 6.1 General / Preliminaries

Prior to the removal of any non-friable ACM from the site, a Class A (friable and non-friable) or Class B (non-friable only) licensed asbestos removal contractor shall be engaged to undertake the works. No occurrences of friable asbestos has been identified at the site, as at the date of the JBS&G 2024c investigation.

It is the responsibility of the licensed asbestos removal contractor to:

- Submit a SafeWork NSW permit to remove non-friable ACM where greater than 10 m<sup>2</sup> is proposed to be removed.
- Prepare a site specific asbestos removal control plan (ARCP) for the proposed removal works.
- Prepare Safe Work Method Statements (SWMS) / Job Risk Analysis (JRA) for the proposed removal works.

The engaged asbestos removal contractor must have suitably professional indemnity and public liability insurance policies prior to commencing the works.

**All asbestos removal works must be undertaken in accordance with the conditions of the asbestos removal contractor's licence and SWNSW 2022a or the relevant legislative requirements enforceable at the time.**

A competent person or LAA can be engaged to review the licensed asbestos removal contractor's documentation and supervise the removal works, however, it is not compulsory.

### 6.2 Asbestos Removal Works Zone Preparation

Prior to the commencement of the asbestos removal works in specific areas of the site, controlled asbestos removal exclusion zones must be established. The degree of setup and controls depends on the type, nature and quantity of the ACM being removed, however in summary may include the following:

- Temporary fencing / barricading delineating the exclusion zone;
- Installation of appropriate signage at the entry/access points indicating that asbestos removal works are in progress and no unrestricted access is permitted;
- Installation of a decontamination area(s) / storage / change area attached to the entry/access points to the asbestos removal area;
- Adequate supply of required PPE;
- Water and dust suppression facilities; and
- Copy of all licensed asbestos contractor's licensing, permits and work methods.

At the completion of setup works the asbestos removal zone should be inspected by the hazmat consultant / licensed asbestos assessor to confirm the suitability and integrity of the implemented measures prior to removal works, such that any deficiencies can be identified and resolved prior to the commencement of works.

### 6.3 Personal Protective Equipment

During asbestos removal, abatement and/or any works that have a potential to disturb ACM, PPE must be worn by all persons within the controlled asbestos work area. In general PPE suitable for working with the non-friable ACM specified in this AMP may include the following:

- Respirator (RPE – silicon half face, full face and/or disposable masks);
- Coveralls (disposable, Type 5 or Type 6); and
- Eye / face protection, gloves, work boots and disposable booties approved for asbestos work.

Note that disposable masks, coveralls, booties and gloves are single use only and must be disposed of as asbestos waste after each use. Non-disposable respirators need to be decontaminated and cartridges inspected and replaced as required dependent upon type and duration of usage.

### 6.4 Airborne Asbestos Fibre Monitoring

While not compulsory for non-friable asbestos removal projects, it is considered best practice to undertake airborne asbestos fibre monitoring in accordance with the National Occupational Health and Safety Commission’s *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres – 2<sup>nd</sup> Edition* [NOHSC: 3003(2005)].

An independent competent person or LAA should be engaged to complete the air monitoring for the duration of the asbestos removal works. Safe Work Australia’s *Workplace Exposure Standards for Airborne Contaminants* (SWA 2024) identifies the current exposure standard for a standard 8 hour shift as:

- Chrysotile Asbestos – 0.1 fibres/mL;
- Amosite Asbestos – 0.1 fibres/mL;
- Crocidolite Asbestos – 0.1 fibres/mL; and
- Other forms of asbestos or a mixture of any forms of asbestos – 0.1 fibres/mL.

Conservative trigger action levels for daily concentrations of airborne fibres have been outlined in SWNSW 2022a to identify potential fibre releases prior to an exceedance of the national exposure standard. These trigger action levels are shown below.

Trigger Action Level	Action
< 0.01 fibres/mL	Works are suitable to continue without any additional control measures
0.01 - 0.02 Fibres/mL	Review control measures currently in place
> 0.02 fibres/mL	Cease work, notify the regulator and identify the cause of fibre release

### 6.5 Storage and Disposal of Asbestos Waste

All asbestos waste generated during any asbestos removal works, including used disposable personal protective equipment (PPE), shall be double bagged in 200 µm thick polyethylene bags. Bags should be filled to no more than 50% of capacity and contents should be ‘wetted’ down before sealing. Bags should be ‘goose-neck’ tied and sealed with suitable gaffer tape or similar. Asbestos waste bags should be decontaminated prior to removal from site and should be labelled with appropriate asbestos warning labels indicating the waste bag’s contents.

All asbestos waste is to be transported and disposed off site to a suitably licensed waste facility in accordance with the requirements of the NSW EPA *Waste Classification Guidelines – Part 1: Classifying Waste* (NSW EPA 2014).

## 6.6 Clearance Certification

Clearance to re-occupy an asbestos removal work area shall be determined by undertaking a thorough clearance inspection by a competent person or LAA. Asbestos removal work boundaries shall remain in place until clearance has been provided by the competent person or LAA. Clearance air monitoring may be deemed necessary by the inspecting competent person or LAA and the results of which shall form part of the clearance certificate and must comply with action levels outlined in **Section 6.4**.

It is compulsory for a clearance certification to be completed following any non-friable asbestos removal greater than 10 m<sup>2</sup>, or any friable asbestos removal, and is considered best practice for any other minor asbestos removal programs.

## 6.7 Record Keeping

The Site AMP Manager shall keep detailed records of all asbestos removal works undertaken at the site (**Appendix B**) and shall update this AMP and the Site Asbestos Register accordingly for each asbestos removal event to reflect:

- Location of asbestos removal works;
- Extent of asbestos removal works;
- Dates of completed asbestos removal works;
- Licensed asbestos removal contractor details; and
- Clearance certification details including name of competent person or LAA.

## 7. Non-Conformance Control, Corrective and Preventive Action

Works conducted by site personnel shall be assessed against the requirements of relevant SWMS and the AMP. If work is not conducted in accordance with the relevant SWMS and the AMP, the Site Owner/Controller and/or AMP Manager or the relevant site supervisor shall stop work and not continue until the issue is resolved.

Once a safety issue or incident is brought to the attention of the Site Owner/Controller and/or AMP Manager or site supervisor, the WHS Representative will:

- Order all work to cease immediately;
- Attempt to contain the situation and administer first aid (if appropriate);
- Seek any medical help as required;
- Notify any necessary agencies; and
- Notify their internal Project Manager/WHS representative, etc as soon as possible.

All WHS incidents will be reported as per the procedures nominated by the Site Owner/Controller and/or AMP Manager. Any non-conformance issues shall be corrected to the satisfaction of the Site Owner/Controller and/or AMP Manager prior to work continuing.

## 8. Inadvertent Damage / Emergency Response

An emergency situation is most likely to entail such a scenario where hazardous materials at the site have been inadvertently disturbed through actions of site employees, site users, maintenance personnel, contractors or visitors. Where such damage has occurred, the Site AMP Manager must be notified immediately. Where hazardous materials have been damaged, potential exposure risks may be increased.

Separate to the above, it is possible that during hazardous material removal works, an emergency may occur within the building that could necessitate the need for all persons to evacuate the building, e.g. fire alarm siren. Events likely to present an emergency may include but not be limited to:

- Fire Evacuation;
- Chemical spill and contamination; and
- Gas leak/contaminated atmosphere hazardous to health.

In the case of the above situations requiring an emergency, the Site Owner and Site AMP Manager should be notified immediately and the area evacuated. Where time permits, an area should be made safe and personal decontamination undertaken prior to asbestos workers evacuating the building. When there is no time, an emergency situation takes priority over the asbestos removal works, the requirement for personal decontamination is waived and all persons must evacuate the building immediately.

Prior to any asbestos removal works program, the risks associated with the removal work should be assessed and include contingencies, controls and procedures for inadvertent damage and emergencies. Workers should be provided appropriate training to know what to do in the event of possible emergency scenarios.

## 9. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

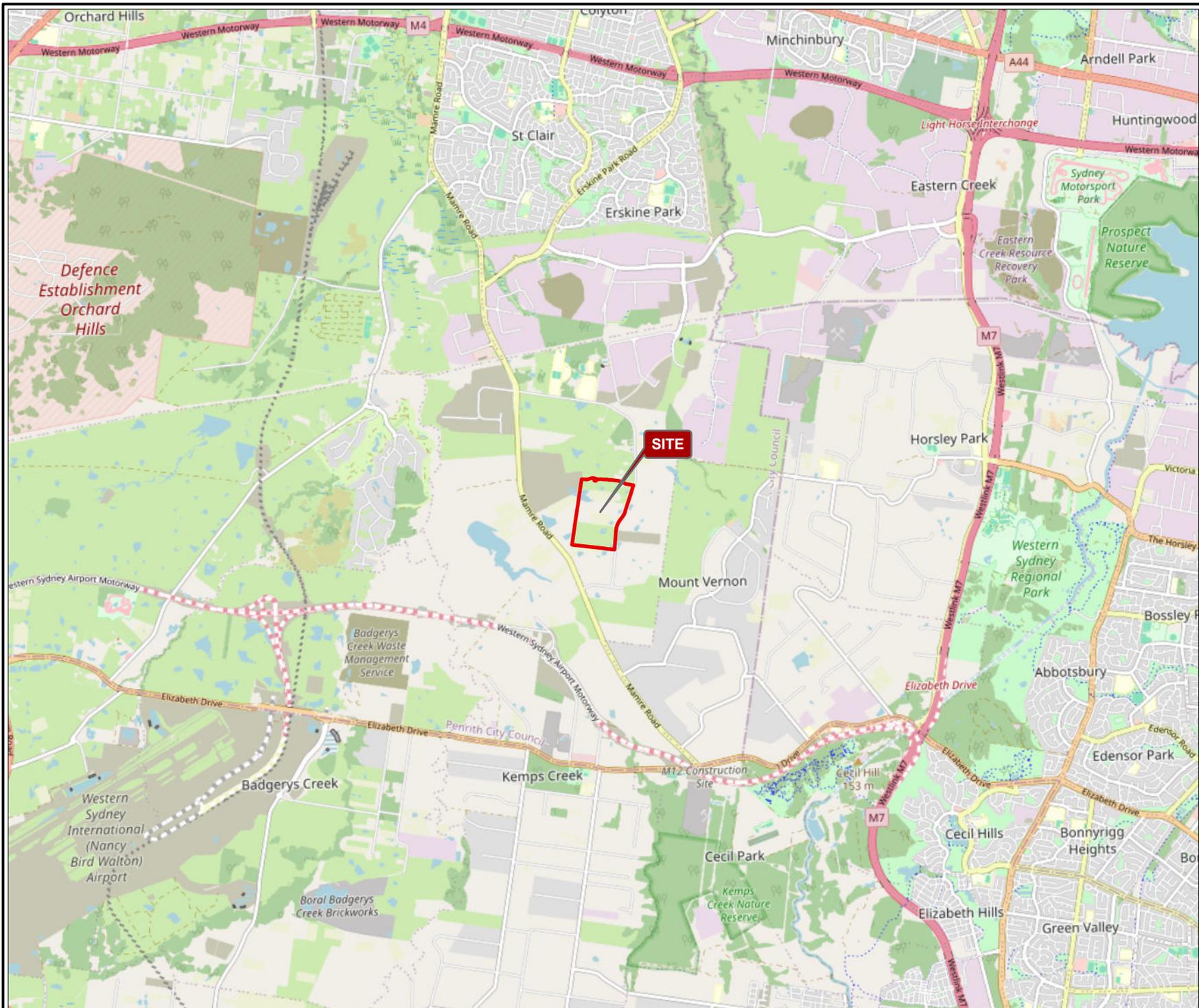
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

## Figures



Legend  
 Approximate Site Boundary

**JBS&G**

Job No: 66105  
 Client: Frasers Property Group  
 Version: R004 Rev A    Date 24/10/2024  
 Drawn By: MW    Checked By: SK  
 Scale 1: 75,000

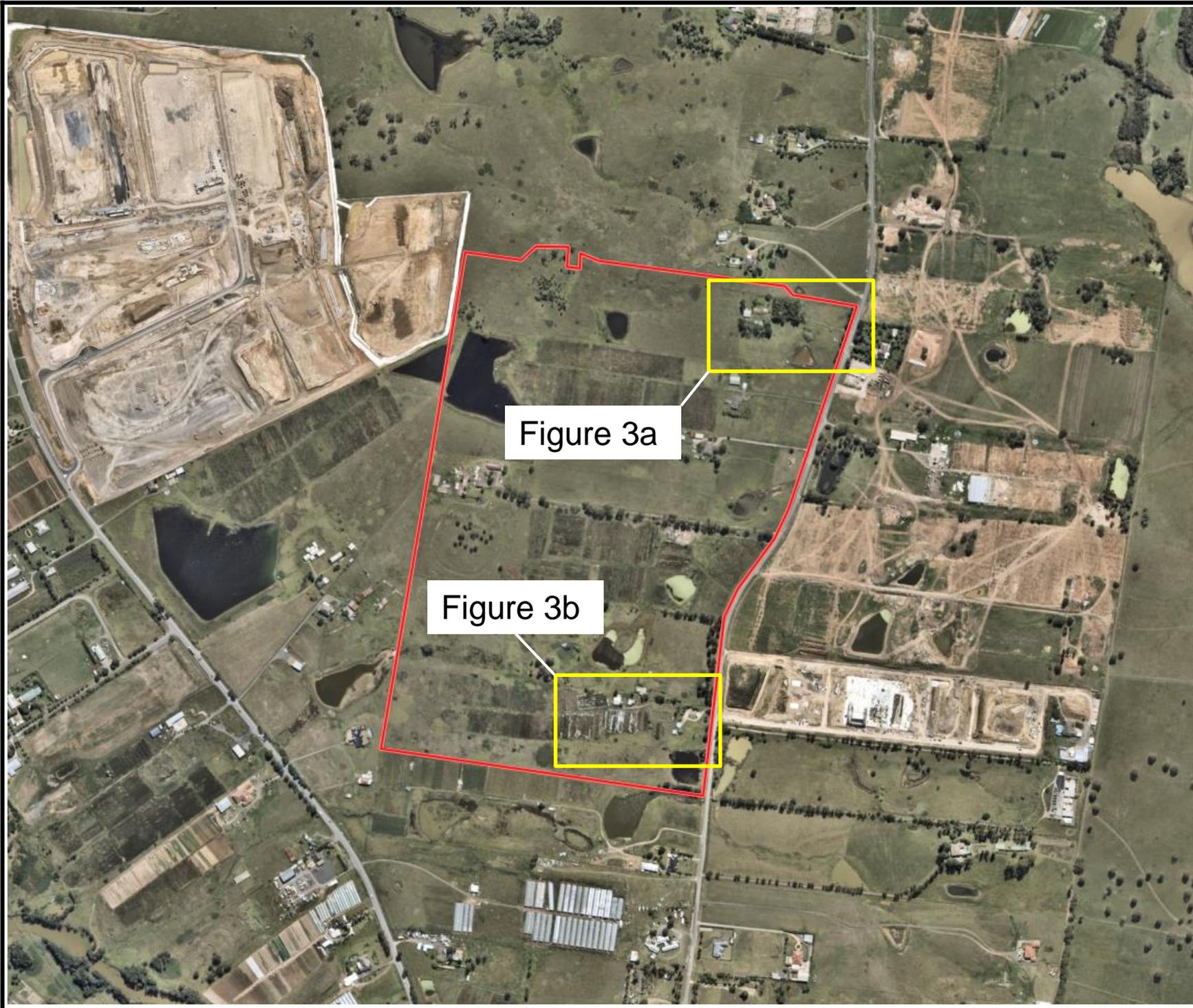
0    750    1,500  
 metres

Coord. Sys. GDA 1994 MGA Zone 56  
 141-251 Aldington Road,  
 Kemps Creek, NSW

SITE LOCATION

FIGURE 1

File Name: 66105\_KempsCreek\_FrasersProperty\_R01\_Rev0  
 Reference: © OpenStreetMap (and) contributors, CC-BY-SA



**Legend:**

 Site Boundary



Job No: 66105

Client: Frasers Property Group

Version: R004 Rev 0    Date: 24/10/2024

Drawn By: BS    Checked By: MS



141-251 Aldington Road, Kemps  
Creek, NSW

**SITE LOCATION**

**FIGURE 2**



**Legend:**

-  Site Boundary
-  North Shed C
-  North Shed D



Job No: 66105

Client: Frasers Property Group

Version: R004 Rev 0    Date: 24/10/2024

Drawn By: BS    Checked By: MS



141-251 Aldington Road, Kemps  
Creek, NSW

**SITE LAYOUT, NORTH PORTION**

**FIGURE 3a**



**Legend:**

- ▭ Site Boundary
- ▭ South Shed A
- ▭ South Shed B



Job No: 66105

Client: Frasers Property Group

Version: R004 Rev 0    Date: 24/10/2024

Drawn By: BS    Checked By: MS



141-251 Aldington Road, Kemps  
Creek, NSW

**SITE LAYOUT, SOUTH PORTION**

**FIGURE 3b**





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# Appendix H Unexpected Finds Procedure



**141-251 Aldington Road, Kemp's Creek, NSW**

**Frasers Property Industrial Pty Ltd**

**Unexpected (Contamination) Finds Protocol**

**JBS&G 66105 | 168,657 Rev 1**

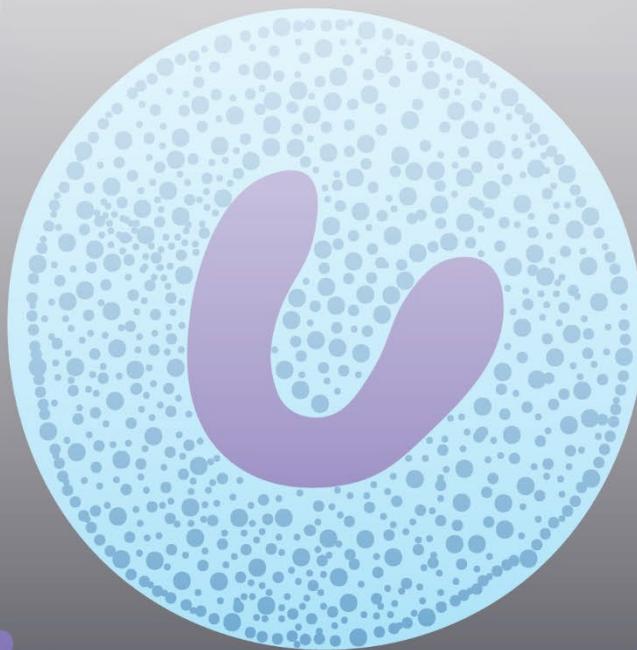
**23 June 2025**





**We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.**

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.



**Caring for Country** The Journey of JBS&G  
**Artist:** Patrick Caruso, Eastern Arrernte

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<b>Appendix B</b>	<b>Unexpected Finds Protocol Flowchart</b>
<b>Appendix C</b>	<b>Unexpected Finds Register</b>
<b>Appendix D</b>	<b>SafeWork Asbestos Flowchart</b>

## Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AF/FA	Asbestos Fines/Fibrous Asbestos
BTEX	Benzene, Toluene, ethylbenzene and xylene
JBS&G	JBS&G Australia Pty Ltd
DP	Deposited Plan
DPHI	NSW Department of Planning, Housing and Infrastructure
EIL	Ecological Investigation Level
ENM	Excavated Natural Material
EPA	NSW Environment Protection Authority
ER	Environmental Representative
ESL	Ecological Screening Level
HIL	Health Investigation Level
HSL	Health Screening Level
LAA	Licensed Asbestos Assessor
m bgs	Metres Below Ground Surface
NEPC	National Environment Protection Council
NSW	New South Wales
OCP	Organochlorine Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
QA/QC	Quality Assurance/Quality Control
TCLP	Toxicity Characteristic Leaching Procedure
TRH	Total Recoverable Hydrocarbon
UFP	Unexpected Finds Protocol
VENM	Virgin Excavated Natural Material
VOC	Volatile Organic Compound
WA DoH	Western Australia Department of Health
WHS	Work, Health and Safety

# 1. Introduction

JBS&G Australia Pty Ltd (JBS&G) was engaged by Frasers Property Industrial Pty Ltd (Frasers, the client), to provide environmental services for land located at 141-251 Aldington Road, Kemps Creek, NSW (the site, see **Figure 1**). The area, address and legal Lots and Deposited Plans (DPs) identifiers of the properties which comprise the site are detailed in **Table 1.1** and are shown on **Figure 2**.

**Table 1.1 Site Identification Details**

Lot/DP	Address	Area (ha)
<b>Aldington Road – Edge South</b>		
33/258949	155 to 167 Aldington Road, Kemps Creek, NSW, 2178	10.1
28/255560	169 to 181 Aldington Road, Kemps Creek, NSW, 2178	10.2
27/255560	183 to 197 Aldington Road, Kemps Creek, NSW, 2178	10.2
26/255560	199 Aldington Road, Kemps Creek, NSW, 2178	2.6
25/255560	201 to 217 Aldington Road, Kemps Creek, NSW, 2178	10.2
24/255560	219 to 233 Aldington Road, Kemps Creek, NSW 2178	10.2
10/253503	235 to 251 Aldington Road, Kemps Creek, NSW 2178	10.1
Approximate Site Area (ha)		63.6
<b>Ancillary Works Zone</b>		
Part 34/258949	141 to 153 Aldington Road, Kemps Creek, NSW 2178	10.1

The properties which comprise the site have been the subject of a number of previous environmental investigations, and remediation. Validation of remedial works at the site was completed by JBS&G in accordance with the RAP (JBS&G 2024a<sup>1</sup>), to demonstrate the successful remediation and, demonstrate that the site is suitable for the proposed commercial and industrial land use (unencumbered by contamination management plans or similar instrument) in accordance with guidelines made or approved by the NSW Environment Protection Authority (EPA). The remediation works have been documented in the JBS&G Validation Report (JBS&G 2024b<sup>2</sup>).

The site is owned by Frasers, and is to be redeveloped as eight warehouses, ancillary office space and associated infrastructure (stormwater, road infrastructure, landscaping etc).

A State Significant Development Application (SSDA, SSD-17552047<sup>3</sup>) has been approved by the Minister for Planning and Public Spaces. Conditions of the development consent include the following:

*“Unexpected Finds Procedure:*

- *B69. Prior to the commencement of earthworks, the Applicant must prepare an unexpected contamination finds procedure to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the CEMP in accordance with condition C2 and must ensure any material identified as contaminated is disposed of in accordance with the POEO Act and its associated regulations. Details of the final disposal location and the results of any associated testing*

<sup>1</sup> Remedial Action Plan – Aldington Road Estate, Edge South Development, Aldington Road, Kemps Creek, NSW. JBS&G Australia Pty Ltd reference 65376/157278 dated 5 February 2024 Rev 2, JBS&G (2024a).

<sup>2</sup> 155-251 Aldington Road, Kemps Creek, NSW, Frasers Property Industrial Pty Ltd, Validation Report, reference JBS&G 66105/159,245 Rev 1, dated 26 July 2024 (JBS&G 2024b)

<sup>3</sup> Development Consent, SSD-17552047, Minister for Planning and Public Spaces, 3 June 2025 (SSD-17552047).

*must be submitted to the Planning Secretary prior to removal of the contaminated material from the site.”*

This Unexpected Finds Protocol (UFP) has been developed in order to inform management of potential unexpected contamination, in accordance with the development consent condition B69 (SSD-17552047).

## **1.1 Objective**

The objective of this protocol is to outline the actions required to protect human and environmental health from unexpected contamination that may be encountered during site development works including bulk earthworks and construction of an eight warehouse commercial/industrial estate.

## 2. Unexpected Finds Protocol

### 2.1 Unexpected Finds Identification

The possibility exists for hazards that have not been identified to date to be present within fill materials or underlying site structures on the site. The nature of hazards which may be present, and which may be discovered at the site are generally detectable through visual or olfactory means, as shown in **Appendix A**, and may include:

- The presence of significant aggregates of friable asbestos materials (visible) versus minor occurrences of fibre bundles in soil; and/or
- Excessive quantities of construction/demolition waste that represents an aesthetics issue beyond that reported to date (visible); and/or
- Hydrocarbon/chemical impacted materials beyond that reported to date (visible/odorous); and/or
- Drums, waste pits (visible); and/or
- Oily ash and/or oily slag contaminated soils/fill materials (visible/odorous); and/or
- Tarry like impacted soil/fill material (visible/odorous); and/or
- Potential chlorinated hydrocarbon impact (sweet odour soils).

As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned substances (or any other unexpected potentially hazardous substance) be identified, the procedure summarised in **Appendix B** is to be followed.

An enlarged version of the Unexpected Finds Protocol, suitable for use on the site, should be posted in the Site Office and referred to during the site-specific induction by the Principal Contractor.

### 2.2 Potential Risks and Hazards

The potential hazards that may be encountered in the event of an unexpected find include impacts to human health and/or the environment and depend on the relevant contaminant of concern. The primary risks are:

- Exposure to workers/site occupants:
  - Oral ingestion and dermal contact of contaminated soil or water;
  - Inhalation of vapours, gases or dusts;
- Environmental exposure:
  - Contaminant uptake in flora; and
  - Contaminant exposure via ingestion, dermal contact or inhalation by fauna.

Where unexpected finds are exposed and not managed appropriately, there may be a potential for migration of contamination from the site via:

- Windblown dust;
- Migration via surface water flow and infiltration;
- Groundwater migration; and
- Vapour generation.

As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned indicators be identified (or any other unexpected potentially hazardous substance), the protocol summarised in **Appendix B** and detailed in the following sections is to be followed.

## 2.3 Unexpected Finds Register

All unexpected contamination finds identified on site should be documented in an unexpected finds register by an appropriately qualified and experienced environmental consultant. An example register is provided in **Appendix C**. A copy should be made available onsite to allow initial documentation of unexpected finds and to provide a record of successfully managed unexpected finds. A copy of the completed register will be provided to the Environmental Representative (ER) and NSW Department of Planning, Housing and Infrastructure (DPHI) as requested.

## 2.4 Assessment of Unexpected Finds

The sampling strategy for the characterisation and validation of each 'unexpected find' shall be designed by a suitably qualified and experienced environmental consultant dependent upon the nature and extent of the unexpected find, in accordance with guidelines made or approved by NSW Environment Protection Authority<sup>5</sup>. The strategy will, however, be aimed at determining the nature of the substance – that is, is it hazardous and, if so, is it at concentrations which pose an unacceptable risk to human health or the environment for the land use.

The assessment approach for the identified substance / materials shall meet the requirements of EPA-made or approved guidelines including, but not limited to: the NEPC (2013) ASC NEPM<sup>6</sup> and EPA (2022) Contaminated Site: Sampling Design Guidelines<sup>7</sup>. Approaches to the assessment and management of potential unexpected finds are provided in **Section 2.5**.

## 2.5 Appropriate Assessment and Management Strategy

### 2.5.1 General Management Strategy

The general management strategy to manage unexpected contamination finds will be dependent on the results of the characterisation assessment. Materials are generally preferred to be retained on the site where they are assessed by the environmental consultant to be suitable for the intended land use consistent with EPA made or approved guidelines including assessment against applicable NEPC (2013) land use criteria, as described in **Section 2.6.1**, or in circumstances where, subject to an appropriate plan of remediation, they can be remediated to achieve appropriate land use criteria or contained on site subject to ongoing management controls. Alternatively, unexpected finds may be managed via offsite disposal. The details regarding any material requiring offsite disposal are outlined in **Section 2.5.7** below.

### 2.5.2 Asbestos

Minor asbestos unexpected finds (less than 10 m<sup>2</sup> of non-friable asbestos) should be assessed in accordance with *Managing Asbestos in or on soil* (SafeWork NSW 2014), specifically, the flow chart provided on page 9 of SafeWork (2014) document, which is presented in **Appendix D**.

Should significant asbestos unexpected finds (greater than 10 m<sup>2</sup> of non-friable, or any potential friable asbestos) be identified, these should be assessed by an appropriately qualified and experienced environmental

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<sup>5</sup> NSW Environment Protection Authority, Contaminated Land, Statutory Guidelines (webpage) <https://www.epa.nsw.gov.au/your-environment/contaminated-land/statutory-guidelines>.

<sup>6</sup> *National Environment Protection (Assessment of Site Contamination) Measure 1999*, as amended 2013 (ASC NEPM), National Environment Protection Council (NEPC 2013).

<sup>7</sup> *Sampling design part 1 – application, Contaminated Land Guidelines* NSW EPA, September 2022 (EPA 2022)

consultant (competent person) in accordance with NEPC (2013) and WA DoH (2009)<sup>8</sup>. Dependent upon the initial assessment outcomes, an asbestos management plan (AMP) and register may be required.

Asbestos containing materials identified on-site should be managed in accordance with the following guidance documents:

- *Managing Asbestos in or on soil* (SafeWork NSW 2014).
- *How to Manage and Control Asbestos in the Workplace Code of Practice* (SafeWork NSW 2022).
- *How to Safely Remove Asbestos Code of Practice* (SafeWork NSW 2022).

Management and removal of greater than 10 m<sup>2</sup> non-friable asbestos materials must be undertaken by a Class A or Class B licensed asbestos contractor. Any friable asbestos materials must be removed by a Class A licensed asbestos contractor. A licensed asbestos assessor (LAA) will be required for clearance of friable asbestos impacts.

Asbestos air monitoring is required during all asbestos related works at the site and may be recommended for non-friable asbestos management particularly when close to public areas. Air monitoring for friable asbestos management will require supervision by a LAA.

### 2.5.3 Ash / Slag or Demolition / General Waste Impacted Fill Material

Any identified ash / slag or demolition / general waste material in on-site fill materials should be inspected by an appropriately qualified and experienced environmental consultant, and if required will be sampled and analysed for relevant contaminants. The extent of impact may be determined by excavation of the unexpected find or by test pitting on a grid pattern across the unexpected find.

Ash / slag and demolition / general waste material can pose an aesthetic issue if present in sufficient quantities on/near the ground surface and may require assessment to assist management of soil.

If assessment deems the ash / slag or demolition / general waste material unsuitable for the proposed land use, this material will require remediation or management, as noted in **Section 2.5.1**.

It is noted that open air burning of materials is prohibited in all NSW local government areas.

Uncontrolled filling may also present compaction and geotechnical issues, which would require assessment by appropriately qualified and experienced geotechnical engineers. Geotechnical considerations are beyond the scope of this document.

### 2.5.4 Petroleum Drums / Chemical Containers and Petroleum / Chemically Impacted Soils

Should drums and / or other chemical containers be observed, the type of contaminant present in the drum or chemical container will be identified where practicable and safe to do so by an appropriately qualified and experienced environmental consultant. Adjacent soils will need assessment for residual contaminants consistent with NEPC (2013) and EPA guidelines.

Any drums / chemical containers will be removed offsite to a licensed disposal facility in accordance with relevant guidelines and codes of practices for the type of contaminant identified. This may include removal of liquids, flammable materials or hazardous materials from the interior and / or adjacent soils of the unexpected find.

Should any odorous, stained or otherwise impacted soils be observed, the unexpected find should be inspected and sampled by an appropriately qualified and experienced environmental consultant consistent with NEPC (2013) and EPA guidelines. If volatile organic compounds (VOCs) are identified, an appropriate soil

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<sup>8</sup> *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia*, WA Department of Health, May 2009 (WA DoH 2009).

vapour assessment will be undertaken if materials are to be considered for onsite retention or excavated and disposed offsite.

Soil analytical data will be assessed against appropriate land use criteria (refer **Section 2.6.1**) for consideration for onsite retention, or classified according to the *Waste Classification Guidelines* (EPA 2014). Soils not suitable to be retained onsite will require offsite disposal to a facility lawfully able to receive the classified waste.

### 2.5.5 Underground Petroleum Storage Systems

Should underground petroleum storage systems (UPSS) including underground storage tanks (USTs) and associated infrastructure be observed, the type of contaminant present in the tanks will be identified where practicable and safe to do so by an appropriately qualified and experienced environmental consultant. Adjacent soils will need assessment for residual contaminants consistent with NEPC (2013) and EPA guidelines.

The removal/decommissioning of any UPSS infrastructure should be completed by a duly qualified person in accordance with the *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019*.

Validation of the removal works and associated remediation of impacted material shall be undertaken with consideration to the requirements of *UPSS Technical Note: Site Validation Reporting* (DECCW 2010), *Contamination assessment of service station sites, Minimum sampling requirements* (NSW EPA 2023) and the requirements of NEPC (2013). In addition, detailed notes and documentation (including photographs and description of tank contents) will be required to be made during removal of the petroleum infrastructure.

Soil analytical data will be assessed against appropriate land use criteria (refer **Section 2.6.1**) for consideration for onsite retention, or classified according to the *Waste Classification Guidelines* (EPA 2014) or compared against relevant waste resource recovery order requirements to determine the management of the soils. Soils not suitable to be retained onsite will require offsite disposal to a facility lawfully able to receive the classified waste.

### 2.5.6 Stockpiled / Dumped Material

Unexpected finds in stockpiles or illegally dumped material will be inspected by an appropriately qualified and experienced environmental consultant and assessed in accordance with NEPC (2013) and EPA guidance, in particular EPA (2022) Sampling Design Guidelines, as detailed in **Table 2.1** below for stockpiles up to 200 m<sup>3</sup>, irrespective of whether they are intended for site re-use or waste disposal.

**Table 2.1 Stockpile Sampling Frequency**

Stockpile Volume (m <sup>3</sup> )	Number of Samples
<75	3
75 - <100	4
100 - <125	5
125 - <150	6
150 - <175	7
175 - <200	8
> 200	Characterisation including use of statistical assessment consistent with EPA (2022)

Stockpiled spoil may be able to be assessed under an EPA waste order, such as *The excavated natural material order 2014* (ENM Order), subject to advice from an environmental consultant.

If ACM is present, the stockpiles will require to be assessed for offsite disposal as Special Waste in accordance with EPA (2014) and EPA (2022) guidance, or assessed in accordance with NEPC (2013) and WA DoH (2009) for possible alternate onsite remediation/management options. Soils impacted with ACM may be remediated onsite to reduce ACM to acceptable levels for onsite retention at depth or below structures with no further

long-term management, or, be contained beneath marker and capping layer/structures with ongoing long-term management if asbestos concentrations are above applicable land use criteria. Onsite retention of asbestos materials will require an AMP and inclusion on an asbestos register consistent with WHS Regulations.

Stockpiled or spoil materials that satisfy the site land use criteria, outlined in **Section 2.6.1** (as well as aesthetic criteria), may be reused onsite. Stockpiled or spoil material that does not meet the site validation criteria or aesthetic criteria may require waste classification and offsite disposal to a licensed waste disposal facility, or may be removed offsite under a relevant EPA waste resource recovery order where appropriate. It is noted some materials that do not meet site criteria may be retained on site with an appropriately planned capping/containment strategy and ongoing management plan, subject to consultation with relevant stakeholders, including the relevant consent authority. This assessment will need to be made by an appropriately qualified and experienced environmental consultant.

### 2.5.7 Offsite Disposal of Material

Any contaminated soils or other waste generated during remediation to be disposed offsite shall be classified in accordance with EPA (2014) *Waste Classification Guidelines*. Should natural soils/bedrock require offsite disposal then these shall also be classified as Virgin Excavated Natural Material (VENM) in accordance with the *Protection of the Environment Operations Act 1997* (POEO Act). Should the material not meet these definitions, offsite disposal shall be in accordance with EPA (2014) *Waste Classification Guidelines* or an appropriate order as created under the *Protection of the Environment Operations (Waste) Regulation 2014*.

Waste certificates will be prepared for each stockpile and/or material type that is to be disposed. Disposal of waste to licensed waste facilities in accordance with relevant waste regulations will be undertaken by the Principal Contractor and the waste facility must be lawfully licensed to receive the material sent to it for disposal. All waste tracking documentation including disposal dockets must be maintained by the remedial contractor for at least 1 year after the completion of the project, and must be provided to the client's representative and environmental consultant for inclusion in a validation/clearance advice confirming the outcomes of works completed at the site, and for submission to DPHI in accordance with Condition B64 of the SSDA.

Any asbestos waste exceeding 100 kilograms or more than 10 m<sup>2</sup> of bonded ACM in one load disposed offsite must also be tracked using the NSW EPA Integrated Waste Tracking Solution (IWTS) by the Principal Contractor.

## 2.6 Validation of Unexpected Finds

Validation inspection(s) and possible sampling/analysis of unexpected contamination finds is required to be undertaken to assess appropriate management options and to demonstrate each unexpected find has been managed to a standard suitable for the proposed land use. Where sampling is required, the assessment should consider EPA (2022) *Sampling Design Guidelines* and appropriate contaminants of potential concern, as outlined in **Table 2.2** below, the criteria in **Section 2.6.1**, and reporting requirements of applicable EPA/SafeWork NSW guidance.

**Table 2.2 Validation Sampling and Analytical Schedule**

Validation Area	Sampling Frequency	Analytes <sup>1</sup>
Excavations formed by the removal of unexpected finds	Minimum of 1 validation sample per 10 m linear of wall and 1 m depth, minimum of 1 validation sample per 100 m <sup>2</sup> area for the base (10 m grid).	As appropriate, based on the characteristics of the find.
Excavations formed by the removal of UPSS infrastructure	Minimum of 1 validation sample per 5 m linear of wall and 1 m depth, minimum of 1 validation sample per 25 m <sup>2</sup> area for the base (5 m grid).	Total Recoverable Hydrocarbons (TRH), Volatile Organic Compounds (VOCs) and lead.

Contaminated material requiring disposal offsite	See <b>Table 2.1</b> above.	Heavy metals, TRH, Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Polycyclic Aromatic Hydrocarbons (PAH), Organochlorine Pesticides (OCP)/Polychlorinated Biphenyls (PCB), asbestos and Toxicity Characteristic Leaching Procedure (TCLP) (if required), or as appropriate based on the characteristics of the find.
Excavated material for onsite reuse	See <b>Table 2.1</b> above and EPA (2022) Table 5 of Section 5.4.7.	Heavy metals, TRH/BTEX, PAH, OCP/PCB, asbestos and ASLP if required.
Residual soils underneath stockpiles where contaminated material has been stored on unsealed surfaces	Minimum of 1 sample per 100 m <sup>2</sup> grid, with at least 1 sample per stockpile footprint, with consideration to requirements to generate a suitable data set for validation.	As appropriate, based on the characteristics of the find.

Note:

<sup>1</sup> All samples analysed for asbestos validation / re-use purposes (including ENM) will be 500 mL samples in accordance with WA DOH (2009) guidelines, and analysed in accordance with AS 5370:2024. Asbestos samples for waste disposal purposes will be 50 g samples.

### 2.6.1 Assessment / Validation Criteria

Following the scope of works, the site will be utilised for land use consistent with commercial/industrial, as such the following NEPC (2013) land use criteria are applicable to any unexpected finds:

- Health investigation levels for Commercial/Industrial (HIL-D) scenario, which includes premises such as shops, offices, factories and industrial sites;
- Health screening levels for Commercial/Industrial (HSL-D) for TRH, BTEX & PAH compounds (fine soils);
- HSL-D: Commercial/Industrial for asbestos (ACM and AF/FA);
- Ecological investigation levels (EIL) for Commercial/Industrial;
- Ecological screening level (ESL) for Commercial/Industrial (coarse soils) for hydrocarbons; and
- Management limits: Commercial/Industrial (coarse soil).

In addition to the above, materials assessed for onsite reuse and/or validation at the walls and base of the resulting excavations will be required to satisfy aesthetic considerations, as per NEPC (2013).

It is noted that in lieu of site-specific soil data, coarse soil criteria has been selected as a conservative approach. Should soil assessment be undertaken confirming the presence of fine soils on the site, the criteria should be updated to fine soils.

### 2.6.2 Clearance / Validation Reporting

Clearance / validation letter reports will be prepared at the completion of the management of each unexpected find. The clearance / validation letter will be prepared in general accordance with relevant EPA published or endorsed guidelines, documenting the works undertaken. These are to be prepared by a suitably qualified and experienced environmental consultant.

The letter report will generally contain:

- Details on type of contaminant, size, extent and location of the unexpected find;

- Information demonstrating that the unexpected find was adequately assessed (including sampling plan, all relevant analytical or observational data, QA / QC);
- Information on the remediation / management of the unexpected find (such as disposal docket from a licensed waste facility or asbestos surface picking);
- Information on the clearance / validation of the unexpected find to meet the adopted site criteria (including all relevant analytical and / or observational data); and
- Advice on the removal of temporary exclusion zones and return to work as per the UFP flowchart in **Appendix B**.

### 3. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

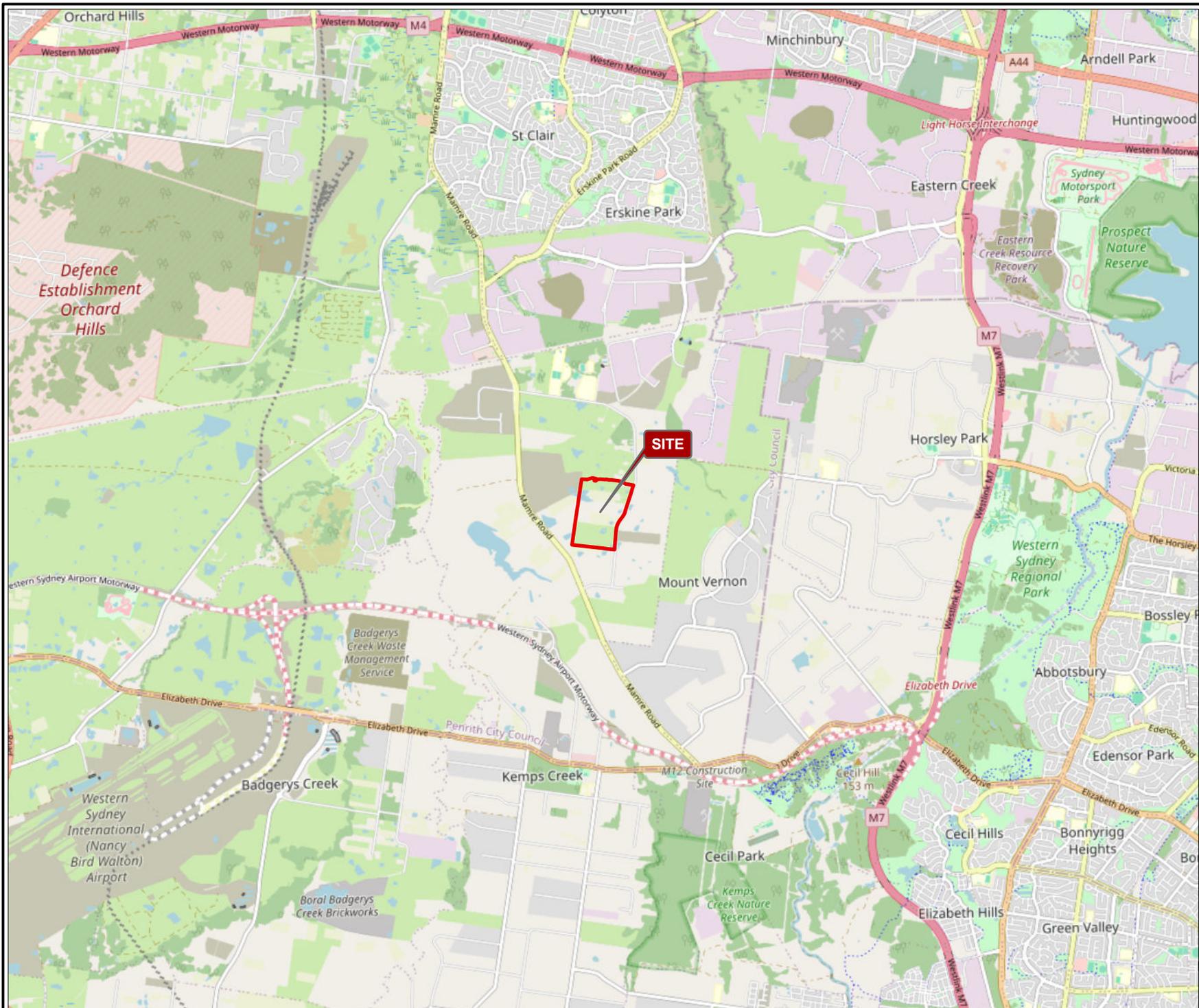
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

## Figures



Legend  
 Approximate Site Boundary

**JBS&G**

Job No: 66105  
 Client: Frasers Property Group  
 Version: R005 Rev 1    Date 26/06/2025  
 Drawn By: MW    Checked By: SK  
 Scale 1: 75,000   
  
 Coord. Sys. GDA 1994 MGA Zone 56  
 141-251 Aldington Road,  
 Kemps Creek, NSW  
 SITE LOCATION

FIGURE 1

File Name: 66105\_KempsCreek\_FrasersProperty\_R01\_Rev0  
 Reference: © OpenStreetMap (and) contributors, CC-BY-SA



Legend

- ▬ Approximate Site Boundary
- ▬ NSW Cadastre



Job No: 66105

Client: Frasers Property Group

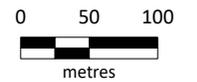
Version: R005 Rev 1

Date 23/06/2025

Drawn By: MW

Checked By: SK

Scale 1:5,500



Coord. Sys. GDA 1994 MGA Zone 56

141-251 Aldington Road,  
Kemps Creek, NSW

**SITE LAYOUT**

**FIGURE 2**

## Appendix A Unexpected Finds Summary

### BE AWARE UNEXPECTED HAZARDS MAY BE PRESENT



drums



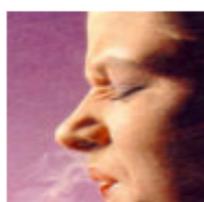
asbestos



chemical bottles



staining



odour



ash / slag



demolition waste

if you SEE or SMELL anything unusual

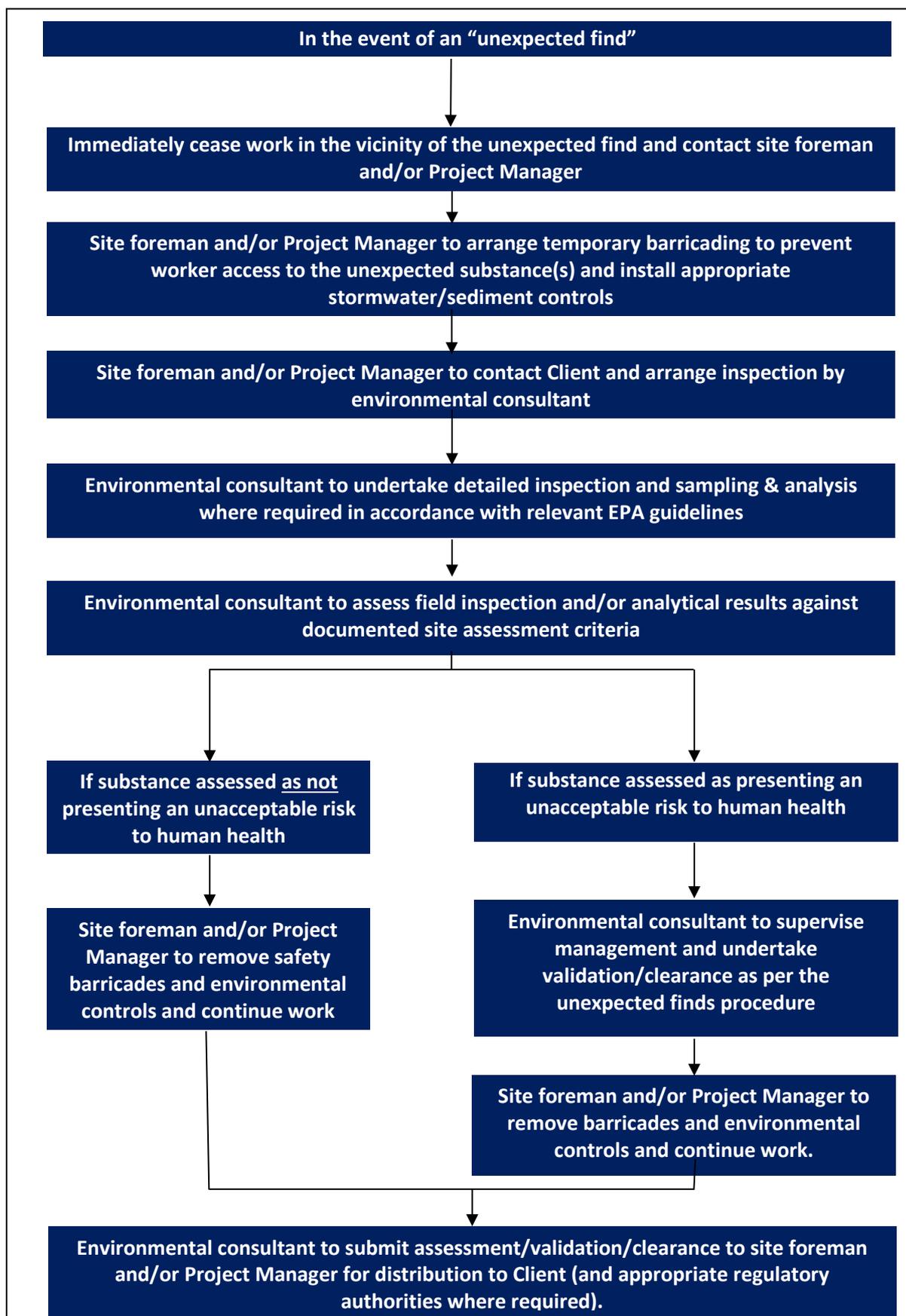


STOP WORK & contact the Site Foreman



do not restart working before the area has been investigated  
and cleared by an Environmental Consultant

## Appendix B Unexpected Finds Protocol Flowchart



## Appendix C Unexpected Finds Register



## Appendix D SafeWork Asbestos Flowchart



# Managing asbestos in or on soil

March 2014

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**Disclaimer**

This publication may contain work health and safety and workers compensation information. It may include some of your obligations under the various legislations that WorkCover NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.

Information on the latest laws can be checked by visiting the NSW legislation website [legislation.nsw.gov.au](http://legislation.nsw.gov.au)

This publication does not represent a comprehensive statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

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## 1. Introduction

This guide provides general guidance on the assessment and management of asbestos in soil. Managing asbestos in soil has implications for the current and future occupants of the land and/or any workers employed on the site.

The guidance provided in this document applies principally to legacies from poor historical onsite management of asbestos materials, and not to illegal disposal or landfilling activities related to waste generated offsite.

There are other mechanisms for managing:

- emergency situations – eg natural disasters, fires
- naturally-occurring asbestos
- management of derelict mine sites
- asbestos contamination in waste or recycled materials.

Advice relevant to these situations may be found in the citations in section 14 below.

A range of asbestos materials can be found at different residential properties, workplaces, or other sites. Depending on the type of material and its location several regulatory regimes can be relevant.

The objective of the approach outlined here is to ensure that proportionate and practicable controls are applied in accordance with regulatory requirements and in a manner commensurate with actual risk<sup>1</sup>.

The principles underlying the guidance in this document are those endorsed by the NSW Heads of Asbestos Coordination Authorities (HACA) and contained in the *NSW Asbestos Blueprint (2011)*. Work health and safety, land-use planning and environmental legislation, and the amended *National environment protection (Assessment of site contamination) measure 1999 (April 2013)* are referenced where they apply.

Terminology consistent with industry standards has been used wherever possible.

## 2. Human health risk from asbestos in or on soil

Asbestos only poses a risk to human health when elevated levels of asbestos fibres are breathed in.

The likelihood of exposure occurring depends upon the potential for the asbestos material to release fibres, whether the asbestos material is contained or covered, and any operational control measures or personal protective equipment which have been applied to limit the generation and/or inhalation of airborne fibres.

Non-friable asbestos, previously referred to as 'bonded asbestos', in sound condition represents a low human health risk. However, friable asbestos materials or damaged, crumbling bonded asbestos, have the potential to generate, or be associated with, free asbestos fibres and therefore must be carefully managed to minimise the release of asbestos fibres into the air.

<sup>1</sup> The pragmatic approach described in the Western Australia Department of Health's *Guidelines for the assessment, remediation and management of asbestos-contaminated sites in Western Australia (2009)* has been particularly helpful.

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### 3. Factors that influence how asbestos in soil is managed

The site history and information about how it came to be contaminated with asbestos provide useful insight into the nature of the issue and what further information may be needed. The principal considerations in determining how to manage asbestos in soil include:

- the form of the asbestos containing material, and how readily it generates airborne fibres
- the extent or scale of asbestos contamination on the property
- whether the asbestos is predominantly on the surface or is buried at depth
- the current and possible future uses of the affected land and whether these uses may materially affect the risk posed from the asbestos containing material.

These factors are considered in more detail in the following sections. If there is any uncertainty in how to assess these factors, it is recommended that independent expert advice is sought (see section 10, below).

### 4. Form of asbestos and potential to generate airborne asbestos fibres

The potential for materials containing asbestos to generate airborne asbestos fibres (at which point asbestos may become a human health risk) varies significantly depending upon the form of the asbestos material.

Non-friable asbestos is asbestos bound in a matrix such as cement or resin. 'Fibro' is the most common form of non-friable asbestos. When in a sound condition, the potential for these materials to release fibres is relatively low.

Friable asbestos is usually in the form of loose asbestos that is not bound together. The most common forms of friable asbestos are thermal lagging used on steampipes, boilers, as fire protection, ceiling insulation and the like, and raw asbestos waste from asbestos products manufacturing. Friable asbestos can usually be broken up or crumbled using hand pressure to generate free fibres. If it is disturbed, friable asbestos has the potential to generate significant quantities of airborne fibres, and because of this requires a high level of control.

Schedule B1 of the *National environment protection (Assessment of site contamination) measure 1999 (April 2013)* ([scew.gov.au](http://scew.gov.au)) provides more comprehensive definitions of the various forms of asbestos and how to identify them. Independent expert advice should be sought (see section 10, below) if it is not clear what form of asbestos is present.

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## 5. Assessing and managing 'non-friable' asbestos ('fibro') in or on soils

Often fragments of bonded asbestos material such as fibro are present in or on the soil surface as a result of incomplete clean-up following the demolition of structures that contained asbestos cement products. Where asbestos material is buried throughout the soil stratum (below 10cm) as a result of onsite disposal of demolition wastes, the approach outlined in section 7 should be applied.

Where fragments of non-friable asbestos (eg fibro cement) are identified on the soil surface, then the fragments may be removed by hand-picking, tilling or screening (applying suitable work health and safety practices). A fact sheet *How to deal with asbestos fibro in soil at home* (catalogue no. WC01254) provides advice to homeowners on how to manage small quantities of fibro sheet and fragments found at home. A grid pattern should be applied to ensure a structured and systematic approach to assessment and removal.

Upon completion, no visible asbestos fragments should be present on the surface. Where practicable, the top 10cm of wetted soil should be gently raked to expose any residual asbestos fragments. The collected material should be securely wrapped in plastic sheeting and taken to an appropriate landfill (see section 8, below).

If the site is a workplace (as defined in the work health and safety legislation), only workers who have been appropriately trained in asbestos removal techniques, that include identification, safe handling and suitable control measures, may conduct asbestos removal work or asbestos related work at a workplace. Safe Work Australia has published *How to safely remove asbestos code of practice (2011)* which provides additional information on safety standards when removing asbestos.

For non-friable asbestos totalling greater than the equivalent of 10 square metres of fibro sheet or fragments, only a class A or B asbestos removal licence holder may conduct the asbestos removal work. If there is uncertainty about the quantity of asbestos material, a licensed removalist must be engaged.

All workers involved in removing fragments of non-friable asbestos constituting a total of greater than 10 square metres of fibro, must hold current certification showing that they have successfully completed the approved non-friable removal course.

Soil sampling for the detection of asbestos fibres released from fragments of non-friable asbestos such as fibro is not required where the non-friable asbestos product is in good condition – ie it is not weathered or damaged and is unlikely to release fibres unless carelessly handled.

For more complex sites, the *National environment protection (Assessment of site contamination) measure 1999 (April 2013)* identifies criteria for assessment and remediation of non-friable asbestos in soil. Independent expert advice should be used when applying these quantitative measures (see section 10, below).

For further information on management techniques for non-friable asbestos, see the *Management of asbestos in the non-occupational environment* (enHealth 2005) and *Public health and contamination of soil by asbestos cement material 2010* (WA Department of Health 2010).

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## 6. Assessing and managing ‘friable’ asbestos in or on soil

If friable asbestos is identified in or on soil, all the following actions are recommended:

- isolate and secure the area by installing warning signs and a temporary barricade (eg marker tape) around the affected area to prevent anyone from accidentally disturbing the materials and generating airborne asbestos fibres
- to minimise the release of fibres into the air keep soil damp (but not flooded); and, if it is safe to do so, cover the area with plastic sheeting
- engage an independent expert (see Section 10, below) as soon as practicable to provide specialist advice on how to manage the situation.

In NSW, only class A asbestos removal licence holders are permitted to conduct asbestos removal work or asbestos related work that involves friable asbestos. All workers involved in friable asbestos removal work must hold current certification in relation to the approved friable removal course<sup>2</sup>.

Where friable asbestos is present only a licensed asbestos assessor may undertake air monitoring, risk assessments and issue clearance certificates for removal work.

The *National environment protection (Assessment of site contamination) measure 1999 (April 2013)* identifies criteria for assessment and remediation of friable asbestos in soil. Independent expert advice should be used when applying these quantitative measures (see section 10, below).

## 7. Asbestos materials buried at depth in soil

Asbestos only presents a risk if fibres may become airborne and breathed in. Where non-friable or friable asbestos is present in soil at depth (greater than 0.5 metres below the soil surface), the asbestos material should not be disturbed unless it is for the purpose of site remediation, redevelopment or site management. Any remediation work should be conducted in a controlled manner in accordance with protocols for contaminated sites assessment and management<sup>3</sup>.

For sites where asbestos is found at depths between 10cm and 0.5 metres, a site-specific assessment should be undertaken to determine an appropriate management strategy. For guidance on assessment methods, refer to Western Australia’s Department of Health’s *Management of small-scale low-risk soil asbestos contamination (2009)* and *Guidance note on identification, assessment and management of asbestos contamination in regional public areas (2011)*.

For more complex sites, where asbestos is distributed throughout the soil stratum, the *National environment protection (assessment of site contamination) measure 1999 (April 2013)* identifies criteria for asbestos in soil that are unlikely to generate elevated levels of airborne asbestos. These criteria provide a useful yardstick for assessment and clean-up of more complex sites that contain significant quantities of buried asbestos. Independent expert advice should be used when applying these quantitative measures (see section 10, below).

It is important to ensure that owners and future purchasers are aware of the presence of asbestos so that they can apply appropriate precautions if/when the land is disturbed or redeveloped. In NSW, therefore, the presence of buried asbestos at concentrations above the *National environment protection (Assessment of site contamination) measure 1999 (April 2013)* criteria, should be noted on the section 149 planning certificate issued under the *Environmental Planning and Assessment Act 1979* ([legislation.nsw.gov.au](http://legislation.nsw.gov.au)) or be captured on the land title.

Implementation of an asbestos management plan or environmental management plan can aid in the management of the risks associated with any asbestos that remains on a site.

Information that could be included in a management plan is available in Appendix E of WA Health’s *Guidelines for the assessment, remediation and management of asbestos-contaminated sites in Western Australia – May 2009* ([public.health.wa.gov.au](http://public.health.wa.gov.au)).

<sup>2</sup> Class A asbestos removal licence: remove friable asbestos (catalogue no. WC03527) [workcover.nsw.gov.au](http://workcover.nsw.gov.au)

<sup>3</sup> For more information on contaminated sites assessment and management protocols, please refer to the *Guidelines for the NSW site auditor scheme (2nd Edition) (DEC 2006)* [epa.nsw.gov.au](http://epa.nsw.gov.au) and the *National environment protection (Assessment of site contamination) measure 1999 (NEPC 2013)* [scew.gov.au](http://scew.gov.au)

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## 8. Management of asbestos waste

There are regulatory requirements under clause 42 of the *Protection of the Environment Operations (Waste) Regulation 2005* that apply to the management of asbestos waste, including:

- Waste must be stored on the premises in an environmentally safe manner.
- Non-friable asbestos material must be securely packaged at all times.
- Friable asbestos material must be kept in a sealed container.
- Asbestos-contaminated soil must be wetted down.
- All asbestos waste must be transported in a covered, leak-proof vehicle.
- Asbestos waste must be disposed of at a landfill site that can lawfully receive this waste. Always contact the landfill beforehand to find out whether asbestos is accepted and any requirements for delivering asbestos to the landfill.
- It is illegal to dispose of asbestos waste in domestic garbage bins.
- It is also illegal to re-use, recycle or dump asbestos waste.

## 9. Regulation of asbestos in soil under the *Contaminated Land Management Act 1997* and reporting requirements under section 60

In general, the presence of asbestos does not warrant that a site be notified to the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997* (CLM Act).

Sites may be regulated under the CLM Act where the EPA determines that there is 'significant contamination' of land, such as where the scale and nature of the contamination is giving rise to actual or potential harm to human health or the environment. This could occur where there are elevated levels of asbestos fibres in air and the responsible party is not addressing the source of the risk.

Examples of such regulated sites may include former asbestos manufacturing sites (eg James Hardie) and/or their asbestos waste disposal sites or large emplacements of friable material such as thermal lagging from power stations. These sites should be notified to the EPA under section 60 of the CLM Act and, following assessment, may be subsequently regulated by the EPA.

Incidents of illegal dumping, or sites that contain non-friable asbestos material (such as fibro) do not need to be reported to the EPA under section 60 of the CLM Act as these would be managed under the framework outlined in the sections above. Incidents of illegal dumping can be reported to the local council or to EPA's Environment Line (13 15 55).

## 10. Obtaining independent expert advice on asbestos in soil

The assessment of asbestos in soil should only be conducted by a competent person who has acquired through training, qualification or experience, the knowledge and skills to identify, investigate and assess asbestos and to develop appropriate risk management strategies.

If occupational hygienists are engaged to provide advice, they should:

- be certified as a full member of the Australian Institute of Occupational Hygienists Incorporated
- have experience in relation to asbestos identification, handling and disposal
- have current professional indemnity insurance.

WorkCover's website contains listings of licensed asbestos assessors and licensed asbestos removalists.

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Where friable asbestos is present, it is a legal requirement that only a WorkCover Licensed Asbestos Assessor may undertake air monitoring and risk assessments, and issue clearance certificates for removal work.

The testing of all samples must be undertaken at a laboratory accredited by [nata.asn.au](http://nata.asn.au) (or its mutual recognition agreement partners).

For the appropriate classification of asbestos waste, the competent person should be independent and have previous experience in classifying waste in accordance with the *Waste classification guidelines* and the *Protection of the Environment Operations Act 1997*.

## 11. Relevant Government Agencies

The local council may be contacted where asbestos in or on soil is found on a residential or non-workplace property. Local councils can provide advice on planning requirements, information on land restrictions or the existence of other information about a particular parcel of land, and details of the appropriate facilities for receiving asbestos-contaminated waste.

The EPA should be contacted where asbestos is found on a licensed premises (under the *Protection of the Environment Act 1997*), public land, or where the contamination may be considered significant under the CLM Act (see section 9). The EPA may also provide advice on the transport and disposal of asbestos waste materials.

WorkCover should be contacted for asbestos identified in or on soil at a workplace or if there are questions or concerns about asbestos removalists or asbestos remediation works.

The *Asbestos blueprint* (catalogue no. WC03508) ([workcover.nsw.gov.au](http://workcover.nsw.gov.au)) provides a complete list of roles and responsibilities of government agencies.

## 12. Additional guidance on the assessment and management of asbestos in or on soil

- *National environmental protection (Assessment of site contamination) measure 1999*, Schedules B1 and B2, NEPC (2013) [scew.gov.au](http://scew.gov.au)
- *Guidelines for the assessment, remediation and management of asbestos-contaminated sites in Western Australia – May 2009*, Western Australia Health (2009) [public.health.wa.gov.au](http://public.health.wa.gov.au)
- *Public health and contamination of soil by asbestos cement material 2010*, Environmental health guideline Western Australia Health (2010) [public.health.wa.gov.au](http://public.health.wa.gov.au)
- *Asbestos: A guide for householders and the general public – May 2012*, enHealth (2012) [health.gov.au](http://health.gov.au)
- *Management of asbestos in the non-occupational environment*, enHealth (2005) [health.gov.au](http://health.gov.au)
- *How to safely remove asbestos code of practice*, Safe Work Australia (2011) [workcover.nsw.gov.au](http://workcover.nsw.gov.au)

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## 13. Further advice or assistance

- NSW Heads of Asbestos Coordination Authorities (HACA)  
Ph. 13 10 50 [workcover.nsw.gov.au](http://workcover.nsw.gov.au)

### Information for Homeowners and Renovators

- NSW Government – *How to deal with asbestos in soil at home* (catalogue no. WC01254)
- NSW Government – *Fibro and asbestos: A renovator and homeowner's guide* (catalogue no. WC00315)
- NSW Government – *How to safely remove asbestos: code of practice* (catalogue no. WC03561)
- Asbestos Awareness [asbestosawareness.com.au](http://asbestosawareness.com.au)

### Guidance on selecting an environmental consultant

- [epa.nsw.gov.au](http://epa.nsw.gov.au)

### Testing laboratories

- Australian National Association of Testing Authorities (NATA) [nata.asn.au](http://nata.asn.au) Ph. 9736 8222

### Find an asbestos license holder asbestos and demolition license holder

- Search [workcover.nsw.gov.au](http://workcover.nsw.gov.au)

## 14. Information on related topics

### Safely disposing of asbestos waste

- NSW EPA, Waste and Resource Recovery [epa.nsw.gov.au](http://epa.nsw.gov.au)
- NSW EPA Environment Line Ph. 13 15 55

### Information on Fire Damaged Sites with Asbestos

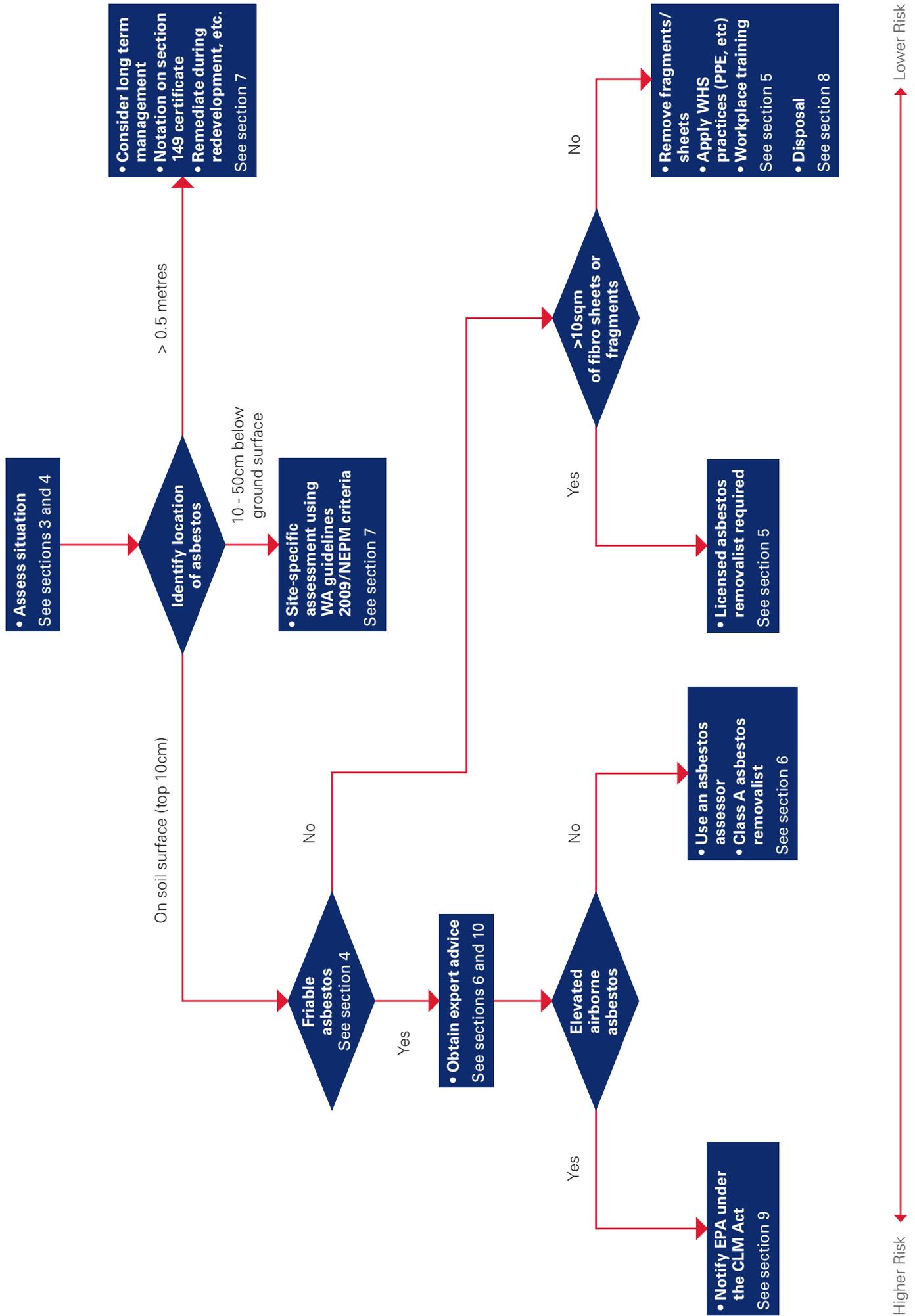
- NSW EPA, Waste and Resource Recovery [epa.nsw.gov.au](http://epa.nsw.gov.au)
- NSW EPA Environment Line Ph. 13 15 55

### James Hardie legacy sites

- NSW EPA, Contaminated Sites [epa.nsw.gov.au](http://epa.nsw.gov.au)
- NSW EPA Environment Line Ph. 13 15 55

### Information on mine sites and naturally occurring asbestos

- Derelict Mines Program Ph. 1300 736 122 [dpi.nsw.gov.au](http://dpi.nsw.gov.au)
- NSW EPA Environment Line Ph. 13 15 55 [epa.nsw.gov.au](http://epa.nsw.gov.au)
- NSW Government WorkCover Authority of NSW, Work Health and Safety, Asbestos Ph. 13 10 50 [workcover.nsw.gov.au](http://workcover.nsw.gov.au)
- NSW Ministry of Health. Contact a public health unit Ph. 1300 066 055 [health.nsw.gov.au](http://health.nsw.gov.au)







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# ASBESTOS AND DEMOLITION CHECKLIST

OCTOBER 2016

Completed by

Date

Time

Company name

Nominated supervisor

Site address

Contact number

Checklist	WHS Regulation	Yes	No	N/A	Notes/comments
Is the workplace secured from unauthorised access?	298				
Are barricades erected to delineate the asbestos removal area?	469				
Is there adequate signage for asbestos removal work?	469				
Are adequate facilities available for workers (toilets, meal area, drinking water, means to wash hands)?	41				
Is there an adequate first aid kit available?	42				
Is someone trained in first aid?	42				
Is there an emergency plan for the workplace?	43				
Is the designated asbestos supervisor present for friable work?	459 and 529				
Is the designated asbestos supervisor present for non friable work (ie able to arrive at the workplace within 20 minutes)?	459 and 529				
Does the contractor hold the correct licence for the work being undertaken?	485 and 487				

Checklist	WHS Regulation	Yes	No	N/A	Notes/comments
Has licensed asbestos removal work been notified to SafeWork NSW?	142 and 466				
Are work surfaces and access ways clear of debris and trip hazards?	40				
Is there an asbestos removal control plan prepared?	464				
Is the Asbestos Removal Control Plan readily accessible?	465				
Are there arrangements (eg health and safety representative, health and safety committee or other agreed arrangements) to consult with workers on safety matters?	Sections 47 - 49 of the WHS Act				
Have safe work method statements been prepared for high risk construction work?	299				
Is there an asbestos register?	450 and 463				
Has the structure been inspected to determine whether asbestos is present?	451-453				
Do all persons working with asbestos have correct training?	460				
Do all workers have construction induction cards?	316				
Is plant inspected on a regular basis?	213				
Do workers have high risk work licences (if required)?	81				
Is correct personal protective equipment provided, fit tested, and used?	44				
Have all services been disconnected (ie electrical, gas, water, fire)?	163				
Is dust generated by demolition activity being controlled?	35				
If air monitoring is undertaken, is it done by a competent person?	475 and 482				
Are workers prevented from falling through open penetrations and unprotected edges?	78				
Are exclusion zones or overhead protection in place to stop building debris from falling on workers below?	54				
Is a compliant scaffold provided?	225				
Has the handover certificate been provided for the scaffold?	225				

Checklist	WHS Regulation	Yes	No	N/A	Notes/comments
For a Class A Friable Asbestos Removal License holder, is there a current certified safety management system in place?	493				
Are arrangements in place for a clearance inspection to be carried out, after asbestos is removed, by an independent licensed assessor or competent person?	473				
Is asbestos waste and contaminated PPE planned to be disposed of as soon as practicable at a site authorised to accept asbestos waste?	472				
Has notification of asbestos removal been given to the neighbours?	467				
Are there facilities available to decontaminate the following: asbestos removal area, plant used in the asbestos removal area, workers carrying out asbestos removal work, other persons who have access to the asbestos removal area?	471				
Does the licence holder have systems in place for decontamination and annual maintenance of Class H asbestos vacuum cleaners?	35				
Has health monitoring for workers been undertaken by a licensed medical practitioner?	435-444				

#### Notes

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# Appendix I Community Consultation and Complaints Handling Procedure



# Community Consultation Strategy and Complaints Handling Procedure

## Edge Estate

### Frasers Property Industrial

Level 15, 180 George Street  
Sydney NSW 2000

Prepared by:

**SLR Consulting Australia**

SLR Project No.: 630.031953.00001

19 June 2025

Revision: 0.4

## Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
0.1	4 November 2024	Stephanie Skordas	Stephen Shoemith	Stephen Shoemith
0.2	5 November 2024	Stephanie Skordas	Esther Diffey	Esther Diffey
0.3	26 May 2025	Stephanie Skordas	Esther Diffey	Esther Diffey
0.4	19 June 2025	Stephanie Skordas	Esther Diffey	Esther Diffey

## Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Frasers Property Industrial (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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## Appendices

### Appendix A Stakeholders

#### A.1 Stakeholder Analysis

### Appendix B Key messages

#### B.1 Key messages



**Appendix C Landholder and key stakeholder register**

C.1 Landholder and key stakeholder register (to be inputted)

**Appendix D Record of contact form**

D.1 Record of Contact Form

**Appendix E Consultation register and supporting evidence**

E.1 Consultation Register

E.2 Supporting evidence



## Acronyms and Abbreviations

AA1000SES	AccountAbility 1000 Stakeholder Engagement Standard
ADR	Alternative Dispute Resolution
CCSCHP	Community Consultation Strategy and Complaints Handling Procedure
CCLR	Communications and Community Liaison Representative
CEMP	Construction Environmental Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CRM	Customer Relationship Management
DPHI	Department of Planning, Housing & Infrastructure
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
ER	Environmental Representative
FAQ	Frequently Asked Questions
IAP2	International Association of Public Participation
ICNG	Interim Construction Noise Guideline
LGA	Local Government Area
M12	Motorway 12
MRP	Mamre Road Precinct
NRAR	Natural Resources Access Regulator
NSW	New South Wales
RtS	Response to Submissions
SSD	State Significant Development
SLR	SLR Consulting Australia
TfNSW	Transport for NSW
TMP	Traffic Management Plan



## 1.0 Project overview

### 1.1 Purpose of this document

SLR Consulting Australia (SLR) has been engaged by Frasers Property Industrial (Frasers) to prepare a Community Consultation Strategy and Complaints Handling Procedure (CCSHP) to support a Construction Environmental Management Plan (CEMP), to address the planning, construction and operational stages of Edge Estate (the Project) – a proposed fourteen warehouses and logistics hub to be located at 141-251 Aldington Road, Kemps Creek.

This CCSHP applies to the works and operations undertaken by Frasers and provides the following:

- Identification of stakeholders to be consulted during the CCSHP implementation including directly and indirectly affected community, key stakeholders, and relevant agencies/organisations.
- Engagement tools and activities to support the construction program, including notification timeframes to disseminate project updates to the community and key stakeholders and provide opportunities for enquiries and feedback.
- Enquiry and complaint management protocols.
- Monitoring, reporting, and feedback mechanisms.

### 1.2 Project objectives and benefits

The objectives of the Project were set out in Section 3.1 of the EIS for SSD-17552047 and are outlined below:

- Construction of a new warehouse and logistics hub comprising of fourteen industrial allotments and eight warehouse or distribution centres with a total building area of 153,343m<sup>2</sup>
- Provide an employment-generating land use and improve access to jobs for residents of the immediate community and wider locality
- Design the Project to achieve a viable economic return
- Ensure minimal environmental and amenity impact by providing suitable mitigation measures where required, to minimise any unforeseen impacts arising in the future
- Ensure ongoing compliance with all operational legislative requirements
- Ensure development is compatible with surrounding development and the regional and local context.

### 1.3 Project location

The Project site is located at 141-251 Aldington Road, Kemps Creek (Lot 33 DP258949, Lot 34 DP258949, Lot 10 DP253503 and Lots 24-28 DP255560). The entire Site comprises a total area of approximately 63 hectares and is located within the Penrith Council Local Government Area (LGA) as well as within the Mamre Road Precinct (MRP). The surrounding locality remains rural in nature, however, through recent approvals within the MRP and the construction of the M12 Motorway and Western Sydney International Airport. A site location and context map of the amended site is provided in **Figure A**.



**Figure A: Site location and context map**



### 1.3.1 Local context

The Edge Estate development is located at 141-251 Aldington Road in Kemps Creek, within the Penrith City Council Local Government Area (LGA) and the Mamre Road Precinct (MRP). This area is undergoing significant transformation from its traditional rural and semi-industrial land use towards a more intensive industrial and logistics-focused development. Recent urban planning initiatives in the MRP aim to establish the area as a major industrial hub that supports logistics operations, warehousing, and employment-generating land uses to meet the demands of the growing Western Sydney region.

The Penrith LGA encompasses a diverse population, with community priorities that include increased employment opportunities, infrastructure improvements, and environmental quality. Local and state planning frameworks recognise the need for projects that both stimulate economic activity and sustain environmental resilience, given Penrith's evolving demographic and economic role within Greater Sydney. The population of the Penrith LGA is projected to grow steadily over the coming years, underscoring the importance of projects that contribute to the local economy, reduce commute distances, and generate employment in alignment with Western Sydney's broader economic and urban development strategies.

The site benefits from its proximity to major transport infrastructure, including the M12 Motorway, the Western Sydney Airport, and Mamre Road, which provide critical links for both freight and commuter traffic. Transport for NSW (TfNSW) has engaged with stakeholders to implement a coordinated approach to infrastructure improvements that address both current and future traffic needs, including traffic safety, route efficiency, and potential public transport upgrades. Given the anticipated increase in heavy vehicle movements and logistics activity, attention is being given to traffic management strategies to minimise disruptions to nearby residential and commercial areas.



The project site and its surrounding areas include sensitive environmental features that require careful management to mitigate impacts on local flora and fauna, as well as on local waterways. Planning conditions emphasise the implementation of erosion and sediment controls, air quality measures, and noise management practices. Environmental monitoring and reporting requirements set by the Environmental Protection Authority (EPA) and other regulatory bodies underscore the need for mitigation strategies to minimise construction and operational impacts on the local community and environment. The development's environmental management plan incorporates these measures to address both immediate and long-term environmental considerations, aligning with Penrith's vision of sustainable growth.

## 1.4 Project timeframes and key milestones

The Project is structured to follow a multi-phase approach, addressing planning, construction, and operational stages to align with regional industrial growth timelines. Key milestones include approvals, preparatory works, construction phases, and operational readiness, each involving coordinated stakeholder engagement and compliance with regulatory requirements.

The initial planning and approvals phase has established baseline frameworks for environmental management, traffic management, and community engagement, completed as part of the project's State Significant Development (SSD) consent requirements. This phase also includes public consultations, engagement with local authorities, and coordination with regulatory agencies to ensure alignment with broader planning objectives in the Mamre Road Precinct (MRP) and Western Sydney industrial strategy.

Site preparation works are scheduled to commence following approval of the Construction Environmental Management Plan (CEMP) and associated documentation. These activities will include land clearing, establishment of site facilities, implementation of erosion and sediment controls, and setup of traffic management measures. During this period, contractors will install temporary infrastructure to support safe access for construction personnel and ensure compliance with environmental guidelines.

The primary construction phase is expected to extend over an estimated 18 to 24 months, encompassing civil works, utility installations, and the construction of fourteen (14) warehouse and logistics buildings totalling approximately 153,343 square meters of building area. Milestones within this phase include the completion of foundation works, structural development, utility connections, and compliance inspections, each coordinated to minimise disruption to local traffic and ensure adherence to environmental and safety standards.

The final phase of the project will focus on operational readiness, expected to commence approximately two to three months following the completion of construction. This phase will include final inspections, setup of long-term site management practices, and installation of permanent infrastructure to support 24-hour operational capacity for tenants. Stakeholders will receive final project updates and site information, and ongoing communication channels will be established for operational inquiries and stakeholder engagement.

### 1.4.1 Construction hours

Construction activities, including the delivery of materials to and from the site, will generally occur during standard working hours:

- Monday to Friday: 7:00am – 6:00pm
- Saturday: 8:00am – 1:00pm



No construction works will occur on Sundays or public holidays unless otherwise notified. The proposed operational hours for the completed Project and individual buildings are 24 hours a day, 7 days a week.

Works outside the standard construction hours identified above may only be undertaken in accordance with Condition B41 of the Project's Development Consent. These include:

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

In all cases, the following procedures will be implemented:

- The Community Consultation and Liaison Representative (CCLR) will prepare a draft notification letter for distribution at least five business days prior to any proposed out of hours work.
- Notifications will be provided to all potentially affected receivers at least two business days prior to the works commencing.
- All out of hours work will be recorded in the Consultation Register.
- Where written agreement is required from the Planning Secretary (e.g., for works under clause b), such agreement must be obtained before proceeding and included in project records.

## 1.5 State Significant Development (SSD) Community Consent Conditions

The method, triggers, timing of consultation, notification and complaints, and queries handling required during the development and arising from the requirements of the relevant SSD-17552047 consent conditions are outlined in **Table A**.

**Table A: Relevant Conditions of Consent**

Condition #	Condition Detail	Reference
<b>SSD-17552047</b>		
<b>A41</b>	<p>The Applicant must engage an Environmental Representative (ER) to oversee earthworks and construction of the development. Unless otherwise agreed to by the Planning Secretary, earthworks and construction of the development must not commence until an ER has been approved by the Planning Secretary and engaged by the Applicant. The approved ER must:</p> <ol style="list-style-type: none"> <li>a) be a suitably qualified and experienced person who was not involved in the preparation of the EIS, ADR, Submissions Report, and Additional Information for the development and is independent from the design and construction personnel for the development;</li> </ol>	CCSCHP (This report)



Condition #	Condition Detail	Reference
	<ul style="list-style-type: none"> <li>b) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the development;</li> <li>c) consider and recommend to the Applicant any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community;</li> <li>d) consider and recommend to the Applicant any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community;</li> <li>e) review the CEMP required in conditions C2 and C5 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this consent and if so:               <ul style="list-style-type: none"> <li>i. make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or</li> <li>ii. make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary/Department for information or are not required to be submitted to the Planning Secretary/Department);</li> </ul> </li> <li>f) regularly monitor the implementation of the CEMP, including the ESCP to ensure implementation is being carried out in accordance with the document and the terms of this consent;</li> <li>g) as may be requested by the Planning Secretary, help plan, attend or undertake audits of the development commissioned by the Department including scoping audits, programming audits, briefings, and site visits;</li> <li>h) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints;</li> <li>i) provide advice to the Applicant on the management and coordination of earthworks and construction on the site with adjoining sites in the Mamre Road Precinct in relation to construction traffic management, air quality, erosion and sediment control, stormwater management and noise;</li> <li>j) attend the Mamre Road Precinct Working Group (see condition A44) in a consultative role in relation to the environmental performance of the development;</li> <li>k) review the monthly audits of the erosion and sediment controls undertaken by the CPESC in accordance with condition B25; and</li> <li>l) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading 'Environmental Representative Monthly Reports'. The Environmental Representative Monthly Report must be submitted within seven calendar days following the end of each month for the duration of the ER's</li> </ul>	



Condition #	Condition Detail	Reference
	engagement for the development, or as otherwise agreed with the Planning Secretary.	
<b>A42</b>	<p>The Applicant must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in condition A41 (including preparation of the ER monthly report), as well as:</p> <ul style="list-style-type: none"> <li>a) the complaints register (to be provided on a daily basis); and</li> <li>b) a copy of any assessment carried out by the Applicant of whether proposed work is consistent with the consent (which must be provided to the ER before the commencement of the subject work).</li> </ul>	<p>CCSHP (This report) Section 3.1 Section 6.3.1</p>
<b>A44</b>	<p>Within three months of the date of this consent and until all components of the development are constructed and operational, the Applicant must join the working group established by relevant consent holders in the Mamre Road Precinct (MRP), to the satisfaction of the Planning Secretary. The purpose of the working group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts. The working group must:</p> <ul style="list-style-type: none"> <li>a) comprise at least one representative of the Applicant, the Applicant's ER, and relevant consent holders in the MRP;</li> <li>b) meet periodically throughout the year to discuss, formulate and implement measures or strategies to improve monitoring, coordination of the approved industrial developments in the MRP;</li> <li>c) regularly inform Council, TINSW, Sydney Water and the Planning Secretary of the outcomes of these meetings and actions to be undertaken by the working group;</li> <li>d) review the performance of approved industrial developments in the MRP and identify trends in the data with respect to cumulative construction traffic, air quality, erosion and sediment control, noise, stormwater management and waterway health objectives under the MRP DCP;</li> <li>e) review community concerns or complaints with respect to environmental management;</li> <li>f) identify interim traffic safety measures to manage construction traffic and how these measures will be coordinated, communicated, funded and monitored in the MRP; and</li> <li>g) provide the Planning Secretary with an update and strategies, if a review under subclause (d) and (e) identifies additional measures and processes are required to be implemented by the working group.</li> </ul>	<p>CCSHP (This report) Section 3.1</p>
<b>B1</b>	<p>Prior to the commencement of earthworks and construction of each warehouse building, the Applicant must prepare a Construction Traffic Management Plan (CTMP) for the development to the satisfaction</p>	<p>CCSHP (This report) Section 3.1</p>



Condition #	Condition Detail	Reference
	<p>of the Planning Secretary. The CTMP must form part of the CEMP required by conditions C2 and C5 and must:</p> <ul style="list-style-type: none"> <li>a) be prepared by a suitably qualified and experienced person(s);</li> <li>b) be prepared in consultation with Council and TfNSW;</li> <li>c) incorporate any traffic safety outcomes and actions from the MRP working group;</li> <li>d) outline traffic management and contingency measures to be implemented for the site to: <ul style="list-style-type: none"> <li>i. ensure access and road safety and network efficiency is maintained;</li> <li>ii. manage cumulative construction traffic from other concurrent construction works and traffic associated with operational facilities within the Mamre Road Precinct;</li> </ul> </li> <li>e) detail heavy vehicle routes, access and parking arrangements including any temporary construction access on Aldington Road constructed under condition B3;</li> <li>f) include a Driver Code of Conduct to: <ul style="list-style-type: none"> <li>i. minimise the impacts of earthworks and construction on the local and regional road network;</li> <li>ii. minimise conflicts with other road users;</li> <li>iii. minimise road traffic noise;</li> <li>iv. ensure truck drivers use specified routes;</li> </ul> </li> <li>g) include a program to monitor the effectiveness of these measures; and</li> <li>h) detail procedures for notifying residents and the community (including local schools and places of worship), of any potential disruptions to routes.</li> </ul>	
<b>B40</b>	<p>The Applicant must comply with the hours detailed in Table 2. Earthworks and construction Monday – Friday 7am to 6pm Saturday 8am to 1pm Operation Monday – Sunday 24 hours</p>	<p>CCSCHP (This report) Section 1.4.1</p>
<b>B41</b>	<p>Works outside of the hours identified in condition B40 may be undertaken in the following circumstances:</p> <ul style="list-style-type: none"> <li>a) works that are inaudible at the nearest sensitive receivers;</li> <li>b) works agreed to in writing by the Planning Secretary;</li> <li>c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or</li> <li>d) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.</li> </ul>	<p>CCSCHP (This report) Section 1.4.1</p>
<b>B43</b>	<p>Prior to commencement of earthworks and construction of each warehouse building in the development, the Applicant must prepare a Construction Noise Management Plan for the development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with conditions C2 and C5 and must:</p>	<p>CCSCHP (This report) Section 6.3</p>



Condition #	Condition Detail	Reference
	<ul style="list-style-type: none"> <li>a) be prepared by a suitably qualified and experienced noise expert;</li> <li>b) be approved by the Planning Secretary prior to the commencement of earthworks and construction;</li> <li>c) describe procedures for achieving the noise management levels in the ICNG (DECC, 2009) (as may be updated or replaced from time to time);</li> <li>d) describe the measures to be implemented to manage high noise generating works such as rock breaking and piling, in close proximity to sensitive receivers;</li> <li>e) include strategies that have been developed with the community for managing high noise generating works;</li> <li>f) describe the community consultation undertaken to develop the strategies in condition B43(e);</li> <li>g) detail the timing, duration and frequency of monitoring to be undertaken to demonstrate the earthworks and construction meet the construction noise management levels in the ICNG; and</li> <li>h) include a complaints management system that would be implemented for the duration of earthworks and construction.</li> </ul>	
<b>C3</b>	<p>As part of the CEMP required under condition C2 of this consent, the Applicant must include the following:</p> <ul style="list-style-type: none"> <li>a) Construction Traffic Management Plan (see condition B1);</li> <li>b) Erosion and Sediment Control Plan (see condition B24);</li> <li>c) Dam Decommissioning Plan (see condition B39);</li> <li>d) Construction Noise Management Plan (see condition B43);</li> <li>e) Construction Air Quality Management Plan (see condition B51);</li> <li>f) Asbestos Management Plan (see condition B68);</li> <li>g) Unexpected Finds Procedure (see condition B69); and</li> <li>h) Community Consultation and Complaints Handling Procedure</li> </ul>	CCSHP (This report)
<b>C6</b>	<p>As part of the CEMP required by condition C5 of this consent, the Applicant must include the following:</p> <ul style="list-style-type: none"> <li>a) Construction Traffic Management Plan (see condition B1);</li> <li>b) Erosion and Sediment Control Plan (see condition B24);</li> <li>c) Construction Noise Management Plan (see condition B43);</li> <li>d) Construction Air Quality Management Plan (see condition B51); and</li> <li>e) Community Consultation and Complaints Handling Procedure.</li> </ul>	CCSHP (This report)
<b>C21</b>	<p>At least 48 hours before the commencement of earthworks of the development and for the life of the development, the Applicant must:</p> <ul style="list-style-type: none"> <li>a) make the following information and documents (as they are obtained or approved) publicly available on its website: <ul style="list-style-type: none"> <li>i. the documents referred to in condition A2 of this consent;</li> </ul> </li> </ul>	CCSHP



Condition #	Condition Detail	Reference
	<ul style="list-style-type: none"> <li>ii. all current statutory approvals for the development;</li> <li>iii. all approved strategies, plans and programs required under the conditions of this consent, with the exception of the document described under condition B73;</li> <li>iv. regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;</li> <li>v. 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;</li> <li>vi. a summary of the current stage and progress of the development;</li> <li>vii. contact details to enquire about the development or to make a complaint;</li> <li>viii. a complaints register, updated monthly;</li> <li>ix. the Compliance Report of the development;</li> <li>x. any other matter required by the Planning Secretary; and</li> <li>xi. keep such information up to date, to the satisfaction of the Planning Secretary.</li> </ul>	

## 1.6 Consultation to date

Through the Public Exhibition of the State Significant Development Application (SSDA) in November 2021, a total of 12 submissions were received. This included eleven submissions from government agencies and one submission from Dexus with no submissions from members of the public received.

Since public exhibition of the SSDA in late-2021, Frasers has undertaken consultation with key relevant stakeholders outlined in **Table B**, including:

- Department of Planning and Environment.
- Transgrid.
- Sydney Water.
- Transport for NSW.
- Dexus.
- Atlis.



**Table B: Broader consultation to date**

Stakeholder	Consultation Date(s)	Matters Discussed / Resolved / Unresolved	Disagreements / How Unresolved Matters Are Being Addressed
Dexus	1 December 2021	Drew attention to internal road alignments, infrastructure servicing and drainage design. Noted the importance of measures enabling connection to infrastructure services and roads into the Dexus site. These matters were acknowledged by Frasers and factored into the planning process. No unresolved issues remain.	No disagreements raised. All Dexus input was integrated into the design and engagement process.
TransGrid	Ongoing throughout 2023	Discussions focused on the easement across the western portion of the site, particularly the trunk drainage line designated to be placed within the Transgrid easement under the MRP SSP. Alignment of proposed works within the easement is ongoing. Frasers continues to liaise with Transgrid to resolve technical and access considerations.	Unresolved technical and access matters are being addressed through continued dialogue and design review with Transgrid.
TNSW	Early 2023 and ongoing through LOG-E meetings"	Discussions related to the proposed dedicated freight corridor and traffic implications for the wider MRP. Ongoing coordination through LOG-E meetings has enabled general agreement on corridor design. Some elements related to timing of interface works remain unresolved, with further engagement planned.	Outstanding interface timing matters are being addressed through further consultation within the LOG-E meeting framework.
	June 2025	Draft Construction Traffic Management Plan (CTMP) submission for consultation to satisfy condition B1(b)	The draft CTMP must be updated to address comments from TfNSW and evidence of consultation provided upon request.
CHPR	Ongoing throughout 2025	Discussions relating the estate's stormwater design development, modelling, stormwater schemes and staging.	CHPR's acceptance of the Stormwater Management System Design is obtained.
Penrith City Council (PCC)	12 June 2025	Project introduction and familiarisation meeting to discuss consent conditions requiring PCC's involvement and co-ordination. It was agreed to maintain co-ordination with John Skaf from	No disagreements raised. Consultation is ongoing through co-ordination



Stakeholder	Consultation Date(s)	Matters Discussed / Resolved / Unresolved	Disagreements / How Unresolved Matters Are Being Addressed
		PCC for project status, approvals and updates.	meetings and emails.
Barings	Ongoing throughout 2025	Discussions relating to planning matters and design co-ordination for works at the shared eastern boundary of Edge South, ensuring that the designs of both parties are consistent.	No disagreements raised. All Barings input was integrated into the design and engagement process.
Icon	Ongoing throughout 2025	Discussions relating to planning matters and design co-ordination for works at the shared southern boundary of Edge South ensuring that the designs of both parties are consistent.	No disagreements raised. Fortnight teams meetings involving Frasers and Icon representatives have been organised for ongoing co-ordination of matters.

## 1.7 Summary of engagement outcomes for sub-plans

This section will provide a high-level summary of the key outcomes from engagement activities across each sub-plan once those activities are complete. It will capture primary themes, concerns and suggestions that stakeholders and community members have raised. Additionally, it will assess how this feedback has influenced project planning, especially regarding environmental, social, and economic factors. Any changes to the Project's approach or scope that resulted from stakeholder input will be noted, along with any commitments made to stakeholders and the next steps in engagement actions required. Once all engagement activities are finalised, this section will be updated to reflect specific findings and outcomes.

## 2.0 Community consultation

All community engagement activities prior to and during construction of the Project will be undertaken by Frasers representatives and their engaged contractors on behalf of Frasers.

### 2.1 Approach

This CCSCP has been prepared to include national and international best practice principles and guidelines, including the following:

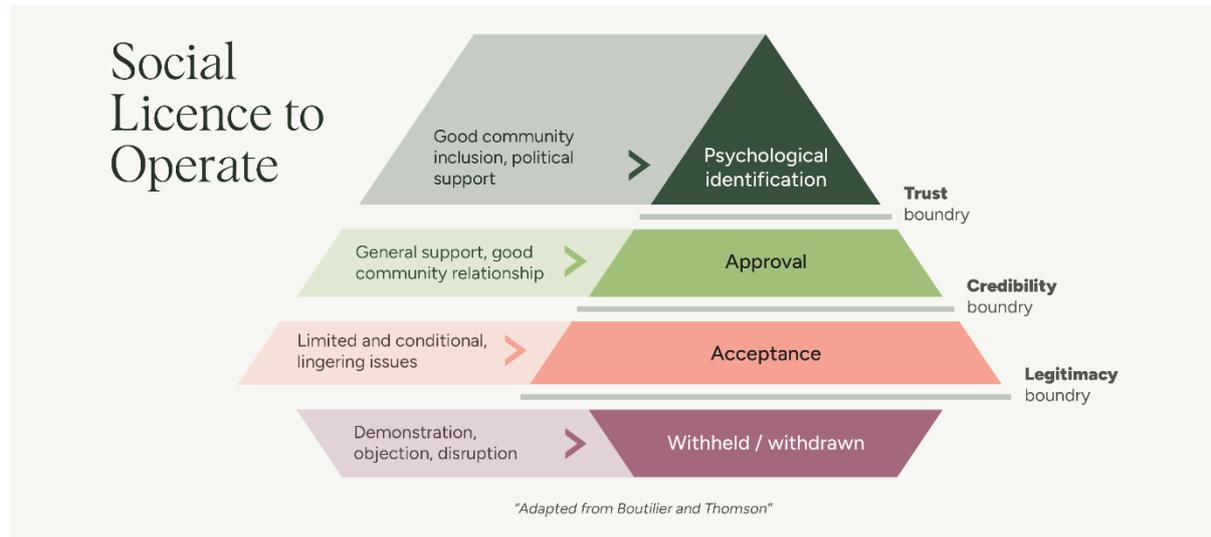
- International Association for Public Participation (IAP2)
- AA1000SES: International standard for stakeholder engagement

In addition, ensuring a Social Licence to Operate is attained and retained throughout the Project's lifecycle is key to the Projects ongoing success. Frasers will have regard to the



community and key stakeholders who may be directly impacted by the Project, and will seek to identify the level of, and ways of, mitigating any impacts and implement agreed mitigation strategies.

**Figure B: Social Licence to Operate, adapted from Boutilier and Thomson**



Additionally, Frasers is committed to delivering community and stakeholder engagement outcomes utilising the following principles at the core of their approach:

- **Clarity** – Communication and engagement will be delivered in a clear and easy to understand manner to ensure the project and all associated works are fully understood by the community and stakeholders.
- **Proactivity** – Consultation and notice shall be given prior to the commencement of works or the undertaking of potentially impactful activities.
- **Transparency** – Communication and engagement will be undertaken in an open and transparent fashion, with information shared between the community and the project team.
- **Accessibility** – Information relating to the project will be accessible via a broad range of mediums and will be made readily available to the community and stakeholders. Several avenues of contact shall be provided for the purposes of enquiry or complaint.

In their communications and consultation with the community and key stakeholders, Frasers and their representatives will always comply with the requirements of the *Privacy and Personal Information Protection Act 1998 (NSW)* and the *Privacy Act 1988 (Cth)*.

### 2.1.1 Key community engagement objectives

The key objectives of this CCSCHP are to:

- reduce construction fatigue and streamline community consultation activities.
- keep the local community and key stakeholders informed of the commencement and progress of works relating to the Project.
- adopt a 'no surprises' approach and educate the community on works, impacts and mitigation methods and benefits.



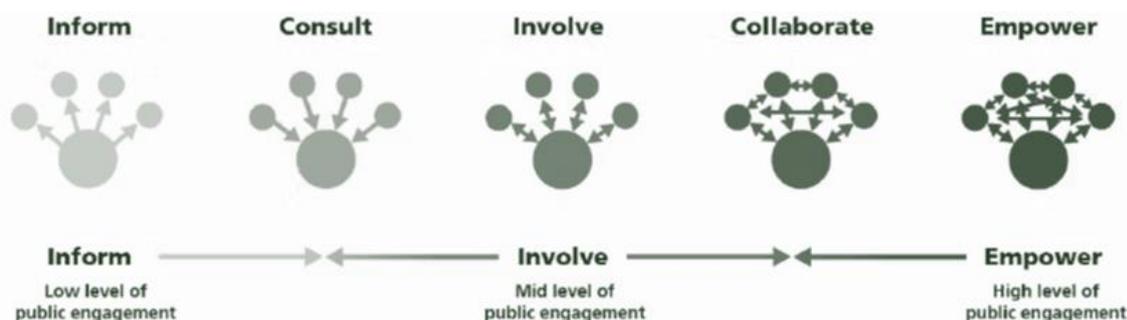
- ensure enquires and complaints received from the community and/or key stakeholders for the duration of the project are addressed and responded to in a timely and effective manner.
- inform nearby sensitive receivers in advance of potential disturbances and events likely to cause impact.
- provide an open communications channel to allow ongoing, collaborative engagement.
- seek opportunities for improvement throughout the Project.
- assist all site staff and contractors to be involved in positive interactions with the community, where required, and maintain Frasers reputation.

The key objectives of this CCSCHP will be monitored, reported and evaluated in accordance with Section 7.0 of this document.

### 2.1.2 IAP2 Core Values

The proposed engagement methodology will follow the principles and values outlined in the International Association of Public Participation’s (IAP2) Quality Assurance Standard. These high-level frameworks and standards outline best-practice expectations of principle, process, and value and provide a consistent model for design and delivery of engagement. The proposed level of engagement for the Project will be to *inform* and *consult* as per the IAP2 Spectrum in **Figure C**.

**Figure C: IAP2 Public Participation Spectrum**



## 2.2 Roles and responsibilities

Roles and responsibilities are key in managing proactive and reactive situations. Key members of the project team will be involved in identifying, acknowledging, managing, and responding to key issues, incidents and potential impacts and opportunities. **Table C** provides an overview of key project roles and responsibilities for the different project phases.

**Table C: Roles and responsibilities**

Role	Contact details	Responsibilities
Communications and Community Liaison Representative	See section 3.2	Outlined in section 2.2.1 below.



<p>Project Manager</p>	<p>Refer Principal Contractor details.</p>	<p>Oversee all aspects of the project, ensuring it stays on time and within budget.</p> <p>Coordinate between various project teams, including design, construction, and community relations.</p> <p>Ensure project objectives, scope, and deliverables are met according to specifications.</p> <p>Attend the Mamre Road Precinct Working Group meetings in a consultative role.</p> <p>Support resolution of community complaints as requested by the Planning Secretary.</p> <p>Assist with audits, inspections, and investigations as required by the Department.</p> <p>Manage project risks, including technical and financial risks.</p> <p>Ensure compliance with contractual obligations, safety, and environmental regulations.</p>
<p>Project Site Engineer</p>	<p>Refer Principal Contractor details.</p>	<p>Supervise on-site construction activities to ensure compliance with design specifications.</p> <p>Monitor the progress of the work and report on any delays or issues encountered.</p> <p>Coordinate with contractors, suppliers, and other technical teams on site.</p> <p>Conduct quality control checks and ensure construction meets required standards.</p> <p>Respond to complaints and community enquiries as referred by the CCLR and support implementation of required actions.</p> <p>Provide timely technical input to assist with the resolution of environmental or construction-related complaints.</p>



		<p>Support the accurate recording of complaints/enquiries in the Consultation Register and verify that mitigation measures have been implemented.</p> <p>Ensure all site work adheres to safety regulations and environmental guidelines.</p>
Safety & Environmental Co-ordinator	Refer Principal Contractor details.	<p>Develop and implement safety and environmental management plans for the project.</p> <p>Ensure compliance with safety regulations and environmental protection standards on-site.</p> <p>Conduct regular safety audits and environmental monitoring to identify potential risks.</p> <p>Investigate incidents and accidents, reporting findings and implementing corrective actions.</p> <p>Work closely with the Independent Environmental Representative to address any environmental issues.</p> <p>Document incident response and community-related environmental issues in the Consultation Register or other reporting templates, as required.</p> <p>Assist the CCLR and Project Manager in developing environmental messaging for the community and stakeholders to ensure clear and accurate communication.</p> <p>Work closely with the Independent ER to address environmental issues raised by stakeholders, including reviewing trends in complaints and identifying actions for improvement.</p>
Independent Environmental Representative	HBI	Monitor and audit the project's environmental compliance independently from the project team.



		<p>Ensure the project adheres to environmental regulations and any specific environmental conditions.</p> <p>Review the monthly community and stakeholder consultation summary prepared by the CCLR.</p> <p>Receive and review the complaints register and consultation data daily</p> <p>Report any non-compliance or environmental risks to regulatory bodies as required.</p> <p>Liaise with the Safety &amp; Environmental Coordinator to provide advice on managing environmental impacts.</p> <p>Review and approve environmental management plans and other related documentation.</p>
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### 2.2.1 Communications and Community Liaison Representative

The Communications and Community Liaison Representative (CCLR) will act as a first point of contact for community members and stakeholders should they have an enquiry or complaint specific to the Project. A project phone number and project reference number will be provided through all collateral to community members to facilitate the ability to submit an enquiry or complaint relating to the Project.

Calls during working hours will be received by the CCLR, calls outside of working hours (6pm – 7am) and on weekends will be recorded via voicemail for action the next business day. The CCLR will record, follow up and respond to enquiries and complaints in accordance with the CCSCHP.

The CCLR will be available for contact by landowners and the community at all reasonable times to answer any questions and address any concerns relating to the project. The CCLR will have up-to-date information on:

- emerging stakeholders
- planned construction activities
- planned traffic arrangements, including any temporary traffic switches
- current landowner discussions with members of staff
- planned community and stakeholder consultation
- complaints or enquiries received
- duties and accountabilities of staff
- commitments to stakeholders made by Frasers.



The CCLR will be responsible for recording, actioning and providing response to comments, queries or complaints received with relation to the construction of the project and will maintain the Consultation Register in accordance with **Section 6 and Section 7** of this strategy.



## 3.0 Engagement methodology

### 3.1 Communication and engagement channels

A range of tools and techniques will be used to inform and engage with the community and stakeholders regarding the Project. **Table D** below provides an overview of the mechanisms to be utilised to regularly inform and consult with the local community and key stakeholders and measures to mitigate potential issues prior to and during construction. This engagement supports the delivery of the Construction Traffic Management Plan (CTMP), in accordance with CoA B1, which requires the CTMP to be prepared in consultation with Council and Transport for NSW (TfNSW), and to incorporate traffic safety outcomes and actions from the Mamre Road Precinct (MRP) Working Group.

**Table D: Communication management and mitigation tools**

Tool/ Technique	Description	Responsibility	Audience	Frequency/ timing	Specifications
<b>Workshop</b>	Workshop to identify opportunities to collaborate and combine community notifications and engagement activities and review complaints handling procedures.	CCLR and Project Manager	MR Working Group	Prior to construction, and as required by the MR Working Group.	Explore the potential to distribute joint communication and host collaborative community information sessions to reduce consultation fatigue.
<b>One-to-one Meetings</b>	Meetings with landowners, community, and stakeholders to notify, discuss or consult on matters, or as requested. Meetings will be held face-to-face, phone or online via Microsoft Teams.	CCLR	Landowners, community, and stakeholders.	As requested, or required on an as needs basis dependant on matters to be discussed and appropriate timing of discussions.	Details and matters to be discussed to be tailored to the purpose and aims of the meeting. Record of conversation (informal) or minutes of meeting (formal) to be recorded, retained by the CCLR, and provided to all attendees following the meetings. Interactions will be included in the Consultation Register and actioned as required.
<b>Meetings</b>	Meetings with relevant key stakeholders (agencies	CCLR and/or Project Manager	Relevant key Stakeholders.	As required.	Meetings will be held as required to address matters relevant to specific



Tool/ Technique	Description	Responsibility	Audience	Frequency/ timing	Specifications
	etc.) to discuss matters relevant to them, including opportunities to reduce landowners and community impact and CTMP development.				agencies including the satisfaction of conditions of consent. These shall be undertaken either directly by Frasers or facilitated by the CCLR at Frasers' discretion.  Meetings may address traffic safety, cumulative impacts, and consultation under the CTMP. These may be initiated by Frasers or facilitated through the MRP Working Group.
<b>Agency/Key Stakeholder Notification</b>	Project notifications would be provided to specific receivers identified as having a high interest in the project or directly related to traffic management and CTMP coordination.	CCLR and/or Contractor	Local Council, TNSW Agencies	As required for the project duration.	Provision of project notification via email. Notifications relating to CTMP must be documented in the Consultation Register and, where relevant, integrated with MRP Working Group updates.
<b>Notification Letterbox Drops / Emails</b>	Project notifications would be provided to specific receivers identified as being potentially affected by construction. This may be undertaken in tandem with door knocking.	CCLR and/or Contractor	Landowners and occupiers of the immediate area.	As required for the project duration.	Letterbox drop/email distribution details to be recorded in the Consultation Register.
<b>Text Message and Email Alerts</b>	Text messages and emails providing prompt updates.	CCLR and/or Contractor	Landowners and occupiers of the immediate area.	As required for the project duration.	Text Messages and email alerts will provide important information at short notice to potentially affected receivers where consent has been granted to utilise contact detail for this purpose.



Tool/ Technique	Description	Responsibility	Audience	Frequency/ timing	Specifications
<b>Email and phone</b>	Where agreed to by the stakeholder and contact details provided, contact will be made via email, phone and/or text message to notify or respond to query or complaint.	CCLR	The wider community and key stakeholders.	As required for the project duration.	With the stakeholder's consent, contact details will be used to provide project notifications or further contact to respond to query or complaint. Recorded contact details are to kept private and used exclusively for the purpose of consultation on the Project.
<b>Project Site Signage</b>	Project information details.	CCLR and/or Contractor	Visitors to the site, landowners, and community in the immediate area.	Prior to and during construction.	Contain project contact points, along with project timing and relevant project and safety information.
<b>Project Contact Points</b>	Phone number to be contacted should information on the project be required or complaint lodged.	CCLR	The wider community and key stakeholders.	Project duration.	Phone number and email to be included on site signage, and all project information material. Feedback provided to be incorporated into the Complaints Register and actioned as required.
<b>Staff and Visitor Induction and Training</b>	Project information details.	Contractor's Project Manager / Site Supervisor	Staff and visitors to the site.	Project duration.	Induction training can be used as a means to communicate community engagement and complaints handling requirements and procedures relating to this Plan.
<b>Toolbox and Prestart Meetings</b>	Project information details.	Site Manager and Contractor's Project Manager. CCLR to provide inputs as necessary.	Staff and visitors to the site.	Project duration.	As required, toolbox and prestart meetings can be used to ensure all staff and contractors are aware of external and internal communications procedures a current community concerns and/or issues.



Tool/ Technique	Description	Responsibility	Audience	Frequency/ timing	Specifications
<b>Record of Contact</b>	Recording all landowners, community, and stakeholder one-to-one conversations.	CCLR, Frasers representatives and Contractors	Landowners, community, and stakeholders.	Project duration.	The Record of Contact form will be used to capture all face-to-face interactions and will be used to inform the consultation register.
<b>Consultation Register</b>	Recording community and stakeholder interactions (including notification, consultation, queries, comments, and complaints), along with associated remedial actions as required.	CCLR	The wider community and key stakeholders.	Project duration.	The register will be updated daily to record community engagement, including information provided by Frasers representative and contractors, feedback received, and remedial action undertaken where required. The complaints register will also be provided to the ER on a daily basis, and uploaded onto the applicant's website monthly.



## 3.2 Project specific contact points

The following project contact points are to be provided on all project specific collateral and communications, including site signage and notifications.

Contact	Community Consultation Liaison Representative
Name/s	The Community Consultation and Liaison Representative role will be managed by the following team: <ul style="list-style-type: none"> <li>• Esther Diffey – Technical Director +61 423 686 002</li> <li>• Stephanie Skordas – Senior Consultant +61 434 279 633</li> </ul>
Email	<a href="mailto:edgesouth@frasersproperty.com.au">edgesouth@frasersproperty.com.au</a>
Phone	A toll-free project phone number will be operational and shown on the project website and community notifications.

Enquiries or complaints may also be received by a range of other channels and escalated via email, phone or in person to Frasers including, but not limited to:

- Elected representatives.
- Penrith City Council offices and call centres.
- TfNSW offices and call centres.
- In-person during meetings or door knocks, or when a member of the public approaches the workforce directly.

All enquiries and complaints, received directly via the project specific contact points or in person, or indirectly via other channels where the complaint has been reported and/or escalated to Frasers will be recorded in the Consultation Register (**Appendix E**).

## 3.3 Notification procedures

Notifications will be the key channel for effectively informing landowners, the community, and key stakeholders of works through the duration of the Project.

The notification requirements outlined in **Table E** and **Table F** will ensure all notifications are distributed by the contractor and received by the community within a suitable timeframe relevant to the impact, including all activities prior to and during construction. All notifications will be drafted by the CCLR and must be submitted to Frasers for approval at least 3 business days prior to contractor distribution.

**Table E: Notification requirements prior to construction**

Project activity	Notification to be provided
Commencement of construction activities	At least 4 weeks prior to commencement
Rescheduling of construction activities	2 business days' notice for rescheduling
Rescheduling of construction activities	2 business days' notice for rescheduling
Major changes to configuration of road traffic, including speed, lane closures, temporary public transport impacts etc.	At least 2 weeks
Impacts on pedestrians and/or bicyclists	At least 24 weeks
Alteration to property access arrangements	At least 2 weeks

Commencement or rescheduling of property adjustment work	At least 2 weeks
Other activities not identified above which may impact the community	At least 2 business days
Night works and out of hours works	At least 2 business days

**Table F: Notification requirements during construction**

Notification Type	Submission to Frasers	Distribution
Out of Hours Works	Draft a notification letter at least 5 business days prior to the works being carried out	At least 2 business days prior to the works being carried out
Traffic Conditions	Draft letter at least 10 business days prior to the traffic conditions changing	At least 5 business days prior to the traffic conditions changing if deemed necessary by Frasers
Individual private properties regarding property impacts or changes to access	Draft letter at least 4 weeks prior to the works being carried out	At least 2 weeks prior to the works being carried out of access changes
Individual businesses regarding property adjustments or changes to access	Draft letter at least 4 weeks prior to the works being carried out	At least 2 weeks prior to the works being carried out of access changes

### 3.3.1 Traffic management

- Site specific Traffic Management Plans (TMP) will be developed for the project.
- Frasers contractors are to communicate any changes to road closures, driveway impacts or detours with the CCLR at least 14 days in advance to allow for collateral preparation, communication activities and liaison with internal and external stakeholders.
- Frasers will proactively engage with landowners and key stakeholders, including the Council, TfNSW and DPHI for traffic changes and/or temporary or partial road closures. Consultation will also include liaison with local emergency services if required.

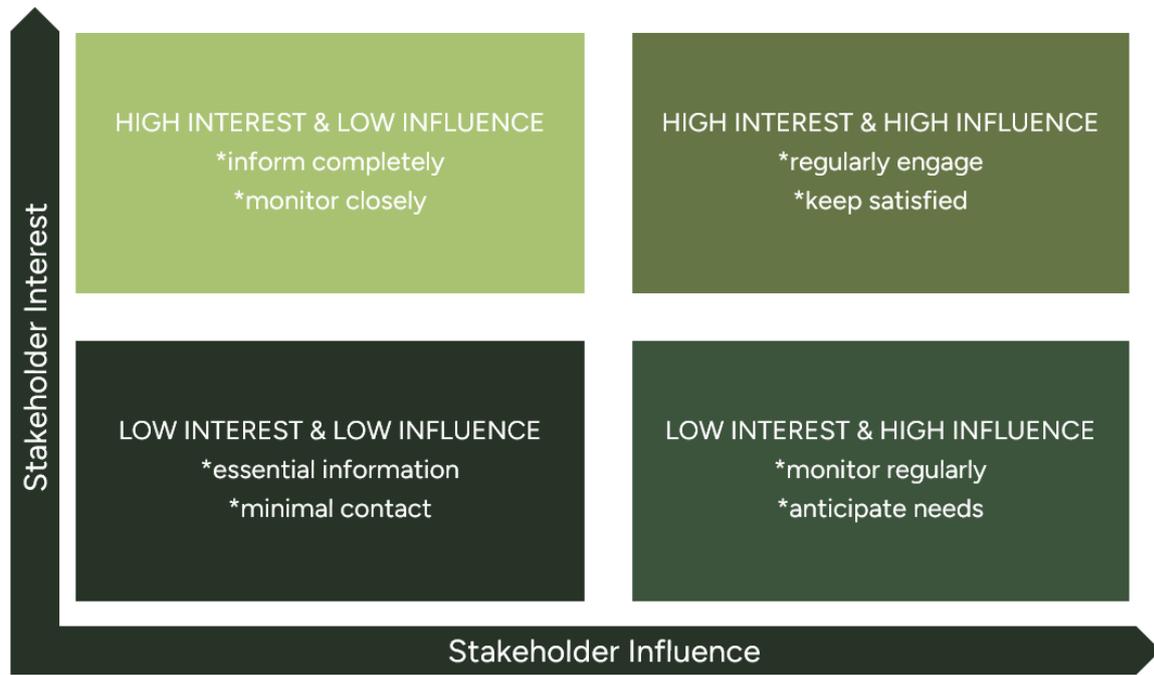
## 4.0 Stakeholders

Stakeholders refer to any person or group of persons who have an interest or can affect/be affected by an issue or decision. The Project covers a diverse range of stakeholders with varying levels of interest, influence, power, or impact relative to any issue. The level of influence/interest of a stakeholder group should be a consideration in shaping their level of participation in engagement, timing of engagement and the subsequent methodology for engagement.

The interest/influence matrix shown in **Figure C** categorises stakeholders based on their level of interest in the project, and their level of influence or power to affect the project's

outcomes. The matrix supports the prioritisation of engagement efforts and the development of appropriate strategies for managing and communicating with stakeholders.

**Figure D: Interest/Influence Matrix for Stakeholder Prioritisation**



#### 4.1 Key stakeholders

The key stakeholders previously engaged and likely to require ongoing consultation, notification and or likely to raise comment or complaint during the construction of the Project include (but are not limited to):

- Penrith City Council
- NSW Department of Planning, Industry and Environment
- Endeavour Energy
- NSW Environment Protection Authority (NSW EPA)
- Fire and Rescue NSW
- NSW Rural Fire Service
- Sydney Water
- Transport for NSW (TfNSW)
- Transgrid
- Dexus
- Altis
- Icon
- Crown Lands
- DPI Agriculture
- DPI Fisheries
- Heritage NSW – Heritage Council
- Heritage NSW – Aboriginal Culture
- Directly impacted landowners and sensitive receivers
- Surrounding local businesses and broader community
- Developer Representatives of the Mamre Road Precinct Working Group
- Other interested parties

A more detailed stakeholder analysis, including their anticipated interests, level of interest/influence and required level of engagement is included in **Appendix A**.

## 5.0 Potential risks and mitigations

Frasers are committed to ongoing proactive consultation with the community and stakeholders while understanding the importance of addressing potential issues and reviewing methodologies to reduce construction and operational related impacts, where possible. **Table G** outlines project issues that are likely or known to be of interest or concern to the community and stakeholders. The table also details communications related measures and strategies that Frasers representatives and contractors will undertake to manage and mitigate impacts.

Where an incident or non-compliance arises relating to environmental management and beyond the scope of matters relating to consultation, the Project Construction Environmental Management Plan (CEMP) provides the management and mitigation measures to address those matters.

**Table G: Potential risks and mitigations**

Potential issues	Potential key impacts	Proposed mitigation strategy
<b>Project acceptance not achieved from directly impacted landowners, stakeholders, or broader community</b>	Needs of property owners with access/acquisition requirements are at conflict with broader project needs and priorities. Consent is not achieved from landowners.	Provide opportunity for property owners to discuss concerns and priorities. Provide transparency/communicate impacts, outcomes and next steps of

Potential issues	Potential key impacts	Proposed mitigation strategy
	Complaints resulting in project delays, change to scope of works and negative media attention.	project progression in accordance with Section 3 of this CCSCHP.
<b>Noise, Vibration, and Air Quality</b>	High traffic volumes due the amount on concurrent construction activity in the MRP. Truck, machinery, and light vehicle movements within, to and from the site, along with civil works have potential to result in negative impacts associated with noise, vibration, and dust.	Sensitive receivers and affected stakeholders will be informed prior to actions likely to generate high levels of noise or vibration in accordance with Section 3 of this CCSCHP.  The CEMP, along with the supporting Construction Noise and Vibration Management Plan and Construction Air Quality Management Plan contain specific measures to manage these impacts. These management plans have been informed by commitments contained within the SSD approvals package, EPA standards and guidelines.
<b>Construction Traffic</b>	Additionally, construction activities will take place within the road reserve, which is expected to have a notable impact on local traffic. Further, A temporary increase in traffic movements is anticipated due to the import of materials, the transportation of construction machinery to and from the site, and the movement of workers' light vehicles.	All key stakeholders will be informed of changed traffic conditions via an initial project letter prior to construction and kept updated (as required).  The CEMP and supporting Construction Traffic Management Plan will also identify specific mechanisms to manage and mitigate these impacts including the development.
<b>Stormwater, Sediment Control, Erosion, Water Quality</b>	High rainfall events could result in localised flooding.  Construction could result in impacts to local water quality, associated with sediment laden runoff.	Surrounding sensitive receivers will be consulted with in relation to adjacent works regarding erosion and water quality issues, with these items discussed as they arise via the construction phonenumber, in

Potential issues	Potential key impacts	Proposed mitigation strategy
		<p>accordance with Section 3 of this Strategy.</p> <p>The CEMP, along with the supporting Erosion and Sediment Control Plan identify specific mechanisms to manage and mitigate these impacts in accordance with the relevant Penrith City Council standards.</p>
<b>Removal of Flora and Fauna</b>	<p>The project approval requires the removal of native and exotic flora and fauna to facilitate the development, with the associated potential for impacts on safety of immediately adjacent receivers, along with biodiversity and visual amenity.</p>	<p>Potentially affected receivers would be advised of works with the potential for impact via letter box drop and phone contact.</p> <p>(If appropriate) and with these items discussed as they arise via the Project contact points, in accordance with Section 3 of this Strategy.</p> <p>The CEMP, along with the supporting Flora and Fauna Management Plan identify specific mechanisms to manage and mitigate these impacts.</p>
<b>Visual Amenity and Privacy</b>	<p>Visual impacts of earthwork and construction activities, along with potential impacts on the privacy of adjacent sensitive receivers.</p>	<p>Potentially affected receivers would be advised of works with the potential for impact via letter box drop and phone contact.</p> <p>(If appropriate) and with these items discussed as they arise via the Project contact points in accordance with Section 3 of this Strategy.</p> <p>The CEMP and supporting Vegetation Management Plan identifies specific mechanisms to manage and mitigate these impacts.</p>
<b>Out of Hours Work</b>	<p>The identified impacts could be magnified due to the works being carried out while</p>	<p>Should out of hours work with the potential for impact be proposed the potentially</p>

Potential issues	Potential key impacts	Proposed mitigation strategy
	surrounding receivers are more likely to be home in the early morning/evening, or asleep, with correspondingly lower background noise levels.	affected receivers would be advised via letter box drop in accordance with Section 3 of this Strategy and in accordance with the Construction Noise Management Plan (CNMP).
<b>Hazardous Goods and Contamination</b>	There is the potential for environmental incidents relating to the hazardous goods and contamination on site during construction.	The CEMP and supporting Unexpected Contamination Procedure identify specific mechanisms to manage and mitigate these impacts.
<b>Misinformation and Misunderstanding</b>	Lack of project awareness within the wider community may result in complaints being raised by those unaware of the extent of the approval, with these complaints not directed through the appropriate project hotline. Unauthorised release of project information by the project team to the media, stakeholders or the community has potential to impact on project perception in the community.	This CCSCHP includes measures in Section 3 to provide regular updates in plain English, supported by imagery to stakeholders and the wider community through public and private media.  The Project contact points will be provided on site signage and in all information issued.
<b>Emergency Event</b>	Unforeseen emergency with the potential to impact on the community either directly, or indirectly through out of hours activities that may generate additional traffic or noise.	This CCSCHP includes measures in Section 3 to provide updates in emergency events, with the CEMP identifying specific mechanisms to manage and mitigate these impacts from an environmental management perspective.

## 6.0 Enquiry and complaint procedures

Frasers are committed to the timely and effective management of enquiries and complaints relating to the Project. The following protocols and procedures must be adhered to by all Frasers representatives and contractors to enable the receipt, recording and resolution of enquiries and complaints in a consistent and timely manner appropriate to the issues raised.

### 6.1 Key messages and frequently asked questions

As the project progresses, project key messaging should be reviewed and updated as new information becomes available. Issues raised or enquires made, generally illustrate a need for more information on a specific topic such as the project schedule and/or anticipated construction activities including traffic management, noise, dust, or similar. Frequently asked

questions can be developed to support key messages and provide additional information. Current key messages are found in **Appendix B**.

## 6.2 Phone call and email enquiries

The following outlines the procedures and protocols for managing enquiries via the public email or phone line. Both of these channels will be managed by the CCLR in the first instance, with contributions from specialists or the broader team as required.

### 6.2.1 Email

The public enquiry email address is: [edgesouth@frasersproperty.com.au](mailto:edgesouth@frasersproperty.com.au)

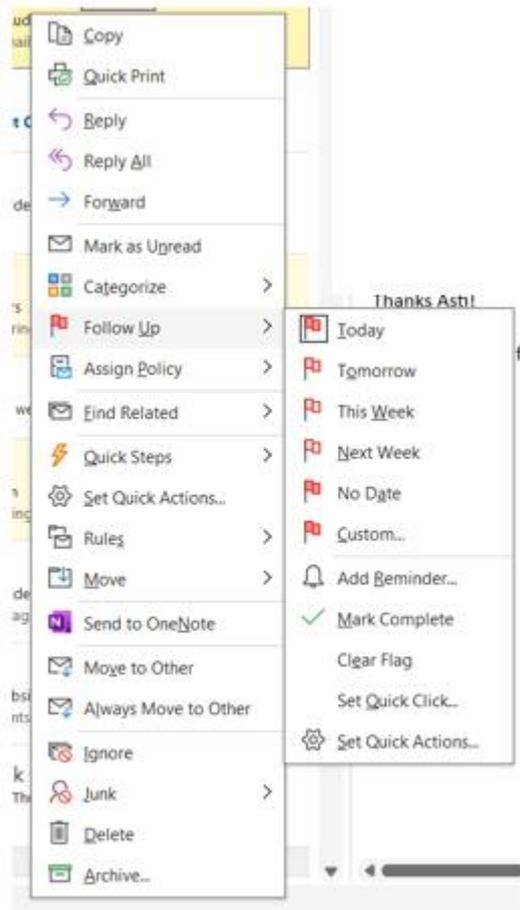
This account will be consistently monitored during business hours. Every email sent to this address will receive an automatic acknowledgment confirming receipt and a commitment to respond within a designated timeframe, usually between 2 to 5 business days if a reply is required. All responses to public emails should be issued via the project email account. The CCLR will check the inbox daily and:

- Notify the project team of any complaints or urgent matters;
- Record any complaints or enquiries in the Consultation Register in accordance with Section 6.4;
- Provide the updated Consultation Register to the ER on a daily basis.

### 6.2.2 Email protocol

The following outlines the process for emails received via the public enquiry address.

1. Incoming emails receive automated response acknowledging receipt and committing to response within two business days (where a response is required)
2. Email account is checked at least daily
3. All junk and spam emails will be deleted
4. All new legitimate emails are opened and recorded in the consultation database
5. Emails not requiring a response are marked as complete (right click, follow up, green tick)



6. Emails requiring response that can be provided through established messaging or Frequently Asked Questions (FAQs) will be replied within 2 business days.
  - a) Ensuring that email reply is captured in the consultation database and event closed out
  - b) Marked as complete
7. Emails requiring additional information or response from a third party (technical specialists etc) will be marked with a red flag:
  - a) Project team member will reply to email to acknowledge receipt and provide progress update to sender
  - b) Forward email to relevant team member/specialist requesting confirmation of receipt and estimated response timeframe
  - c) Record email and assign actions in the consultation database
  - d) Compile response and reply to sender via project email account or follow up with phone call or direct email where further discussion is required.

### 6.2.3 Phone enquiry line

The public enquiry phone line will be arranged. Calls to this line will be managed by the CCLR. Calls not answered will be forwarded to a message bank and callers will hear a recorded messages acknowledging receipt and committing to a response time frame – typically **1 business day**.

Callers will then be asked to record a message including any relevant information and contact details.

### 6.2.4 Phone protocol

The following outlines the process for phone calls received via the public phone number.

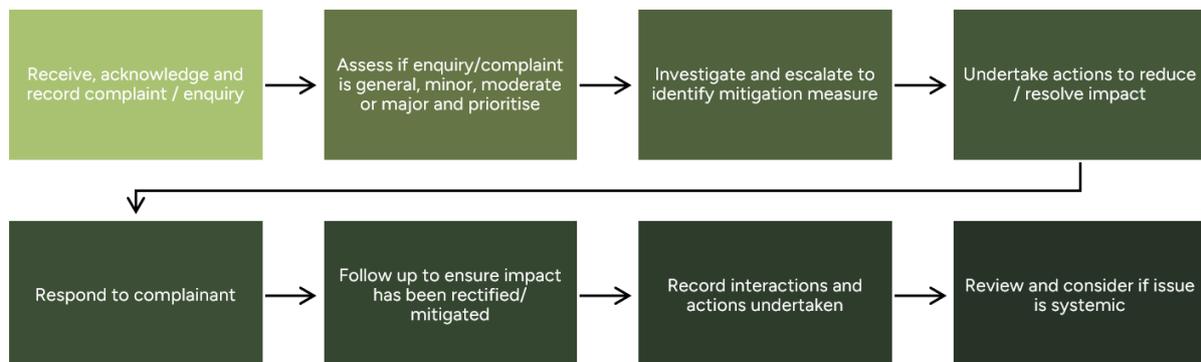
1. Nominated team member to record call in consultation database
  - a) Close out entry where no response is required.
2. Where a response is required and can be provided using approved messaging, the nominated team member will return the call using their direct line
  - a) Record enquiry and response in consultation database.
3. Where a response requires additional information or contribution from a third party. The nominated team member will:
  - a) Forward the enquiry to the relevant team member/specialist and seek confirmation of receipt and an estimated response timeframe
  - b) Provide an update to the caller including estimated response time
  - c) Record enquiry and actions in the consultation database.

## 6.3 Complaints and enquiries handling

Complaints and enquiries are anticipated from neighbouring landowners, the local community, and key stakeholders once engagement commences and during works on site. As multiple developments and construction activities progress in the area, it is expected that the Project will receive complaints in association with other works. Key to managing community expectations will be the provision of timely project information, identification of the complaint source, and application of appropriate mitigations to resolve the impact (if required). Some enquiries and complaints may be one-off occurrences while others may require tracking of multiple emails or issues related to the one stakeholder.

In accordance with Condition B44 of the Development Consent, the Construction Noise Management Plan (CNMP), to be prepared prior to the commencement of earthworks and construction of each warehouse building, will form part of the Construction Environmental Management Plan (CEMP).

**Figure E: Complaints and enquiries handling procedure**



### 6.3.1 Receiving and recording complaints and enquiries

Where a general enquiry is received, the CCLR or responsible party will attempt to provide an immediate response, if in possession of relevant information, in person or via

phone/email. Where more specific or detailed information is required, the CCLR or responsible party will liaise with the project manager or relevant project engineer/site supervisor to obtain the information required to respond to the enquiry and provide this information to the enquiring party once in hand within 24 hours.

In the event of a complaint, the CCLR or responsible party will assess whether the complaint is minor, moderate, or major and if necessary, delegate the remediation of the issue to the project manager or relevant project engineer/site supervisor for action. The CCLR or responsible party will oversee the rectification of the issue and respond to the complainant once the issue has been resolved (within 24 hours for minor complaints, 48 hours for moderate complaints and within five business days for major complaints).

Where a complaint or enquiry cannot be responded to immediately the responsible party will assess and prioritise the submission and provide the complainant or enquirer with a follow up verbal response on what action is proposed within two hours during construction works (including night and weekend works) and 24 hours at other times. Where a complaint or enquiry cannot be resolved by the initial or follow-up verbal response, a written response will be provided to the complainant or enquirer within five business days.

Where the above protocol is unsuccessful in resolving complaints, mediation may be undertaken at the discretion of Frasers to facilitate negotiation between affected parties. This shall be performed by an independent person (mediator) appointed by Frasers.

All general enquiries and complaints must be recorded in the complaints and enquiries database, which will be provided to the Environmental Representative (ER) on a daily basis and used to inform weekly and monthly project reports.

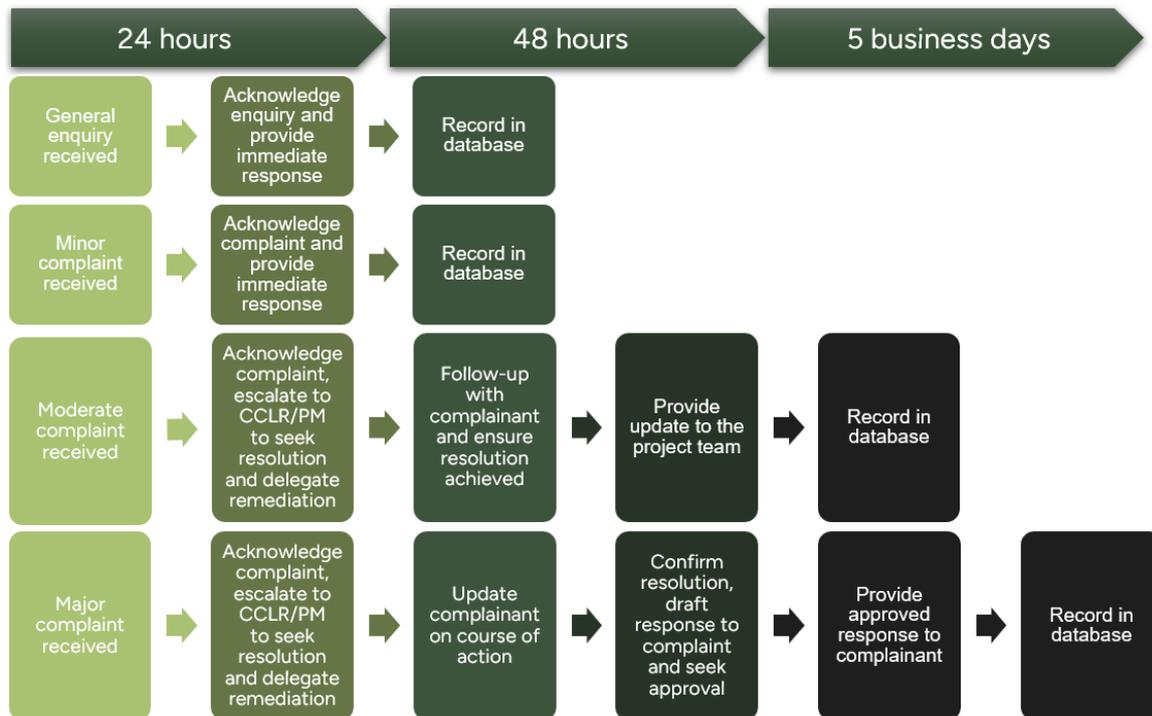
### **6.3.2 Dispute resolution procedure**

Where a dispute has been raised, it will be received by the Community and Client Liaison Representative (CCLR) or designated project member. Complaints will be categorised as minor, moderate, or major. Minor complaints will be resolved within 24 hours, moderate complaints within 48 hours, and major complaints within five business days.

If a complaint cannot be resolved at the initial stage or involves significant environmental concerns, it will be escalated to the Environmental Representative (ER). The ER will review the complaint, assess the environmental impact, and recommend necessary corrective actions. The ER also monitors the Construction Environmental Management Plan (CEMP) to ensure compliance.

All complaints will be logged in a database for reporting, with the ER preparing quarterly updates for the Planning Secretary, summarising complaint management and resolution.

**Figure F: Receiving and recording enquiries and complaints**



### 6.3.3 Unreasonable complainant conduct

The NSW Ombudsman provides guidelines which define unreasonable complaint conduct as:

*“...any behaviour by a current or former complainant which, because of its nature or frequency, raises substantial health, safety, resource or equity issues for the parties to a complaint.”*

Whilst it is not envisioned that the project will attract complainants that exhibit this behaviour, where a complainant is seen to potentially have a negative impact on the CCLR or support team’s health, safety, resourcing or equity of service, Frasers shall adhere to the procedures and practices outlined within the NSW Ombudsman’s *“Managing Unreasonable Complainant Conduct Practice Manual 2nd Edition”*.

### 6.3.4 Media enquiries and events

All Frasers representatives and contractors working on the Project must not provide any information or comment regarding the Project to any media or political representatives. If approached or contacted, it is important to remain polite and courteous, record the person’s contact details including their name and number and report the activity immediately to the project’s CCLR.

## 6.4 Engagement feedback and data management

A record of contact form (**Appendix D**) and consultation register (**Appendix E**) will be used to record all interactions, noting the types of issues being raised, contact details and action required. When recording contact the following will be undertaken:

- Advise the person you will be taking notes to ensure their query can be passed on to the project team to address.
- Check with the person, that you have understood their query or comments.
- Confirm that the contact details are correct.
- The contact should be recorded as soon as possible and reported to the CCLR as soon as practical.
- Any unfavourable contact (aggression, threats) must be reported immediately to the site supervisor and CCLR to escalate.

The consultation register will be used to record, track, and manage issues and will aid in feedback of engagement outcomes to project team members and key stakeholders. The consultation register must include the following details for all complaints or enquiries received:

- Date and time of complaint or enquiry.
- Method by which the complaint or enquiry was made.
- Name, address, contact telephone number of complainant (if no such details were provided, a note to that effect).
- Nature of complaint or enquiry.
- Action taken in response including follow up contact with the complainant.
- Any monitoring to confirm that the complaint or enquiry has been satisfactorily resolved.
- If no action was taken, the reasons why no action was taken.

## **7.0 Monitoring, reporting and evaluation**

Monitoring, Reporting and Evaluation will be undertaken to measure the effectiveness of community consultation, stakeholder engagement and responses to complaints and enquiries. Opportunities for improvement will be sought on a continuous basis, with an annual review of the CCSCHP undertaken to formalise these incremental improvements.

The CCLR will record all external stakeholder and community interaction for the Project using a consultation database (spreadsheet or CRM platform).

It is important that this platform is updated following engagement activities to ensure interactions, feedback and outcomes can be adequately monitored and reported. This assists in maintaining the principles of transparency, accountability and responsiveness and to manage engagement and Project risk.

The CCLR will monitor the following to inform periodic evaluation of consultation:

- total number of monthly complaints
- review of number of monthly complaints relating to lack of consultation/misinformation/confusion
- review of number of monthly enquiries relating to information previously disseminated to the community through other channels
- monthly review of enquiries or complaints of a similar nature or theme indicative of underlying systematic issues with the project or communication strategy

- response timeframes, including initial acknowledgement and the response to enquiries or remediation of issue(s).

The parameters of monitoring and performance criteria are outlined in **Table H** below.

**Table H: Summary of monitoring data**

Monitoring Parameter	Rationale	Performance Criteria	Monitoring Frequency
Total number of complaints	The number of complaints received in total is indicative of the community's satisfaction with the project.	Performance for complaints will be based on construction activities and their relative avoidable or unavoidable impact e.g. day works; vs nights works and crew behaviour (avoidable) vs land closures (unavoidable).	Monthly
Number of complaints relating to lack of consultation/misinformation /confusion	Number of complaints relating to lack of consultation/ misinformation/ confusion is indicative of the effectiveness and clarity of communication tools utilised.	A reduction in number of complaints, baseline determined by number of complaints received in preceding month.	Monthly
Number of enquiries relating to information previously disseminated	Number of enquiries relating to information previously disseminated is indicative to the effectiveness of the delivery of information.	A reduction in number of enquiries, baseline determined by number of enquiries received in preceding month.	Monthly
Number of complaints/enquiries within defined categories based on theme or subject	A large number of complaints or enquiries relating to a single issue may be indicative of a systematic issue to be addressed as a priority.	A reduction in number of complaints, baseline determined by number of complaints received in preceding month.	Monthly
Response timeframes	Response to enquiries and complaints should be timely to ensure effective responsiveness and rectification of issues and to encourage trust within the community.	Enquiries and complaints acknowledged within 48 hours. Urgent enquiries and complaints responded to within 48 hours of receipt, non-urgent enquiries and	Monthly

Monitoring Parameter	Rationale	Performance Criteria	Monitoring Frequency
		complaints responded to within 5 days.	

## 7.1 Reporting

A monthly community and stakeholder consultation summary will be prepared by the CCLR and included in the ER Report, which is submitted to the Department of Planning, Housing and Infrastructure (DPHI) on the 7th of each month in accordance with Condition A35(l). To support this, the summary will be provided to the ER by the 5th of each month and will cover the following: monthly community and stakeholder consultation summary will be prepared by the CCLR and included in the ER report, which will be submitted to DPHI, and will cover the following:

- A summary of community consultation activities undertaken within the preceding month.
- A summary of all enquiries and complaints received within the preceding month, including details of response and/or remediation activities.

## 7.2 Evaluation

Where performance criteria are not being satisfied, review of this strategy and its implementation will be undertaken by Frasers and the CCLR and changes to the strategy may be made to rectify the short fall. Where systematic issues are identified associated with construction activities, the project manager will be advised, and immediate rectification of the issue will be requested.

A formal management review of the Community Consultation Strategy and Complaints Handling Procedure (CCSHP) will be undertaken at least once every 12 months, or more frequently if required due to:

- a trend in community complaints,
- feedback from stakeholders, or
- changes in project scope or construction impacts.

The CCLR is responsible for initiating the annual review and compiling input from:

- the Frasers Project Manager,
- the Environmental Representative (ER), and
- relevant contractors and communications staff.

The review process will include:

- An assessment of monitoring data (as outlined in Section 7.0),
- Feedback from community engagement activities,
- Compliance with SSD conditions (including complaint resolution performance), and
- Effectiveness of implemented mitigation and communication strategies.

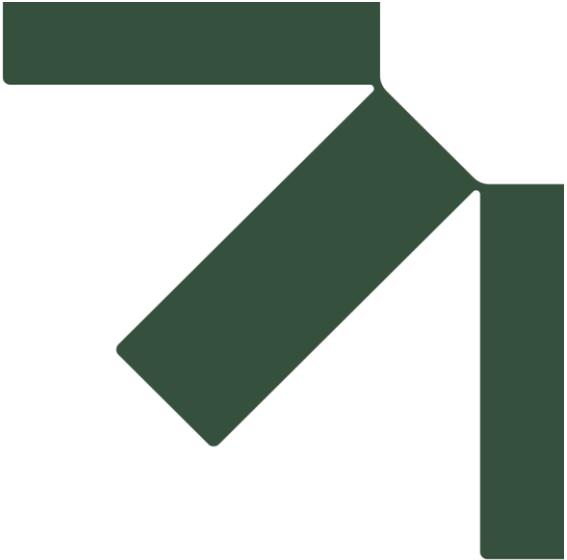
A summary of the review outcomes, including any proposed changes to the CCSCHP, will be included in the following month's Environmental Representative (ER) report and submitted to the Department of Planning, Housing and Infrastructure (DPHI) as required.

## 8.0 References

International Association for Public Participation (IAP2) 2015 *Quality Assurance Standard for Community and Stakeholder Engagement*, viewed 28 October 2024, Available: International Association for Public Participation Australasia, [IAP2 Quality+Assurance+Standard.pdf \(iap2content.s3-ap-southeast-2.amazonaws.com\)](https://iap2content.s3-ap-southeast-2.amazonaws.com/IAP2_Quality+Assurance+Standard.pdf)

IAP2 2014, *Public Participation Spectrum*, viewed 28 October 2024, Available: International Association for Public Participation Australasia, [IAP2 Public Participation Spectrum.pdf](https://iap2content.s3-ap-southeast-2.amazonaws.com/IAP2_Public_Participation_Spectrum.pdf)

NSW Ombudsman (2012) *Managing Unreasonable Complainant Conduct Practice Manual 2nd Edition*.



# Appendix A Stakeholders

## Community Consultation Strategy and Complaints Handling Procedure

Edge Estate

Frasers Property Industrial

SLR Project No.: 630.031953.00001

19 June 2025

## A.1 Stakeholder Analysis

Table A-1: Stakeholder Analysis

Stakeholder Group	Organisation/ Department	Stakeholder/s	Role	Potential Interests/Concerns	Level of Interest	Level of Influence	Level of Engagement
<b>Local Government, Councillors and Representatives</b>	Penrith City Council	<ul style="list-style-type: none"> <li>Mayor Todd Carney (subject to change due to recent Council election)</li> <li>Deputy Mayor Ross Fowler OAM</li> </ul> <p><b>South Ward</b></p> <ul style="list-style-type: none"> <li>Cr Kirstie Boerst</li> <li>Cr Sue Day</li> <li>Cr Hollie McLean</li> <li>Cr Vanessa Pollak</li> <li>Cr Faithe Skinner</li> </ul> <p><b>East Ward</b></p> <ul style="list-style-type: none"> <li>Cr Libby Austin</li> <li>Cr Sabbie Kaur</li> <li>Cr Edwin Misfud</li> <li>Cr Garion Thain</li> </ul> <p><b>North Ward</b></p> <ul style="list-style-type: none"> <li>Cr Robin Cook</li> <li>Cr Glenn Gardiner</li> <li>Cr Reece Nuttall</li> <li>Cr John Thain</li> </ul>	Represent local communities as elected officials and ensure local government laws and regulations are observed.	<ul style="list-style-type: none"> <li>Concern with Project timing/delivery</li> <li>Maintaining reputation and promoting Council</li> <li>Advocating for constituents to ensure mutually beneficial outcomes</li> <li>Precinct activation, accessibility, and connectivity</li> <li>Economic development of Western Sydney</li> <li>Keep regularly informed on project/community updates and environmental issues management</li> <li>Environmental considerations such as noise, air quality, contamination, and waste management.</li> </ul>	High	High	Consult
<b>Government Departments, Agencies and Service Providers</b>	SW Department of Planning, Housing & Infrastructure (DPHI) NSW Department of Planning and Environment (Central Western, Green and Resilient Places, Biodiversity Planning, Environment and Science teams) Transport for NSW (Freight and Road) NSW Office of Water NSW Department of Natural Resources Access Regulator (NRAR)	Key stakeholders identified within each department, agency, and service provider.	Maximise development opportunities and services to the community. Ensure the Project meets legislative and/or operative requirements and meets organisational needs.	<ul style="list-style-type: none"> <li>Interest in Project delivery including timing, impacts, communications, contact points etc.</li> <li>Maintenance of service connections and opportunities to upgrade service networks in concurrence with project works</li> <li>Traffic management and safety management plans</li> <li>Regulatory approvals</li> <li>potholing and service location</li> <li>Opportunities for future connections, including public transport.</li> </ul>	High	High	Consult



Stakeholder Group	Organisation/ Department	Stakeholder/s	Role	Potential Interests/Concerns	Level of Interest	Level of Influence	Level of Engagement
	Sydney Water						
	Western Sydney Airport Corporation						
	Airport Operator						
	Endeavour Energy						
	WaterNSW						
	Western Sydney Planning Partnership (WSPP)						
	Greater Sydney Commission						
	NSW Environment and Heritage Group						
	Fire and Rescue NSW						
	Ambulance NSW						
	Heritage Council of NSW						
	NSW Rural Fire Service						
	Penrith City Council						
	DPI Industries (Land and Fisheries)						
	Department of Primary Industry-Agricultural						
	Environmental Protection Authority (EPA)						
	TransGrid						
	Environment, Energy and Science Group (EES)						
<b>Mamre Road Precinct</b>	Mirvac: Aspect Industrial Estate ESR: Westlink Industry Park Fife/Stockland: 200 Aldington Road	Developers, tenants, and employees	Continuity of planned development and business operations	<ul style="list-style-type: none"> <li>• Interest in Project delivery including timing, impacts, communications, contact points etc.</li> <li>• Accessibility and connectivity during road upgrade works</li> <li>• Proposed mitigation measures, including but not limited to dust suppression,</li> </ul>	High	Medium	Consult

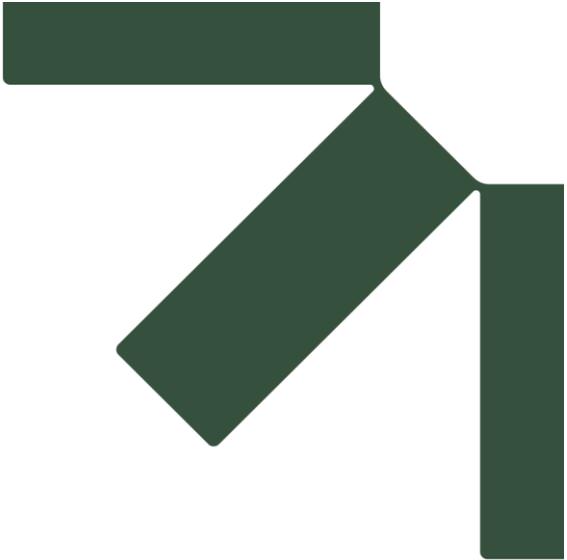


Stakeholder Group	Organisation/ Department	Stakeholder/s	Role	Potential Interests/Concerns	Level of Interest	Level of Influence	Level of Engagement
	Barings: Access Logistics Park GPT: Yiribana Estate			erosion, and sediment control, working hours, revegetation etc. <ul style="list-style-type: none"> <li>Community engagement activities and complaints handling procedure.</li> </ul>			
<b>Directly impacted sensitive receivers</b>	N/A	Private landowner/s and/or tenants directly impacted	Represent land ownership and organisation/community interest	<ul style="list-style-type: none"> <li>Property impacts, including access, resumption/acquisition and land valuation</li> <li>Interest in Project delivery including timing, impacts, communications, contact points etc.</li> <li>Project contact points</li> <li>Construction impacts including, but not limited to noise, dust, vibration, traffic changes, visual amenity, tree, and vegetation removal etc.</li> <li>Cumulative traffic impacts, during and post construction</li> <li>Proposed mitigation measures, including but not limited to dust suppression, erosion, and sediment control, working hours, revegetation etc.</li> <li>Construction fatigue and reduced acceptance of cumulative impacts.</li> </ul>	High	Medium	Consult
<b>Traditional Owners</b>	Deerubbin Local Aboriginal Land Council Cabrogal people of the Gandangara Nation Guntawang Aboriginal Women's Group	Chair: Athol Smith Board Members: - Maisie Cavanagh - Suzanne Ingram - Graham Davis-King Elders and Traditional Owners Founder/President: Wendy Morgan	Ensure the preservation of Aboriginal land rights and ensure ongoing cultural connections to land and community.	<ul style="list-style-type: none"> <li>Cultural Heritage and areas of cultural significance including archeological sites</li> <li>Early and ongoing engagement</li> <li>Interest in project delivery including timing, impacts, communications, contact points etc.</li> </ul>	Medium	High	Consult
<b>Broader community</b>	Businesses within the immediate project area Community service providers, including education and healthcare	Businesses and developers along Mamre Road, Abbots Road, Aldington Road, Bakers Lane Mamre Anglican School Little Smarties Early Learning Centre Emmaus Catholic College	Continuity of normal business operations Represent community interest	<ul style="list-style-type: none"> <li>Interest in project delivery including timing, impacts, communications, contact points etc.</li> <li>Interest in project benefits</li> </ul>	Medium	Low	Inform



Stakeholder Group	Organisation/ Department	Stakeholder/s	Role	Potential Interests/Concerns	Level of Interest	Level of Influence	Level of Engagement
		Catholic Healthcare Emmaus Retirement					
		Trinity Catholic Primary School					
		Kemps Creek Public School					





# Appendix B Key messages

## Community Consultation Strategy and Complaints Handling Procedure

Edge Estate

Frasers Property Industrial

SLR Project No.: 630.031953.00001

19 June 2025

## B.1 Key messages

### Project information

- Edge Estate is an industrial and logistics hub located on Aldington Road, Kemps Creek, designed to meet Western Sydney's demand for industrial infrastructure.
- The Project will provide purpose-built facilities that support job creation and local economic growth.
- Aligned with regional planning goals, Edge Estate supports industrial growth while addressing community needs.

### Frasers

- Frasers Property Industrial is a leading developer known for high-quality, large-scale industrial and logistics projects across Australia.
- Committed to sustainable, community-focused development, Frasers aims to create positive, lasting impacts for the community and stakeholders through its projects.
- Frasers prioritises responsible development of Edge Estate and proactive community engagement.

### Project delivery

- Edge Estate will be delivered in phases, from planning and construction through to operational readiness.
- Each phase will meet local and state requirements, with continuous stakeholder and community consultation.

### Construction impacts

- Construction will create temporary increases in traffic, noise, and dust, typical of large-scale projects.
- Work hours will primarily be weekdays, with limited activity on Saturdays and no work on Sundays or public holidays.
- Frasers acknowledges the importance of minimising disruptions and will keep affected community members and stakeholders informed and address concerns when they arise.

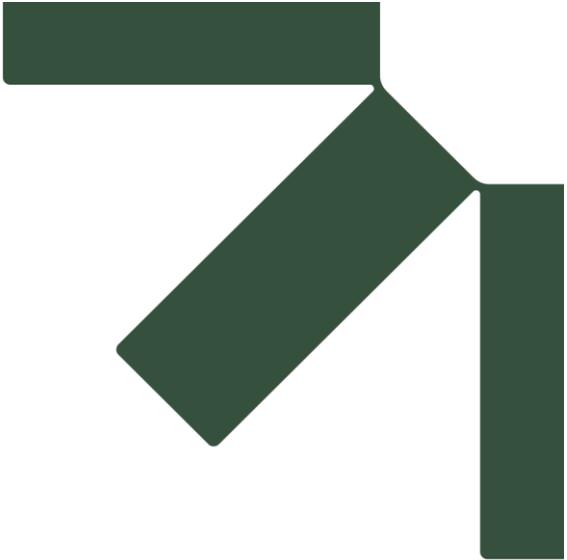
### Construction mitigations

- Frasers will implement strict measures to manage construction impacts, including noise and dust suppression, traffic management, and environmental monitoring.
- Mitigations include controlling dust at the source, using equipment to minimise noise, and employing traffic control to ensure safety of community members and workers.
- Work methods will be regularly reviewed to reduce any negative impact and ensure compliance with environmental standards.

### Project benefits

- Edge Estate will bring substantial benefits, including local job creation, improved infrastructure, and economic growth.

- **xxx** jobs are expected during construction, with additional long-term roles once operational.
- The Project will enhance connectivity and infrastructure in line with Penrith's vision for sustainable regional growth.



# **Appendix C    Landholder and key stakeholder register**

## **Community Consultation Strategy and Complaints Handling Procedure**

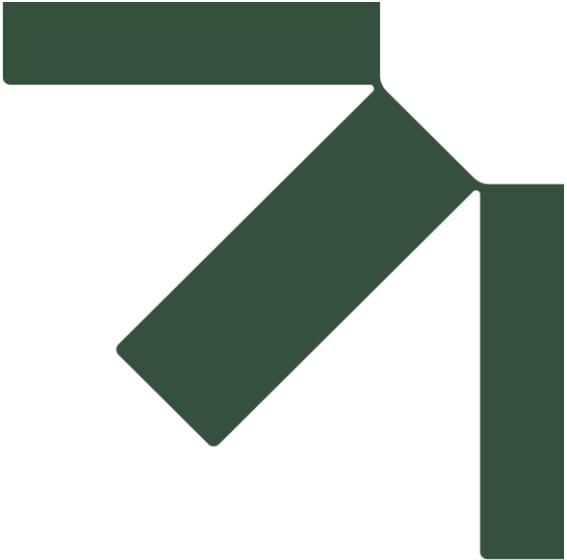
**Edge Estate**

**Frasers Property Industrial**

SLR Project No.: 630.031953.00001

19 June 2025

**C.1 Landholder and key stakeholder register (to be inputted)**



# **Appendix D Record of contact form**

## **Community Consultation Strategy and Complaints Handling Procedure**

**Edge Estate**

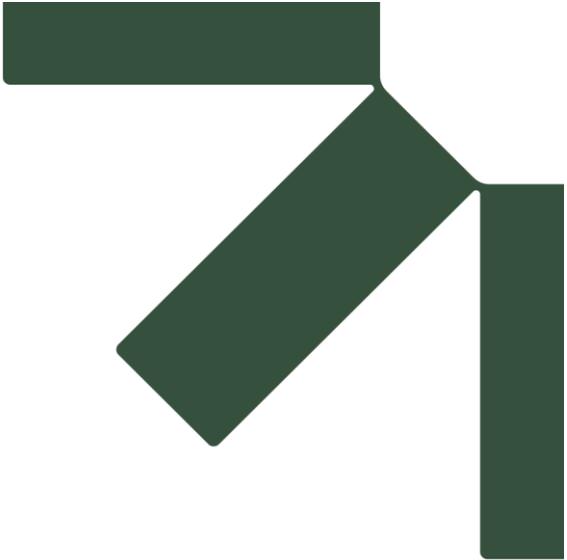
**Frasers Property Industrial**

SLR Project No.: 630.031953.00001

19 June 2025

## D.1 Record of Contact Form

<b>Project phase:</b>	<b>CCLR Use Only</b>	
	<b>Date entered in register</b>	
<b>Date:</b>		
<b>Time:</b>		
<b>Team member:</b>		
<b>Event/Enquiry type</b>	<input type="checkbox"/> In person <input type="checkbox"/> Media Release <input type="checkbox"/> Letter Box Drop <input type="checkbox"/> Ministerial <input type="checkbox"/> Notification <input type="checkbox"/> Phone call (in)	<input type="checkbox"/> Phone call (out) <input type="checkbox"/> Advertisement <input type="checkbox"/> Email (in) <input type="checkbox"/> Email (out) <input type="checkbox"/> Door knock <input type="checkbox"/> Bulk Mail out <input type="checkbox"/> Community event
<b>Stakeholder name:</b>		
<b>Organisation:</b>		
<b>Address:</b>		
<b>Telephone:</b>		<b>Email:</b>
<b>Mobile:</b>		<b>Other:</b>
<b>Stakeholder type:</b>	<input type="checkbox"/> Landowner <input type="checkbox"/> Directly impacted <input type="checkbox"/> Indirectly impacted <input type="checkbox"/> Business <input type="checkbox"/> Broader community	<input type="checkbox"/> Local interest group: <input type="checkbox"/> Media <input type="checkbox"/> Developer <input type="checkbox"/> Elected representative <input type="checkbox"/> Other:
<b>Stakeholder issue/s:</b>	<input type="checkbox"/> Construction impact <input type="checkbox"/> Approvals <input type="checkbox"/> Need for consultation <input type="checkbox"/> Property value <input type="checkbox"/> Noise	<input type="checkbox"/> Dust <input type="checkbox"/> Vibration <input type="checkbox"/> Community safety <input type="checkbox"/> Erosion/sediment control <input type="checkbox"/> Other:
<b>Sentiment:</b>	<input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Positive	
<b>Stakeholder comments</b>	_____ _____ _____ _____ _____	
<b>Team response</b>	_____ _____ _____ _____	
<b>Action</b>	<b>Assigned to</b>	<b>Date to complete</b>



# **Appendix E    Consultation register and supporting evidence**

## **Community Consultation Strategy and Complaints Handling Procedure**

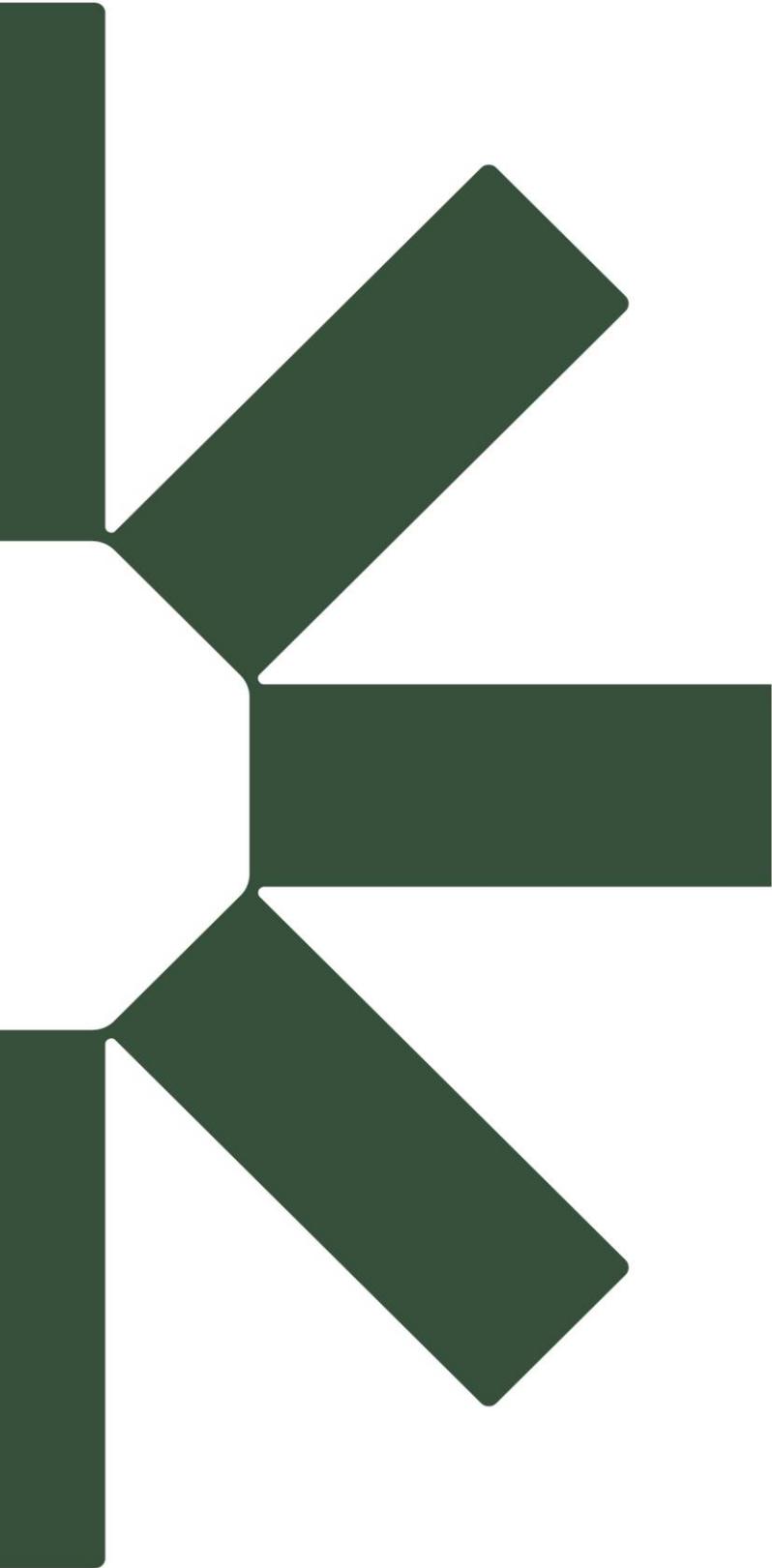
**Edge Estate**

**Frasers Property Industrial**

SLR Project No.: 630.031953.00001

19 June 2025





Making Sustainability Happen

# Appendix J Contingency Plan

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
<b>Traffic Management Plan</b>				
Traffic Noise	Trigger	Noise levels do not exceed imposed noise constraints, as outlined within the Noise Assessment Report (<45dBA), nor has there been a traffic-related noise complaint.	Noise levels marginally (<10dBA) in excess of imposed noise constraints or receipt of a single traffic-related noise complaint.	Noise levels greatly (>10dBA) in excess of imposed noise constraints or consistent traffic-related noise complaints.
	Response	No response required.	Undertake all feasible and reasonable mitigation and management measures to minimise noise impacts.	Undertake all feasible and reasonable mitigation and management measures to ensure noise levels are below Highly Noise Affected criteria. As with Condition Amber, if noise levels cannot be kept below applicable limits, then a different construction method or equipment must be utilised. Response to also be consistent with the CNVMP.
Traffic Guidance Scheme (TGS)	Trigger	No observable traffic issues caused by construction traffic.	Minor inconsistencies with TGS to onsite operations (e.g. covered signs, missing signs and fallen cones).	Near miss or incident occurring regardless of/as a result of TGS being implemented.
	Response	No response required. Continue monitoring TGS implementation under CTMP.	Traffic Controller to amend TGS on site and to keep a log of all changes.	Stop work until an investigation has been undertaken into the incident. Amend the TGS to ensure that the safety of all workers and community members are addressed.
Construction Movements	Trigger	Both peak hour and daily construction traffic volumes are in accordance with volume and time constraints as outlined within Section 2.3 and Section 3.1 of CTMP (287 Light Vehicle	Construction traffic volumes exceed programmed peak volumes but are within the daily volumes (287 Light Vehicle Movements per day and 200	Construction traffic volumes exceed permissible volume and time constraints (287 Light Vehicle Movements per day (up to 25 movements in the AM and 6 movements in PM Peak

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
		Movements per day (up to 25 movements in the AM and 6 movements in PM Peak Periods) and 200 Heavy Vehicle Movements per day (up to 16 movements in the AM Peak Periods and 12 movements in the PM peak).	Heavy Vehicle Movements per day).	Periods) and 200 Heavy Vehicle Movements per day (up to 16 movements in the AM Peak Periods and 12 movements in the PM peak).
	Response	No response required.	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: Review CTMP and update where necessary Provide additional training.	As for Condition Amber, plus: If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies Stop all transportation into and out of the site.
Queuing	Trigger	No queuing identified.	Queuing identified within site, but not on to public road.	Queuing identified on the public road.
	Response	No response required. Continue monitoring program.	Review the delivery schedule prepared by the contractor. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the Drivers' Code of Conduct	As with Condition Amber, plus: Review and investigate construction activities If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies Temporary halting of activities and resuming when conditions have improved Stop all transportation into and out of the site Review CTMP and update where necessary, provide additional training.

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
Dust Generated by Traffic	Trigger	No observable dust.	Minor quantities of dust in the air and/or tracking on to the road.	Large quantities of dust in the air and/or tracking on to the road.
	Response	No response required.	<p>Review and investigate construction activities and respective control measures, where appropriate.</p> <p>Implement additional remedial measures, such as:</p> <ul style="list-style-type: none"> <li>Deployment of additional water sprays</li> <li>Relocation or modification of dust-generating sources</li> <li>Check condition of vibrating grids to ensure they are functioning correctly</li> <li>Temporary halting of activities and resuming when conditions have improved.</li> </ul>	<p>As with Condition Amber.</p> <p>If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies</p> <p>Implement relevant responses and undertake immediate review to avoid such occurrence in future.</p>
<b>Air Quality</b>				
Dust Emissions	Trigger	<p>Concentration at any monitor <math>&lt;50 \mu\text{g m}^{-3}</math></p> <p>And</p> <p>Daily inspections show that there is no visible dust leaving the site.</p>	<p>Concentration at any monitor <math>\geq 50 \mu\text{g m}^{-3}</math></p> <p>And</p> <p>1-hour average DWI <math>\geq 5 \mu\text{g m}^{-3}</math> and <math>&lt;10 \mu\text{g m}^{-3}</math></p> <p>Or</p> <p>Visible dust observed leaving the site boundary</p> <p>Or</p> <p>Receipt of a justified complaint.</p>	<p>Concentration at any monitor <math>\geq 50 \mu\text{g m}^{-3}</math></p> <p>And 1-hour average DWI <math>&gt;10 \mu\text{g m}^{-3}</math></p> <p>Or</p> <p>Visible dust observed leaving the site boundary</p> <p>Or</p> <p>Receipt of a justified complaint.</p>
	Response	Monitor weather conditions and stop works if dust generation is excessive.	During periods of unsuitable weather (high winds and high temperatures), avoid or minimise dust generating	Where possible, locate high dust generating activities away from sensitive receivers.

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
		Continue implementation measures of the CAQMP	activities where possible, or increase frequency of dust suppression activities. Remove, suppress, stabilise or cover materials that have a potential to produce dust as soon as possible, unless being used on site. Impose 20km/h speed limits on haul routes to minimise dust generated from vehicle movements.	Record any exceptional events that cause dust and/or air emissions on or off site and note action taken to resolve situation.
Dust Complaints	Trigger	No complaints received during construction.	An air-quality related complaint is received from a nearby resident.	Further complaints are received after the additional mitigation measures have been implemented.
	Response	Continue monitoring program and implementing CAQMP	Record all air quality related complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner and record measures taken. Make Contact Register available to relevant authorities (Council, EPA, DPHI). Review and investigate construction activities and increase dust suppression measures (additional watering, covering stockpiles etc), where appropriate.	Conduct real time air quality monitoring at the complaint location including meteorology if required. This monitoring should be conducted in consultation with a suitably qualified air quality professional.
<b>Noise and Vibration</b>				
Noise Impacts at Sensitive Receiver	Trigger	Noise levels do not exceed noise management levels.	Noise levels exceed applicable noise management levels.	Noise levels exceed Highly Noise Affected threshold at a sensitive receiver. Noise complaints received.

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
	Response	Continue implementing existing measures in accordance with the CNVMP.	Implement every practical and logical mitigation and management strategy to keep noise levels below the Highly Noise Affected (>75dBA) threshold.	Implement every practical and logical mitigation and management strategy to reduced noise levels below the Highly Noise Affected threshold. If noise levels cannot be kept below the imposed restrictions, an alternative construction method or equipment will be used.
Vibration Impacts at Sensitive Receivers	Trigger	Vibration-intensive tasks carried out beyond the equipment's recommended working distance.	Vibration intensive works undertaken within minimum working distance for the specific equipment in use.	Vibration levels exceed applicable vibration limits.
	Response	Continue to implement existing measures in accordance with CNVMP.	Undertake vibration monitoring for the duration of the works to confirm vibration levels.	Stop work. Undertake all feasible and reasonable mitigation and management measures to ensure vibration levels are below applicable limits.  If vibration levels cannot be kept below applicable limits then a different construction method or equipment will be utilised.
<b>Unexpected Finds</b>				
Unexpected Contamination Find	Trigger	No contamination uncovered during earthworks.	Areas of possible contamination uncovered during earthworks.	Areas of potentially hazardous substance identified during earthworks.
	Response	Continue to implement existing measures in accordance with CEMP.	Implement Contamination Unexpected Finds Protocol (Appendix H of CEMP, JBS&G, 2024).	Implement Contamination Unexpected Finds Protocol ((Appendix H of CEMP, (JBS&G, 2024).
Unexpected Heritage Find	Trigger	No Aboriginal or historical artefacts found	Unanticipated archaeological items uncovered	Potential human remains discovered

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
	Response	No action.	Implement Recommendations 3 or 4 of the Updated Letter of Compliance (Biosis, 14 September 2023).	Implement Recommendation 5 of the Updated Letter of Compliance (Biosis, 14 September 2023).
<b>Waste Management</b>				
Waste	Trigger	Inspections identified no waste from demolition and construction generated outside of dedicated bins and stockpiles.	Inspections identified minimal waste from demolition and construction generated outside of dedicated bins and stockpiles.	Inspections identified large quantities of waste from demolition and construction generated outside of dedicated bins and stockpiles. Complaints received regarding waste management.
	Response	Continue to implement existing measures in accordance with CEMP.	Clean up the waste immediately and dispose according to CEMP requirements. Toolbox talk with all workers to discuss waste management requirements.	Clean up the waste immediately and dispose according to CEMP requirements. Toolbox talk with all workers to discuss waste management requirements.
<b>Civil Infrastructure</b>				
Erosion	Trigger	No evidence of erosion	Minor gully or tunnel erosions or rilling. Evidence of sediment leaving the site	Significant gully or tunnel erosions present or rolling. Evidence of sediment leaving site
	Response	Continue to implement existing measures in accordance with ESCP.	Site manager will inspect the site every rainfall event and at least weekly. Construct additional erosion and sediment control works to ensure desired protection	Environmental consultant to inspect the site. Review of erosion and sediment structures and ESCP. Remediate as soon as practical
Water Management Structures	Trigger	Water management structures have been designed, constructed and managed in accordance with the Mamre Road Precinct DCP.	Inspections identify that water management structures are in minor non-compliance with the ESCP and Mamre Road Precinct DCP.	Inspections identify a failure of the water management structures (discharging outside of site of boundary and/or water

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
				quality does not meet required criteria).
	Response	Continue to implement existing measures in accordance with ESCP.	A suitably trained person to inspect the site and review adequacy of water management structures. Remediate as appropriate.	A suitably trained person to inspect the site. Remediate as soon as practical. Review of engineering design and ESCP.
<b>Flooding</b>				
Flooding	Trigger	No evidence of flood hazard, flood levels or risk to property.	Slight increase in flood hazard, flood levels and risk to properties.	Significant increase in flood hazard, flood levels and risk to properties.
	Response	Continue implementing FIRA and ERP.	Monitor weather conditions and stay up to date. Continue implementing FIRA and ERP.	Reevaluate the flood levels, velocities and hazard assessment under Benchmark condition and Masterplan conditions.
<b>Bushfire</b>				
Bushfire	Trigger	No or 'Watch' bushfire warning covering the Project site.	'Watch and Act' bushfire warning covering the Project site.	'Emergency' bushfire warning covering the Project site.
	Response	Check fire warnings to stay updated.	Take action to protect Project workers and equipment.	Evacuate the site as directed by NSW Fire and Rescue.
<b>Community</b>				
Submission	Trigger	General feedback/comment (no complaint or query).	Enquiry made by formal or informal channels.	Complaint made by formal or informal channels.
	Response	Implement Community and Stakeholder Communications Strategy.	Implement Community and Stakeholder Communications Strategy.	Implement Community and Stakeholder Communications Strategy.
<b>Wildlife</b>				
Biodiversity Management	Trigger	No impacts to biodiversity identified.	Minor biodiversity impacts identified on-site.	Significant biodiversity impacts identified.

Key Elements	Trigger/ Response	Condition Green	Condition Amber	Condition Red
	Response	No response required.	Review effectiveness of management measures. Implement additional measures to manage impacts.	Stop works causing biodiversity impact. As for Condition Amber.
Wildlife Management	Trigger	Minimal occurrence of common strike species at the site.	Common strike species occur regularly at the site.	Common strike species occurring at the site in large numbers.
	Response	No response required.	Review effectiveness of management measures. Consider implementing additional measures.	As for Condition Amber.