

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

**Oakdale West Industrial Estate
SSD 7348**

Prepared for:

Goodman Property Services (Aust) Pty Ltd
1-11 Hayes Road, Rosebery NSW 2018

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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Aust) Pty Ltd (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.

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CONTENTS

1	INTRODUCTION	6
1.1	Development Background	6
1.2	Relevant Companies.....	11
1.2.1	Goodman	11
1.2.2	Penrith City Council	11
1.3	Contact Details.....	11
1.4	Operational Environmental Management Plan.....	11
1.4.1	Scope	11
1.4.2	Objectives	13
2	ENVIRONMENTAL MANAGEMENT FRAMEWORK	14
2.1	Goodman Corporate Responsibility and Sustainability Policy.....	14
2.2	Roles and Responsibilities	14
2.3	Statutory Requirements	15
2.4	Community Enquiries	16
2.5	Environmental Training	16
2.6	Incident and Non-Compliance Response and Handling Procedure	16
2.6.1	Objective.....	17
2.6.2	Responsibility	17
2.6.3	Notification Requirements	17
2.6.3.1	Incidents	17
2.6.3.2	Non-Compliances	19
2.6.4	Incidents and Non-Compliance Handling Procedure.....	19
2.6.5	Incident and Non-Compliance Report.....	22
2.6.6	Minor Environmental Incidents	22
2.7	Complaints Response and Handling Procedure.....	22
2.7.1	Objective.....	22
2.7.2	Responsibility	22
2.7.3	Handling Procedure	23
2.7.4	Complaints Register	23
2.8	Dispute Resolution	24
2.9	Consultation	24
3	ENVIRONMENTAL MANAGEMENT COMMITMENTS	25
3.1	General.....	25
3.2	Noise	28
3.3	Traffic	30

CONTENTS

3.4	Air Quality.....	35
3.5	Waste	37
3.6	Soil and Water	42
3.7	Landscaping and Visual Amenity	44
3.8	Biodiversity	47
3.9	Vegetation Management	51
3.10	Hazard, Risk and Emergency.....	54
4	MONITORING AND REPORTING.....	55
4.1	Monitoring and Inspections.....	55
4.2	Reporting	58
4.3	Auditing	61
4.4	Contingency Management Plan.....	62
5	REVIEW.....	70
6	REFERENCES	71

DOCUMENT REFERENCES

TABLES

Table 1	Contact Details	11
Table 2	OEMP Scope	11
Table 3	Personnel Responsible for Environmental Management	14
Table 4	Regulatory Authority Contact List	18
Table 5	General Environmental Management Controls	26
Table 6	Operational Noise Limits.....	28
Table 7	Environmental Management Controls for Noise	29
Table 8	Approved Traffic Generation Rates	30
Table 9	Environmental Management Controls for Traffic	31
Table 10	Environmental Management Controls for Air Quality.....	36
Table 11	Environmental Management Controls for Waste	38
Table 12	Environmental Management Controls for Stormwater	42
Table 13	Environmental Management Controls for Landscaping and Visual Amenity	45
Table 14	Environmental Management Controls for Biodiversity	47
Table 15	Environmental Management Controls for Restoration and Rehabilitation of Vegetation.....	52
Table 16	Environmental Management Controls for Hazard, Risk and Emergency	54
Table 17	Monitoring and Inspections Requirements	55
Table 18	Reporting Requirements.....	58
Table 19	Auditing Requirements	61
Table 20	Contingency Plan.....	62

CONTENTS

FIGURES

Figure 1	Oakdale West Site Layout	8
Figure 2	Oakdale West Staging Plan	10

APPENDICES

Appendix A	Development Consent SSD 7348
Appendix B	OEMP Plan
Appendix C	Relevant Consent Conditions
Appendix D	Operational Traffic Management Plan
Appendix E	Waste Management Plan
Appendix F	Salinity Management Plan
Appendix G	Landscape Management Plan
Appendix H	Flora and Fauna Management Plan
Appendix I	Vegetation Management Plan
Appendix J	Consultation

1 Introduction

1.1 Development Background

Oakdale West Industrial Estate (Oakdale West) is a regional warehouse and distribution hub, located at Kemps Creek within the Penrith local government area (LGA) and forms part of the broader Oakdale Industrial Precinct located within the Western Sydney Employment Area (WSEA) (see **Figure 1**).

Goodman Property Services (Aust) Pty Ltd (Goodman) obtained Development Consent State Significant Development (SSD) 7348 on 13 September 2019 from the Department of Planning, Industry and Environment (DPIE) for the Oakdale West 'Concept Proposal' and 'Stage 1 Development'. The Concept Proposal essentially comprises a 'Master Plan' to guide the staged development of Oakdale West and core development controls that will form the basis for design and assessment of future development applications for the site (see **Figure 2**). It includes:

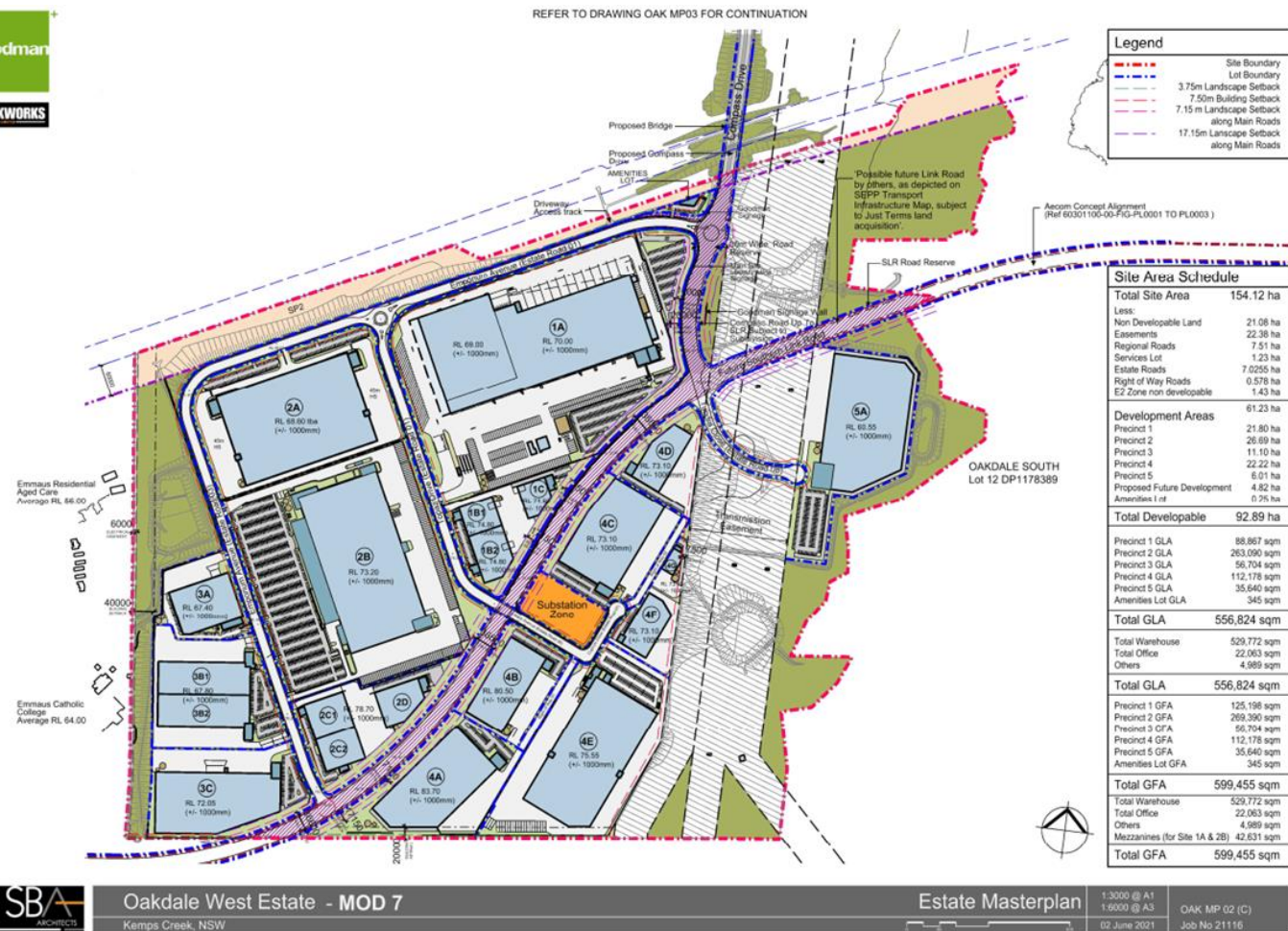
- Establishing primary site access, road layouts (including internal road network and connections to the external road network), developable and non-developable lands, biodiversity offsets, indicative development stages and development controls for the future development of the site;
- Stage 1 Development of the Estate including:
 - Estate Works, including site preparation, bulk earthworks and retaining walls, catchment level stormwater infrastructure, trunk services connections and utility infrastructure, roads and access infrastructure associated with Stage 1 and subdivision in Stage 1 development works;
 - Precinct Development, including construction, fit out and use of warehouse buildings within Precinct 1 (i.e Building 1A, 1B & 1C), detailed earthworks, on lot stormwater, services and utility infrastructure and construction of industrial/warehouse buildings;
 - Construction of a new regional road known as the Western North South Link Road (WNSLR) connecting to Lenore Drive to provide the primary access to the site; and
 - Western boundary landscaping.

Development Consent SSD 7348 has been modified on six occasions as of the date of writing this OEMP, with a seventh modification submitted to DPIE on the 07 June 2021. A summary of the modifications is as follows:

- MOD 1 – approved on 26 March 2020 to modify the concept plan and Stage 1 development, including changes to building pad level of Precinct 2, bio-retention basins and biodiversity offset strategy;
- MOD 2 – approved on 21 April 2020 to modify the concept layout and Stage 1 development to accommodate the design of warehouse Building 1A;
- MOD 3 – approved on 3 April 2020 to modify the Concept Proposal and Stage 1 DA;
- MOD 4 – approved on 24 March 2020 for additional works associated with the WNSLR;
- MOD 5 – approved 5 November 2020 for amendments to Lot 1 and amendments to the Landscape Plan and setback for the WNSLR;
- MOD 6 – approved 10 March 2021 for changes to building pad levels, building heights/layout and construction of Estate Road 08; and
- MOD 7 – has been lodged with DPIE requesting approval for minor building layout changes as well as changes to operational requirements.

A copy of Development Consent SSD 7348 (as modified) is attached as **Appendix A**.

This Operational Environmental Management Plan (OEMP) has been prepared to address the stage 1 approval as noted within the MOD 6 approved staging plan. We note that Compass drive, Roads 1, 3, 6 and 7 are likely to be dedicated at the time of the OEMP being approved. Separate OEMPs will be prepared for individual warehouses prior to the commencement of their operation.



For the purposes of this document, the development is described in:

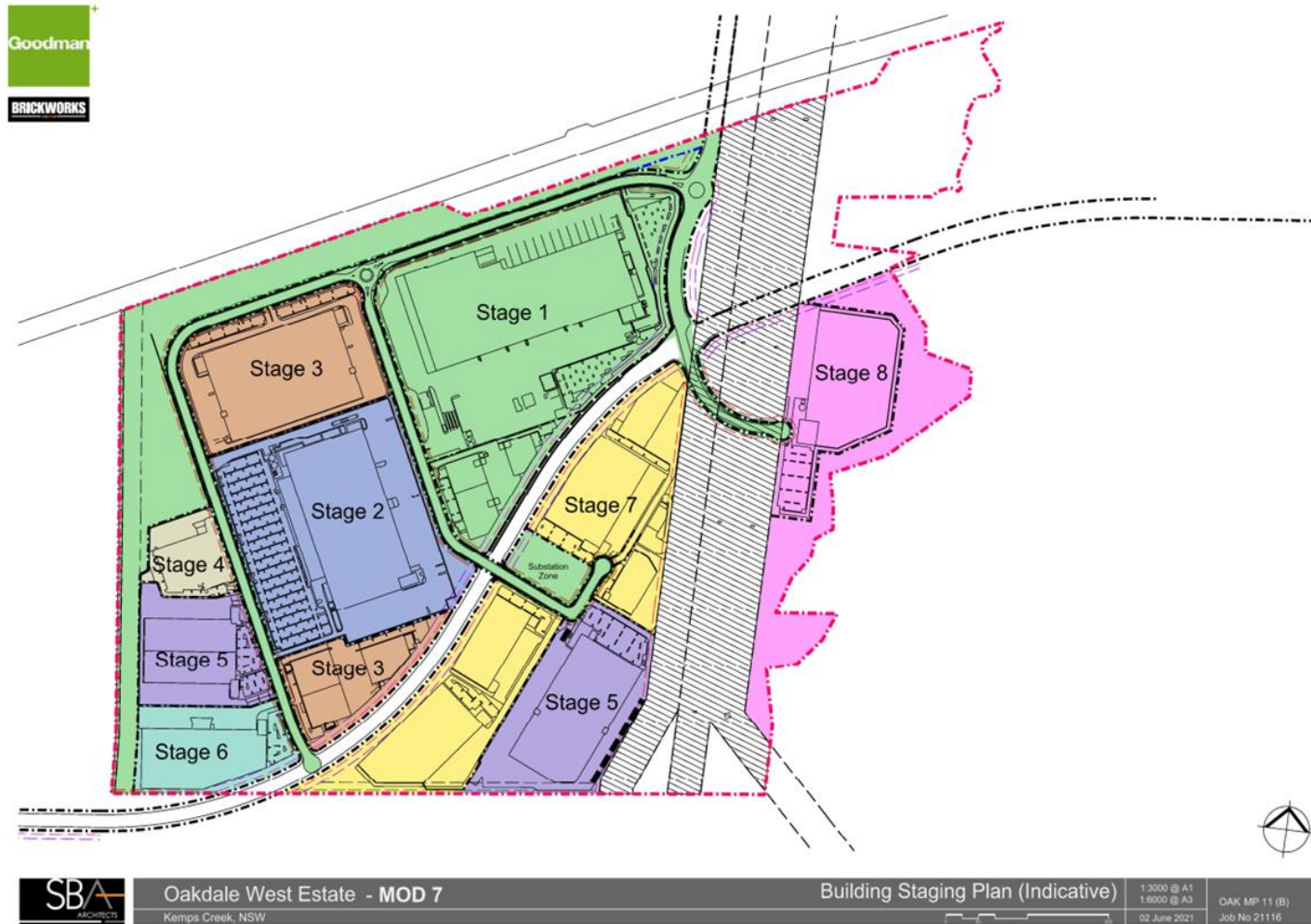
- *Environmental Impact Statement, Oakdale West Estate – State Significant Development Application (EIS)* prepared by Urbis (2017), including all specialist assessments and other appendices;
- *Oakdale West Industrial Estate (SSD 7348) Modification 1* prepared by Urbis (2019), including all specialist assessments and other appendices;
- *Oakdale West Estate SSD 7348 S4.55(2), Modification No.2 – Environmental Assessment Report* prepared by Urbis (2019), including all specialist assessments and other appendices;
- *Oakdale West Industrial Estate Concept Plan and Stage 1 Modification (MOD 3 SSD 7348) and Stage 2 Development Application (SSD 10397) – Environmental Impact Statement* prepared by GHD (2020), including all specialist assessments and other appendices;
- *MOD 4, SSD 7348 – S4.55(1A) Application to Modify the consent to Include Works on Lot 9 DP 1157476* prepared by Goodman (2020);
- *Oakdale West Estate SSD 7348, Section 4.55(1A) Modification No. 5 – Environmental Assessment Report* prepared by Urbis (2020), including all specialist assessments and other appendices; and
- *Assessment Report Section 4.55(1A) Modification, SSD 7348 Modification 6 – 2 Aldington Road, Kemps Creek* prepared by Keylan Consulting (2020), including all specialist assessments and other appendices.

The OEMP has been prepared in consideration of the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources 2004).

Oakdale West provides a logistics hub for the receipt, warehousing and distribution of products. Operational activities are approved for 24 hours a day, seven days a week and will likely include:

- General storage and warehousing;
- Unloading and loading of goods via trucks and shipping containers;
- Management of inventory in a racked and stacked environment;
- Order fulfilment, including picking and packing of finished orders for customers;
- Loading of transport vehicles;
- Management of product returns;
- Inspection of goods for quality assurance purposes; and
- Product embellishment.

Figure 2 Oakdale West Staging Plan



1.2 Relevant Companies

1.2.1 Goodman

In general, Goodman is responsible for the Estate's private infrastructure and overall management of the common vegetated areas of which there a number of key components including Defendable Zones, Bio-retention Basins, landscaped setbacks, Riparian Corridors and development lots including the Amenity Lot.

Goodman is only responsible for the site management of the assets it owns within Oakdale West Estate. It is to be noted that Goodman are not responsible for dedicated roads or the Zone Substation within the Estate once the respective assets ownership is transferred to the relevant utility or authority.

A plan showing the areas Goodman are responsible for under this OEMP is included within **Appendix B**.

1.2.2 Penrith City Council

Penrith City Council will be responsible for the road network within Oakdale West, as well as the streetscape planting in the verges within the road reserves.

1.3 Contact Details

The Goodman Representative will be responsible for all environmental management at Oakdale West assets. Contact details are outlined in **Table 1**.

Table 1 Contact Details

Role	Name	Contact Details
Goodman's Representative	TBC	TBC
Tenant's Representative	As assigned within each Tenancy	As assigned within each Tenancy

1.4 Operational Environmental Management Plan

1.4.1 Scope

This OEMP has been prepared to satisfy Conditions D118 and D130-132 of Development Consent SSD 7348 in relation to Oakdale West. The specific requirements of this consent condition, along with where these requirements have been addressed within this document, are listed in **Table 2**.

Table 2 OEMP Scope

Condition	Section
D118. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	
a) details of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);	i. Section 2.3 ii. Section 3 iii. Refer to specialist management plans

Condition	Section
<ul style="list-style-type: none"> ii. any relevant limits or performance measures and criteria; and iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures; 	
b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 3
c) a program to monitor and report on the: <ul style="list-style-type: none"> i. impacts and environmental performance of Stage 1; and ii. effectiveness of the management measures set out pursuant to paragraph (b) above; 	Section 4
d) 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;	Section 4.4
e) a program to investigate and implement ways to improve the environmental performance of Stage 1 over time;	Section 5
f) a protocol for managing and reporting any: <ul style="list-style-type: none"> 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; and 	<ul style="list-style-type: none"> i. Section 2.6 ii. Section 2.7 iii. Section 4.2
g) a protocol for periodic review of the plan.	Section 5
D130. The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of Condition D118 and to the satisfaction of the Planning Secretary.	This Plan
D131. As part of the OEMP required under Condition D130 of this consent, the Applicant must include the following:	
a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of operation of Stage 1;	Section 2.2
b) describe the procedures that would be implemented to: <ul style="list-style-type: none"> i. keep the local community and relevant agencies informed about the operation and environmental performance of Stage 1; ii. receive, handle, respond to, and record complaints; iii. resolve any disputes that may arise; iv. respond to any non-compliance; v. respond to emergencies; and 	<ul style="list-style-type: none"> i. Section 4.2 ii. Section 2.7 iii. Section 2.8 iv. Section 2.6 v. Section 2.6
c) include the following environmental management plans:	<ul style="list-style-type: none"> i. Section 3.7 ii. Section 3.8

Condition	Section
i. Landscape Management Plan (LMP) (see Condition D35); ii. Flora and Fauna Management Plan (FFMP) (see Condition D88); iii. Waste Management Plan (WMP) (see Condition D112); and iv. Operational Traffic Management Plan (OTMP) (see Condition D69A).	iii. Section 3.5 iv. Section 3.3
D132. The Applicant must: a) not commence operation until the OEMP is approved by the Planning Secretary; and b) operate Stage 1 in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Noted

1.4.2 Objectives

The objectives of this OEMP are to guide and assist Goodman in ensuring:

- The Precinct 1 Operational Environmental Management requirements under SSD Consent 7348 are undertaken and adhered to in line with the relevant consent conditions ;
- Establish the framework for managing and mitigating the potential for adverse environmental impacts as a result of the operation of the Oakdale West Estate;
- Clearly and concisely document the commitments made in the EIS (Urbis 2017) and Response to Submissions (RTS) and SSD 7348 Modification Reports (as listed in **Section 1.1**), including relevant management plans, that are required to be implemented with during operation;
- Demonstrate to DPIE how the applicant proposes to meet all of its regulatory obligations including those outlined in the Conditions of consent;
- Clearly and concisely document the conditions imposed by SSD 7348 that are required to be implemented and/or complied with during operation; and
- Assist to establish Oakdale West in a manner that avoids (where possible) or minimises impact to the surrounding environment and populace.

It is noted that this OEMP does not address workplace health and safety (WHS) requirements. These are managed in accordance with Goodman's Current Work, Health & Safety Policy.

2 Environmental Management Framework

2.1 Goodman Corporate Responsibility and Sustainability Policy

Goodman maintains a *Corporate Responsibility and Sustainability Policy* (CRSP) (GMG 2018) with the primary purpose to:

- Communicate Goodman's commitment to sustainable operating principles endorsed by the Goodman Boards;
- Establish a sustainability mandate which supports the long-term commitment to Goodman's integrated business model;
- Support the adoption of sustainable design principles and innovations within Goodman's development specifications;
- Establish an ongoing commitment to engage with our investors, capital partners, customers, the community and industry peers on issues relating to sustainability; and
- Create a directive to engage with our supply chain to support Goodman in achieving innovative and sustainable outcomes.

Goodman have incorporated the CRSP into the design and construction of the Oakdale West Estate and will continue to be implement it throughout operations as relevant to their ongoing responsibilities.

2.2 Roles and Responsibilities

The key personnel responsible for environmental management at Oakdale West are listed in **Table 3**.

Table 3 Personnel Responsible for Environmental Management

Site	Company and Role	Responsibilities
Oakdale West Estate Infrastructure (Council Owned Roads)	Penrith City Council	<ul style="list-style-type: none">• Ensure the dedicated internal Oakdale West Estate Road network is managed in accordance with the requirements noted under the SSD Consent.
Oakdale West Estate Infrastructure (Excluding Council Owned Roads)	Goodman's Representative	<ul style="list-style-type: none">• Ensure the consultant/contractor is made aware of and understand their obligations under the OEMP.
Sites / Warehouses	Goodman's Representative	<ul style="list-style-type: none">• Ensure the Tenant Representatives are made aware of their obligations of the OEMP (as relevant to their respective site) and that management measures are appropriately implemented and maintained.• Advise and assist the tenant in the implementation of the OEMP, as required.
Sites / Warehouses	Tenant Representatives	<ul style="list-style-type: none">• Ensure that the obligations of this OEMP are implemented and communicated to all relevant parties.• Implement the Complaints and Incident Handling Procedures, as required.

Site	Company and Role	Responsibilities
Sites / Warehouses	Tenants/employees/contractors	<ul style="list-style-type: none"> • Ensure familiarity, implementation and compliance with this OEMP and appended management plans; • Support the company's commitment to environmental management and compliance; • Work in a manner that will not harm the environment or impact on surrounding receptors; • Report all environmental incidents and complaints to the Goodman's Representative without delay; and • Report any inappropriate operational and/or environmental management practices to the Goodman's Representative without delay.

2.3 Statutory Requirements

In accordance with Condition B4 of the SSD 7348 consent, the applicant notes that in consultation with the Tenants Representative, all licences, permits and approvals/consents are obtained as required by law and maintained as required throughout the life of the concept proposal. We note all endeavours will be made to obtain the relevant permit's/licences etc, however we are reliant on the Tenants Representative to provide the information within a timeframe reasonably requested by Goodman's Representative.

All licences, permits, and approvals/consents required for the tenant's specific operational purposes will be obtained and maintained by the Tenants Representative as required post lease approval.

The Development will be constructed in accordance with SSD 7348 (as modified) and also in accordance with the documents referenced under Condition B5 of the Consent:

- The EIS (Urbis 2017) and RTS;
- The development layout plans and drawings attached to the Development Consent as Appendix 1 and Appendix 2;
- the Applicant's Management and Mitigation Measures in Appendix 7 of the SSD 7348 consent; and
- Modifications to SSD 7348 and associated EIS's and assessment reports.

If there is any inconsistency between the plans and documentation referred to in Condition B5, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of SSD 7348 prevail to the extent of any inconsistency.

The consent conditions applicable to the operation of Oakdale West are listed in **Appendix C**. (N.B. The administrative conditions and conditions relating to the construction phase have not been included in **Appendix C**, only those conditions specific to site operation have been included).

2.4 Community Enquiries

Relevant contact details, including a phone number for community enquiries, will be included on site signage or are available on Goodman's website. All community enquiries should be forwarded to Goodman's Representative.

2.5 Environmental Training

It is responsibility of Goodman's Representative to ensure all Tenant's Representatives and maintenance contractors engaged by Goodman are appropriately inducted and aware of their general obligations under this OEMP. It is then the responsibility of the respective Tenant Representatives to ensure all other employees and contractors are appropriately inducted and aware of their obligations under the OEMP. It is also the responsibility of the Tenant Representatives to conduct regular "toolbox talks" to ensure continuing awareness of environmental management expectations and responsibilities as applicable to their operations.

The topics to be covered during the induction and toolbox talks include:

- General site maintenance and management expectations and requirements;
- Familiarisation with site environmental controls;
- The environmental management commitments and responsibilities in this OEMP (including appended management plans);
- Appropriate response and management of environmental incidents (for example, a chemical spill) in accordance with the incidents protocol in **Section 2.6**; and
- Appropriate response and management of complaints received from the public, government agencies or other stakeholders in accordance with the complaints protocol in **Section 2.7**.

Records of all training undertaken should be recorded and maintained in an Environmental Training Register to maintain consistency and for audit purposes.

2.6 Incident and Non-Compliance Response and Handling Procedure

For the purposes of this OEMP, SSD 7348 describes an 'incident' 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. SSD 7348 describes a 'non-compliance' as an occurrence, set of circumstances or development that is a breach of the consent.

As per Section 147 of the *Protection of the Environment Operations Act 1997* (POEO Act), SSD 7348 defines material harm 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).*

It is noted that incidents relating to workplace health and safety (WHS) are not addressed by this OEMP. WHS incidents are managed in accordance with Goodman's current Work, Health & Safety policy.

2.6.1 Objective

To ensure that any environmental incident caused by or relating to the operation of Oakdale West is effectively responded to, and any resulting adverse environmental impact is promptly prevented or effectively managed.

2.6.2 Responsibility

Goodman's Representative is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an environmental incident and SSD 7348 non-compliance. The induction outlined in **Section 2.5** should be used to ensure the Tenant Representatives are aware of and understand their obligations for incident response. It is the responsibility of the respective Tenant Representatives to ensure all other employees and contractors are aware of the incident management response and handling procedures.

All tenant employees and contractors are to:

- Notify Tenant Representative once aware of any hazard or potential hazard that may result in an environmental incident, regardless of the nature or scale;
- Take immediate action to notify the Goodman Representative, of any environmental incident; and
- Take immediate action (where it is safe to do so) to prevent, stop, contain and/or minimise any adverse impact associated with an incident.

2.6.3 Notification Requirements

2.6.3.1 Incidents

Section 147 of the *Protection of the Environment Operations Act 1997* (POEO Act) defines material harm as:

- a) *harm to the environment is material if:*
- it involves actual or potential harm' to the health or safety of human beings or to ecosystems that is not trivial, or*
 - it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*
- b) *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.*

Notification responsibilities for incidents that have caused or threatened to cause material harm to the environment are detailed in Section 148 of the POEO Act. In summary, these are broadly categorised as:

Duty of an employee or any person undertaking an activity:

Any person engaged as a Tenant employee or undertaking an activity at Oakdale West will, immediately after becoming aware of any potential incident (even if outside of normal business hours), notify their respective tenant representative of the incident and all relevant information about it. If the tenant representative is unavailable, the Goodman Representative must be contacted. All tenant representatives and the Goodman Representative will be available 24 hours a day, seven days a week and have the authority to stop or direct works.

Duty of an employer or occupier of the premises to notify:

The employer or occupier of the premises on which the incident occurred, who is notified (or otherwise becomes aware of) of the incident, must immediately notify the relevant authorities about the incident and all relevant information.

Under the POEO Act, “relevant authority” means any of the following:

- The appropriate regulatory authority – the Environment Protection Authority (EPA);
- If the EPA is not the appropriate regulatory authority – the local authority for the area in which the pollution incident occurs (i.e. Council);
- NSW Public Health Unit;
- SafeWork NSW;
- Fire and Rescue NSW; and
- Water NSW (if the event has an effect on the WaterNSW pipeline corridor).

Table 4 lists the contact details for these authorities. The person reporting the pollution incident will provide the following key details:

- Location of the pollution incident/emergency;
- Nature of the pollution incident/emergency;
- Their name and contact details; and
- Details of any required assistance.

Table 4 Regulatory Authority Contact List

Regulatory Authority	Key Contact	Contact Details
Department of Planning, Industry and Environment (DPIE)	Compliance Unit	1300 305 695 compliance@planning.nsw.gov.au
Environment Protection Authority (EPA)	Environment Line	131 555 info@environment.nsw.gov.au
	Head Office (Sydney)	02 9995 5000
Penrith City Council	Main switchboard	02 4732 777 council@penrith.city
Water NSW	Main switchboard	1300 662 077 Customer.Helpdesk@waternsw.com.au

Regulatory Authority	Key Contact	Contact Details	
	Incident Notification Number – 24 hours	1800 061 069	
NSW Public Health Unit	Sydney Local Health District	Business hours: 1300 066 055 After hours: 02 9515 6111	
SafeWork NSW	Incident Notification Hotline	131 050 Select Option 3 to report a “Serious Incident or Fatality” – this will result in the incident being recorded and the appropriate person being contacted.	
Emergency Services	NSW Police NSW Fire and Rescue NSW Ambulance Service	131 444 1300 729 –	In case of emergency – 000

In accordance with Condition D135 of Development Consent SSD 7348, Goodman is required to provide written notification to DPIE following any incident as defined by the POEO Act. The procedure for notification will be as follows

- Tenant’s representative is to immediately provide written notification to the Goodman Representative when they become aware of an environmental incident/potential incident.
- When Goodman becomes aware of this environmental incident/potential incident, they will notify DPIE immediately.
- Tenant’s Representative will provide a written incident notification to the Goodman Representative within 5 calendar days.
- The Goodman Representative will review and submit the written incident notification to DPIE within 7 calendar days from the original notification to Goodman.
- Tenant’s Representative will provide a written incident report within 25 calendar days to Goodman Representative in accordance with Section 2.6.4 item 3 of this report.
- Goodman Representative will review and submit the written incident report to DPIE within 30 calendar days from the notification of the original event occurrence.

2.6.3.2 Non-Compliances

In accordance with Condition D136 of SSD 7348, the DPIE will be notified in writing to compliance@planning.nsw.gov.au within seven days of becoming aware of any non-compliance. Non-compliances will be treated with the incident notification procedure identified in **Section 2.6.3.1**.

Conditions D137 and D138 of SSD 7348 state that a non-compliance notification will 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.

2.6.4 Incidents and Non-Compliance Handling Procedure

Upon becoming aware of an incident and/or non-compliance, the procedure outlined below will be followed.

1. Preventative Action

Where possible and safe to do so, immediate action will be taken to prevent, stop, contain and/or minimise the environmental impact of the incident and/or non-compliance.

In the unlikely event that an incident and/or non-compliance requires the evacuation of the site, actions will be completed in accordance with evacuation procedures. All Tenants employees and contractors are to be made aware of the location of emergency assembly areas through site inductions and signage.

2. Assistance

If adequate internal resources are not available and the incident and/or non-compliance threatens public health, property or the environment, it is essential that Fire and Rescue NSW be contacted by telephoning “000” for emergency assistance.

Contacting Fire and Rescue NSW does not negate the notification requirements in **Section 2.6.3**.

3. Notify

Under the provisions of the POEO Act, there is a duty to notify any incident that has caused or threatens to cause material harm to the environment and all relevant information about the incident. The specific duties to notify are outlined above in **Section 2.6.3**.

In the event of a serious incident or emergency, it is more than likely that Fire and Rescue NSW will take control and manage the required investigation and remedial activities. Any instructions issued will be strictly adhered to.

Condition D135 of the consent stipulates that the applicant must notify DPIE immediately after becoming aware of an incident.

Furthermore, Appendix 8 of the SSD 7348 stipulates that the DPIE will receive written notification via email within 7 days of the incident’s occurrence.

A written notification will:

- Identify the development and application number;
- Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- Identify how the incident was detected;
- Identify when the Applicant became aware of the incident;
- Identify any actual or potential non-compliance with conditions of consent;
- Describe what immediate steps were taken in relation to the incident;
- Identify further action(s) that will be taken in relation to the incident; and
- Identify a contact for further communication regarding the incident.

Non-compliances will be notified in accordance with **Section 2.6.3.2**.

4. Investigate

Undertake immediate investigative work to determine the cause of the incident and/or non-compliance.

5. Remedial Action

Undertake appropriate remedial action to address the cause of the incident and/or non-compliance and mitigate any further environmental impact. In some instances, outside resources such as specialist contractors/consultants may be required.

6. Record

It is imperative that an honest assessment of the situation is carried out and documented in order to minimise the potential for similar events in the future. On this basis, every incident is to be recorded in an Incident Form. A copy of the completed report will be maintained for at least five years.

Condition D135 and Appendix 8 of Development Consent SSD 7348 requires that a detailed incident report be provided to the DPIE within 30 days of the incident occurring.

The Incident Report will include:

- A summary of the incident;
- Outcomes of an incident investigation, including identification of the cause of the incident;
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- Details of any communication with other stakeholders regarding the incident.

All non-compliances are recorded in accordance with Condition D137 of SSD 7348.

7. Preventative Action

Once the incident and/or non-compliance has been suitably handled, appropriate measures will be identified and implemented to reduce the possibility of re-occurrence.

2.6.5 Incident and Non-Compliance Report

Records of all incidents and non-compliances will be maintained in Goodman's incident register system. Details of all incidents and complaints will be retained for at least five years after the event to which they relate.

2.6.6 Minor Environmental Incidents

There is the possibility of minor environmental incidents occurring as part of this project. SLR have defined a 'Minor Environmental Incident' as an incident where there has been no potential or actual material harm to the environment (see 'material harm' definition outlined in **Section 2.6.3**).

Minor environmental incidents will still be handled under the process outlined in **Section 2.6.4** except there will be no requirement for government notification. All minor or major incidents will be recorded in the Incident Register. A minor incident does not constitute a non-compliance with the Development Consent.

2.7 Complaints Response and Handling Procedure

2.7.1 Objective

To ensure that all environmental complaints in relation to the operation of Oakdale West are promptly and effectively received, handled and addressed.

2.7.2 Responsibility

Goodman's Representative is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an environmental complaint. The induction is outlined in **Section 2.5** should be used to ensure Tenant Representatives are aware of and understand their obligations for complaint response. It is the responsibility of the respective Tenant Representatives to ensure all other employees and contractors are aware of the complaints response and handling procedures.

All employees and contractors will immediately notify their respective Tenant Representative following receipt of a complaint, either verbal or written. The Tenant Representative will then contact Goodman's Representative in regard to the matter.

2.7.3 Handling Procedure

Upon becoming aware of a complaint, the protocol outlined below must be followed.

1. Record and Acknowledge

Any employee who takes receipt of a complaint, either verbal or written, are to immediately notify the tenant representative who will then contact the Goodman Representative.

In the normal course of events, the first contact for complaints will usually be made in person or by telephone.

The complainant's name, address and contact details, along with the nature of the complaint, will be requested. If the complainant refuses to supply the requested information, a note will be made on the form and complainant advised of this.

2. Assess and Prioritise

The Goodman Representative will prioritise all complaints by considering the seriousness of the complaint and will attempt to provide an immediate response via phone or email.

3. Investigate

A field investigation will be initiated in an attempt to confirm details relevant to the complaint and the cause of the problem. Any monitoring information and/or records at and around the time of the complaint will be reviewed for any abnormality or incident that may have resulted in the complaint.

If the complaint is due to an incident, the notification requirements and handling procedures outlined in **Section 2.7** must be followed.

4. Action or Rectify

Once the cause of the complaint has been established, every possible effort will be made to undertake appropriate action to rectify the cause of the complaint and mitigate any further impact. The Goodman Representative will assess whether the complaint is founded or unfounded and delegate the remediation of the issue to the tenant representative for action, as required.

5. Inform

The Goodman Representative will oversee the rectification of the issue and respond to the complainant once the issue has been resolved. The complainant will be provided with a follow up verbal response on what action is proposed. Where a complaint cannot be resolved by the initial or follow-up verbal response, a written response will be provided to the complainant.

6. Record

It is imperative that an honest assessment of the situation is carried out and documented in order to minimise the potential for similar complaints in the future. On this basis, every complaint received is to be recorded in the Complaint Form. A copy of the completed form should be maintained for at least five years.

7. Preventative Action

Once the complaint has been suitably handled, appropriate measures should be identified and implemented to negate the possibility of re-occurrence.

2.7.4 Complaints Register

A Complaints Register will be maintained for Oakdale West. The register should contain the following:

- A copy of the environmental complaint handling procedure contained in **Section 2.7.3**;
- A reference sheet containing the contact details for Goodman's Representative and the tenant representatives;
- Blank copies of the Complaint Form; and
- Copies of all completed Complaint Form, which are to be maintained for at least five years after the event to which they relate.

The Complaint Register will be either kept on site as hard copy or maintained digitally in soft copy, as appropriate to site operations.

2.8 Dispute Resolution

In the event that a dispute arises between Goodman and Council or a public authority, in relation to an applicable requirement in this consent or relevant matter relating to the operation of the Oakdale West Estate, either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary's determination of any such dispute will be final and binding on the parties.

In the case of a dispute between Goodman and a community member/complainant, either party may refer the matter to the DPIE and/or relevant regulatory authority for consideration, advice and/or negotiation. If the matter escalates, a third party mediator may be required. It should be noted that Condition D127g states 'as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints'.

2.9 Consultation

Council

In accordance with Condition D69A a) of Development Consent SSD 7348, a copy of the Operational Traffic Management Plan (OTMP) was emailed to Penrith City Council (Council) for review and feedback. Council responded on the 17 August 2021 advising that the OTMP had been reviewed and required minor revisions. The OTMP has since been revised and is included in Appendix D.

Transport for New South Wales

In accordance with Condition D69A a) of Development Consent SSD 7348, a copy of the OTMP was emailed to Transport for New South Wales (TfNSW) on 16 July 2021 for review and feedback. TfNSW responded on 5 August 2021 advising that the OTMP had been reviewed and TfNSW required it to be revised. The OTMP has since been revised and is included as Appendix D.

A copy of all consultation correspondence is appended as Appendix J.

3 Environmental Management Commitments

Environmental aspects with the potential to be impacted by Oakdale West are addressed in the following sub-sections. These issues have specific regulatory requirements (imposed by Development Consent SSD 7348) and/or are considered to have the highest potential to result in a non-compliance with a legislative requirement or generate community complaints.

3.1 General

Table 5 lists the general environmental controls that will be implemented throughout the life of the development to minimise the potential for adverse impacts on the local environmental and surrounding receptors.

Table 5 General Environmental Management Controls

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
All licences, permits, and approvals/consents will be obtained prior to Lease commencement	x			Prior to commencing operation	SSD 7348 Condition B4
All licences, permits, and approvals/consents will be obtained and maintained as required post lease approval		x		Ongoing post lease commencement	SSD 7348 Condition B4
Safe and unobstructed access will be provided for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week.	x			Ongoing	SSD 7348 Condition B21 and D30
All staff will comply with the requirements of TransGrid for any works in the TransGrid easement.					
TransGrid will be advised of any proposed amended or modified encroachment into the easement.					
Safe and unobstructed access will be provided for Water NSW plant and personnel to access the water pipelines corridor adjacent the site, 24 hours a day, 7 days a week.					SSD 7348 Condition B23
All staff will comply with the requirements of Water NSW for any works adjacent to or over, the water pipelines corridor.					
Water NSW will be advised of any proposed amended or modified encroachment into the water pipelines corridor.	x				SSD 7348 Condition D1
All reasonable and feasible measures will be implemented to prevent and minimise, any material harm to the environment.	x	x			

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
All plant and equipment will be maintained and operated in a proper and efficient manner.		x		Ongoing	SSD 7348 Condition D21

3.2 Noise

Operational noise at Oakdale West will be managed in accordance with the operational noise limits implemented by Condition B18 of Development Consent SSD 7348 and replicated in **Table 6**. Note noise criteria implemented by Condition 18 of Development Consent SSD 7348 as modified, N4 & N5 are not applicable, as noise agreements are in place.

Table 6 Operational Noise Limits

Location	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{AMax}
N1 Emmaus Village Residential	44	43	41	52
N3 Kems Creek – nearest residential property	39	39	37	52
N4 & N5 Kems Creek – other residences	39	39	37	52
All other non-associated residences	40 ²	35 ²	35 ²	52
N2 Emmaus Catholic College (school)	When in use: 45 _{Leq} (1h)			

Notes:

- Noise generated by the development is to be measured in accordance with the relevant procedures and modifications, including certain meteorological conditions, of the Noise Policy for Industry (EPA 2017). Refer to the plan in Appendix 2 for the location of residential sensitive receivers.
- or background + 5 dB, whichever is higher.

The environmental management controls in **Table 7** will be implemented to minimise the potential for adverse noise emissions from the operation of Oakdale West.

Table 7 Environmental Management Controls for Noise

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Rooftop mechanical plant will not be operated on buildings on Lots 2C-2E, 3A, 3B, 3C, 3D, 3E, 4A, 4B and 4E.				During the night-time period	SSD 7348 Condition B9(d)
Forklifts will not be operated on Lots 2C-2E, 3B, 3C, 3D, 3E, 4A, 4E and 5A.					SSD 7348 Condition B9(e)
The noise limits outlined in Table 6 will be complied with.				Ongoing	SSD 7348 Condition B18 and D75
The noise limits in Table 6 will not apply to receiver N3, N4 and N5 if the Applicant has a Noise Agreement with the relevant landowner to exceed the noise limits, and the Applicant has provided written evidence to the Planning Secretary that an agreement is in place.				If required	SSD 7348 Condition B19
A Noise Verification Report will be prepared in accordance with Condition D75B.	x			Within 3 months of commencing operation	SSD 7348 Condition D75B
All plant and equipment will be maintained and operated in a proper and efficient manner.		x		Ongoing	SSD 7348 Condition D21 (a) & (b)
Where practicable, all roller doors will be kept closed during the night-time period.		x		On-going	Best Practice
Outdoor fixed plant installed as part of the Base Building will be enclosed where possible.	x				
Outdoor fixed plant installed post Practical Completion will be enclosed where possible.		x			

3.3 Traffic

Operational traffic at Oakdale West will be managed in accordance with the Operational Traffic Management Plan (OTMP) prepared by Ason (2021) and attached as **Appendix D**.

The approved traffic generation rates for Oakdale West are outlined in **Table 8**.

Table 8 Approved Traffic Generation Rates

Precinct	AM	PM	Daily
1	103	78	2,499
2	924	633	4,953
3	93	93	1,082
4	175	175	2,036
5	58	58	674
Total	1,354	1,038	11,244

The environmental management controls in **Table 9** will be implemented to further minimise the potential for adverse impact associated with operational traffic at Oakdale West.

Table 9 Environmental Management Controls for Traffic

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
All traffic will use the Western North South Link Road (Compass Drive), and the future Southern Link Road, to access the site and will not use Bakers Lane or Aldington Road.		x		Ongoing	SSD 7348 Condition B9(g)
Internal roads, driveways and parking will be maintained in accordance with the latest version of AS 2890.1:2004 and AS 2890.2:2002.					SSD 7348 Condition D69(a)
Parking for Stage 1 will be provided in accordance with the EIS and RTS for MOD 5.			x		SSD 7348 Condition D69(b)
The swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, will be accordance with the relevant Austroads guidelines.					SSD 7348 Condition D69(c)
Vehicles will not queue on the public road network.					SSD 7348 Condition D69(d)
Heavy vehicles over 4.5 tonne will not park on local roads or footpaths.		x			SSD 7348 Condition D69(e)
All vehicles will be wholly contained on site before stopping.					SSD 7348 Condition D69(f)

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
All loading and unloading of materials will be carried out on Site.					SSD 7348 Condition D69(g)
All trucks entering or leaving the Site will have their loads covered and will not track dirt onto the public road network.		x		Ongoing	SSD 7348 Condition D69(h)
The turning areas in the car parks will be kept clear of any obstacles, including parked cars, at all times.					SSD 7348 Condition D69(i)
All access to the Estate is provided via Compass Drive. Vehicles are expected to head south on Compass Drive and onto the internal estate roads.		x		Ongoing	OTMP Section 2.1
Pedestrian access to on-site hardstand areas used by heavy vehicles will be restricted as far as practicable for safety purposes.		x		As required	OTMP Section 4.1.1
All Drivers of Goodman Tenanted facilities will operate vehicles in a manner consistent with the requirements of applicable Work Health and Safety (WHS) legislation and other business specific policies.		x		Ongoing	OTMP Section 4.2
All commercial vehicle drivers of Goodman Tenanted facilities will be familiar with the Driver Code of Conduct.				Prior to entering the site	

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Any posted speed signage within the site (private roads) should not replicate the design and appearance of the regulatory speed limit signage (a number within the red circle).				Ongoing	
All Goodman tenanted trucks and approved B-doubles will access the site in accordance with the OTMP.				Ongoing	OTMP Section 4.2.2 and 4.2.3
Temporary / unplanned work areas and temporary pedestrian paths will be physically separated from vehicle movements by way of traffic cones, bollards and/or temporary pedestrian fencing.					OTMP Section 4.5
A Transport Emergency Response Plan (TERP) is required prior to transport of any Dangerous Goods. A TERP will be prepared by the Tenant involved in the transport of Dangerous Goods to/from the individual businesses within Oakdale West.				As required Ongoing	OTMP Section 4.6
Drivers of Goodman Tenanted facilities will adhere to the Driver Code of Contact stipulated in Section 5 of the OTMP.					OTMP Section 5
Vehicles will not to be parked On-street parking restrictions are detailed in Section 6.2 of the OTMP.				Ongoing	OTMP Section 6.2
Drivers will ensure that trailers are parked within their designated areas and will not park trailers within circulation roadways and access roads (incl. emergency vehicle access roads).					OTMP Section 6.2

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Management of respective Lots will remain the responsibility of the respective property's owner to ensure that no vehicles associated with business operations are parked on-street.					

3.4 Air Quality

Air quality impacts associated with the operational phase of Oakdale West are anticipated to be negligible, with the main source of emissions likely to be exhaust emissions from heavy vehicles idling on-site. There is potential for wheel-generated dust from vehicles entering and exiting the site, however the local public road network and internal roads are all sealed.

The environmental controls in **Table 10** will be implemented to further minimise the potential for adverse air quality impacts associated with operational activities at Oakdale West.

Table 10 Environmental Management Controls for Air Quality

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Operation will not cause or permit the emission of any offensive odour, as defined in the POEO Act.					SSD 7348 Condition D102
All vehicles and mobile plant will be switched off (i.e. not left idling) when not in use for an extended period of time.		x		Ongoing	Best practice

3.5 Waste

As required by Condition D112 of SSD 7348, the Waste Management Plan (WMP) (SLR 2021) prepared as part of the EIS will be implemented during the operation of Oakdale West. A copy of the WMP is attached as **Appendix E**.

The environmental management controls in **Table 11** will be implemented to minimise the potential for adverse waste impacts from the operation of Oakdale West.

Table 11 Environmental Management Controls for Waste

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Waste will be secured and maintained within designated waste storage areas at all times and will not leave the site onto neighbouring public or private properties.		x		Ongoing	SSD 7348 Condition D111
The WMP will be implemented for the duration of operation.					SSD 7348 Condition D112
All liquid and non-liquid wastes to be taken off site will be assessed and classified in accordance with the latest version of the <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA 2014) and dispose of all wastes to a facility that may lawfully accept the waste.					SSD 7348 Condition D113
Waste generated outside the site will not be received for storage, treatment, processing, reprocessing, or disposal.					SSD 7348 Condition D114
Waste management performance will contribute to the overall NSW State targets for recycling outlined in the current NSW Waste Avoidance and Resource Recovery Strategy.					WMP Section 6.1
If additional collection services are required these will be organised with a private waste contractor who can provide additional bins and take collected waste to an off-site licenced facility.				As required	WMP Section 6.3
Garden organic waste will be taken by a landscaping contractor who will dispose of it at an off-site licenced facility.	x				WMP Section 6.3.1
For any heavy vehicle workshops, tyres that cannot be reused will be collected by a private waste contractor who will transport them to a licenced recycling facility where they will be stored until they are recycled.		x			

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Skip bins will be stored and used on-site for the collection of metals for recycling at a licenced metal recycling facility, transported by a private waste contractor.				Ongoing	
All heavy vehicle parts that are unsuitable for reuse or recycling will be stockpiled and collected by a private waste contractor for disposal at a licenced recycling facility or licenced landfill site.				As required	
Bulk bins will be checked by the Tenant Representative to ensure that no overflow occurs. If skip bins are reaching capacity, removal and replacement will be arranged.				As required	WMP Section 6.3.1
All bulk bins leaving the site will be covered with a suitable tarpaulin to ensure no spillage of waste during transport.				Ongoing	
Waste produced by Precincts will be stored in waste compactors stored externally to the warehouse. Waste will be taken directly to the compactors.		x			
Oakdale West may choose to have general landfill waste and comingled recycling bins present and positioned in easily accessible areas throughout the offices for effective recycling results. Waste and recyclables from each holding area in the premises will be transferred to the centralised compaction area.					WMP Section 6.4.1
Any waste and recycling compaction locations will incorporate measures to ensure best practice waste management and compliance with Council requirements, as outlined in section 6.4.1 of WMP.					
Compactors and bins will be positioned in locations accessible to waste collection vehicles and be serviced directly. When servicing Oakdale West, all vehicles are to service the site in a clockwise circulation.					WMP Section 6.4.2

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Sufficient space will be provided in Oakdale West for the segregation and storage of large and bulky items. This includes broken pallets, broken storage units, e-waste and other materials that cannot be disposed of in the general or recyclable waste stream.					WMP Section 6.4.1 and 6.4.3
Space will also be allocated to store reusable items such as crates and pallets for occupational safety purposes and so that storage in a public place is avoided.		x			
The Tenant Representative will consider organising a skip on a monthly basis or as required to remove bulky waste items or engage a contractor to collect and transport these items for reuse, recycling or disposal at an EPA licensed facility.					WMP Section 6.4.3
A suitably licensed e-waste recycling contractor will be engaged to collect and recycle all e-waste items generated at the facility.					
Waste avoidance measures will be implemented in accordance with Section 6.5.1 of the WMP.		x		Ongoing	WMP Section 6.5.1
Waste re-use opportunities that will be used at Oakdale West include establishing systems with in-house and supply chain stakeholders to transport products in re-useable packaging where possible.				Ongoing	WMP Section 6.5.2
Waste recycling opportunities will be taken in accordance with Section 6.5.3 of the WMP.		x			WMP Section 6.5.3
Waste management initiatives and management measures should be clearly communicated to employees, customers and cleaners to improve waste avoidance and resource recovery.					WMP Section 6.7

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Waste signage and communication strategies will be implemented in accordance with Section 6.6 and 6.7 of the WMP.		x		Ongoing	WMP Section 6.6 and 6.7
All contracts made with cleaners, Tenant Representative and contractors are to clearly explain Oakdale West's waste management system and identify roles and responsibilities.		x			WMP Section 6.9
It is the responsibility of the Tenant Representative to implement the WMP and a responsibility of the employees and cleaners to ensure that they comply with the WMP at all times.		x			
The Tenant's Representative will routinely check waste sorting and storage areas for cleanliness, hygiene and safety.					
The Tenant's Representative will ensure all monitoring and audit results are well documented and carried out as specified in the WMP.		x			
Operational Waste management responsibilities will be allocated in accordance with Table 13 in Section 6.9 of the WMP.					

3.6 Soil and Water

The environmental controls in **Table 12** will be implemented to ensure the effective management of soil and water at Oakdale West in accordance with the conditions implemented by Development Consent SSD 7348 and management measures contained in the Salinity Management Plan (Pells Sullivan Meynink 2015b) – prepared in accordance with WSROC’s Salinity Code of Practice (2004) contained in **Appendix F**.

Table 12 Environmental Management Controls for Stormwater

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
Operation will comply with section 120 of the POEO Act, which prohibits the pollution of waters.		x		Ongoing	SSD 7348 Condition D82
The stormwater management system will be operated in accordance with Condition D83.	x				SSD 7348 Condition D83
Water storage basins and stormwater infrastructure owned and managed by Goodman will be managed in accordance with the manufacturers specifications.	x				Best practice
Consideration will be given to other possible rainwater reuse opportunities such as for truck washing.	x			Ongoing	SSD 7348 Appendix 7
Roads, footpath and hardstand surfaces will be graded and the grades maintained at all times to prevent ponding of surface water at locations where this can result in infiltration into the underlying soils (e.g. pavement joints).	x				Salinity Management Plan Section 5.4
Connections between the roads, footpath and hardstand surfaces and the surface water and stormwater drainage infrastructure will be designed, constructed and maintained to restrict infiltration into underlying soils.	x				Management Plan Section 5.5

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Stormwater and surface water will be managed to restrict infiltration.	x			Ongoing	Salinity Management Plan Section 5.9
Guttering and down pipes will be connected and maintained.	x				
The use of infiltration pits to disperse surface water will be avoided.	x				

3.7 Landscaping and Visual Amenity

The visual amenity and landscaping at Oakdale West will be maintained in accordance with the Landscape Management Plan (LMP) (Scape Design 2021) and contained in **Appendix F** and Salinity Management Plan (Pells Sullivan Meynink 2015b) – prepared in accordance with WSROC's *Salinity Code of Practice* (2004) contained in **Appendix F**.

The environmental controls in **Table 13** will be implemented to minimise the visual impact of the development.

Table 13 Environmental Management Controls for Landscaping and Visual Amenity

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
All landscaping implemented as part of Stage 1, as shown on Figure 4 in Appendix 2 of SSD 7348 will be maintained. Re-planting and rehabilitation works will be undertaken if any aspect of the landscaping has not been successful.	x			Ongoing	SSD 7348 Condition D38
Lighting will comply with the latest version of AS 4282.	x	x			SSD 7348 Condition D40
Lighting will be mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.					
Any security cameras will be directed away from adjacent private properties.					
A Maintenance Logbook will be maintained in accordance with Section 5.2.7 of the LMP.	x				LMP Section 5.2.7
All maintenance works will be undertaken in accordance with Section 5.3 of the LMP.					LMP Section 5.3
Vegetation cover will be established and maintained on permanent batters to control erosion.	x			Ongoing	Salinity Management Plan Section 5.2
Surface water runoff will be directed around all exposed surfaces, temporary stockpiles and landscaped areas.	x				

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
<p>Recharge of groundwater and potential for water logging will be minimised by:</p> <ul style="list-style-type: none"> • Adopting 'waterwise' gardening principles; and • Minimising use of potable water in landscaped areas. 				Ongoing	Salinity Management Plan Section 5.5

3.8 Biodiversity

As required by Condition D131(c)(ii) of SSD 7348, a Flora and Fauna Management Plan (FFMP) (Ecologique 2021) has been prepared for the operation of Oakdale West and is attached as **Appendix H**.

Table 14 outlines the mitigation measures to be implemented during operation to manage any impacts to biodiversity.

Table 14 Environmental Management Controls for Biodiversity

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
Suitable measures will be implemented to manage pests, vermin and declared noxious weeds on the Site.	x			Ongoing	SSD 7348 Condition D115
The Site will be inspected to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on Site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in the surrounding area.					
General Management Requirements					
Ongoing management of retained native vegetation will be in accordance with the Oakdale West VMP (Ecologique 2020).	x			Ongoing	FFMP Section 5
Ongoing maintenance and management of other areas of planted native vegetation including road batters, embankments, and bio-retention basins will be in accordance with the LMP.					
Wildlife Protection					
All personnel including contractors will be made aware of the possibility of encountering fauna, through any estate or individual lot works induction processes.	x	x		At induction and ongoing	FFMP Section 5
All personnel including contractors will report any injured or near miss incidents with wildlife.				Immediately	

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Incident reports will be assessed on an ongoing basis. An adaptive management approach will be undertaken in the event that wildlife is being reported within the estate. Particularly, should any wildlife be killed, injured (or near misses for such) be reported from Compass Drive and estate roads (e.g. wildlife signage, information / notification to the Tenant's Representative). Once water levels are below one third full to determine whether any aquatic fauna is likely to require capture and relocation.	x	x		As required	FFMP Section 6
Regular monitoring of basin dewatering will be undertaken once water levels are below one third full to determine whether any aquatic fauna is likely to require capture and relocation.				When basin water levels are below one-third full.	
Should unexpected fauna be encountered within any estate work sites or individual lots or sub-lot /building areas, the stop works procedure provided in Section 6 of the FFMP will be followed.	x	x		Immediately	
Erosion and Sediment Control					
Offsite discharges will be managed in strict accordance with relevant Erosion and Sediment Control Plans.	x			Ongoing	FFMP Section 5
A spill kit will be provided in an easily accessible location in the event that fuel or other contaminant spills occur.					

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Weed, Pest Species and Pathogen Management					
Tenant's at their own expense, will ensure that all material deposited on road pavements, or road reserves, is promptly and effectively removed. This may include but not be limited to: <ul style="list-style-type: none">Mud, weeds (and potential pathogens) brought in on vehicles, plant and machinery; andMaterials spilled from tenant's vehicle fleet and contractor vehicles/trucks.		x		Ongoing	FFMP Section 5
Future Tenant Representative will install rodent (electronic or sonar) repellents to minimise prey for snakes.				At commencement of lease / ongoing	
Waste management will be in accordance with the WMP, and includes the following: <ul style="list-style-type: none">All waste placed in skips or bins for disposal or recycling will be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site;Lids on skips or bins will be kept closed at all times; andAdequate environmental management controls will be employed to prevent off-site migration of waste materials and contamination from the waste. For example, consideration of slope, drainage, proximity relative to waterways, stormwater outlets and vegetation.		x		Ongoing	

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
All waste entering non-developed areas of the estate, in particular a biodiversity management area and landscaping area, will be collected and removed by the Goodman Representative at the expense of the tenant.	x			Ongoing	FFMP Section 5

3.9 Vegetation Management

As required by Condition D91 of SSD 7348, a Vegetation Management Plan (VMP) (Ecologique 2021a) has been prepared for the operation of Oakdale West and is attached as **Appendix I**. The VMP applies to two management zones: (a) assisted bushland regeneration, and (b) reconstruction through revegetation.

Table 15 outlines the mitigation and restoration measures to be implemented during operations to restore and rehabilitate 4.2 ha of Riparian Corridor adjacent to Ropes Creek to meet the objectives of the *Water Management Act 2000*.

Table 15 Environmental Management Controls for Restoration and Rehabilitation of Vegetation

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Restoration and ongoing management of Ropes riparian corridor to be in accordance with the Vegetation Biodiversity Management Action Plan.	x			Ongoing as required.	SSD 7348 Appendix 7 and VMP Section 4.
Maintenance weeding will be undertaken in accordance with Section 4.2.3 of the VMP.	x			Ongoing as required.	VMP Section 4.2.3
Soil amelioration will be undertaken where required in accordance with Section 4.3 of the VMP.				Following disturbance of soils.	VMP Section 4.3
Mulch will be applied on VMP reconstruction zones in accordance with Section 4.4 of the VMP.				Ongoing as required.	VMP Section 4.4
Plant procurement will be undertaken in accordance with Section 4.5.1 of the VMP.				Minimum of 4-6mths pre-commencement of VMP implementation.	VMP Section 4.5.1
Planting will be undertaken in accordance with the Planting Procedure in Section 4.5.2 of the VMP.	x			Ongoing as required.	VMP Section 4.5.2
Maintenance activities of plants will be undertaken in accordance with Section 4.5.3 to achieve practical completion of the bush regeneration/restoration works in each VMP zone.				For 6 months following commencement of the bush regeneration/restoration works.	VMP Section 4.5.3
Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or of any other cause, will be removed and replaced at the Contractor's expense by work or materials of the required standard. This is the responsibility of the contractor.	x			For 18 months after Practical Completion of each stage of the works or until the site is stable.	VMP Section 4.5.4

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Site audits, monitoring and reporting on the progress and achievement of the VMP performance targets will be undertaken in accordance with Section 4.7 of the VMP by Goodman's Representative or another representative nominated by Goodman.	x			Following the completion of each stage of works detailed in Table 4-1 and Section 4.7 of the VMP.	VMP Section 4.7.

3.10 Hazard, Risk and Emergency

Table 16 lists the management strategies for hazards, risks and emergencies as contained in SSD 7348.

Table 16 Environmental Management Controls for Hazard, Risk and Emergency

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
Dangerous Goods will be stored in accordance with Condition D109 at Building 1A.				Ongoing	SSD 7348 Condition D109
No more than 1.1 million kilograms of combustible liquid commodities will be stored at warehouse Building 1A.		x			SSD 7348 Condition D109B
Chemicals, fuels and oils will be stored in bunded areas in accordance with relevant Australian Standards and/or the <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> (Department of Environment and Climate Change 2007).					SSD 7348 Condition D110
Spill kits will be provided and maintained on site.		x			Best practice
The actions specified on the relevant safety data sheets (SDS) will be implemented in the event of a minor spill/incident of a potentially hazardous material.		x			Best practice
In the event of a major spill, the actions listed in Section 2.6 will be implemented.					Section 2.6

4 Monitoring and Reporting

4.1 Monitoring and Inspections

Table 17 summarises the monitoring requirements for the operation of Oakdale West as set out in SSD 7348 and relevant management plans.

Table 17 Monitoring and Inspections Requirements

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
General					
The Site will be inspected to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on Site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in the surrounding area.	x			Ongoing	SSD 7348 Condition D115
Compliance monitoring and reporting will be undertaken in accordance with the Compliance Monitoring and Reporting Program (SLR 2019).				As required	SSD 7348 Condition D139
All monitoring will be undertaken in accordance with Division 9.4 of Part 9 of the EP&A Act.				Ongoing	SSD 7348 Condition D142
Traffic					
The OTMP will be reviewed.	x	x		Annually	OTMP Section 7.1
Access points will be surveyed to review traffic generation.					
Dirt on the public road network will be monitored.			x		

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
All loads entering and leaving the site will be monitored.		x		Ongoing	
Waste					
Audit and visual assessment of bins prior to collection will be undertaken by Management in the first few months of being operational to ensure the waste management system is sufficient for the Estate's needs.		x		Prior to collection in first few months	WMP Section 6.8
Audit and visual assessment of bins prior to collection will be undertaken by Management ongoing to ensure WMP provisions are being maintained.				Half-yearly basis	
Bins will be monitored to ensure no overfilling occurs. If skip bins are reaching capacity, removal and replacement will be arranged.				Ongoing	WMP Section 6.3.1 and 6.8
Signage will be monitored and maintained to ensure it remains clean, clear and applicable.					WMP Section 6.9
The cleanliness of waste and recycling storage rooms and the cleaning/daily transfer of bins by cleaners will be inspected on a regular basis.		x		Ongoing	WMP Section 6.9
All waste storage areas and waste management equipment will be inspected on a regular basis.					
Landscaping					

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman's Representative	Tenant Representative	Penrith City Council		
A final inspection will be undertaken.	x			Prior to the completion of the Plant Establishment Maintenance Period (Defects Liability Period)	LMP Section 5.4
Monitoring, maintenance, irrigation and pruning will be undertaken in accordance with Section 6 of the LMP.	x			Ongoing	LMP Section 6
Biodiversity					
Regular monitoring of basin dewatering will be undertaken once water levels are below one third full to determine whether any aquatic fauna is likely to require capture and relocation.	x			When basin water levels are below one-third full	FFMP Section 5

4.2 Reporting

Table 18 summarises the reporting requirements for the operation of the Oakdale West as set out in SSD 7348 and relevant management plans.

Table 18 Reporting Requirements

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
General Environmental Performance					
Compliance monitoring and reporting will be undertaken in accordance with the Compliance Monitoring and Reporting Program (SLR 2019).	x			As required	SSD 7348 Condition D139
Compliance Reports of the Development will be carried out in accordance with the Compliance Reporting Post Approval Requirements (DPIE 2018).				As set out in the DPIE guidelines	SSD 7348 Condition D140
Each Compliance Report will be made publicly available.				No later than 60 days after submitting it to the DPIE and notify the DPIE in writing at least 7 days before this is done.	SSD 7348 Condition D141
Regular reporting on environmental performance will be uploaded on the dedicated website as per the reporting arrangements in any plans or programs approved under the conditions of SSD 7348.				Ongoing	SSD 7348 Condition D143

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
Incident / Non-Compliance Reporting					
A written incident notification will be emailed to the DPIE at compliance@planning.nsw.gov.au and include the requirements outlined in Appendix 8 of SSD 7348 as per Section 2.6 of the OEMP.	x			Within 7 days of becoming aware of the incident	SSD 7348 Condition D135 and Appendix 8
A detailed incident report will be provided to the Planning Secretary and include the requirements outlined in Appendix 8 of SSD 7348 as per Section 2.6 of the OEMP.				Within 30 days of the incident occurring	
The DPIE will be notified of any non-compliance in writing to compliance@planning.nsw.gov.au				Within 7 days of becoming aware of the non-compliance	SSD 7348 Condition D136
A register of all complaints and non-compliances will be kept.				For at least 5 years	Best practice
Traffic					
A road quality dilapidation report will be prepared and reported to Council, where appropriate.	x			As required	OTMP Section 7.1
Waste					
All personal to report any urgent issues associated with waste or recycling management.	x	x		Immediately	WMP Section 6.6
Landscaping					
Maintenance and monitoring will be reported in the Maintenance Logbook.	x			Ongoing	LMP Section 5.2.7

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
Biodiversity					
All personnel including contractors will report any injured or near miss incidents with wildlife.	x	x		Immediately	FFMP Section 5

4.3 Auditing

Table 19 summarises the Audit requirements for the operation of the Oakdale West as set out in SSD 7348 and relevant management plans.

Table 19 Auditing Requirements

Environmental Management Control	Person Responsible			Timing / Frequency	References / Notes
	Goodman’s Representative	Tenant Representative	Penrith City Council		
Hazards					
The Hazard Audit listed in Condition D109A will be undertaken.	x			12 months after commencing operation. Then every 5 years	SSD 7348 Condition D109A
biodiversity					
Incident reports will be assessed on an ongoing basis. An adaptive management approach will be undertaken in the event that wildlife is being reported within the estate. Particularly, should any wildlife be killed, injured (or near misses for such) be reported from Compass Drive and estate roads (e.g. wildlife signage, information / notification to the Tenant’s Representative).	x			As required	FFMP Section 5

4.4 Contingency Management Plan

Table 20 lists the actions to be implemented if inspections, monitoring and/or auditing indicate that the mitigation measures listed in **Section 3** and the specialist management plans are not effective in managing environmental impacts.

Table 20 Contingency Plan

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Operation Movements	Trigger	Visual monitoring of all traffic movements within Oakdale West does not detect unsafe movement of traffic and risk to persons and property.	Monitoring of all traffic movements within Oakdale West detects unsafe movement of traffic and risk to persons and property.	Monitoring of all traffic movements within Oakdale West identifies several unsafe movements of traffic and risk to persons and property.
	Response	Visual monitoring to continue daily as part of an ongoing process.	Review needed to address persistent unsafe movements. Modification of traffic controls to self-enforce appropriate vehicle manoeuvres within the site.	Condition Amber responses, plus the direct cessation of unsafe movements.
	Trigger	Access roads within Oakdale West have been inspected and noted that roads are clear, and conditions support a safe environment for all road users.	Roads within Oakdale West have been inspected and noted that vehicles are parked in unsafe areas, or other road / intersection congestion has been identified during peak periods.	Roads within Oakdale West have been inspected and noted that road and intersection congestion has been identified during most periods of the day.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No action required.	Clear any impediments to access roads. Review OTMP and update where necessary. Provide additional training.	Condition Amber responses, plus report unsafe road conditions to Council for attention.
Operation Movements	Trigger	Following periods of adverse weather conditions (e.g. a significant heavy rain event), roads have been inspected prior to heavy vehicle traffic use and no issues found.	Roads have been inspected following adverse weather conditions and minor issues found (small pot holes, dirt / debris, or pooling water).	Roads have been inspected following adverse weather conditions and major issues found (failed road integrity, large diameter pot holes, fallen light poles or trees).
	Response	No further action required until next adverse weather event.	Any impediments to access roads will be cleared. Road maintenance teams shall repair any pot holes and remove excess water when expected traffic volumes are lowest.	Condition Amber responses, plus install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.
	Trigger	Observation of traffic control measures reveal no clear issues.	Observation of traffic control measures reveal minor issues regarding incorrect placement of signage, damaged or missing signage.	Observed traffic control measure are ineffective and creative major safety issues.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	This traffic control inspection shall be completed every week for the first 2 months of operations and fortnightly thereafter for the first 6 months. Review shall continue monthly thereafter.	Rectify/ adjust traffic control measures to improve visibility or effectiveness. Review needed for additional or modified traffic control measures.	Condition Amber responses, plus install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.
Operation Movements	Trigger	Operational traffic volume is in accordance with permissible and programmed volume constraints.	Operational traffic volumes are within 90% of the permissible volume constraints	Operational traffic volumes exceed permissible volume constraints.
	Response	This operational traffic volume review shall be completed monthly for the first 6 months of operation and bi-annually thereafter.	Review and investigate operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> Undertake additional surveys of the Estate to review generation in more detail. Review OTMP and update where necessary. Provide additional training to the Tenant's representative. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Temporary halting of activities and resuming when conditions have improved. Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds.
Queuing	Trigger	No queuing identified.	Queuing identified within the estate.	Queuing identified on the public road.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue monitoring program.	Review the delivery schedules prepared by the tenant. Drivers be provided with additional training and an extra copy of the Driver Code of Conduct. Provision of additional training to the Tenant's representative should be provided to ensure the most appropriate schedule can be created.	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Approved traffic thresholds to be enforced for each sub-tenancy. Review OTMP and update where necessary.
Incidents	Trigger	No incidents observed or reported.	Near miss or minor incident occurred within the carriageway of Oakdale West which did not require medical attention (such as tripping on raised footpath).	Major incident occurred within the carriageway of Oakdale West which did not require medical attention (such as being hit by a truck while exiting a Site).
	Response	No action required at this stage, however continual reinforcement to the Tenant's representative to report all incidents shall continue.	Near miss to be reported to the appropriate Incident to be reported to Goodman's Representative for immediate remedy.	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Temporary halting of activities and resuming when incident has been remedied. Incident to be reported to Goodman's Representative. Review OTMP and update where necessary.
Noise	Trigger	Operational noise volume is in accordance with permissible and programmed volume constraints.	Operational noise volumes are within 90% of the permissible volume constraints.	Operational traffic volumes exceed permissible volume constraints.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No action. Continue ongoing monitoring activities.	<p>Review and investigate noisy operational activities, and where appropriate, implement additional remediation measures such as:</p> <ul style="list-style-type: none"> • Undertake additional noise surveys to review cause in more detail. • Review OTMP (and other sub-plans) and update where necessary. • Provide additional training to the Tenant's representative to provide information on lowering noise emissions. 	<p>Condition Amber responses, plus the following additional responses;</p> <ul style="list-style-type: none"> • Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds. • Review OTMP and update where necessary. • Provide additional training to the Tenant's representative to provide information on lowering noise emissions.
Irrigation	Trigger	Irrigation system operating at optimum frequency.	Irrigation system yet to be installed.	Irrigation system fails.
	Response	No response required. Continue to monitor.	Provide additional hand watering until system is installed.	<p>Provide additional hand watering until system is repaired.</p> <p>The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency.</p>
Plant failure	Trigger	No significant plant failure is present. Monitoring verifies that there is <5% of plants failing.	Monitoring verifies there is plant failure at a rate between 5-10%.	Monitoring verifies there is plant failure at a rate greater than 10%.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue to monitor.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species of variety of the ones failed.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species of variety of the ones failed.
Revegetation failure	Trigger	Revegetation is growing to desired design surface levels.	Monitoring verifies that weed emergence has occurred.	Monitoring verifies that weed emergence and plant failure has occurred.
	Response	No response required. Continue to monitor.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include the removal of weeds as per Section 5.3.7 of the LMP.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include removal of weeds and re-seeding of revegetation cover crop as per Section 5.3.7 of the LMP.
Slope failure	Trigger	No significant erosion is present that would constitute a safety hazard or compromise the capability of supporting the end land use. Monitoring verifies there are no gully or tunnel erosion features, or rill erosion >200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion 200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion >200mm deep.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue to monitor.	A suitably trained person to inspect the site. Investigate opportunities to install water management infrastructure to address erosion. Remediate as appropriate.	Undertake a review of the drainage of the area and provide recommendations to appropriately remediate the erosion. Remediate as soon as practicable.
Wildlife protection	Trigger	No unexpected wildlife is encountered in the estate.	Unexpected uninjured wildlife is encountered in the estate.	Unexpected injured/deceased wildlife is encountered in the estate.
	Response	Continue OEMP implementation.	<p>Stop Work Procedure:</p> <ul style="list-style-type: none"> Stop Work / Prevent personnel and contractors from entering area where fauna encountered Tenant's to notify relevant Goodman's Representative Manager to assess if animal can be encouraged to leave site voluntarily and safely or if WIRES or wildlife carer is required to capture and relocate animal. 	<p>Stop Work Procedure:</p> <ul style="list-style-type: none"> Stop Work / Prevent personnel and contractors from entering area Tenant's to notify relevant Goodman's Representative Goodman's Representative to immediately contact WIRES or other relevant wildlife carer.
Waste	Trigger	Monitoring/Inspections/Audits show waste and recycling is managed/segregated as per WMP and best practice	Monitoring/Inspections/Audits show waste and recycling management/segregation could be improved.	Monitoring/Inspections/Audits show waste and recycling management/segregation is poor and needs immediate improvement.
	Response	Continue OEMP implementation.	Undertake additional staff training and re-examine signage.	Undertake additional staff training, re-examine signage, review collection services provided and the WMP.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Bushfire	Trigger	No bushfire or bushfire prone weather.	Bushfire prone weather during summer.	Bushfire in the vicinity of the site.
	Response	Continue OEMP implementation.	Ensure grass is kept short and vegetation is minimal at the site. Weather is to be monitored twice daily for chance of bushfire.	Stop work and contact NSW Fire and Rescue on '000'. Evacuate the site as directed by NSW Fire and Rescue.

5 Review

Review of the OEMP will be undertaken regularly by Goodman's Representative in and will comprise, as a minimum, the following:

- Identification of areas of opportunity for improved environmental performance;
- Analysis of the causes of non-compliances, including those identified in environment inspections and audits;
- Verification of the effectiveness of corrective and preventative actions; and
- Highlighting any changes in procedures resulting from process improvement.

Condition D133 of SSD 7348 also states that all strategies, plans and programs required under SSD 7348 will be reviewed within three months of:

- The submission of a Compliance Report under Condition D141;
- The submission of an incident report under Condition D135;
- The approval of any modification of the conditions of this consent; or
- The issue of a direction of the Planning Secretary under Condition D2(b) which requires a review.

This OEMP will also be reviewed and, if necessary, revised in the following circumstances:

- Where there is any change to the scope of the operation activities and/or disturbance footprint;
- Where it is identified that the environmental performance is not meeting the objectives of the OEMP; and/or
- At the request of a relevant regulatory authority.

As per Condition D134 the revised documents will be sent to DPIE within 6 weeks of review. All employees and contractors will be informed of any revisions to the OEMP by the Goodman Representative

6 References

Ason (2021) Oakdale West Operational Traffic Management Plan

Ecologique (2021) Oakdale West Estate Operational Flora and Fauna Management Plan

Ecologique (2021a) Vegetation Management Plan

Goodman (2018) Corporate Responsibility and Sustainability Policy

Scape Design (2021) Oakdale West Landscape Management Plan

SLR (2021) Oakdale West Waste Management Plan

APPENDIX A

Development Consent SSD 7348

Development Consent

Section 4.38 of the Environmental Planning and Assessment Act 1979

As delegate of the Minister for Planning and Public Spaces under delegation executed on 11 October 2017, I determine:

- (a) to grant consent to the Stage Development Application referred to in Schedule A subject to the Concept Proposal conditions in Schedule B and C and the Stage 1 Development Application conditions in Schedule D;
- (b) that pursuant to section 4.37 of the *Environmental Planning and Assessment Act 1979*, any subsequent development not being for the purpose of a warehouse or distribution centre with a capital investment value in excess of \$50 million is to be determined by the relevant Consent Authority and that development ceases to be State Significant Development.

These conditions are required to:

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

Anthea Sargeant
Executive Director
Regions, Industry and Key Sites

Sydney

2019

File: 15/15802

SCHEDULE 1

Application Number: SSD 7348

Applicant: Goodman Property Services (Aust) Pty Ltd

Consent Authority: Minister for Planning and Public Spaces

Site: Lot 1 DP 663937, Lot 2 DP 1215268, Lot 6 DP 229784, Lot 2 DP 84578, Lot 3 DP 85393 and Lot 11 DP 1178389
2 Aldington Road, Kemp Creek NSW 2178
Lot 9 DP 1157476
57-87 Lockwood Road, Erskine Park NSW 2759

Development: A Concept Proposal including:

- concept layout of 18 warehouse buildings inclusive of dock offices and ancillary offices providing 556,824 square metres of

gross lettable area, built over **seven** development stages;

- concept layout of development lots, internal roads, drainage, landscaping, noise walls, basins and biodiversity offsets; and
- development controls.

A Stage 1 Development including:

- bulk earthworks across all five stages including retaining walls and noise walls;
- lead in services including but not limited to drainage, power, sewer, water and telecommunications;
- service infrastructure to Precinct 1, including drainage, power, sewer, water and telecommunications;
- construction and operation of three warehouse buildings inclusive of dock offices and ancillary offices in Precinct 1 (1A, 1B and 1C) providing **88,867** square metres of gross lettable area;
- Western North-South Link Road and associated subdivision, basins and drainage;
- estate roads 1, 2, ~~and 6 and 8~~ and eastern part of road 7;
- landscaping of Stage 1, the western boundary, Western North-South Link Road, estate roads 1, 2, ~~and 6 and 8~~ and the eastern part of road 7, detention basins and the amenity lot
- subdivision of Stage 1 lots and road infrastructure including the services (substation) lot;
- stormwater drainage infrastructure for Lots 2A and 2B and all basins;
- temporary works to facilitate construction including but not limited to swales, haul road (construction access), landscaping and basins; ~~and~~
- works including construction of traffic signals at Lenore Drive/Grady Crescent/WNSLR intersection; ~~and~~
- **works within Lot 9 DP1157476 including reconfiguration of car park, relocation of car park access on Lockwood Road, infrastructure, landscaping and all works associated with the WNSLR.**

SSD 7348 – Mod 1

SSD 7348 – Mod 2

SSD 7348 – Mod 3

SSD 7348 – Mod 4

SSD 7348 – Mod 5

SSD 7348 – Mod 6

TABLE OF CONTENTS

DEFINITIONS	VII
SCHEDULE B CONDITIONS FOR THE CONCEPT PROPOSAL	1
Future Development Applications	1
Statutory Requirements	1
Terms of Consent	1
Limits of Consent	1
Staging Plan	3
Noise Limits	3
Bushfire Protection	4
TransGrid Easement	4
Endeavour Energy	4
Water NSW	4
Amenities Lot	5
SCHEDULE C CONDITIONS FOR FUTURE DEVELOPMENT APPLICATIONS	6
Development Contributions	6
Interface with Residential Areas	6
Visual Amenity	6
Transport, Access and Parking	7
Noise and Vibration	7
Stormwater Management	7
Bushfire Protection	7
TransGrid Easement	8
Endeavour Energy	8
Water NSW	8
Waste	8
Construction Management	8
Community Communication Strategy	8
SCHEDULE D CONDITIONS FOR STAGE 1 DA	10
PART 1 – GENERAL CONDITIONS	10
Obligation to Minimise Harm to the Environment	10
Terms of Consent	10
Limits of Consent	10
Notification of Commencement	11
Evidence of Consultation	11
Staging, Combining and Updating Strategies, Plans or Programs	11
Protection of Public Infrastructure	11
Protection of Water NSW Infrastructure	12
Demolition	12
Structural Adequacy	12
Compliance	12
Developer Contributions	12
Operation of Plant and Equipment	12
Easements	13
External Walls and Cladding	13
Utilities and Services	13
TransGrid Easement	13
Water NSW	13
Works-as-Executed Plans	14
Applicability of Guidelines	14
ADVISORY NOTES	14
PART 2 – ENVIRONMENTAL PERFORMANCE CONDITIONS	15
Visual Amenity	15
Western North-South Link Road (WNSLR)	16
Transport, Access and Parking	18
Noise	20
Vibration	22
Soils & Water	22

Biodiversity	23
Bushfire Protection	25
Air Quality	25
Aboriginal Heritage	26
Historic Heritage	26
Hazards and Risk	26
Waste Management	28
Contamination	28
Community Engagement	28
PART 3 – ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING	29
Management Plan Requirements	29
Construction Environmental Management Plan	29
Environmental Representative	30
Operational Environmental Management Plan	31
Revision of Strategies, Plans and Programs	32
Reporting and Auditing	32
Access to Information	33
APPENDIX 1 CONCEPT PROPOSAL	34
APPENDIX 2 STAGE 1 DA PLANS	38
APPENDIX 3 WNSLR PLANS	49
APPENDIX 4 PLANNING AGREEMENT	50
APPENDIX 5 NOISE RECEIVER LOCATIONS	94
APPENDIX 6 BIODIVERSITY	95
APPENDIX 7 APPLICANT’S MANAGEMENT AND MITIGATION MEASURES	99
APPENDIX 8 INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS	102

DEFINITIONS

Applicant	Goodman Property Services (Aust) Pty Ltd, or any person carrying out any development to which this consent applies
Biodiversity Covenant	A restriction on the use of land forming part of the Erskine Park Biodiversity Corridor, as shown on Figure in Appendix 6
Building 1A	Warehouse building 1A including high-bay (39 metres) and low-bay (27 metres) components, located on Lot 1A as described in the EIS and RtS for MOD 2
Bulk earthworks	As described in the EIS and RtS
Certifying Authority	A person who is authorised by or under section 6.17 of the EP&A Act to issue Part 6 certificates
CEMP	Construction Environmental Management Plan
CAQMP	Construction Air Quality Management Plan
Concept Proposal	Concept layout of 22 warehouse buildings and ancillary offices built over five development stages, as described in the EIS and RtS
Conditions of this consent	Conditions contained in Schedules B to D of this document
Consent Authority	The relevant consent authority for development in accordance with the EP&A Act
Construction	The demolition and removal of buildings or works, the carrying out of works for the purpose of the development, including bulk earthworks, and erection of buildings and other infrastructure permitted by this consent
Council	Penrith City Council
CTMP	Construction Traffic Management Plan
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Demolition	The deconstruction and removal of buildings, sheds and other structures on the site
Department	NSW Department of Planning, Industry and Environment
Development	The development described in the EIS and RtS, including construction and operation of 18 warehouse buildings, offices and associated infrastructure, as modified by the conditions of this consent and shown on the plans in Appendix 1 , Appendix 2 and Appendix 3 and as modified by SSD 7348 MOD 1, SSD 7348 MOD 2, SSD 7348 MOD 3, SSD 7348 MOD 4, SSD 7348 MOD 5, and SSD 7348 MOD 6.
DA	Development Application submitted in accordance with the EP&A Act
EIS	The Environmental Impact Statement titled <i>Oakdale West Estate</i> , prepared by Urbis dated November 2017, submitted with the application for consent for the development, including any additional information provided by the Applicant in support of the application
ENM	Excavated Natural Material
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
Environmental Representative Protocol	The document of the same title published by the Department
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)

EPL	Environment Protection Licence under the POEO Act
Erskine Park Biodiversity Corridor	The land described in the <i>Biodiversity Management Plan Erskine Park Employment Area</i> , HLA-Envirosciences, 2006 and shown on Figure in Appendix 6
Evening	The period from 6 pm to 10 pm
Feasible	Feasible relates to engineering considerations and what is practical to build
FFMP	Flora and Fauna Management Plan
Fibre ready facility	As defined in Section 372W of the <i>Telecommunications Act 1997</i>
GLA	Gross lettable area
GFA	Gross floor area
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement
Heritage item	An item as defined under the <i>Heritage Act 1977</i> (NSW), and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i> (NSW), the World Heritage List, or the National Heritage List or Commonwealth Heritage List under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth), or anything identified as a heritage item under the conditions of this consent
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 <i>Note: “material harm” is defined in this consent</i>
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act
Landscape Bund	Landscaping along the western boundary of the Site, included as part of Stage 1 works as described in the EIS and RTS and shown on Error! Reference source not found. 4 in Appendix 2
LMP	Landscape Management Plan
Material harm	Is harm that: <ul style="list-style-type: none"> 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)
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Monitoring	Any monitoring required under this consent must be undertaken in accordance with section 9.40 of the EP&A Act
NCC	National Construction Code
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
NRAR	NSW Natural Resources Asset Regulator
OEH	(former) NSW Office of Environment and Heritage (now Biodiversity and Conservation of the Department)

OEMP	Operational Environmental Management Plan
Operation	The use of warehouse buildings for storage and distribution of goods upon completion of construction
Penrith DCP	Penrith Development Control Plan 2014
Planning Agreement	Planning Agreement titled <i>Oakdale West Estate Planning Agreement</i> , between the Minister for Planning and Public Spaces, Goodman Property Services (Aust) Pty Ltd and BGMG 11 Pty Limited as trustee for the BGMG 1 Oakdale West Trust, executed on 5 August 2019 and included in Appendix 4
PCA	Principal Certifying Authority in accordance with the EP&A Act
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
Roads Authority	As defined in Dictionary of the <i>Roads Act 1993</i> (NSW)
Reasonable	Means applying judgement in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements.
Registered Aboriginal Parties	Means the Aboriginal persons identified in accordance with the document entitled <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i> (DECCW)
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
Relevant Roads Authority	The authority responsible for ownership and maintenance of the applicable road
RMS	(former) NSW Roads and Maritime Services (now TfNSW)
RtS	The Response to Submissions titled <i>Oakdale West Estate SSDA 15_7348 Response to Submissions</i> prepared by Urbis dated 8 May 2018 and document titled <i>Oakdale West Estate SSDA 15_7348 Response to Matters Raised by the Department of Planning</i> , prepared by Urbis dated 12 October 2018
Sensitive receivers	A location where people are likely to work, occupy or reside, including a dwelling, school, hospital, office or public recreational area
Site	The land defined in Appendix 1
SLR	(proposed) Southern Link Road as shown in the WSEA SEPP and the Broader WSEA SLRN Options Refinement Report prepared by AECOM, 2014
SSD 7348 MOD 1	The section 4.55(1A) modification application prepared by Goodman Property Services (Aust) Pty Ltd titled 'Section 4.55(1A) Modification Application (SSD 7348 MOD 1) Oakdale West Estate – Amendments to Concept Plan and Stage 1 development', dated 16 December 2019.
SSD 7348 MOD 2	The section 4.55(2) modification application prepared by Goodman Property Services (Aust) Pty Ltd titled 'Section 4.55(2) Modification Application (SSD 7348 MOD 2) Oakdale West Estate – Amendments to Concept Plan and Stage 1 development', dated 12 December 2019.
SSD 7348 MOD 3	The section 4.55(1A) modification application prepared by Goodman Property Services (Aust) Pty Ltd titled 'Oakdale West Industrial Estate Concept Plan and Stage 1 Modification (SSD 7348 MOD 1)', dated January 2020.
SSD 7348 MOD 4	The section 4.55(1A) modification application prepared by Goodman Property Services (Aust) Pty Ltd titled 'mod 4, SSD 7348 – S4.55(1A) Application to Modify the Consent to Include Works on Lot 9 DP 1157476, dated 17 February 2020.
SSD 7348 MOD 5	The section 4.55(1A) modification application prepared by Urbis, titled <i>Oakdale West Estate SSD 7348, Section 4.55(1A) Modification No. 5 Environmental Assessment Report</i> , dated 23 July 2020
SSD 7348 MOD 6	The section 4.55(1A) modification application prepared by Keylan Consulting Pty Ltd, titled 'Assessment Report Section 4.55(1A) Modification, SSD 7348 Modification 6', dated 10 February 2021.

Stage	Each component or Stage of works to deliver the Concept Proposal, as shown on Figure 2 in Appendix 1 , or as amended by an approved Staging Plan under this consent
Stage 1	Bulk earthworks across the Site, construction and operation of three warehouse buildings (1A, 1B and 1C), the WNSLR and associated infrastructure and construction of the landscape bund along the western boundary of the Site, as described in the EIS and RTS and shown on the plans in Appendix 2 and Appendix 3
TfNSW	Transport for New South Wales
VENM	Virgin Excavated Natural Material
Vicinity of the site	Bakers Lane, Kemps Creek
WAD	Works Authorisation Deed issued by TfNSW (former RMS)
Waste	Has the same meaning as the definition of the term in the Dictionary to the POEO Act
Water Pipelines	Two Sydney drinking water pipelines located on land owned by Water NSW along the northern boundary of the Site
WMP	Waste Management Plan
WNSLR	Western North-South Link Road as shown in the WSEA SEPP and the plans in Appendix 3
WSEA	Western Sydney Employment Area
WSEA SEPP	State Environmental Planning Policy (Western Sydney Employment Area) 2009
WSFL	Western Sydney Freight Line corridor as shown in TfNSW Western Sydney Freight Line Corridor Identification – Consultation, March 2018
Year	A period of 12 consecutive months

SCHEDULE B CONDITIONS FOR THE CONCEPT PROPOSAL

FUTURE DEVELOPMENT APPLICATIONS

- B1. In accordance with section 4.22 of the EP&A Act, each stage of the Concept Proposal (excluding Stage 1) is to be subject to future development applications (DAs). Future DAs are to be consistent with this development consent.
- B2. To avoid any doubt, this Concept Proposal consent does not permit the construction or operation of any Development, except for the Stage 1 DA covered by **Schedule D**.
- B3. This Concept Proposal consent does not approve the building layouts shown on [Lots 3A, 3B, 3C, 3D, 3E, 3F, 3G and 4A](#) on **Figure 1** in **Appendix 1**. The location of the buildings on these lots must be assessed by separate DAs, and must satisfy the interface requirements of Conditions C3 and C4.

STATUTORY REQUIREMENTS

- B4. The Applicant shall ensure that all licences, permits, and approvals/consents are obtained as required by law and maintained as required throughout the life of the Concept Proposal. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals/consents.

TERMS OF CONSENT

- B5. The Applicant shall carry out the Concept Proposal in accordance with the:
- (a) EIS and RtS;
 - (b) the plans in **Appendix 1** and **Appendix 2**;
 - (c) **SSD 7348 MOD 1**;
 - (d) the Applicant's Management and Mitigation Measures in **Appendix 7**; and
 - (e) [modifications to this consent](#).
- B6. If there is any inconsistency between the plans and documents referred to above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
- B7. The Applicant shall comply with any reasonable requirement(s) of the Planning Secretary arising from the Department's assessment of:
- (a) any reports, plans or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.

LIMITS OF CONSENT

- B8. This consent lapses five (5) years after the date from which it operates, unless any Stage of the Development has physically commenced on the land to which the consent applies before that date.
- B9. The following limits apply to the Concept Proposal:
- (a) the maximum GLA for the land uses in the Development shall not exceed the limits in **Table 1**;
 - (b) a minimum 60 metre (m) wide corridor along the northern Site boundary shall not be developed and shall be maintained and preserved for the future WSFL corridor, in accordance with the requirements of TfNSW;
 - (c) the building layouts and footprints shown on [Lots 3A, 3B, 3C, 3D, 3E, 3F, 3G and 4A](#) on **Figure 1** in **Appendix 1**, are not approved. The position, layouts and footprints of the buildings on these lots must be assessed by separate DAs, and must satisfy the interface requirements of Conditions C3 and C4;
 - (d) [any rooftop mechanical plant on buildings on Lots 2C, 2D, 2E, 3A, 3B, 3C, 3D, 3E, 4A, 4B and 4E are not to be operated during the night-time period](#);

- (e) forklifts are not to operate during the night-time period on Lots 2C, 2D, 2E, 3B, 3C, 3D, 3E, 4A, 4E and 5A; and
- (f) ~~vehicles associated with the Development shall adhere to the following speed limits when using estate roads within the Development:~~
- ~~(i) 25 kilometres per hour for heavy vehicles; and~~
- ~~(ii) 40 kilometres per hour for light vehicles.~~
- (g) all traffic associate with operation of the Development shall use the West North South Link Road, and the future SLR, to access the site and shall not use Bakers Lane or Aldington Road

Table 1: GLA Maximum for Concept Proposal

Land Use	Maximum GLA square metres (m ²)
Total Warehousing	529,625
Total Office	22,770
Other	4,429
Total GLA	556,824

Notes: Other includes but is not limited to the skybridge, gatehouse, dangerous goods store and energy complex in Building 1A.

- B10. The Applicant shall ensure the Concept Proposal is consistent with the development controls in **Table 2:**

Table 2: Development Controls

Development Aspect	Control
Minimum building setbacks from:	
• Southern Link Road	17.15 m
• Western North-South Link Road	20 m
• Local estate Roads	7.5 m
• Western site boundary	40 m
• Southern site boundary	20 m (excluding parking areas)
Rear boundary setbacks within the estate	5 m
Side boundary setbacks within the estate	0 m, subject to compliance with fire rating requirements
Height	15 m
- Building 1A	39 m
- Building 2A	18 m
- Building 2B	28 m
Minimum lot size	5,000 m ²
Minimum frontage	40 m (excluding cul-de-sacs) 35 m minimum lot width at the building line
Site coverage	Maximum of 65 per cent (excluding awnings)

- B11. Notwithstanding the controls listed in **Table 2** in Condition B10, no warehouse building in the Concept Proposal, **except Building 1A in Precinct 1 and Buildings 2A and 2B in Precinct 2**, shall exceed a ridgeline height of 13.7 m, excluding roof mounted mechanical plant and solar panels.
- B12. The Applicant shall lodge the proposed revisions to the *Penrith Development Control Plan 2014* (Penrith DCP), in accordance with **Table 2** in Condition B10, with Council within 6 months of the date of this consent.
- B13. The Applicant shall ensure the Concept Proposal provides car parking in accordance with the following rates:
- (a) 1 space per 300 m² of warehouse GFA;
 - (h) 1 space per 40 m² of office GFA; and
 - (i) 2 spaces for disability parking for every 100 car parking spaces.
- B14. The Applicant shall provide bicycle racks, and amenity and change room facilities for cyclists in accordance with *Planning Guidelines for Walking and Cycling* (December 2004, NSW Department of Infrastructure, Planning and Natural Resources and the Roads and Traffic Authority).

STAGING PLAN

- B15. Prior to the commencement of construction of any stage of the Concept Proposal, the Applicant shall prepare a Staging Plan for the Development, to the satisfaction of the Planning Secretary. The plan shall:
- (a) be prepared in consultation with Council, utility and service providers and other relevant stakeholders;
 - (b) describe how the implementation of the Concept Proposal, would be staged to ensure it is carried out in an orderly and economic way and minimises construction impacts on adjacent sensitive receivers;
 - (c) show the likely sequence of DAs that will be lodged to develop the Site, with the estimated timing for each Stage and identification of any overlapping construction and operational activities;
 - (d) include concept design for the staged delivery of landscaping, focusing on early implementation of screen planting to minimise the visual impact of subsequent development stages; and
 - (e) include conceptual design for the provision of services, utilities and infrastructure to the Site.
- B16. The Applicant must:
- (a) not commence construction of any stage of the Development until the Staging Plan required by Condition B15 is approved by the Planning Secretary; and
 - (b) implement the most recent version of the Staging Plan approved by the Planning Secretary.
- B17. The Planning Secretary may require the Applicant to address certain matters identified in the Staging Plan. The Applicant must comply with any such requirements of the Planning Secretary given as part of the Staging Plan approval.

Notes:

- *The Applicant may amend the Staging Plan as desired, with the approval of the Planning Secretary.*
- *The Staging Plan is intended to broadly describe the development sequence for the Site and the delivery of infrastructure for all stages. It is not required to provide detailed design for latter Stages.*

NOISE LIMITS

- B18. The Applicant shall ensure the Development does not exceed the noise limits in **Table 3** at the receiver locations N1, N2, N3, N4 and N5 shown on the plan in **Appendix 5**.

Table 3: Noise Limits dB(A)

Location	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{AMax}
N1 Emmaus Village Residential	44	43	41	52
N3 Kemps Creek – nearest residential property	39	39	37	52
N4 & N5 Kemps Creek – other residences	39	39	37	52
All other non-associated residences	40 ²	35 ²	35 ²	52
N2 Emmaus Catholic College (school)	When in use: 45 L _{eq} (1h)			

Notes:

1. Noise generated by the development is to be measured in accordance with the relevant procedures and modifications, including certain meteorological conditions, of the Noise Policy for Industry (EPA, 2017). Refer to the plan in Appendix 2 for the location of residential sensitive receivers.
2. or background + 5 dB, whichever is higher.

B19. The noise limits in **Table 3** do not apply to receiver N3, N4 and N5 if the Applicant has a Noise Agreement with the relevant landowner to exceed the noise limits, and the Applicant has provided written evidence to the Planning Secretary that an agreement is in place.

BUSHFIRE PROTECTION

B20. The Applicant shall ensure the Development complies with:

- (a) the relevant provisions of *Planning for Bushfire Protection 2019*;
- (b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; and
- (c) AS2419.1 – 2005 Fire Hydrant Installations for firefighting water supply.

TRANSGRID EASEMENT

B21. The Applicant must:

- (a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week;
- (b) comply with the requirements of TransGrid for any works in the TransGrid easement; and
- (c) advise TransGrid of any proposed amended or modified encroachment into the easement.

ENDEAVOUR ENERGY

B22. The Applicant must comply with the requirements of Endeavour Energy for the provision of land for a new zone substation as shown on the plans in the RtS.

WATER NSW

B23. The Applicant must:

- (a) provide safe and unobstructed access for Water NSW plant and personnel to access the water pipelines corridor adjacent the Site, 24 hours a day, 7 days a week;
- (b) comply with the requirements of Water NSW for any works adjacent to or over, the water pipelines corridor; and
- (c) advise Water NSW of any proposed amended or modified encroachment into the water pipelines corridor.

AMENITIES LOT

- B24. The amenities lot located north of Estate Road 1, as shown on the plans in **Appendix 1**, must only provide for small-scale local services such as commercial, retail, community facilities and landscaping that service or support the needs of local employment-generating uses.

SCHEDULE C CONDITIONS FOR FUTURE DEVELOPMENT APPLICATIONS

DEVELOPMENT CONTRIBUTIONS

- C1. Future DAs shall identify whether any Development Contributions Plan made by Council (under Section 7.11 of the EP&A Act) applies to that stage of the Concept Proposal (excluding Stage 1).
- C2. Prior to the issue of a Construction Certificate for any stage of the Development, the Applicant shall pay contributions to Council in accordance with the relevant Development Contributions Plan identified in accordance with Condition C1.

INTERFACE WITH RESIDENTIAL AREAS

- C3. Future DAs for warehouses on [lots 3A, 3B, 3C, 3D, 3E, 3F, 3G and 4A](#) shall be accompanied by an Urban Design Assessment. The assessment must:
 - (a) be prepared by an independent urban design consultant;
 - (b) be prepared in consultation with Council and the Emmaus Catholic College;
 - (c) detail the key objectives for the interface with the sensitive receivers on the western and southern Site boundaries, including consideration of optimal uses and operational hours;
 - (d) determine the optimal building location and setbacks on the western and southern boundaries, noting the design controls in Condition B10 are the minimum setback requirements;
 - (e) present the optimal design for the building layouts along the western and southern site boundaries with detailed justification for the preferred option;
 - (f) identify appropriate orientations and architectural treatments for the facades facing sensitive receivers; and
 - (g) incorporate noise mitigation into the layout and design of buildings, internal roads, loading docks and parking areas to ensure the Development can meet the noise limits in Condition **Error! Reference source not found.**
- C4. Prior to the commencement of construction of warehouses or office buildings on [lots 3A, 3B, 3C, 3D, 3E, 3F, 3G and 4A](#), the Applicant must obtain approval from the Consent Authority for the preferred design option, including uses, building and loading dock layouts, setbacks, façade treatments and colours.

VISUAL AMENITY

Landscaping

- C5. Future DAs shall be accompanied by a Landscape Assessment. The assessment must:
 - (a) be prepared by a qualified landscape design consultant;
 - (b) be prepared in consultation with Council;
 - (c) describe how the landscaping for the relevant Stage of the Development is consistent with the Staging Plan approved in accordance with Condition B15;
 - (d) describes the landscaping works to be completed as part of the relevant Stage of the Development and details a program for monitoring the success of landscaping works over time;
 - (e) assesses the condition of and adequacy of landscaping completed as part of earlier Stages of the Development, in providing visual screening for adjacent sensitive receivers; and
 - (f) details any additional landscaping or rehabilitation works required to ensure the visual impacts of the Development are minimised for the adjacent sensitive receivers.

Outdoor Lighting

- C6. Future DAs must ensure compliance with *AS/NZS 1158.3.1:2005 Pedestrian Area (Category P) Lighting* and *AS/NZS 4282:2019 Control of Obtrusive Effects of Outdoor Lighting*.

Signage

- C7. Future DAs must ensure illuminated signage is oriented away from the sensitive receivers on the western and southern Site boundaries.

Reflectivity

- C8. The visible light reflectivity from materials used on the façades and roofs of the warehouses and office buildings shall be designed to minimise glare. A report demonstrating compliance with these requirements must be submitted to the satisfaction of the Certifying Authority for each future warehouse and office building prior to the issue of the relevant Construction Certificate.

TRANSPORT, ACCESS AND PARKING

- C9. Future DAs shall be accompanied by a transport, access and parking assessment. The assessment must:
- (a) assess the impacts on the safety and capacity of the surrounding road network and access points during construction and operation of the relevant Stage;
 - (b) demonstrate internal roads and car parking complies with relevant Australian Standards and the car parking rates in Condition B13;
 - (c) detail the scope and timing of any required road upgrades to service the relevant Stage; and
 - (d) detail measures to promote non-car travel modes, including a Sustainable Travel Plan identifying pedestrian and cyclist facilities to service the relevant Stage of the Development.

NOISE AND VIBRATION

- C10. Future DAs shall be accompanied by a noise and vibration impact assessment. The assessment must:
- (a) identify the noise and vibration impacts during construction and operation;
 - (b) demonstrate compliance with the noise limits in Condition **Error! Reference source not found.**;
 - (c) provide an analysis of all external plant and equipment, including but not limited to, forklifts, air conditioners and refrigeration systems;
 - (d) incorporate noise mitigation measures, such as increased building setbacks, building insulation, noise barriers, layout of truck loading areas or source controls, to demonstrate the noise limits in Condition B18 can be achieved;
 - (e) detail the timing to construct the noise walls shown in **Appendix 5**, to ensure noise from operation of the Development does not exceed the noise limits in Condition B18**Error! Reference source not found.**; and
 - (f) recommend mitigation and management measures to be implemented to minimise noise during construction.

STORMWATER MANAGEMENT

- C11. Future DAs shall demonstrate the design of the warehouses, offices and hardstand areas are consistent with (or the latest revision of) the:
- (a) *Civil, Stormwater and Infrastructure Services Report*, prepared by At&L, dated October 2018; and
 - (b) *Flood Impact Assessment: Oakdale West Estate*, prepared by Cardno, dated 27 March 2017.

BUSHFIRE PROTECTION

- C12. The Applicant shall ensure future DAs comply with:
- (a) [the relevant provisions of *Planning for Bushfire Protection 2019*](#);

- (b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; and
- (c) AS2419.1 – 2005 Fire Hydrant Installations for firefighting water supply.

TRANSGRID EASEMENT

- C13. The Applicant must consult with TransGrid, prior to lodging DAs for Stages 4 and 5 of the Development as shown on **Figure 2** in **Appendix 1**, and any other Stage or road infrastructure that may affect the TransGrid easement. The Applicant must design, construct and operate each Stage of the development in accordance with the reasonable requirements of TransGrid relating to their use of the TransGrid easement.
- C14. The Applicant must consult with TransGrid, prior to lodging DAs for buildings in Stage 5 adjacent to Ropes Creek, to identify and implement any required flood management measures within the transmission line easement.

ENDEAVOUR ENERGY

- C15. The Applicant must obtain relevant approvals from Endeavour Energy, prior to the construction of any utility works to service each Stage of the Development.

WATER NSW

- C16. The Applicant must consult with Water NSW, prior to lodging DAs for works on Lot 2A adjoining the water pipelines corridor, to identify and implement any requirements of Water NSW for protection of the water pipelines corridor.

WASTE

- C17. Future DAs shall include a Waste Management Plan prepared in accordance with the *NSW Waste Classification Guidelines* (DECCW, 2009).

CONSTRUCTION MANAGEMENT

- C18. A Construction Environmental Management Plan (CEMP) shall be submitted to the Consent Authority for each stage of the Concept Proposal prior to the commencement of construction of the relevant stage. The CEMP must:
 - (a) be prepared by a suitably qualified and experienced environmental consultant, or the Environmental Representative appointed for Stage 1 of the Development;
 - (b) be prepared in consultation with relevant Government agencies, infrastructure and utility providers, including but not limited to, TransGrid, Endeavour Energy, Water NSW and TfNSW, where relevant for each stage;
 - (c) detail the construction activities to be undertaken in the relevant Stage of the Development;
 - (d) include detailed procedures for managing the environmental impacts of construction, including stormwater, erosion and sediment controls, dust, noise and traffic management; and
 - (e) detail the roles and responsibilities for environmental management on the Site.

COMMUNITY COMMUNICATION STRATEGY

- C19. No later than one month before the commencement of construction of any stage of the Development, a Community Communication Strategy (CCS) must be prepared and submitted to the Planning Secretary for approval.

The CCS is to provide mechanisms to facilitate communication between the Applicant, Council and the community (including adjoining affected landowners, schools, businesses, and others directly impacted by Stage 1), during design, construction and operation. The CCS must:

- (a) assign a central contact person to keep the nearby sensitive receivers regularly informed throughout the Development;
- (b) detail the mechanisms for regularly consulting with the local community throughout the Development, such as holding regular meetings to inform the community of the progress of the development and report on environmental monitoring results;
- (c) detail a procedure for consulting with nearby sensitive receivers to schedule high noise generating works, vibration intensive activities or manage traffic disruptions;
- (d) include contact details for key community groups, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders; and
- (e) include a complaints procedure for recording, responding to and managing complaints, including:
 - (i) email, contact telephone number and postal addresses for receiving complaints;
 - (ii) advertising the contact details for complaints before and during operation, via the local newspaper and through onsite signage;
 - (iii) a complaints register to record the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint; and
 - (iv) procedures for the resolution of any disputes that may arise during the course of the Development.

C20. The Applicant must:

- (a) not commence construction of the relevant stage of the Concept Proposal until the CCS required under Condition C19 has been approved by the Planning Secretary; and
- (b) implement the CCS for each stage of the Concept Proposal and following the completion of operation of the Development.

SCHEDULE D CONDITIONS FOR STAGE 1 DA

PART 1 – GENERAL CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- D1. 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 Stage 1 development, and any rehabilitation required under this consent.

TERMS OF CONSENT

- D2. Stage 1 of 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 and RTS;
 - (d) in accordance with the plans in **Appendix 2** and **Appendix 3**;
 - (e) in accordance with SSD 7348 MOD 1;
 - (f) in accordance with the Applicant's Management and Mitigation Measures in **Appendix 7**; and
 - (g) in accordance with modifications to this consent.
- D3. 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 D3(a).
- D4. 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 D2(c). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in Condition D2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

LIMITS OF CONSENT

- D5. This consent lapses five (5) years after the date from which it operates, unless Stage 1 has physically commenced on the land to which the consent applies before that date.
- D6. The following limits apply to Stage 1:
- (a) the maximum GLA for the land uses shall not exceed the limits in **Table 4**; and
 - (b) a minimum 60 m wide corridor along the northern Site boundary shall not be developed and shall be maintained and preserved for the future WSFL corridor, in accordance with the requirements of TfNSW.
 - (c) all construction traffic associated with the Stage 1 warehouse buildings (Buildings 1A, 1B and 1C) must use the West North South Link Road to access the site.

Table 4: GLA Maximum for Stage 1

Land Use	Maximum GLA (m ²)
Total Warehousing	81,286
Total Office	4,151

Other	4,004
Total GLA	89,440

Note: Other includes, but is not limited to, the skybridge, gatehouse, dangerous goods store and energy complex in Building 1A

- D7. The Applicant shall ensure Stage 1 is consistent with the development controls in **Table 2: Development Controls** in Condition B10.

NOTIFICATION OF COMMENCEMENT

- D8. The date of commencement of each of the following phases of Stage 1 must be notified to the Department in writing, at least one month before that date, or otherwise agreed with the Planning Secretary:
- (a) construction; and
 - (b) operation.
- D9. If the construction or operation of Stage 1 is to be delivered in sub-stages, the Department must be notified in writing at least one month before the commencement of each sub-stage, of the date of commencement and the works to be carried out in that sub-stage.

EVIDENCE OF CONSULTATION

- D10. 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.

STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS

- D11. 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).
- D12. 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.
- D13. 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.

PROTECTION OF PUBLIC INFRASTRUCTURE

- D14. Before the commencement of construction of Stage 1, the Applicant must:

- (a) consult with the relevant owner and provider of services that are likely to be affected, to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure;
 - (b) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the Site (including roads, gutters and footpaths); and
 - (c) submit a copy of the dilapidation report to the Planning Secretary and Council.
- D15. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out Stage 1; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of Stage 1.

PROTECTION OF WATER NSW INFRASTRUCTURE

- D16. Before the commencement of construction of Stage 1, the Applicant must:
- (a) prepare a dilapidation report identifying the condition of all infrastructure within the water pipelines corridor, in the vicinity of the WNSLR bridge crossing;
 - (b) implement all practical measures to protect this infrastructure, as required by Water NSW; and
 - (c) repair, or pay the full costs associated with repairing, any water supply infrastructure that is damaged by carrying out Stage 1.

DEMOLITION

- D17. All demolition must be carried out in accordance with *Australian Standard AS 2601-2001 The Demolition of Structures* (Standards Australia, 2001).

STRUCTURAL ADEQUACY

- D18. All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the National Construction Code (NCC).

Notes:

- *Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*

COMPLIANCE

- D19. 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 Stage 1.

DEVELOPER CONTRIBUTIONS

Planning Agreement

- D20. The Applicant shall provide all monetary contributions and/or works-in-kind contributions under Subdivision 2 of Division 7.1 of Part 7 of the EP&A Act, in accordance with the Planning Agreement entered into between the Minister for Planning, Goodman Property Services (Aust) Pty Ltd (the developer) and BGMG 11 Pty Limited as trustee for the BGMG 1 Oakdale West Trust (the landowner) executed on 5 August 2019 and as attached in **Appendix 4**.

OPERATION OF PLANT AND EQUIPMENT

- D21. All plant and equipment used on site, or to monitor the performance of Stage 1 must be:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

EASEMENTS

- D22. Within 12 months of commencing operation of Stage 1, or a timing otherwise agreed with Council, an easement under section 88A and/or restriction or public positive covenant under section 88E of the *Conveyancing Act 1919* (NSW) naming the Council as the prescribed authority, which can only be revoked, varied or modified with the consent of the Council, and provides for a drainage outlet swale from bio-retention basin 1, must be registered on title of Lot 19 DP 1250578.

EXTERNAL WALLS AND CLADDING

- D23. The external walls of all buildings including additions to existing buildings must comply with the relevant requirements of the NCC.
- D24. Before the issue of a Construction Certificate and an Occupation Certificate, the Applicant must provide the Certifying Authority with documented evidence that the products and systems proposed for use or used in the construction of external walls including finishes and claddings such as synthetic or aluminium composite panels comply with the requirements of the NCC.
- D25. The Applicant must provide a copy of the documentation given to the Certifying Authority to the Planning Secretary within seven days after the Certifying Authority accepts it.

UTILITIES AND SERVICES

- D26. Before the construction of any utility works associated with Stage 1, the Applicant must obtain relevant approvals from service providers.
- D27. Before the commencement of operation of Stage 1, the Applicant must obtain a Compliance Certificate for water and sewerage infrastructure servicing Stage 1, under section 73 of the *Sydney Water Act 1994* (NSW).
- D28. Before the issue of a Subdivision or Construction Certificate for Stage 1, the Applicant (whether or not a constitutional corporation) is to provide evidence, satisfactory to the Certifying Authority, that arrangements have been made for the provision of communication facilities to Stage 1.
- D29. The Applicant must demonstrate that the carrier has confirmed in writing they are satisfied that the fibre ready facilities are fit for purpose.

TRANSGRID EASEMENT

- D30. The Applicant must:
- (a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week;
 - (b) comply with the requirements of TransGrid for any works in the TransGrid easement on the Site; and
 - (c) advise TransGrid of any proposed amended or modified encroachment into the easement.

WATER NSW

- D31. The Applicant must:
- (a) comply with the requirements of Water NSW for any works adjacent to, or over, the water pipelines corridor;
 - (b) consult with Water NSW during detailed design of Stage 1 works near the corridor including:
 - (i) design of drainage upgrade works within the corridor;
 - (ii) batters and access tracks;
 - (iii) final bridge design for the WNSLR;
 - (c) obtain from Water NSW, an access consent and construction licence to work within the water pipelines corridor, prior to the commencement of construction;

- (d) consult with Water NSW during preparation of the CEMP, in accordance with Condition D119, and attend a site visit with Water NSW personnel, prior to finalising the CEMP, to mark the exact works area for the WNSLR bridge crossing; and
- (e) notify any incidents that affect or could affect the water pipelines corridor to Water NSW on the 24-hour Incident Notification Number **1800 061 069**, as a matter of urgency.

WORKS-AS-EXECUTED PLANS

- D32. Before the issue of the final Occupation Certificate for Stage 1, works-as-executed drawings signed by a registered surveyor demonstrating that the stormwater drainage and finished ground levels have been constructed as approved, must be submitted to the PCA.

APPLICABILITY OF GUIDELINES

- D33. 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.
- D34. However, consistent with the conditions of 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.

ADVISORY NOTES

- AN1. All licences, permits, approvals and consents as required by law must be obtained and maintained as required for Stage 1. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.

PART 2 – ENVIRONMENTAL PERFORMANCE CONDITIONS

VISUAL AMENITY

Landscape Management Plan

- D35. Prior to the commencement of construction of Stage 1, the Applicant must prepare a Landscape Management Plan (LMP), to the satisfaction of the Planning Secretary. The plan must form part of the CEMP in accordance with Condition D119 and the OEMP in accordance with Condition D130 and must:
- (a) be prepared in consultation with Council;
 - (b) detail procedures for the retention of existing native vegetation in the north-western corner of the Site and protection of this vegetation from construction impacts;
 - (c) include visual impact mitigation measures for construction including but not limited to:
 - (i) the location of site sheds, compounds and machinery parking areas, avoiding the western and southern site boundaries, or other locations highly visible from adjacent residential properties;
 - (ii) ~~procedures for progressive grassing of exposed soil, as soon as reasonably practicable after disturbance, focusing on areas where building construction will occur at a later stage;~~ *The contractor shall employ the use of a dust suppressing polymer agent ideally with a green tint to reduce the visual impact of the exposed building pads & to assist in reducing the dust generated on site.*
 - (d) detail the works required to construct the landscape bund along the western boundary of the Site, as shown on Error! Reference source not found.4 in **Appendix 2**, including provision for the landscaping to incorporate mature trees (no less than 75 litre pot size);
 - (e) include a schedule of works which prioritises the construction of the landscape bund along the western boundary of the Site, as shown on **Figure 4** in **Appendix 2**.
 - (f) include a program for implementing the landscape bund as soon as reasonably practicable, and no later than prior to operation of Stage 1;
 - (g) describe the integration of landscaping with fixed elements, including retaining walls and noise walls;
 - (h) describe the monitoring and maintenance procedures to ensure the success of the landscaping works over the life of the Development; and
 - (i) *update the LEMP to include modifications to the western bund, bio-retention basin 2/3 and the noise wall approved under MOD 3.*
- D36. The Applicant must:
- (a) not commence construction of Stage 1 until the LMP is approved by the Planning Secretary.
 - (b) must implement the most recent version of the LMP approved by the Planning Secretary; and
 - (c) include the monitoring and maintenance procedures contained in the LMP within the OEMP required in accordance with Condition D130.

Landscaping

- D37. The Applicant must complete the landscape bund along the western boundary of the Site as shown on **Figure 4** in **Appendix 2** within six months of commencing any construction including bulk earthworks.
- D38. The Applicant must maintain all landscaping implemented as part of Stage 1, as shown on Error! Reference source not found.4 in **Appendix 2**, for the duration of the Development. If the monitoring carried out as part of Condition D35 indicates that any aspect of the landscaping has not been successful, the Applicant must undertake re-planting and rehabilitation works, as soon as reasonably practicable.

Setbacks

- D39. The Applicant must ensure building services including tanks are integrated into the building design and landscaped areas to reduce visibility from public areas, unless otherwise required by an authority or Australian Standard, to be located within the front boundary setback.

Lighting and Security Cameras

- D40. The Applicant must ensure the lighting associated with Stage 1:
- (a) complies with the latest version of AS 4282-1997 - *Control of the obtrusive effects of outdoor lighting* (Standards Australia, 1997); and
 - (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.
- D41. The Applicant must ensure any security cameras installed as part of Stage 1 are directed away from adjacent private properties.

Reflectivity

- D42. The visible light reflectivity from building materials used in the facades and roofs of the warehouses and offices must be designed to minimise glare. A report demonstrating compliance with these requirements is to be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate.

Signage and Fencing

- D43. All signage and fencing must be erected in accordance with the plans in the RtS.
- Note:** *This condition does not apply to temporary construction and safety related signage and fencing.*

D43A. Prior to construction of any signage for Stage 1, the Applicant must consult with Council on the final signage strategy.

- D44. All fencing along building frontages must be located behind the landscape setbacks and not along the front boundary. The fencing must be a maximum height of 2.1 metre and be an open style.

- D45. The Applicant must:
- (a) remove existing rural fencing along the water pipelines corridor adjacent the site and dispose to an appropriate waste facility licensed to accept the waste;
 - (b) install and maintain temporary security fencing along the water pipelines corridor adjacent the site, for the duration of construction, or until a permanent fence is installed;
 - (c) install permanent 2.4-metre-high fencing along the water pipelines corridor adjacent the site, including the approaches to the WNSLR bridge over the water pipelines corridor and above retaining walls, unless otherwise agreed with Water NSW;
 - (d) install concrete barriers or barrier guard rails (including barriers leading up to bridge structure) to the WNSLR where there is potential for large vehicles to drive over retaining walls and into the water pipelines corridor. Barriers must be rated to withstand impact from B-Double size vehicles; and
 - (e) install cranked throw screens on both sides of the WNSLR bridge crossing the Water NSW water pipeline corridor.

D45A. Prior to construction of Building 1A, the Applicant must submit a final architectural design for Building 1A detailing building articulation, colour schemes and signage. The Applicant must not commence construction of Building 1A until the final architectural design is approved by the Planning Secretary.

WESTERN NORTH-SOUTH LINK ROAD (WNSLR)

General Requirements

- D46. The Applicant must design and construct the WNSLR in accordance with the requirements of:
- (a) Council, the PCA and any approval issued under section 138 of the *Roads Act 1993* including the Works Authorisation Deed (WAD);

- (b) TfNSW for the bridge crossing of the future WSFL; and
 - (c) Water NSW for the bridge crossing of the water pipelines corridor.
- D47. The Applicant must design and construct the intersections of the WNSLR with Estate Road 1 and Lockwood Road to the satisfaction of the relevant roads authority.
- D47A. Prior to the commencement of construction of car park access for Lot 9, DP1157476 (57-87 Lockwood Road, Erskine Park NSW 2759), the Applicant must submit a Section 138 Application (including payment of fees together with any applicable bonds) to Penrith City Council for obtaining a *Roads Act 1993* approval. The Section 138 Application may include but is not limited to the following works:
- vehicular crossings (including kerb reinstatement of redundant vehicular crossings);
 - road opening for utilities and stormwater (including stormwater connection to Council infrastructure); and
 - road occupancy or road closures.
- All works shall be carried out in accordance with the *Roads Act 1993* approval, the development consent including the stamped approved plans, and Penrith City Council's specifications.

Note: contact Penrith City Council's City Works Department on (02) 4732 7777 for further information regarding the application process.

Works at Lenore Drive/Grady Crescent/WNSLR Intersection

- D48. Prior to the commencement of construction of the Lenore Drive/Grady Crescent/WNSLR intersection (the intersection), the Applicant must finalise the detailed design, including a Traffic Signal Plan, for the intersection works. The detailed design must:
- (a) cut back the median further with a taper in Grady Crescent to accommodate the dual B-Double swept paths turning from WNSLR onto Lenore Drive; and
 - (b) include an angled pedestrian crossing on the south-eastern corner of the intersection so that pedestrians are not confused by the pedestrian lantern on the opposite side of the intersection.
- D49. The Applicant must enter into a WAD for works at the intersection with TfNSW (former RMS). The WAD must be executed prior to the submission of the detailed design required under condition D48 to TfNSW for approval.
- D50. The Applicant must design the proposed traffic control light at the intersection in accordance with Austroads guidelines, RMS Signal Design Manual and Australian Codes of Practice. The traffic control light design must be endorsed by a suitably qualified practitioner whose qualification has been approved by TfNSW (former RMS).
- D51. The Applicant must submit the certified copies of the traffic signal design plans to TfNSW (former RMS) for approval prior to the issue of a Construction Certificate.
- D52. The Applicant must submit a request to TfNSW (former RMS) Network Operations Team to obtain relevant approvals to remove the signalised pedestrian crossing on the eastern leg of the intersection.
- D53. The Applicant must carry out all public utility adjustment/relocation works necessary for the intersection works as required by relevant public utility authorities and/or their agents.
- D54. The Applicant must make a ten (10) year maintenance contribution for the intersection to TfNSW (former RMS).
- D55. The intersection works must be carried out at no cost to TfNSW (former RMS).

Pre-Construction

- D56. Prior to the commencement of construction of the WNSLR, the Applicant must:
- (a) obtain the written consent of the Minister for Planning and Public Spaces under the Biodiversity Covenant, to construct the WNSLR over the Erskine Park Biodiversity Corridor; and

- (b) provide evidence to the satisfaction of the Planning Secretary, demonstrating the design of the WNSLR and bridge crossings have been agreed with the relevant roads authority, Council, TfNSW and Water NSW.

Consultation

- D57. The Applicant must develop a schedule for consultation with and approval by TfNSW for the construction of the bridge foundations over the future WSFL, including geotechnical and structural certification as required by TfNSW. The schedule must form part of the CEMP required by Condition D119.
- D58. The Applicant must develop a schedule for consultation with and approval by Water NSW for the construction of the bridge over the water pipelines corridor. This schedule must form part of the CEMP required by Condition D119.

Pre-Operation

- D59. Prior to operation of any Stage of the Development, the Applicant must complete construction of the WNSLR to the satisfaction of the relevant roads authority and the PCA.
- D60. Prior to the commencement of operation of the WNSLR, the Applicant must provide works-as-executed drawings to Water NSW for the WNSLR bridge. The drawings must clearly show any changes to the bridge design or the works adjacent to the water pipelines corridor.
- D61. Prior to the commencement of operation of the WNSLR, the Applicant must design and construct a stormwater management system for the WNSLR. The system must:
 - (a) be designed by a suitably qualified and experienced person(s);
 - (b) be generally in accordance with the conceptual design in the RtS;
 - (c) ensure that the system capacity has been designed in accordance with AUSTROADS guidelines;
 - (d) achieve the pollutant reduction targets specified in RMS's *Water Sensitive Urban Design (WSUD) Guidelines* (March 2016) and Council's *Water Sensitive Urban Design (WSUD) Policy* (December 2013); and
 - (e) ensure the outlet structures are designed in accordance with NRAR's *Guidelines for Controlled Activities on Waterfront Land* (May 2018).

Dedication of Infrastructure and Land

- D62. Prior to the completion of construction of the WNSLR, the Applicant must consult with Water NSW regarding land subdivision and stratum arrangements for the acquisition and dedication of Water NSW land to Council for the WNSLR bridge.
- D63. Following completion of construction of the WNSLR to the satisfaction of the relevant roads authority, the Applicant must dedicate the WNSLR and its associated land owned by Water NSW and BGMG 11 Pty Limited as trustee for the BGMG 1 Oakdale West Trust, to the relevant roads authority in accordance with the requirements of the Planning Agreement.
- D64. The Applicant shall retain care, control and ownership of bio-retention basin no. 1 associated with the WNSLR.

TRANSPORT, ACCESS AND PARKING

Construction Traffic Management Plan

- D65. Prior to the commencement of construction of Stage 1, the Applicant must prepare a Construction Traffic Management Plan (CTMP) to the satisfaction of the Planning Secretary. The CTMP must form part of the CEMP required by Condition D119 and must:
 - (a) be prepared by a suitably qualified and experienced person(s);
 - (b) be prepared in consultation with Council, Mamre Anglican School, Emmaus Catholic College, Emmaus Catholic Care Village and Trinity Catholic Primary School;
 - (c) detail specific measures to manage construction traffic to avoid school drop off and pick up times (Monday to Friday 8 am – 9.30 am and 2.30 pm – 4 pm) and Higher School

- Certificate exam periods, including any temporary infrastructure arrangements and traffic safety measures;
- (d) detail the measures to be implemented to ensure road safety and network efficiency during construction, including scheduling deliveries of heavy plant and equipment outside of peak periods, or during school holidays where possible;
- (e) detail heavy vehicle routes, access and parking arrangements;
- (f) include a Driver Code of Conduct to:
 - i. minimise the impacts of construction on the local and regional road network;
 - ii. minimise conflicts with other road users including the students, staff, visitors and residents of the neighbouring schools and aged care village;
 - iii. minimise road traffic noise, both on Bakers Lane and from construction vehicles on Site; and
 - iv. ensure truck drivers use specified routes and adhere to the speed restrictions on Bakers Lane;
- (g) include a program to monitor the effectiveness of these measures;
- (h) detail procedures for early notification to residents and the community (including local schools), of any potential disruptions to routes; and
- (i) [update the CTMP to include modifications to construction traffic management approved under MOD 2 and MOD 3.](#)

D66. The Applicant must:

- (a) not commence construction of Stage 1 until the CTMP required by Condition D65 is approved by the Planning Secretary; and
- (b) implement the most recent version of the CTMP approved by the Planning Secretary for the duration of construction.

Estate Roads and Intersections

D67. The Applicant must design and construct the internal estate roads and intersections to accommodate the turning path of a B-Double, to the satisfaction of the Relevant Roads Authority.

D68. Following the issue of a Subdivision Certificate, the estate roads shall be dedicated to the Relevant Roads Authority. Prior to any dedication, the Applicant shall ensure construction of the estate roads has been completed to the satisfaction of the Relevant Roads Authority and measures (such as a performance bond) are in place for any prescribed maintenance period, to the satisfaction of the Relevant Roads Authority.

Operating Conditions

D69. The Applicant must ensure:

- (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) are constructed and maintained in accordance with the latest version of *AS 2890.1:2004 Parking facilities Off-street car parking* (Standards Australia, 2004) and *AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities* (Standards Australia, 2002);
- (b) [parking for Stage 1 is provided in accordance with the EIS and RfS for MOD 5;](#)
- (c) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant Austroads guidelines;
- (d) Stage 1 does not result in any vehicles queuing on the public road network;
- (e) heavy vehicles associated with Stage 1 are not parked on local roads or footpaths in the vicinity of the Site;
- (f) all vehicles are wholly contained on site before being required to stop;

- (g) all loading and unloading of materials are carried out on Site;
- (h) all trucks entering or leaving the Site with loads have their loads covered and do not track dirt onto the public road network; and
- (i) the proposed turning areas in the car parks are kept clear of any obstacles, including parked cars, at all times.

Operational Traffic Management Plan

D69A The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:

- (a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW;
- (b) detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation;
- (c) include measures to maintain road safety and network efficiency;
- (d) detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise;
- (e) include a Driver's Code of Conduct that addresses:
 - (i) travelling speeds and adherence to site-specific speed limits;
 - (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and
 - (iii) procedures to ensure drivers implement safe driving practices.

D69B The Applicant must:

- (a) not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and
- (b) implement the most recent version of the OTMP approved by the Planning Secretary for the duration of operation.

NOISE

Hours of Work

D70. The Applicant must comply with the hours detailed in **Table 5**, unless otherwise agreed in writing by the Planning Secretary.

Table 5: Hours of Work

Activity	Day	Time
Construction	Monday – Friday	7 am to 6 pm
	Saturday	8 am to 1 pm
Operation	Monday – Sunday (including public holidays)	24 hours

D71. Works outside of the hours identified in Condition D70 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.

Construction Noise Limits

- D72. Stage 1 must be constructed with the aim of achieving the construction noise management levels detailed in the *Interim Construction Noise Guideline* (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 Construction Noise and Vibration Management Plan required by Condition D73.

Construction Noise and Vibration Management Plan

- D73. The Applicant must prepare a Construction Noise and Vibration Management Plan (CNVMP) for Stage 1, to the satisfaction of the Planning Secretary. The CNVMP must form part of a CEMP in accordance with Condition D119 and must:
- (a) be prepared by a suitably qualified and experienced noise expert;
 - (b) describe procedures for achieving the noise management levels in EPA's *Interim Construction Noise Guideline* (DECC, 2009) (as may be updated or replaced from time to time);
 - (c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers;
 - (d) include strategies to minimise impacts to sensitive receivers, including, where practicable, starting noisy equipment away from sensitive receivers and implementing respite periods;
 - (e) include strategies that have been developed with the sensitive receivers identified in **Appendix 5** for managing high noise generating works;
 - (f) describe the community consultation undertaken to develop the strategies in Condition D73(e);
 - (g) include a monitoring program that:
 - (i) includes a protocol for determining exceedances of the relevant conditions in this approval;
 - (ii) evaluates and reports on the effectiveness of the noise and vibration management measures;
 - (iii) include procedures to relocate, modify, mitigate or stop work to ensure compliance with relevant criteria; and
 - (h) include a complaints management system that would be implemented for the duration of Stage 1.
- D74. The Applicant must:
- (a) not commence construction of Stage 1 until the CNVMP required by Condition D73 is approved by the Planning Secretary; and
 - (b) implement the most recent version of the CNVMP approved by the Planning Secretary for the duration of construction.

Operational Noise Limits

- D75. The Applicant shall undertake operation of Stage 1 in a manner that ensures the Development complies with the noise limits for the Concept Proposal in Condition **Error! Reference source not found.** of this consent.

Noise Barrier

- D75A The Applicant must install the noise barriers located on the western boundary, as shown on **Figure 6** in **Appendix 5**, to the satisfaction of the Planning Secretary. The noise barriers must be completed no later than 30 November 2020, unless otherwise agreed by the Planning Secretary.

Noise Verification

D75(b) Within three months of commencing operation of any buildings on the site, the Applicant must prepare a noise verification report, to the satisfaction of the Planning Secretary. The noise verification report must:

- (i) be prepared by an appropriately qualified and experienced noise expert;
- (ii) describe the noise monitoring undertaken to verify the effectiveness of the noise barrier;
- (iii) demonstrate compliance with the noise limits in Condition B18; and
- (iv) if required, recommend, prioritise and implement measures to improve noise controls to ensure the development meets the noise limits in Condition B18.

VIBRATION

Vibration Criteria

D76. Vibration caused by construction works on the site, as measured at any residence or structure outside the site, must be limited to:

- (a) for structural damage, the latest version of *DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures* (German Institute for Standardisation, 1999); and
- (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: a technical guideline* (DEC, 2006) (as may be updated or replaced from time to time).

D77. Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in Condition D76.

D78. The limits in Conditions D76 and D77 apply unless otherwise outlined in a CNVMP, approved as part of the CEMP required by Condition D119 of this consent.

SOILS & WATER

Imported Soil

D79. The Applicant must prepare a Fill Importation Protocol for Stage 1. The protocol must form part of the CEMP required by Condition D119 and must detail the measures to:

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

Erosion and Sediment Control

D80. The Applicant must prepare an Erosion and Sediment Control Plan for Stage 1, including the WNSLR, to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with Condition D119 and must:

- (a) be prepared by a suitably qualified and experienced person(s);
- (b) be generally consistent with the Erosion and Sediment Control Plans in the RTS and those prepared by the contractor for each sequence of the works, as approved by the PCA;
- (c) include detailed erosion and sediment controls developed in accordance with the relevant requirements of *Managing Urban Stormwater: Soils and Construction - Volume 1: Blue Book* (Landcom, 2004) guideline; and
- (d) include procedures for maintaining erosion and sediment controls in efficient working order for the duration of construction, to ensure Stage 1 complies with Condition D82.

D81. Prior to the commencement of bulk earthworks as part of Stage 1, the Applicant must implement erosion and sediment controls identified by Condition D80 and maintain those controls throughout bulk earthworks and construction, to ensure stormwater flows do not

increase in any downstream areas. The Environmental Representative, appointed in accordance with Condition D123, shall make a written statement to the Planning Secretary confirming the erosion and sediment controls are operational, prior to the commencement of bulk earthworks and other construction activities required for Stage 1.

Discharge Limits

D82. Stage 1 must comply with section 120 of the POEO Act, which prohibits the pollution of waters.

Stormwater Management System

D83. The Applicant must design, construct and operate a stormwater management system for Stage 1 that:

- (a) is designed by a suitably qualified and experienced person(s);
- (b) is generally in accordance with the conceptual design in the RtS;
- (c) is in accordance with applicable Australian Standards;
- (d) ensures the system capacity is designed in accordance with *Australian Rainfall and Runoff* (Engineers Australia, 2016), *Managing Urban Stormwater: Council Handbook* (EPA, 1997) and *Stormwater Drainage Specifications for Building Development* (Penrith Council, May 2018);
- (e) ensures peak stormwater flows from the Site do not exceed pre-development flows in any downstream areas for all rainfall events up to and including the 1 in 100-year average recurrence interval (ARI);
- (f) ensures peak stormwater flows from the Site do not exceed existing flows in the Water NSW drainage lines and water pipelines corridor; and
- (g) achieves the pollutant reduction targets specified in Council's *Water Sensitive Urban Design (WSUD) Policy*, (December 2013).

D84. All stormwater drainage infrastructure on the Site, including bio-retention basins, shall remain under the care, control and ownership of the registered proprietor of the lots.

D85. The Applicant shall create a drainage easement for the outlet swales from the bio-retention basins on the site, in accordance with the requirements of Council and Condition D22.

Groundwater

D86. If groundwater is intersected during construction of Stage 1, the Applicant must:

- (a) obtain the necessary water licences or approvals from NRAR; and
- (b) develop a Groundwater Management Plan (GMP) for the testing, dewatering, storage, movement and treatment of groundwater, to the satisfaction of NRAR.

Waterfront Land

D87. The Applicant must carry out all works on or adjacent to waterfront land in accordance with the Department of Industry *Guidelines for Controlled Activities on Waterfront Lands 2012*.

BIODIVERSITY

Flora and Fauna Management Plan

D88. The Applicant must prepare a **Terrestrial and Aquatic** Flora and Fauna Management Plan (FFMP) for Stage 1, to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with Condition D119 and must:

- (a) be prepared by a suitably qualified and experienced person(s);
- (b) describe procedures to manage impacts on biodiversity values during earthworks, clearing and dam decommissioning;
- (c) include procedures for clearing marking and protecting the areas of vegetation to be retained on the Site, including the mature vegetation in the north-western corner and the ~~Biodiversity Offset Area, established in accordance with Condition D91 adjacent to~~

~~Ropes Creek; and Riparian Corridor adjacent to Ropes Creek in accordance with the Vegetation Management Plan (VMP) prepared under Condition D91;~~

- (d) detail the specific erosion and sediment controls to protect the retained vegetation.

D89. The Applicant must:

- (a) not commence bulk earthworks until the FFMP required by Condition D88 is approved by the Planning Secretary; and
- (b) implement the most recent version of the FFMP approved by the Planning Secretary for the duration of bulk earthworks and construction.

Offsets for Stage 1

D90. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire ~~472~~ 173 ecosystem credits to offset the removal of ~~4.41~~ 4.36 hectares of native vegetation on the Site.

Note: *If the Applicant seeks a variation to the offset rules, the Applicant must demonstrate that reasonable steps have been taken to find like-for-like offsets in accordance with Section 10.5.4.2 of the FBA and Appendix A of the OEH's NSW Biodiversity Offsets Policy for Major Projects 2014.*

In accordance with Principle 3 of the OEH's NSW Biodiversity Offsets Policy for Major Projects 2014, the Policy does not allow variations to the offset rules to be applied to 'threatened species and ecological communities that are considered nationally significant (listed under the Environmental Protection and Biodiversity Conservation Act 1999)'. These must be offset in a like for like manner.

~~D91. The Applicant shall establish a Biodiversity Offset Area on the Site, consistent with the area described in the RtS, in accordance with a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust.~~

Vegetation Management Plan

~~D91. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must prepare and implement a Vegetation Management Plan (VMP) for the restoration and rehabilitation of 4.2 ha of Riparian Corridor adjacent to Ropes Creek to meet the objectives of the Water Management Act 2000.~~

Biodiversity Management Action Plan

~~D92. The Applicant must maintain the Biodiversity Offset Area on the Site in accordance with a Biodiversity Management Action Plan approved by the Biodiversity Conservation Trust.~~

Offsets for the WNSLR

D93. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must:

- (a) offset 0.42 ha of vegetation lost in the Erskine Park Biodiversity Corridor as a result of the WNSLR by carrying out planting within the area shown in green edging on **Figure** in **Appendix 6**; and
- (b) plant the area shown in green edging on **Figure** of **Appendix 6** with species similar to those identified for zone 4a, on the south-eastern side of Ropes Creek, in the Biodiversity Management Plan Erskine Park Employment Area (HLA-Envirosciences, 2 May 2006).

D94. The Applicant shall monitor and maintain the planting for a period of six months to ensure a minimum 85% survival rate of the planting.

D95. The Applicant must notify the Planning Ministerial Corporation at least one month before the completion of planting to enable the Planning Ministerial Corporation to arrange ongoing maintenance.

Snake Management Measures

- D96. Prior to construction of Stage 1, the Applicant must implement snake management measures to limit, to the extent practicable, movement of snakes from the Site into the adjacent school and retirement village on the western boundary of the Site. The measures shall be detailed in the CEMP required by Condition D119 and shall include, but not be limited to, provision of alternative snake habitat on Site, fencing along the western boundary and installation of snake deterrents.

BUSHFIRE PROTECTION

- D97. The Applicant shall ensure Stage 1 complies with:

- (a) the relevant provisions of *Planning for Bushfire Protection 2019*;
- (b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016, and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; and
- (c) AS2419.1 – 2005 Fire Hydrant Installations for firefighting water supply.

AIR QUALITY

Dust Minimisation

- D98. The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.
- D99. During construction of Stage 1, the Applicant must ensure that:
- (a) exposed surfaces and stockpiles are suppressed by regular watering;
 - (b) all trucks entering or leaving the Site with loads have their loads covered;
 - (c) trucks associated with Stage 1 do not track dirt onto the public road network;
 - (d) public roads used by these trucks are kept clean; and
 - (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.

Construction Air Quality Management Plan

- D100. Prior to the commencement of construction of Stage 1, 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 Condition D119 and must:
- (a) be prepared by a suitably qualified and experienced person(s);
 - (b) detail and rank all emissions from all construction activities, including particulate emissions;
 - (c) describe a program that is capable of evaluating the performance of the construction and determining compliance with key performance indicators;
 - (d) identify the control measures that will be implemented for each emission source; and
 - (e) nominate the following for each of the proposed controls:
 - (i) key performance indicator;
 - (ii) monitoring method;
 - (iii) location, frequency and duration of monitoring;
 - (iv) record keeping;
 - (v) complaints register;
 - (vi) response procedures; and
 - (vii) compliance monitoring.

D101. The Applicant must:

- (a) not commence construction of Stage 1 until the CAQMP required by Condition D100 is approved by the Planning Secretary; and
- (b) implement the most recent version of the CAQMP approved by the Planning Secretary for the duration of construction.

Odour Management

D102. The Applicant must ensure Stage 1 does not cause or permit the emission of any offensive odour, as defined in the POEO Act.

ABORIGINAL HERITAGE

Statutory Requirements

D103. Prior to the commencement of construction of Stage 1, the Applicant must register identified Aboriginal items or objects on the OEH's Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Register.

Archaeological Test Excavation

D104. Prior to the commencement of construction of Stage 1, the Applicant must undertake archaeological test excavation in the identified area of archaeological sensitivity adjacent to Ropes Creek and the ridgeline immediately to the west, that would be impacted by Stage 1. The test excavation must:

- (a) be undertaken in accordance with a methodology developed in consultation with registered Aboriginal parties;
- (b) be undertaken in accordance with the requirements of the Heritage and Community Engagement, Department of Premier and Cabinet (former NSW OEH Heritage Division); and
- (c) include a report detailing any further work, including archaeological salvage and monitoring, conducted in the presence of Aboriginal stakeholders.

D105. The Applicant must not commence construction of Stage 1 until the Archaeological Test Excavation Report is provided to the Heritage and Community Engagement, Department of Premier and Cabinet (former NSW OEH Heritage Division) and the Planning Secretary.

Unexpected Finds Protocol

D106. If any item or object of Aboriginal heritage significance is identified on Site:

- (a) all work in the immediate vicinity of the suspected Aboriginal item or object must cease immediately;
- (b) a 10 m wide buffer area around the suspected item or object must be cordoned off; and
- (c) the Biodiversity and Conservation Division of the Department must be contacted immediately.

D107. Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974* (NSW).

HISTORIC HERITAGE

Unexpected Finds Protocol

D108. If any archaeological relics are uncovered during construction of Stage 1, then all works in the immediate vicinity of the relic must cease immediately. Unexpected finds must be evaluated and recorded in accordance the requirements of Department of Premier and Cabinet, Heritage (former NSW OEH Heritage Division).

HAZARDS AND RISK

Dangerous Goods

D109. The storage of dangerous goods in Building 1A must not exceed the quantities provided in Table 6.

Table 6: *Maximum storage quantities of dangerous goods*

Class	Description	Packing Group	Quantity (kg)
1.4	Explosives	n/a	20,000
2.1	Flammable gas (LPG)	n/a	4125 (7,500 L)
2.1	Flammable gas (LPG) – kitchen	n/a	247.5 (450 L)
2.1	Flammable gas (aerosols)	n/a	70,000
2.2	Non-flammable, non-toxic gas (aerosols)	n/a	25,000
3	Flammable liquids	II & III	300,000
4.1	Flammable solids	III	24,000
5.1	Oxidising agents	III	25,000
6.1	Toxic substances	III	45,000
8	Corrosive substances	II & III	60,000
9	Miscellaneous Dangerous Goods	III	105,000

D109A

Pre-Construction

- (a) The Applicant must prepare the studies set out under section (b) and (c) below (the pre-construction studies). Construction, other than of preliminary works that are outside the scope of the hazard studies, must not commence until study recommendations have been considered and, where appropriate, acted upon. The Applicant must submit the studies to the Planning Secretary no later than one month prior to the commencement of construction of Building 1A (other than preliminary works), or within such further period as the Planning Secretary may agree.
- (b) A Fire Safety Study for Building 1A. This study must cover the relevant aspects of the Department of Planning's Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines' and the New South Wales Government's 'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'. The study must meet the requirements of Fire and Rescue NSW.
- (c) A Final Hazard Analysis (FHA) of Building 1A, consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'. The FHA must report:
 - layout of dangerous goods storage area for specific dangerous goods classes; firewall and fire safety requirement between the dangerous goods storage and Energy Complex 2;
 - implementation of all recommendations of the Preliminary Hazard Analysis prepared by RiskCon Engineering dated 24 October 2019
 - compliance with all relevant standards.

Pre-Commissioning

- (a) Prior to commissioning Building 1A, the Applicant must develop and implement the plans and systems set out under subsection (b) to (c) below. The Applicant must submit to the Planning Secretary documentation describing the plans and systems no later than two months prior to the commencement of commissioning of Building 1A, or within such further period as the Planning Secretary may agree.
- (b) A comprehensive Emergency Plan and detailed emergency procedures for Building 1A. This plan must include detailed procedures for the safety of all people outside of the project who may be at risk from the project. The plan must be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'.
- (c) A document setting out a comprehensive Safety Management System, covering all on-site operations and associated transport activities involving hazardous materials. The document must clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. The Safety Management System must be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'. Records must be kept on-site and shall be available for inspection by the Planning Secretary upon request.

Pre-startup

Hazard Audit

- (a) Twelve months after the commencement of operation of Building 1A and every five years thereafter, or at such intervals as the Planning Secretary may agree, the Applicant must carry out a comprehensive Hazard Audit of Building 1A and within one month of each audit submit a report to the Planning Secretary.

The audits must be carried out at the Applicant's expense by a qualified person or team, independent of the development, and must be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'.

D109B The Applicant must not store more than 1.1 million kilograms of combustible liquid commodities at warehouse Building 1A.

Bunding

D110. The Applicant must store all chemicals, fuels and oils used on Site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual* (Department of Environment and Climate Change, 2007).

WASTE MANAGEMENT

Waste Storage

D111. 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.

Waste Management Plan

D112. The Applicant must implement the Waste Management Plan (WMP) in the EIS for the duration of construction and operation of Stage 1.

Statutory Requirements

D113. The Applicant must assess and classify all liquid and non-liquid wastes to be taken off Site in accordance with the latest version of EPA's *Waste Classification Guidelines Part 1: Classifying Waste* (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.

D114. Waste generated outside the Site must not be received at the Site for storage, treatment, processing, reprocessing, or disposal.

Pests, Vermin and Noxious Weed Management

D115. The Applicant must:

- (a) implement suitable measures to manage pests, vermin and declared noxious weeds on the Site; and
- (b) inspect the Site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on Site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.

Note: For the purposes of this condition, noxious weeds are those species subject to an order declared under the Biosecurity Act 2015 (NSW).

CONTAMINATION

D116. Prior to the commencement of construction of Stage 1, the Applicant must prepare an unexpected finds protocol to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the CEMP in accordance with Condition D119 and must ensure any material identified as contaminated is disposed offsite, with the disposal location and results of testing submitted to the Planning Secretary, prior to its removal from the Site.

COMMUNITY ENGAGEMENT

D117. The Applicant must consult with the community regularly throughout Stage 1, including consultation with the nearby sensitive receivers identified in **Appendix 5**, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders. Community engagement shall be undertaken in accordance with the Community Communication Strategy approved in accordance with Condition C19.

PART 3 – ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

MANAGEMENT PLAN REQUIREMENTS

D118. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:

- (a) details of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures and criteria; and
 - (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures;
- (b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;
- (c) a program to monitor and report on the:
 - (i) impacts and environmental performance of Stage 1; and
 - (ii) effectiveness of the management measures set out pursuant to paragraph (b) above;
- (d) 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;
- (e) a program to investigate and implement ways to improve the environmental performance of Stage 1 over time;
- (f) 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; and
- (g) a protocol for periodic review of the plan.

Note: *The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

D119. The Applicant must prepare a Construction Environmental Management Plan (CEMP) for Stage 1, including the WNSLR, in accordance with the requirements of Condition D118 and to the satisfaction of the Planning Secretary. The Applicant may prepare separate CEMPs for the Stage 1 works and the WNSLR, addressing all relevant requirements of this consent.

D120. Prior to finalising the CEMP, the Applicant must consult with TfNSW (including the former RMS), Council and Water NSW. The Applicant must also attend a site visit with Water NSW personnel to mark the exact works area for the WNSLR bridge crossing.

D121. As part of the CEMP required under Condition D119 of this consent, the Applicant must include:

- (a) detailed procedures for managing bulk earthworks to avoid adverse water quality impacts on Ropes Creek, including, but not limited to:
 - (i) any staging of earthworks to minimise disturbed areas;
 - (ii) limits on the areal extent of earthworks;
 - (iii) progressive grassing of exposed areas, as soon as reasonably practicable, focusing on areas where building construction will occur at a later stage;

- (b) Landscape Management Plan (LMP) (see Condition D35);
- (c) Construction Traffic Management Plan (CTMP) (see Condition D65);
- (d) Consultation Schedule for TfNSW and Water NSW (see Conditions D57 and D58);
- (e) Construction Noise and Vibration Management Plan (CNVMP) (see Condition D73);
- (f) Fill Importation Protocol (see Condition D79) and Erosion and Sediment Control Plan (see Condition D80);
- (g) Flora and Fauna Management Plan (FFMP) (see Condition D88);
- (h) Snake Management Measures (see Condition D96);
- (i) Construction Air Quality Management Plan (CAQMP) (see Condition D100);
- (j) Unexpected Finds Protocol (see Conditions D106 and D108);
- (k) Unexpected Contamination Protocol (see Condition D116); and
- (l) a Community Consultation and Complaints Handling Procedure.

D122. The Applicant must:

- (a) not commence construction of Stage 1 until the CEMP is approved by the Planning Secretary; and
- (b) carry out the construction of Stage 1 in accordance with the CEMP approved by the Planning Secretary and as revised and approved by the Planning Secretary from time to time.

ENVIRONMENTAL REPRESENTATIVE

D123. The Applicant must engage an Environmental Representative (ER) to oversee construction of Stage 1. Construction of Stage 1 must not commence until an ER has been approved by the Planning Secretary and engaged by the Applicant.

D124. The Planning Secretary's approval of an ER must be sought no later than one month before the commencement of construction of Stage 1, or within another timeframe agreed with the Planning Secretary.

D125. The proposed ER must be a suitably qualified and experienced person who was not involved in the preparation of the EIS or RtS and is independent from the design and construction personnel for Stage 1.

D126. The Applicant may engage more than one ER for Stage 1, in which case the functions to be exercised by an ER under the terms of this approval may be carried out by any ER that is approved by the Planning Secretary for the purposes of Stage 1.

D127. For the duration of construction of Stage 1, or as agreed with the Planning Secretary, the approved ER must:

- (a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of Stage 1;
- (b) consider and inform the Planning Secretary on matters specified in the terms of this consent;
- (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;
- (d) review the CEMP identified in Condition D119 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:
 - (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
 - (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).

Secretary/Department for information or are not required to be submitted to the Planning Secretary/Department);

- (e) regularly monitor the implementation of the CEMP, and any other documents identified by the Planning Secretary, to ensure implementation is being carried out in accordance with the document and the terms of this consent;
- (f) as may be requested by the Planning Secretary, help plan, attend or undertake audits of Stage 1 commissioned by the Department including scoping audits, programming audits, briefings, and site visits;
- (g) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints;
- (h) 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, or as otherwise agreed with the Planning Secretary.

D128. 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 D127 (including preparation of the ER monthly report), as well as:

- (a) the complaints register; and
- (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).

D129. The Planning Secretary may at any time commission an audit of an ER's exercise of its functions under Condition D142. The Applicant must:

- (a) facilitate and assist the Planning Secretary in any such audit; and
- (b) make it a term of their engagement of an ER that the ER facilitate and assist the Planning Secretary in any such audit.

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

D130. The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of Condition D118 and to the satisfaction of the Planning Secretary.

D131. As part of the OEMP required under Condition D130 of this consent, the Applicant must include the following:

- (a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of operation of Stage 1;
- (b) describe the procedures that would be implemented to:
 - (i) keep the local community and relevant agencies informed about the operation and environmental performance of Stage 1;
 - (ii) receive, handle, respond to, and record complaints;
 - (iii) resolve any disputes that may arise;
 - (iv) respond to any non-compliance;
 - (v) respond to emergencies; and
- (c) include the following environmental management plans:
 - (i) Landscape Management Plan (LMP) (see Condition D35);
 - (ii) Flora and Fauna Management Plan (FFMP) (see Condition D88);
 - (iii) Waste Management Plan (WMP) (see Condition D112).

D132. The Applicant must:

- (a) not commence operation until the OEMP is approved by the Planning Secretary; and
- (b) operate Stage 1 in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).

REVISION OF STRATEGIES, PLANS AND PROGRAMS

D133. Within three months of:

- (a) the submission of a Compliance Report under Condition D141;
- (b) the submission of an Environmental Representative Monthly Report under Condition D127;
- (c) the submission of an incident report under Condition D135;
- (d) the approval of any modification of the conditions of this consent; or
- (e) the issue of a direction of the Planning Secretary under Condition D2(b) which requires a review,

the strategies, plans and programs required under this consent must be reviewed.

D134. If necessary, to either improve the environmental performance of Stage 1, cater for a modification or comply with a direction, 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.

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 Stage 1.*

REPORTING AND AUDITING

Incident Notification, Reporting and Response

D135. The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in **Appendix 8**.

Non-Compliance Notification

D136. The Department must be notified in writing to compliance@planning.nsw.gov.au within seven (7) days after the Applicant becomes aware of any non-compliance.

D137. 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.

D138. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

Compliance Reporting

D139. No later than 6 weeks before the date notified for the commencement of construction, a Compliance Monitoring and Reporting Program prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2018) must be submitted to the Department.

D140. Compliance Reports of the Development must be carried out in accordance with the Compliance Reporting Post Approval Requirements (Department 2018).

D141. The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Department and notify the Department in writing at least 7 days before this is done.

Monitoring and Environmental Audits

D142. 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&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.

Note: *For the purposes of this condition, as set out in the EP&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.*

ACCESS TO INFORMATION

D143. At least 48 hours before the commencement of construction until the completion of all works under this consent, the Applicant must:

- (a) make the following information and documents (as they are obtained or approved) publicly available on its website:
 - (i) the documents referred to in Condition D2 of this consent;
 - (ii) all current statutory approvals for the Development;
 - (iii) all approved strategies, plans and programs required under the conditions of this consent;
 - (iv) the proposed staging plans for the Development if the construction, operation or decommissioning of the Development is to be staged;
 - (v) 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;
 - (vi) 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;
 - (vii) a summary of the current stage and progress of the Development;
 - (viii) contact details to enquire about the Development or to make a complaint;
 - (ix) a complaints register, updated monthly;
 - (x) the Compliance Report of the Development;
 - (xi) audit reports prepared as part of any monitoring or environmental audit of the Development and the Applicant’s response to the recommendations in any audit report;
 - (xii) any other matter required by the Planning Secretary; and
- (b) keep such information up to date, to the satisfaction of the Planning Secretary.

APPENDIX 1 CONCEPT PROPOSAL

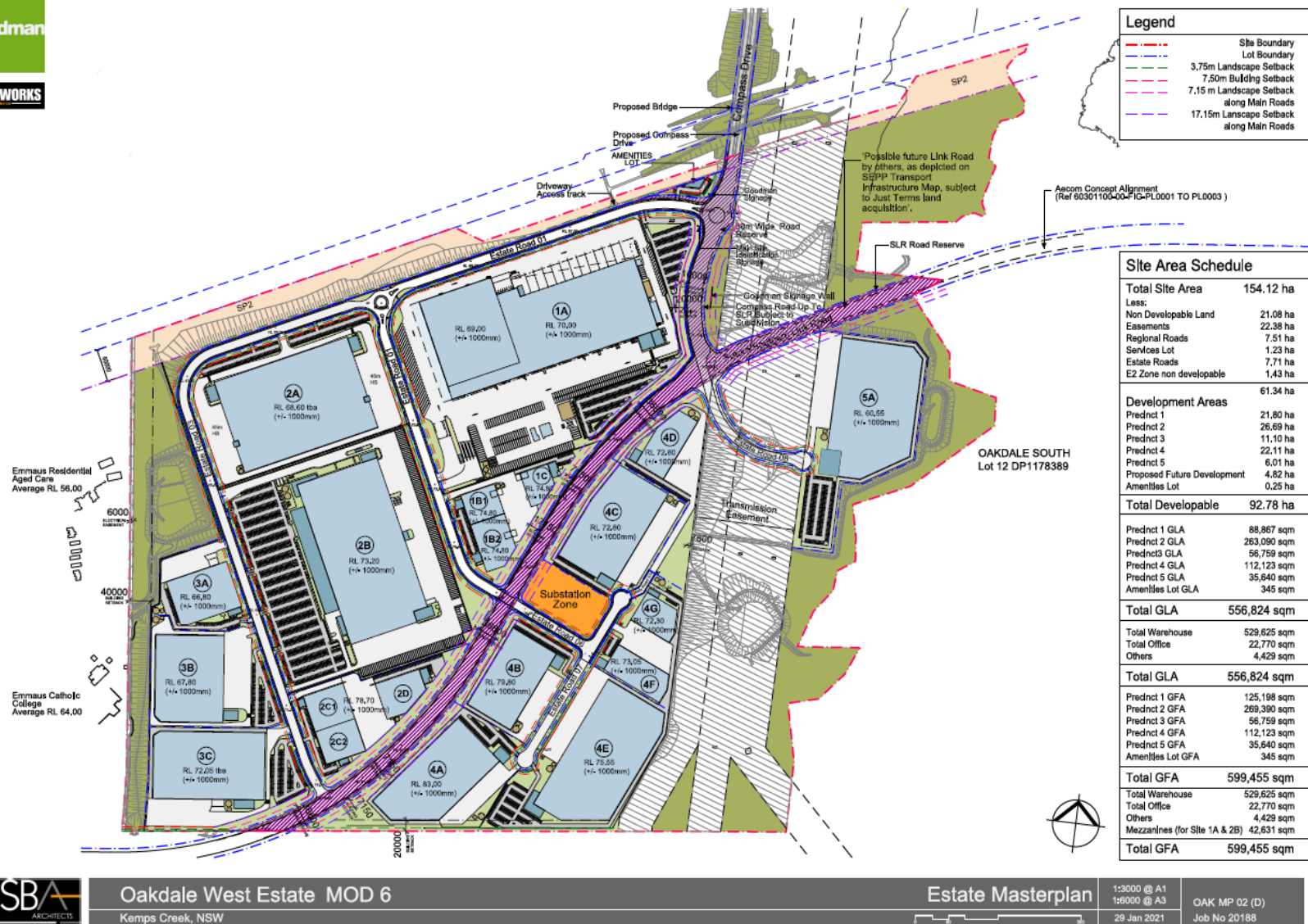
Table 7: Schedule of Approved Plans – Concept Proposal

Architectural Plans prepared by SBA Architects			
Drawing	Title	Issue	Date
OAK MP 02	Estate Masterplan	D	29 January 2021
OAK MP 03	Western North South Link Road	B	30 July 2020
OAK MP 05	Precinct 1 Plan	F	30 July 2020
OAK MP 06	Precinct Plan	C	24 November 2020
OAK MP 07	Indicative Ultimate Lot Layout	B	18 November 2020
OAK MP 08	Site Analysis Plan	B	30 July 2020
OAK MP 11	Building Staging Plan (Indicative)	A	24 November 2020
OAK MP 12	Signage Precinct 1 Plan	B	30 July 2020
OAK MP 13	Fire Protection Plan	F	25 November 2020
OAK MP 14	Biodiversity Management Plan	B	9 November 2020

Landscape Plans prepared by Scape Design Landscape Architecture			
Drawing	Title	Revision	Date
L.SK.000	Cover Sheet	B	8/01/21
L.SK.100	Landscape Master Plan – OWE MOD 6	B	8/01/21
L.SK.101	Street Trees & Planting Masterplan	B	8/01/21
L.SK.102	Planting Schedule – OWE MOD 5	B	8/01/21
L.SK.200	Landscape Sections – OWE MOD 5	A	26/10/20

Civil Plans prepared by AT&L			
Drawing	Title	Issue	Date
15-272-C0000	Cover Sheet	A9	20-10-20
15-272-C0001	General Arrangement Master Plan	A13	20-10-20
15-272-C0002	Existing Site Plan	A12	20-10-20
15-272-C0003	Precinct Plan	A13	20-10-20
15-272-C0004	Stage 1 SSD Approval Extents Sheet 1 of 2	A16	20-10-20
15-272-C0005	Stage 1 SSD Approval Extents Sheet 2 of 2	A11	20-10-20
15-272-C0006	Cut/Fill Plan	A11	20-10-20
15-272-C0007	Stormwater Drainage Catchment Plan (Pre-Developed)	A9	20-10-20
15-272-C0008	Stormwater Drainage Catchment Plan (Developed)	A9	20-10-20
15-272-C0009	Erosion and Sediment Control Master Plan	A12	20-10-20
15-272-C0010	Typical Sections Sheet 1	A11	20-10-20
15-272-C0011	Typical Sections Sheet 2	A9	20-10-20

15-272-C0012	Typical Sections Sheet 3	A10	20-10-20
15-272-C0013	Typical Sections Sheet 4	A8	20-10-20
15-272-C0020	Western North-South Link Road General Arrangement Plan	A10	20-10-20
15-272-C0021	Western North-South Link Road Stormwater Drainage Catchment Plan (Pre-Developed)	A9	20-10-20
15-272-C0022	Western North-South Link Road Stormwater Drainage Catchment Plan (Developed)	A9	20-10-20
15-272-C0023	Western North-South Link Road Proposed Land Acquisition Plan	A13	20-10-20
15-272-C1003	Precinct General Arrangement Plan	A15	20-07-20
15-272-C1004	Typical Site Sections Sheet 1 of 6	A11	20-07-20
15-272-C1005	Typical Site Sections Sheet 2 of 6	A10	20-07-20



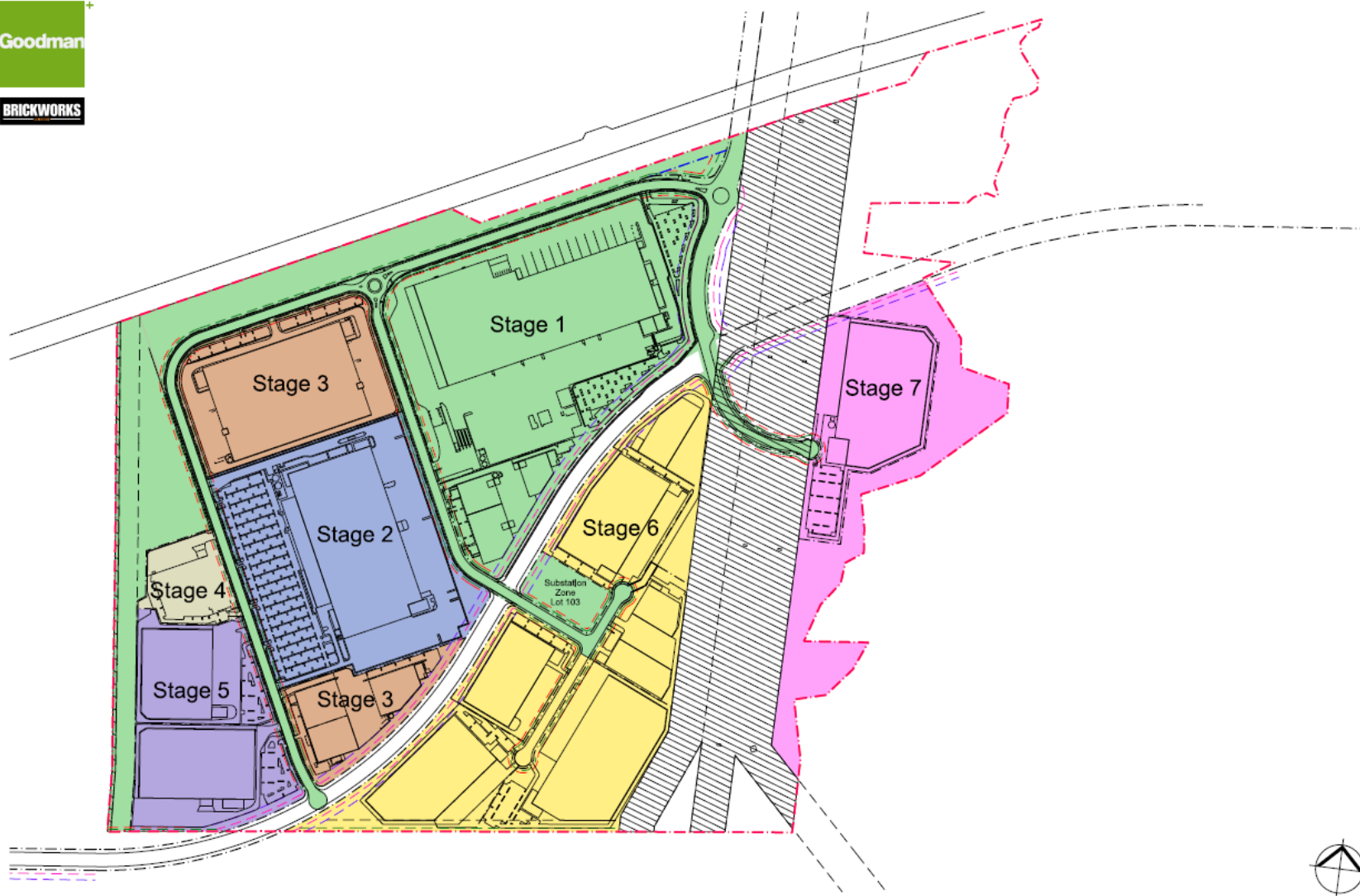


Figure 2: Staging Plan (MOD 6)

APPENDIX 2 STAGE 1 DA PLANS

Table 8: Schedule of Approved Plans – Stage 1 DA

Architectural Plans prepared by SBA Architects		
Drawing	Title	Date
OAK MP 04 (Z)	SSDA Stage 1 Development—Precinct 1	21 Sept 2018
OAK MP 05 (Z)	Precinct 1 Plan	21 Sept 2018
OAK MP 12 (12)	Signage Precinct 1 Plan	21 Sept 2018
Building 1A plans prepared by SBA Architects		
OAK 1A DA 10 (H)	Site Plan/Floor Plan	04 May 2018
OAK 1A DA 11 (C)	Roof Plan	03 April 2017
OAK 1A DA 12 (C)	Office Plan—Ground Floor	06 Sept 2016
OAK 1A DA 13 (C)	Office Plan—First Floor	06 Sept 2016
OAK 1A DA 14 (C)	Elevations Office	06 Sept 2016
OAK 1A DA 15 (C)	Elevations 1A	03 April 2017
OAK 1A DA 16 (D)	Sections	4 May 2018
Building 1B plans prepared by SBA Architects		
OAK 1B DA 20 (F)	Site Plan/Floor Plan	17 April 2018
OAK 1B DA 21 (C)	Roof Plan	06 Sept 2016
OAK 1B DA 22 (B)	Office Plan	06 Sept 2016
OAK 1B DA 24 (B)	Elevations Office	06 Sept 2016
OAK 1B DA 25 (B)	Elevations 1B	06 Sept 2016
OAK 1B DA 26 (B)	Sections	06 Sept 2016
Building 1C plans prepared by SBA Architects		
OAK 1C DA 30 (H)	Site Plan/Floor Plan	17 April 2018
OAK 1C DA 31 (C)	Roof Plan	03 April 2017
OAK 1C DA 32 (B)	Office Plan—Ground Floor	06 Sept 2016
OAK 1C DA 33 (B)	Office Plan—First Floor	06 Sept 2016
OAK 1C DA 34 (B)	Elevations Office	06 Sept 2016
OAK 1C DA 35 (C)	Elevations Sheet 1	03 April 2017
OAK 1C DA 36 (C)	Elevations Sheet 2	03 Sept 2017
OAK 1C DA 37 (C)	Sections	03 April 2017

Landscape Plans prepared by Site Image Landscape Architects			
Drawing	Title	Issue	Date
ELW-101	-	G	11.10.2018
ELW-102	-	G	11.10.2018
ELW-103	-	G	11.10.2018
ELW-104	-	G	11.10.2018
ELW-105	-	G	11.10.2018
ELW-106	-	G	11.10.2018
ELW-107	-	G	11.10.2018
ELW-108	-	G	11.10.2018
ELW-109	-	G	11.10.2018
ELW-110	-	G	11.10.2018
ELW-111	-	G	11.10.2018
ELW-112	-	G	11.10.2018
ELW-113	-	G	11.10.2018
ELW-114	-	G	11.10.2018
WNSLR-101	-	G	11.10.2018
WNSLR-102	-	G	11.10.2018
ELW-502	Plant Schedule	G	11.10.2018
OLW-001	Precinct 1 Landscape Plan	G	11.10.2018
OLW-501	Planting Palette	G	11-10-2018

Civil Plans prepared by AT&L			
Drawing	Title	Issue	Date
15-272-C0004	Stage 1 SSD Approval Extents Sheet 1 of 2	A5 A7	11-10-18 24-07-19
15-272-C0005	Stage 1 SSD Approval Extents Sheet 2 of 2	A4 A6	21-09-18 24-07-19
15-272-C0020	Western North-South Link Road General Arrangement Plan	A3 A5	21-09-18 24-07-19
15-272-C0021	Western North-South Link Road Stormwater Drainage Catchment Plan (Pre-Developed)	A5	24-07-19
15-272-C0022	Western North-South Link Road Stormwater Drainage Catchment Plan (Developed)	A3 A5	21-09-18 19-07-19
15-272-C0023	Western North-South Link Road Proposed Land Acquisition Plan	A8	24-07-19
15-272-C1000	Cover Sheet	A6	24-07-19
15-272-C1001	Drawing List	A6	24-07-19
15-272-C1002	General Notes	A6	24-07-19
15-272-C1003	Precinct General Arrangement Plan	A8	24-07-19
15-272-C1004	Typical Site Sections Sheet 1 of 6	A4 A8	21-09-18 20-03-20
15-272-C1005	Typical Site Sections Sheet 2 of 6	A4 A6	21-09-18 24-07-19
15-272-C1006	Typical Site Sections Sheet 3 of 6	A4 A8	21-09-18 20-03-20
15-272-C1007	Typical Site Sections Sheet 4 of 6	A3 A5	21-09-18 24-07-19
15-272-C1008	Typical Site Sections Sheet 5 of 6	A3 A6	11-10-18 20-03-20
15-272-C1009	Typical Site Sections Sheet 6 of 6	A4 A6	28-09-18 20-03-20
15-272-C1010	Typical Road Sections	A3 A5	21-09-18 24-07-19
15-272-C1011	Contour Plan	A5	20-03-20
15-272-C1014	Bulk Earthworks Cut/Fill Plan	A6	20-03-20
15-272-C1015	Earthworks and Stormwater Drainage Plan Sheet 1 of 20	A3 A5	21-09-18 24-07-19
15-272-C1016	Earthworks and Stormwater Drainage Plan Sheet 2 of 20	A3 A5	21-09-18 24-07-19
15-272-C1017	Earthworks and Stormwater Drainage Plan Sheet 3 of 20	A3 A5	21-09-18 24-07-19
15-272-C1018	Earthworks and Stormwater Drainage Plan Sheet 4 of 20	A3 A5	21-09-18 24-07-19
15-272-C1019	Earthworks and Stormwater Drainage Plan Sheet 5 of 20	A3 A5	21-09-18 24-07-19
15-272-C1020	Earthworks and Stormwater Drainage Plan Sheet 6 of 20	A3 A5	21-09-18 24-07-19
15-272-C1021	Earthworks and Stormwater Drainage Plan Sheet 7 of 20	A3 A5	21-09-18 24-07-19
15-272-C1022	Earthworks and Stormwater Drainage Plan Sheet 8 of 20	A3 A5	21-09-18 24-07-19
15-272-C1023	Earthworks and Stormwater Drainage Plan Sheet 9 of 20	A3 A5	21-09-18 24-07-19
15-272-C1024	Earthworks and Stormwater Drainage Plan Sheet 10 of 20	A3 A5	21-09-18 24-07-19
15-272-C1025	Earthworks and Stormwater Drainage Plan Sheet 11 of 20	A3 A5	21-09-18 24-07-19
15-272-C1026	Earthworks and Stormwater Drainage Plan Sheet 12 of 20	A3 A5	21-09-18 24-07-19

15-272-C1027	Earthworks and Stormwater Drainage Plan Sheet 13 of 20	A3 A5	21-09-18 24-07-19
15-272-C1028	Earthworks and Stormwater Drainage Plan Sheet 14 of 20	A3 A5	21-09-18 24-07-19
15-272-C1029	Earthworks and Stormwater Drainage Plan Sheet 15 of 20	A4 A6	04-10-18 24-07-19
15-272-C1030	Earthworks and Stormwater Drainage Plan Sheet 16 of 20	A3 A5	21-09-18 24-07-19
15-272-C1031	Earthworks and Stormwater Drainage Plan Sheet 17 of 20	A3 A5	21-09-18 24-07-19
15-272-C1032	Earthworks and Stormwater Drainage Plan Sheet 18 of 20	A3 A5	21-09-18 24-07-19
15-272-C1033	Earthworks and Stormwater Drainage Plan Sheet 19 of 20	A3 A5	21-09-18 24-07-19
15-272-C1034	Earthworks and Stormwater Drainage Plan Sheet 20 of 20	A3 A5	21-09-18 24-07-19
15-272-C1040	Roadworks and Stormwater Drainage Plan Sheet 1 of 10	A3 A5	21-09-18 24-07-19
15-272-C1041	Roadworks and Stormwater Drainage Plan Sheet 2 of 10	A3 A5	21-09-18 24-07-19
15-272-C1042	Roadworks and Stormwater Drainage Plan Sheet 3 of 10	A3 A5	21-09-18 24-07-19
15-272-C1043	Roadworks and Stormwater Drainage Plan Sheet 4 of 10	A3 A5	21-09-18 24-07-19
15-272-C1044	Roadworks and Stormwater Drainage Plan Sheet 5 of 10	A3 A5	21-09-18 24-07-19
15-272-C1045	Roadworks and Stormwater Drainage Plan Sheet 6 of 10	A3 A5	21-09-18 24-07-19
15-272-C1046	Roadworks and Stormwater Drainage Plan Sheet 7 of 10	A3 A5	21-09-18 24-07-19
15-272-C1047	Roadworks and Stormwater Drainage Plan Sheet 8 of 10	A3 A5	21-09-18 24-07-19
15-272-C1048	Roadworks and Stormwater Drainage Plan Sheet 9 of 10	A2 A4	21-09-18 24-07-19
15-272-C1049	Roadworks and Stormwater Drainage Plan Sheet 10 of 10	A2 A4	21-09-18 24-07-19
15-272-C1050	Road and Longitudinal Sections Sheet 1 of 5	A3 A5	21-09-18 24-07-19
15-272-C1051	Road and Longitudinal Sections Sheet 2 of 5	A3 A5	21-09-18 24-07-19
15-272-C1052	Road and Longitudinal Sections Sheet 3 of 5	A3 A5	21-09-18 24-07-19
15-272-C1053	Road and Longitudinal Sections Sheet 4 of 5	A3 A5	21-09-18 24-07-19
15-272-C1054	Road and Longitudinal Sections Sheet 5 of 5	A3 A5	21-09-18 24-07-19
15-272-C1058	Western Boundary Layout and Sections	A4	24-07-19
15-272-C1059	Southern Boundary Layout and Sections	A4	24-07-19
15-272-C1062	Bio-Retention Basin No. 3 Detail Plan Sheet 1 of 2 Bio-Retention Basin 2 and 3 Detail Plan Sheet 1 of 2	A3 A5	21-09-18 24-07-19
15-272-C1063	Bio-Retention Basin No. 3 Detail Plan Sheet 2 of 2 Bio-Retention Basin 2 and 3 Detail Plan Sheet 2 of 2	A2 A4	21-09-18 24-07-19
15-272-C1064	Bio-Retention Basin No. 5 Detail Plan Sheet 1 of 2 Bio-Retention Basin 4 Detail Plan Sheet 1 of 2	A1 A3	21-09-18 24-07-19
15-272-C1065	Bio-Retention Basin No. 5 Detail Plan Sheet 2 of 2 Bio-Retention Basin 4 Detail Plan Sheet 2 of 2	A3 A5	21-09-18 24-07-19
15-272-C1066	Bio-Retention Basin No. 6 Detail Plan Bio-Retention Basin 5 Detail Plan	A3 A5	21-09-18 24-07-19

15-272-C1068	Stormwater Drainage Catchment Plan (Pre-developed)	A4	24-07-19
15-272-C1069	Stormwater Drainage Catchment Plan (Post-developed)	A4	24-07-19
15-272-C1070	Retaining Wall General Arrangement Plan	A4 A6	11-10-18 24-07-19
15-272-C1071	Retaining Wall Profiles Sheet 1 of 7	A3 A5	21-09-18 24-07-19
15-272-C1072	Retaining Wall Profiles Sheet 2 of 7	A3 A5	21-09-18 24-07-19
15-272-C1073	Retaining Wall Profiles Sheet 3 of 7	A3 A5	21-09-18 24-07-19
15-272-C1074	Retaining Wall Profiles Sheet 4 of 7	A3 A5	21-09-18 24-07-19
15-272-C1075	Retaining Wall Profiles Sheet 5 of 7	A3 A5	21-09-18 24-07-19
15-272-C1076	Retaining Wall Profiles Sheet 6 of 7	A3 A5	21-09-18 24-07-19
15-272-C1077	Retaining Wall Profiles Sheet 7 of 7	A2 A4	21-09-18 24-07-19
12-272-C1080	Stage 1 Services and Utilities Coordination Plan Sheet 1 of 6	A3 A5	21-09-18 24-07-19
12-272-C1081	Stage 1 Services and Utilities Coordination Plan Sheet 2 of 6	A3 A5	21-09-18 24-07-19
12-272-C1082	Stage 1 Services and Utilities Coordination Plan Sheet 3 of 6	A3 A5	21-09-18 24-07-19
12-272-C1083	Stage 1 Services and Utilities Coordination Plan Sheet 4 of 6	A3 A5	21-09-18 24-07-19
12-272-C1084	Stage 1 Services and Utilities Coordination Plan Sheet 5 of 6	A3 A5	21-09-18 24-07-19
12-272-C1085	Stage 1 Services and Utilities Coordination Plan Sheet 6 of 6	A3 A5	21-09-18 24-07-19
12-272-C1086	Existing Transgrid Overhead Electrical Cables Plan	A5	24-07-19
12-272-C1087	Existing Transgrid Overhead Electrical Cables and Longitudinal Sections	A5	24-07-19
12-272-C1088	Existing Transgrid Overhead Electrical Cables Typical Sections Sheet 1 of 2	A5	24-07-19
12-272-C1089	Existing Transgrid Overhead Electrical Cables Typical Sections Sheet 2 of 2	A5	24-07-19
12-272-C1090	Erosion and Sediment Control Plan Sheet 1 of 7	A3 A5	21-09-18 24-07-19
12-272-C1091	Erosion and Sediment Control Plan Sheet 2 of 7	A3 A5	21-09-18 24-07-19
12-272-C1092	Erosion and Sediment Control Plan Sheet 3 of 7	A3 A5	21-09-18 24-07-19
12-272-C1093	Erosion and Sediment Control Plan Sheet 4 of 7	A3 A5	21-09-18 24-07-19
12-272-C1094	Erosion and Sediment Control Plan Sheet 5 of 7	A3 A5	21-09-18 24-07-19
12-272-C1095	Erosion and Sediment Control Plan Sheet 6 of 7	A3 A5	21-09-18 24-07-19
12-272-C1096	Erosion and Sediment Control Plan Sheet 7 of 7	A3 A5	21-09-18 24-07-19
12-272-C1097	Erosion and Sediment Control Details	A1 A4	21-09-18 24-07-19
15-272-C2003	General Arrangement Plan	A3	21-09-18
15-272-C2010	Siteworks and Stormwater Drainage Plan Sheet 1 of 15	A3	21-09-18
15-272-C2011	Siteworks and Stormwater Drainage Plan Sheet 2 of 15	A3	21-09-18
15-272-C2012	Siteworks and Stormwater Drainage Plan Sheet 3 of 15	A3	21-09-18
15-272-C2013	Siteworks and Stormwater Drainage Plan Sheet 4 of 15	A3	21-09-18
15-272-C2014	Siteworks and Stormwater Drainage Plan Sheet 5 of 15	A3	21-09-18

15-272-C2015	Siteworks and Stormwater Drainage Plan Sheet 6 of 15	A3	21-09-18
15-272-C2016	Siteworks and Stormwater Drainage Plan Sheet 7 of 15	A3	21-09-18
15-272-C2017	Siteworks and Stormwater Drainage Plan Sheet 8 of 15	A3	21-09-18
15-272-C2018	Siteworks and Stormwater Drainage Plan Sheet 9 of 15	A3	21-09-18
15-272-C2019	Siteworks and Stormwater Drainage Plan Sheet 10 of 15	A3	21-09-18
15-272-C2020	Siteworks and Stormwater Drainage Plan Sheet 11 of 15	A3	21-09-18
15-272-C2021	Siteworks and Stormwater Drainage Plan Sheet 12 of 15	A3	21-09-18
15-272-C2022	Siteworks and Stormwater Drainage Plan Sheet 13 of 15	A3	21-09-18
15-272-C2023	Siteworks and Stormwater Drainage Plan Sheet 14 of 15	A3	21-09-18
15-272-C2024	Siteworks and Stormwater Drainage Plan Sheet 15 of 15	A3	21-09-18
15-272-C2030	Pavement Plan	A3	21-09-18
15-272-C3003	General Arrangement Plan	A3	21-09-18
15-272-C3010	Typical Road Sections	A3	21-09-18
15-272-C3020	Roadworks Plan and Longitudinal Section Sheet 1 of 5	A3	21-09-18
15-272-C3021	Roadworks Plan and Longitudinal Section Sheet 2 of 5	A3	21-09-18
15-272-C3022	Roadworks Plan and Longitudinal Section Sheet 3 of 5	A3	21-09-18
15-272-C3023	Roadworks Plan and Longitudinal Section Sheet 4 of 5	A3	21-09-18
15-272-C3024	Roadworks Plan and Longitudinal Section Sheet 5 of 5	A3	21-09-18
15-272-C3030	Road Longitudinal Sections	A3	21-09-18
15-272-C3040	Bridge Elevation and Typical Section	A4	04-10-18
15-272-C3050	Stormwater Drainage Plan Sheet 1 of 5	A3	21-09-18
15-272-C3051	Stormwater Drainage Plan Sheet 2 of 5	A3	21-09-18
15-272-C3052	Stormwater Drainage Plan Sheet 3 of 5	A3	21-09-18
15-272-C3053	Stormwater Drainage Plan Sheet 4 of 5	A3	21-09-18
15-272-C3054	Stormwater Drainage Plan Sheet 5 of 5	A3	21-09-18
15-272-C3058	Stormwater Drainage Catchment Plan (Post-Developed)	A2	21-09-18
15-272-C3060	Bio-Retention Basin NO. 1 Detail Plan	A3	21-09-18
15-272-C3070	Pavement Plan Sheet 1 of 5	A3	21-09-18
15-272-C3071	Pavement Plan Sheet 2 of 5	A3	21-09-18
15-272-C3072	Pavement Plan Sheet 3 of 5	A3	21-09-18
15-272-C3073	Pavement Plan Sheet 4 of 5	A3	21-09-18
15-272-C3074	Pavement Plan Sheet 5 of 5	A2	21-09-18
15-272-C3080	Retaining Wall Plan and Elevation	A1	21-09-18
15-272-C3081	Retaining Wall Sections Sheet 1 of 4	A1	21-09-18
15-272-C3082	Retaining Wall Sections Sheet 2 of 4	A1	21-09-18
15-272-C3083	Retaining Wall Sections Sheet 3 of 4	A1	21-09-18
15-272-C3084	Retaining Wall Sections Sheet 4 of 4	A1	21-09-18

Civil Plans prepared by AT&L			
Drawing	Title	Issue	Date
15-272-C5006	Typical Road Sections Sheet 1	3	31-01-20
15-272-C5018	Bulk Earthworks Cut/Fill Plan Sheet 1	2	31-01-20
15-272-C5021	Roadworks Plan Sheet 1	4	06-02-20
15-272-C5022	Roadworks Plan Sheet 2	4	31-01-20
15-272-C5033	Carpark Adjustment Siteworks Plans	4	31-01-20
15-272-C5057	Stormwater Drainage Plan Sheet 1	2	31-01-20
15-272-C5063	Subsurface Drainage Plan Sheet 1	2	31-01-20
15-272-C5101	Pavement Plan Sheet 1	3	31-01-20
15-272-C5121	Services and Utilities Coordination Plan Sheet 1	3	06-02-20
15-272-C5122	Services and Utilities Coordination Plan Sheet 2	4	06-02-20
15-272-C5131	Road Furniture Plan Sheet 1	3	31-01-20

Landscape Plans prepared by Scape Design Landscape Architecture			
Drawing	Title	Issue	Date
L.CD.101	Western North South Link Road Landscape Plan Sheet 1	S	14/2/20

L.CD.301	Western North South Link Road Planting & Revegetation Schedule	Q	31/1/20
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Table 8A: Schedule of Approved Plans – Stage 1 Development

Architectural Plans prepared by SBA Architects			
Drawing	Title	Issue	Date
OAK-1A-DA-10	Proposed Industrial Facility – Building 1A Site Plan	E	29 July 2020
OAK-1A-DA-11	Proposed Industrial Facility – Building 1A Roof Plan	A	13 July 2020
OAK-1A-DA-18	Proposed Industrial Facility – Building 1A Warehouse Plan	B	28 July 2020
OAK-1A-DA-18A	Proposed Industrial Facility – Building 1A Mezzanine Plan – 1	B	28 July 2020
OAK-1A-DA-18B	Proposed Industrial Facility – Building 1A Mezzanine Plan – 2	B	28 July 2020
OAK-1A-DA-18C	Proposed Industrial Facility – Building 1A Mezzanine Plan – 3	B	28 July 2020
OAK-1A-DA-18D	Proposed Industrial Facility – Building 1A Mezzanine Plan – 4	B	28 July 2020
OAK-1A-DA-18E	Proposed Industrial Facility – Building 1A Mezzanine Plan – 5	B	28 July 2020
OAK-1A-DA-18F	Proposed Industrial Facility – Building 1A Mezzanine Plan – 6	B	28 July 2020
OAK-1A-DA-25	Proposed Industrial Facility – Building 1A Energy Complex – 1	A	13 July 2020
OAK-1A-DA-28	Proposed Industrial Facility – Building 1A Stage 2 – Site Plan	E	29 July 2020
OAK-DA-DA00 B	Proposed Industrial Facility - Building 1B/1C - Cover page	B	4 November 2020
OAK-DA-DA01 B	Proposed Industrial Facility - Building 1B/1C – Perspectives – 1B1/1B2	B	4 November 2020
OAK-DA-DA02 B	Proposed Industrial Facility - Building 1B/1C – Perspectives – Office 1C	B	4 November 2020
OAK-DA-DA30 E	Proposed Industrial Facility - Building 1B/1C – Site Plan	E	29 January 2021
OAK-DA-DA31 E	Proposed Industrial Facility - Building 1B/1C – Roof Plan	E	5 November 2021
OAK-DA-DA32 D	Proposed Industrial Facility - Building 1B/1C – Office Plans 1B1	D	4 November 2020
OAK-DA-DA33 E	Proposed Industrial Facility - Building 1B/1C – Office Plans 1B2	E	29 January 2021
OAK-DA-DA33A E	Proposed Industrial Facility - Building 1B/1C – Office Plans 1C	E	5 November 2020
OAK-DA-DA34 D	Proposed Industrial Facility - Building 1B/1C – Elevations – Office 1B	D	4 November 2020
OAK-DA-D34A D	Proposed Industrial Facility - Building 1B/1C – Elevations – Office 1C	D	4 November 2020
OAK-DA-DA35 D	Proposed Industrial Facility - Building 1B/1C – Elevations – Warehouse 1B	D	4 November 2020
OAK-DA-DA36 D	Proposed Industrial Facility - Building 1B/1C – Elevations – Warehouse 1C	D	4 November 2020
OAK-DA-DA37 D	Proposed Industrial Facility - Building 1B/1C – Sections - Warehouse	D	4 November 2020
OAK 1B1C DA 40	Proposed Industrial Facility – Proposed 1B & 1C – Signage Plan	A	9 November 2020

Landscape Plans prepared by Scape Design Landscape Architecture			
Drawing	Title	Revision	Date
L.SK.00	Cover Sheet	S	17/7/20
L.SK.01	Landscape Master Plan	P	17/7/20
L.SK.02	Planting Plan	M	17/7/20
L.SK.03	Planting Schedule	M	8/7/20
L.SK.04	Character & Materials	N	8/7/20
L.SK.100	Landscape – Plan – Sheet 1	N	17/7/20
L.SK.101	Landscape – Plan – Sheet 2	N	17/7/20
L.SK.102	Landscape – Plan – Sheet 3	O	17/7/20
L.SK.103	Landscape – Plan – Sheet 4	O	17/7/20
L.SK.104	Landscape – Plan – Sheet 5	O	17/7/20
L.SK.105	Landscape – Detailed Plan – Sheet 1	M	17/7/20
L.SK.106	Landscape – Detailed Plan – Sheet 2	M	17/7/20
L.SK.200	Landscape – Sections – Sheet 1	K	8/7/20
L.SK.201	Landscape – Sections – Sheet 2	K	8/7/20
L.SK.202	Landscape – Sections – Sheet 3	K	17/7/20
L.SK.203	Landscape – Sections – Sheet 4	L	17/7/20
L.SK.204	Carpark Details	H	17/7/20

Civil Plans prepared by AT&L			
Drawing	Title	Revision	Date
15-272-C1000	Cover Sheet	A10	20-10-20
15-272-C1001	Drawing List	A10	20-10-20
15-272-C1002	General Notes	A10	20-10-20
15-272-C1003	Precinct General Arrangement Plan	A16	20-10-20
15-272-C1004	Typical Site Sections Sheet 1 of 6	A12	20-10-20
15-272-C1005	Typical Site Sections Sheet 2 of 6	A11	20-10-20
15-272-C1006	Typical Site Sections Sheet 3 of 6	A11	20-10-20
15-272-C1007	Typical Site Sections Sheet 4 of 6	A9	20-10-20
15-272-C1008	Typical Site Sections Sheet 5 of 6	A9	20-10-20
15-272-C1009	Typical Site Sections Sheet 6 of 6	A11	20-10-20
15-272-C1010	Typical Road Sections	A9	20-10-20
15-272-C1011	Contour Plan	A12	20-10-20
15-272-C1014	Bulk Earthworks Cut/Fill Plan	A13	20-10-20
15-272-C1015	Earthworks and Stormwater Drainage Plan Sheet 1 of 20	A10	20-10-20
15-272-C1016	Earthworks and Stormwater Drainage Plan Sheet 2 of 20	A10	20-10-20
15-272-C1017	Earthworks and Stormwater Drainage Plan Sheet 3 of 20	A10	20-10-20
15-272-C1018	Earthworks and Stormwater Drainage Plan Sheet 4 of 20	A10	20-10-20
15-272-C1019	Earthworks and Stormwater Drainage Plan Sheet 5 of 20	A10	20-10-20
15-272-C1020	Earthworks and Stormwater Drainage Plan Sheet 6 of 20	A10	20-10-20
15-272-C1021	Earthworks and Stormwater Drainage Plan Sheet 7 of 20	A10	20-10-20
15-272-C1022	Earthworks and Stormwater Drainage Plan Sheet 8 of 20	A10	20-10-20
15-272-C1023	Earthworks and Stormwater Drainage Plan Sheet 9 of 20	A12	20-10-20
15-272-C1024	Earthworks and Stormwater Drainage Plan Sheet 10 of 20	A12	20-10-20
15-272-C1025	Earthworks and Stormwater Drainage Plan Sheet 11 of 20	A10	20-10-20
15-272-C1026	Earthworks and Stormwater Drainage Plan Sheet 12 of 20	A10	20-10-20
15-272-C1027	Earthworks and Stormwater Drainage Plan Sheet 13 of 20	A10	20-10-20
15-272-C1028	Earthworks and Stormwater Drainage Plan Sheet 14 of 20	A10	20-10-20
15-272-C1029	Earthworks and Stormwater Drainage Plan Sheet 15 of 20	A12	20-10-20
15-272-C1030	Earthworks and Stormwater Drainage Plan Sheet 16 of 20	A12	20-10-20
15-272-C1031	Earthworks and Stormwater Drainage Plan Sheet 17 of 20	A10	20-10-20
15-272-C1032	Earthworks and Stormwater Drainage Plan Sheet 18 of 20	A10	20-10-20
15-272-C1033	Earthworks and Stormwater Drainage Plan Sheet 19 of 20	A10	20-10-20

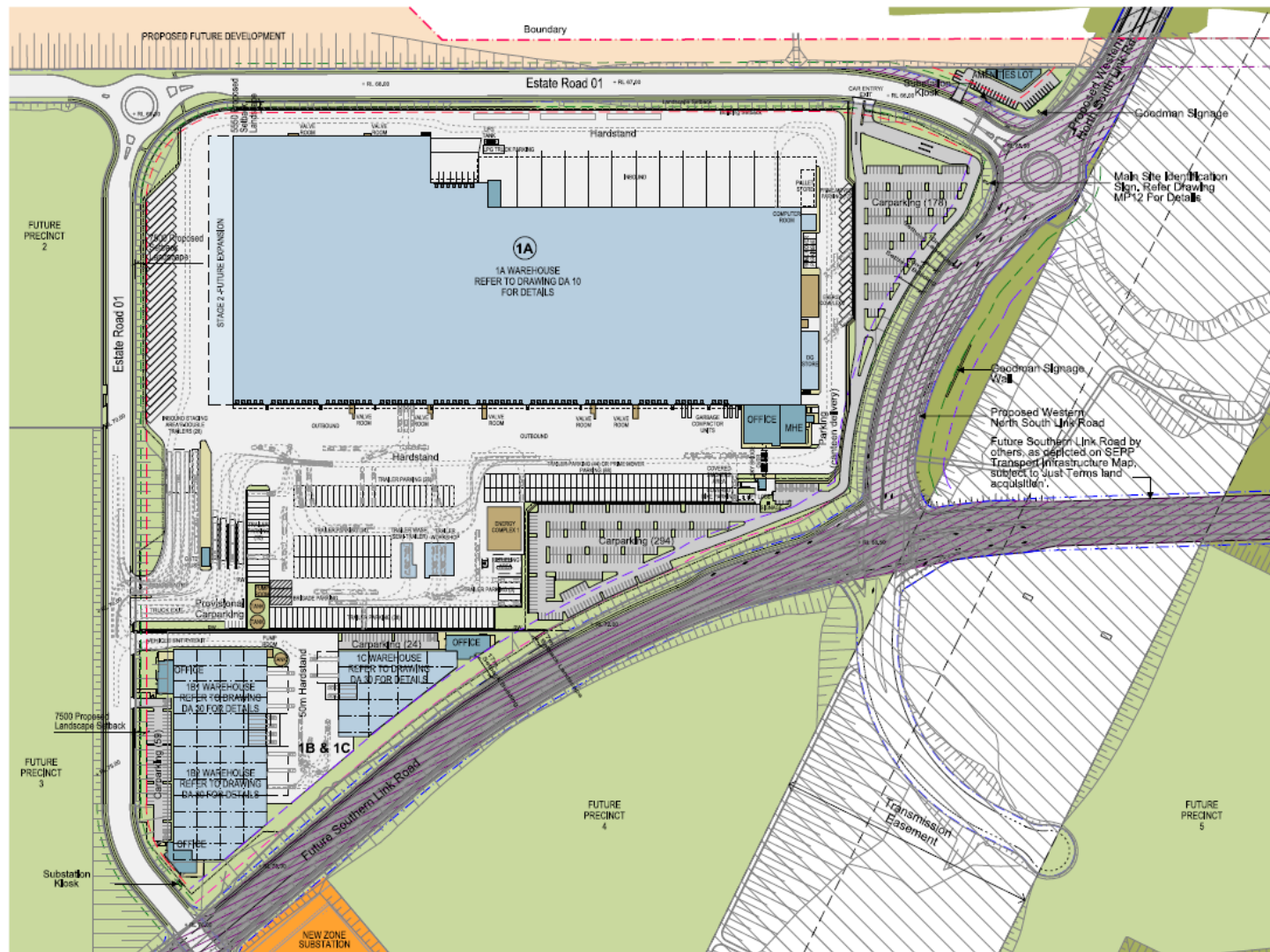
15-272-C1034	Earthworks and Stormwater Drainage Plan Sheet 20 of 20	A10	20-10-20
15-272-C1040	Roadworks and Stormwater Drainage Plan Sheet 1 of 18	A11	20-10-20
15-272-C1041	Roadworks and Stormwater Drainage Plan Sheet 2 of 18	A12	20-10-20
15-272-C1042	Roadworks and Stormwater Drainage Plan Sheet 3 of 18	A11	20-10-20
15-272-C1043	Roadworks and Stormwater Drainage Plan Sheet 4 of 18	A10	20-10-20
15-272-C1044	Roadworks and Stormwater Drainage Plan Sheet 5 of 18	A10	20-10-20
15-272-C1045	Roadworks and Stormwater Drainage Plan Sheet 6 of 18	A10	20-10-20
15-272-C1046	Roadworks and Stormwater Drainage Plan Sheet 7 of 18	A10	20-10-20
15-272-C1047	Roadworks and Stormwater Drainage Plan Sheet 8 of 18	A10	20-10-20
15-272-C1048	Roadworks and Stormwater Drainage Plan Sheet 9 of 18	A9	20-10-20
15-272-C1049	Roadworks and Stormwater Drainage Plan Sheet 10 of 18	A4	20-10-20
15-272-C1050	Roadworks and Stormwater Drainage Plan Sheet 11 of 18	A4	20-10-20
15-272-C1051	Roadworks and Stormwater Drainage Plan Sheet 12 of 18	A4	20-10-20
15-272-C1052	Roadworks and Stormwater Drainage Plan Sheet 13 of 18	A4	20-10-20
15-272-C1053	Roadworks and Stormwater Drainage Plan Sheet 14 of 18	A4	20-10-20
15-272-C1054	Roadworks and Stormwater Drainage Plan Sheet 15 of 18	A4	20-10-20
15-272-C1055	Roadworks and Stormwater Drainage Plan Sheet 16 of 18	A4	20-10-20
15-272-C1056	Roadworks and Stormwater Drainage Plan Sheet 17 of 18	A1	20-10-20
15-272-C1057	Roadworks and Stormwater Drainage Plan Sheet 18 of 18	A1	20-10-20
15-272-C1060	Road Longitudinal Sections Sheet 1 of 7	A10	20-10-20
15-272-C1061	Road Longitudinal Sections Sheet 2 of 7	A10	20-10-20
15-272-C1062	Road Longitudinal Sections Sheet 3 of 7	A10	20-10-20
15-272-C1063	Road Longitudinal Sections Sheet 4 of 7	A10	20-10-20
15-272-C1064	Road Longitudinal Sections Sheet 5 of 7	A10	20-10-20
15-272-C1065	Road Longitudinal Sections Sheet 6 of 7	A4	20-10-20
15-272-C1066	Road Longitudinal Sections Sheet 7 of 7	A1	20-10-20
15-272-C1070	Western Boundary Layout and Sections	A11	20-10-20
15-272-C1071	Southern Boundary Layout and Sections	A9	20-10-20
15-272-C1080	Bio-Retention Basin 2 and 3 Detail Plan Sheet 1 of 2	A10	20-10-20
15-272-C1081	Bio-Retention Basin 2 and 3 Detail Plan Sheet 2 of 2	A9	20-10-20
15-272-C1082	Bio-Retention Basin 4 Detail Plan Sheet 1 of 2	A8	20-10-20
15-272-C1083	Bio-Retention Basin 4 Detail Plan Sheet 2 of 2	A10	20-10-20
15-272-C1084	Bio-Retention Basin 5 Detail Plan	A10	20-10-20
15-272-C1086	Stormwater Drainage Catchment Plan (Pre-developed)	A9	20-10-20
15-272-C1087	Stormwater Drainage Catchment Plan (Post-developed)	A9	20-10-20
15-272-C1090	Retaining Wall General Arrangement Plan	A13	20-10-20
15-272-C1091	Retaining Wall Profiles Sheet 1 of 9	A11	20-10-20
15-272-C1092	Retaining Wall Profiles Sheet 2 of 9	A10	20-10-20
15-272-C1093	Retaining Wall Profiles Sheet 3 of 9	A10	20-10-20
15-272-C1094	Retaining Wall Profiles Sheet 4 of 9	A10	20-10-20
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15-272-C1099	Retaining Wall Profiles Sheet 9 of 9	A1	20-10-20
15-272-C1110	Stage 1 Services and Utilities Coordination Plan Sheet 1 of 6	A9	20-10-20
15-272-C1111	Stage 1 Services and Utilities Coordination Plan Sheet 2 of 6	A10	20-10-20
15-272-C1112	Stage 1 Services and Utilities Coordination Plan Sheet 3 of 6	A10	20-10-20
15-272-C1113	Stage 1 Services and Utilities Coordination Plan Sheet 4 of 6	A12	20-10-20
15-272-C1114	Stage 1 Services and Utilities Coordination Plan Sheet 5 of 6	A10	20-10-20
15-272-C1115	Stage 1 Services and Utilities Coordination Plan Sheet 6 of 6	A9	20-10-20
15-272-C1120	Existing Transgrid Overhead Electrical Cables Plan	A10	20-10-20

15-272-C1121	Existing Transgrid Overhead Electrical Cables and Longitudinal Sections	A9	20-10-20
15-272-C1122	Existing Transgrid Overhead Electrical Cables Typical Sections Sheet 1 of 2	A9	20-10-20
15-272-C1123	Existing Transgrid Overhead Electrical Cables Typical Sections Sheet 2 of 2	A9	20-10-20
15-272-C1130	Erosion and Sediment Control Plan Sheet 1 of 7	A10	20-10-20
15-272-C1131	Erosion and Sediment Control Plan Sheet 2 of 7	A10	20-10-20
15-272-C1132	Erosion and Sediment Control Plan Sheet 3 of 7	A10	20-10-20
15-272-C1133	Erosion and Sediment Control Plan Sheet 4 of 7	A11	20-10-20
15-272-C1134	Erosion and Sediment Control Plan Sheet 5 of 7	A10	20-10-20
15-272-C1135	Erosion and Sediment Control Plan Sheet 6 of 7	A9	20-10-20
15-272-C1136	Erosion and Sediment Control Plan Sheet 7 of 7	A9	20-10-20
15-272-C1137	Erosion and Sediment Control Details	A7	20-10-20
15-272-C2000	Cover Sheet	A9	20-07-20
15-272-C2001	Drawing List	A9	20-07-20
15-272-C2002	General Notes	A9	20-07-20
15-272-C2003	General Arrangement Plan	A14	05-01-21
15-272-C2010	Siteworks and Stormwater Drainage Plan Sheet 1 of 14	A10	20-07-20
15-272-C2011	Siteworks and Stormwater Drainage Plan Sheet 2 of 14	A10	20-07-20
15-272-C2012	Siteworks and Stormwater Drainage Plan Sheet 3 of 14	A11	20-07-20
15-272-C2013	Siteworks and Stormwater Drainage Plan Sheet 4 of 14	A11	20-07-20
15-272-C2014	Siteworks and Stormwater Drainage Plan Sheet 5 of 14	A10	20-07-20
15-272-C2015	Siteworks and Stormwater Drainage Plan Sheet 6 of 14	A10	20-07-20
15-272-C2016	Siteworks and Stormwater Drainage Plan Sheet 7 of 14	A11	20-07-20
15-272-C2017	Siteworks and Stormwater Drainage Plan Sheet 8 of 14	A11	20-07-20
15-272-C2018	Siteworks and Stormwater Drainage Plan Sheet 9 of 14	A11	20-07-20
15-272-C2019	Siteworks and Stormwater Drainage Plan Sheet 10 of 14	A11	20-07-20
15-272-C2020	Siteworks and Stormwater Drainage Plan Sheet 11 of 14	A12	20-07-20
15-272-C2021	Siteworks and Stormwater Drainage Plan Sheet 12 of 14	A13	05-01-21
15-272-C2022	Siteworks and Stormwater Drainage Plan Sheet 13 of 14	A13	05-01-21
15-272-C2023	Siteworks and Stormwater Drainage Plan Sheet 14 of 14	A12	04-11-20
15-272-C2030	Pavement Plan	A14	05-01-21



BRICKWORKS

Development Area Schedule	
Total Site Area	218,050 sqm
Total Warehouse	81,286 sqm
Total Office	4,151 sqm
Others (incl. car)	4,004 sqm
Mezzanines (incl. car)	36,331 sqm
Total GFA	125,772 sqm
(includes all Mezzanines)	
Total GLA	89,440 sqm
(includes all Mezzanines)	
Carparking (total)	555
Lot 1A	
Site Area	187,010 sqm
Warehouse	68,160 sqm
(includes Stage 2 future expansion 3,510 sqm)	
Office (3 level)	2,646 sqm
Others	4,004 sqm
(includes dock office, indoor workshop, outdoor work, temporary goods store, computer room, gym, toilet, energy control & E & M control room, vehicle storage, workshop & entry)	
Mezzanines	36,331 sqm
(includes Stage 2 mezzanine 3,258 sqm)	
Total GFA	111,141 sqm
(includes all Mezzanines)	
Total GLA	74,810 sqm
(includes all Mezzanines)	
Awning	8,820 sqm
Site Cover (exc. awning)	59 %
Floor Space Ratio	0.59 :1
Hardstand Area	84,500 sqm
Light Duty Area	16,425 sqm
Prime Mover Parking	111
Trailer Parking	121
Carparking	472
Carparking (motorcycles)	8
Lot 1B & 1C	
Site Area	31,038 sqm
Warehouse 1B1	3,854 sqm
Warehouse 1B2	5,686 sqm
Warehouse 1C	3,686 sqm
Office 1B1 (2 level)	500 sqm
Office 1B2 (2 level)	509 sqm
Office 1C (1 level)	436 sqm
Total GFA	14,631 sqm
Awning	1,400 sqm
Site Cover (exc. awning)	47 %
Floor Space Ratio	0.47 :1
Hardstand Area	6,445 sqm
Light Duty Area	2,365 sqm
Carparking	83



Oakdale West Estate MOD 5

Horsley Park

Precinct 1 Plan

1:1250 @ A1
1:2500 @ A3
30 July 2020

OAK MP 05 (F)
Job No 20172

Figure 3: Stage 1 DA Layout



APPENDIX 3 WNSLR PLANS

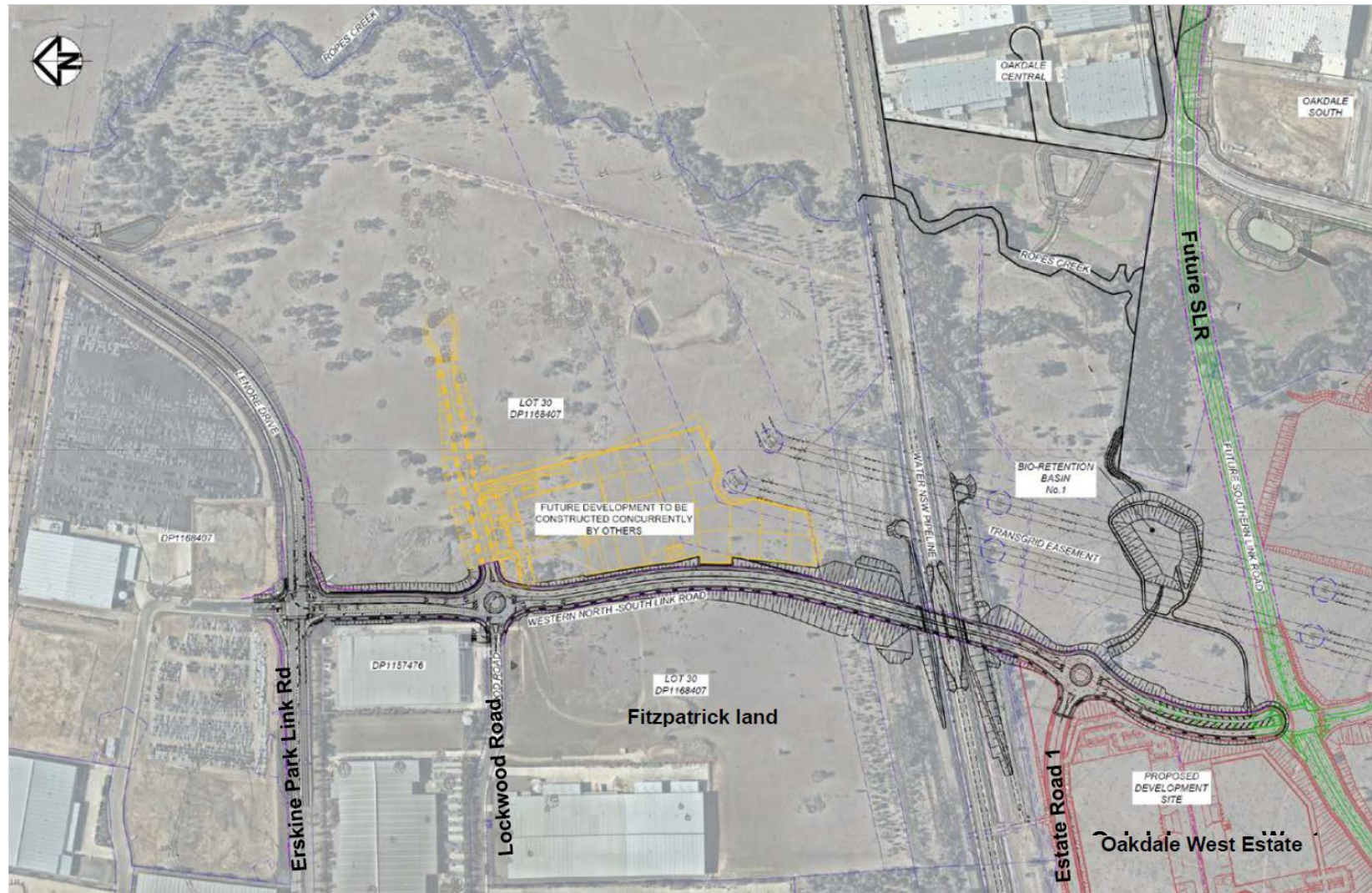


Figure 5: WNSLR

APPENDIX 4 PLANNING AGREEMENT

APPENDIX 5 NOISE RECEIVER LOCATIONS

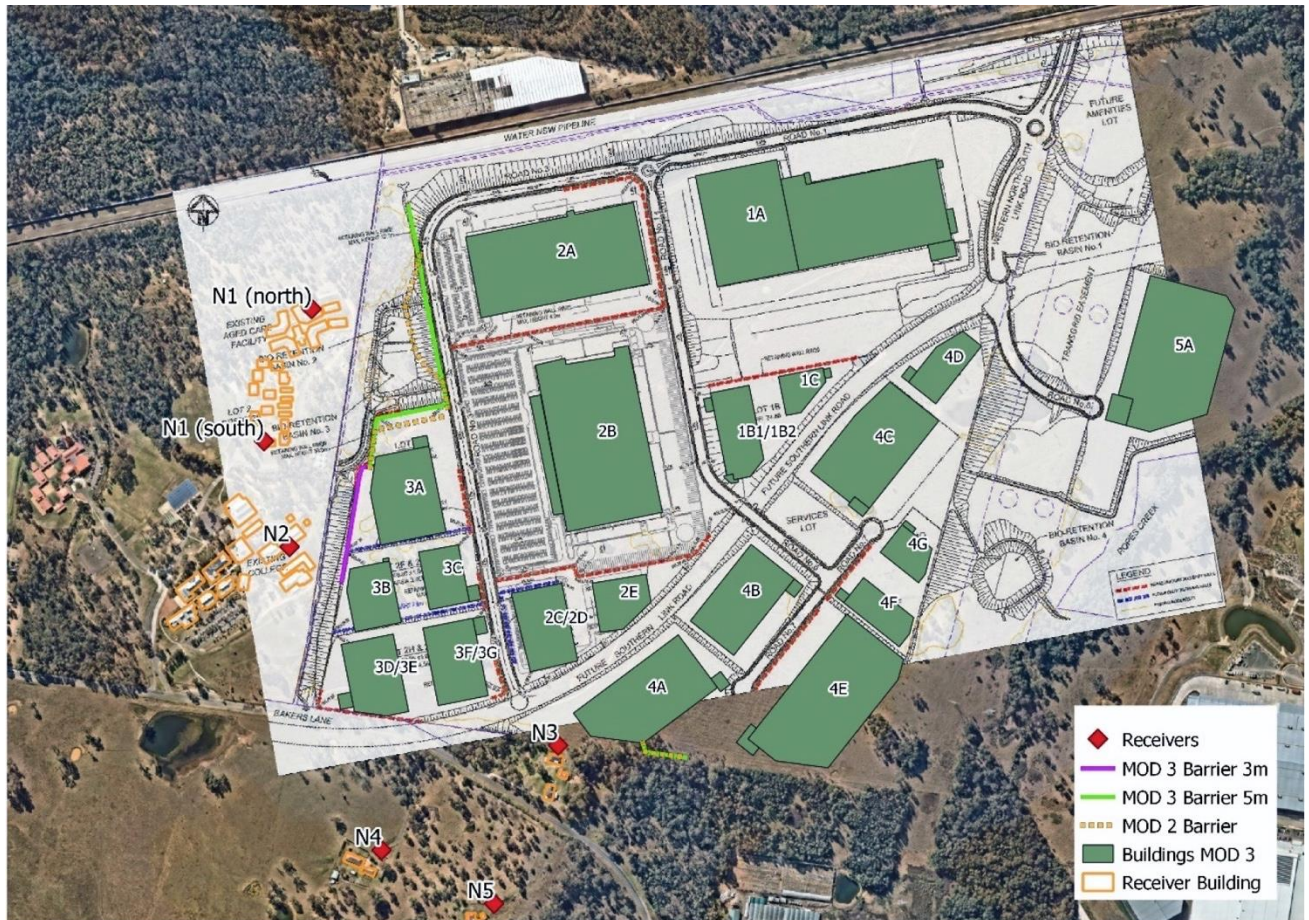


Figure 6: Sensitive Noise Receivers and Noise Wall Locations

APPENDIX 6 BIODIVERSITY

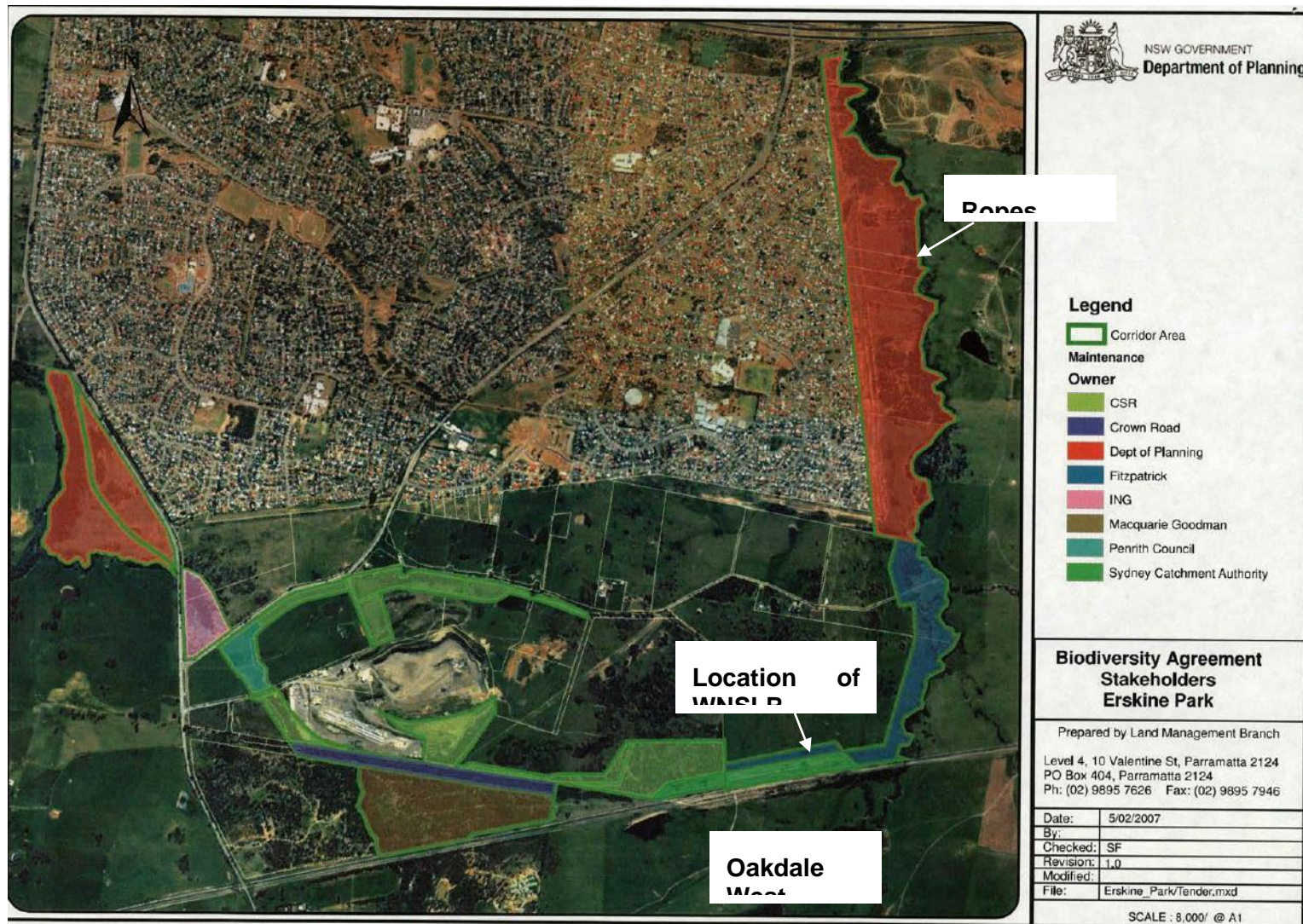


Figure 7: Erskine Park Biodiversity Corridor Land

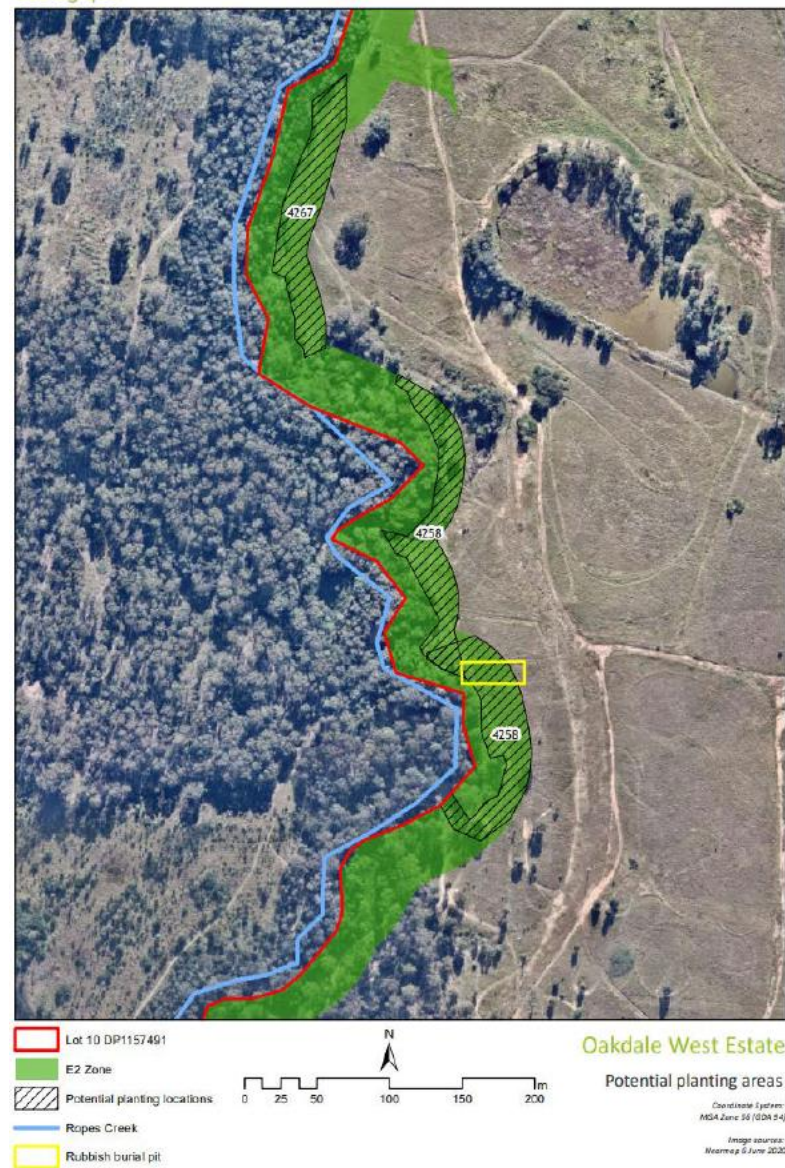


Figure 8: Offsets for WNSLR – Planting Area



Figure 50: Offsets for Stage 1 - Biodiversity Offset Area (MOD 6)

SUMMARY OF MITIGATION MEASURES

The collective measures required to mitigate the impacts associated with the proposed works are detailed in the table below.

Table 6: Applicant's Mitigation Measures

Issue	SSDA Component	Mitigation and Management
Construction Management		
General Construction Management	Stage 1 Development	<ul style="list-style-type: none"> A CEMP to be prepared for the OWE Stage 1 Development capturing standard and specific management and mitigation measures as described in the SSDA, EIS and supporting technical documents.
Operational Management		
General Operational Management	Concept Proposal Stage 1 Precinct Development	<ul style="list-style-type: none"> An OEMP to be prepared for the OWE capturing standard and specific operational management and mitigation measures as described in the SSDA, EIS and supporting technical documents.
Transport		
Construction Traffic	Stage 1 Development	<ul style="list-style-type: none"> Preparation of a CTMP to form part of the CEMP addressing issues such as: <ul style="list-style-type: none"> Truck haul routes, delivery schedules and curfews; Protocols for the management of construction traffic moving onto and off the site.
Urban Design and Visual		
Site Layout and Design	Concept Proposal	<ul style="list-style-type: none"> Future development of the OWE to proceed in accordance with the approved Development Concept Proposal and DCP.
Development Controls	Concept Proposal	<ul style="list-style-type: none"> Design and development controls to be established for the OWE in the form of a DCP to guide future development on the site.
Visual Impact	Concept Proposal/Stage 1 Development	<ul style="list-style-type: none"> Design and development controls to be established for the OWE in the form of a DCP to guide future development on the site. Landscaping of key interfaces including the western boundary to minimise visual impact.
Soils and Water		
Water Usage	Stage 1 Development	<ul style="list-style-type: none"> Rainwater tanks to be provided for each development site with size determined in accordance with Penrith Council DCP requirements. Irrigation and toilet flushing for development to be plumbed to rainwater tanks. Consideration to be given to other possible rainwater reuse opportunities such as for truck washing. Measures and considerations for the minimisation of water use during construction and operation to

Issue	SSDA Component	Mitigation and Management
		be incorporated into CEMP and OEMP as relevant.
Soils	Stage 1 Development	<ul style="list-style-type: none"> • Mitigation measures inherent to the civil design of the proposal. • Sedimentation and erosion control measures are proposed as detailed in the Civil Design and Infrastructure Package and Traffic and Transport Impact Assessment.
Salinity	Stage 1 Development	<ul style="list-style-type: none"> • A Salinity Management Plan has been prepared for the proposed development. • Management measures described in the Salinity Management Plan to be adopted in the CEMP and OEMP as relevant.
Contamination	Stage 1 Development	<ul style="list-style-type: none"> • Identified areas of potential contamination to be subject to further investigation prior to the development of affected land.
Earthworks	Stage 1 Development	<ul style="list-style-type: none"> • Civil design achieves appropriate site levels with minimal impact upon hydrology. • Import of fill to be managed in accordance with CEMP. • Erosion and sediment controls included in the SSDA package.
Mineral Resources	Concept Proposal	<ul style="list-style-type: none"> • No mitigation required provided that mining activities under the existing mining lease applying to land to the east of the site (ref. ML1636) would not be constrained by the OWE development.
Surface Water	Stage 1 Development	<ul style="list-style-type: none"> • Stormwater issues addressed through design measures incorporated into proposed development. • Stormwater management system designed to meet the requirements of Penrith Council's Engineering Works and WSUD guidelines and relevant NOW guidelines. • Detailed on-lot stormwater for future stages of the OWE to be designed and assessed under future applications.
Groundwater	Stage 1 Development	<ul style="list-style-type: none"> • Methods and management of any required dewatering required during construction works to be detailed in the CEMP.
Flooding	Stage 1 Development	<ul style="list-style-type: none"> • OSD designed to ensure that development does not increase stormwater peak flows in downstream areas for events up to and including 1:100-year ARI. • OSD designed to mitigate post-development flows to pre-development flows for peak ARI events. • Finished floor levels to have minimum 500mm freeboard to 100-year overland flows. • Flood impacts on TransGrid easement would be mitigated through minor compensatory earthworks on the floodplain to convey locally diverted flows. These works are detailed in the civil drawings included in the SSDA package.
Water Quality	Stage 1 Development	<ul style="list-style-type: none"> • Erosion and sediment controls as detailed in SSDA

Issue	SSDA Component	Mitigation and Management
		<p>package to be implemented through CEMP.</p> <ul style="list-style-type: none"> • Stormwater to be treated to compliant levels prior to discharge. • Gross Pollutant Trap (GPT) to be installed within each development site on the final downstream stormwater pit prior to discharge. • WSUD measures adopted to achieve target reductions for the OWE: <ul style="list-style-type: none"> <input type="checkbox"/> 85% Total Suspended Solids <input type="checkbox"/> 60% Total Phosphorus <input type="checkbox"/> 45% Total Nitrogen <input type="checkbox"/> 90% Gross Pollutants
Infrastructure		
Capacity and Upgrades	Concept Proposal	<ul style="list-style-type: none"> • Management of issues in respect of infrastructure capacity and upgrades is in the form of design responses described in Section 4.0 of the EIS.
Delivery and Staging	Concept Proposal/Stage 1 Development	<ul style="list-style-type: none"> • Management of issues in respect of infrastructure capacity and upgrades is in the form of design responses described in Section 4.0 of the EIS. • Staging of development of the OWE would be aligned with infrastructure and services delivery.
TransGrid Easement	Concept Proposal/Stage 1 Development	<ul style="list-style-type: none"> • Further consultation would be undertaken with TransGrid in relation to potential impacts and required mitigation.
Other Environmental Issues		
Flora and Fauna	Concept Proposal Stage 1 Development	<ul style="list-style-type: none"> • Preparation of a Flora and Fauna Management Plan for the site to inform the CEMP and OEMP as relevant to manage potential impacts to biodiversity during construction and operation. • Retained areas of native vegetation, including the Ropes Creek riparian corridor, will be rehabilitated and/or restored in accordance with the Vegetation Management Plan. • Other areas of the site including road batters, embankments and bio-retention basins will be planted with native plant species and turf species as specified in the Landscape Planting Schedule. • Ongoing maintenance and management of these areas in accordance with the provisions of both the Vegetation Management Plan and Landscape Management Plan.
Waterways and Riparian Lands		<ul style="list-style-type: none"> • Restoration and ongoing management of Ropes riparian corridor to be in accordance with the Vegetation Biodiversity Management Action Plan

APPENDIX 8 INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS

WRITTEN INCIDENT NOTIFICATION REQUIREMENTS

1. A written incident notification addressing the requirements set out below must be emailed to the Department at the following address: compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under Condition D135 or, having given such notification, subsequently forms the view that an incident has not occurred.
2. Written notification of an incident must:
 - a. identify the development and application number;
 - b. provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
 - c. identify how the incident was detected;
 - d. identify when the Applicant became aware of the incident;
 - e. identify any actual or potential non-compliance with conditions of consent;
 - f. describe what immediate steps were taken in relation to the incident;
 - g. identify further action(s) that will be taken in relation to the incident; and
 - h. identify a project contact for further communication regarding the incident.

INCIDENT REPORT REQUIREMENTS

3. Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.
4. The Incident Report must include:
 - a. a summary of the incident;
 - b. outcomes of an incident investigation, including identification of the cause of the incident;
 - c. details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
 - d. details of any communication with other stakeholders regarding the incident.

APPENDIX B

OEMP Plan

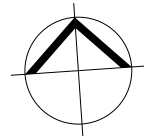
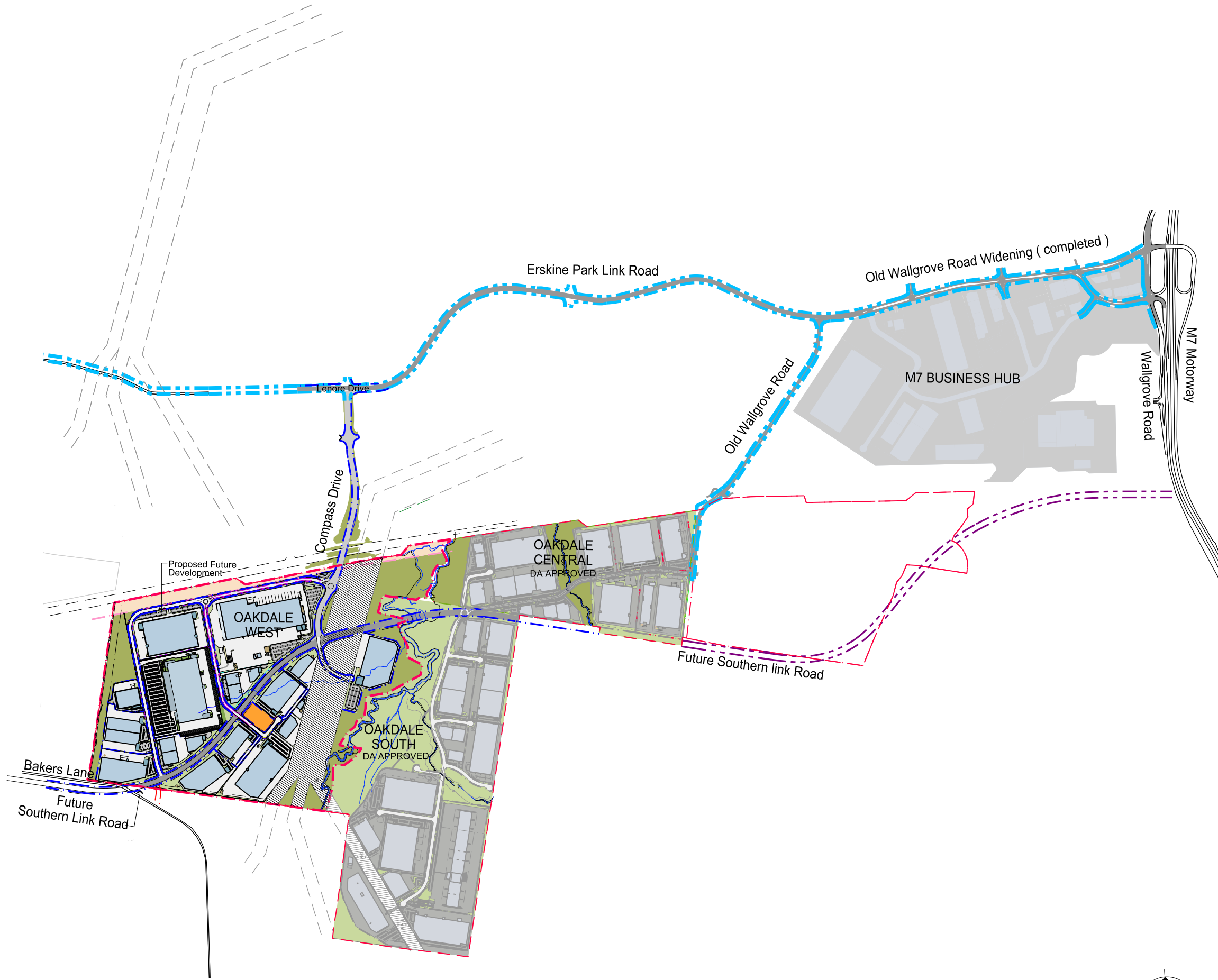


PROPOSED INDUSTRIAL FACILITIES

OAKDALE WEST
Estate Road KEMPS CREEK, NSW

MOD 7

Drawing List	
Masterplans	
OAK MP01	Cover Sheet & Location
OAK MP02	Estate Masterplan
OAK MP07	Indicative Ultimate Lot Layout
OAK MP11	Building Staging Plan (indicative)



Legend	
	Site Boundary
	Lot Boundary
	3.75m Landscape Setback
	7.50m Building Setback
	7.15 m Landscape Setback along Main Roads
	17.15m Landscape Setback along Main Roads



Site Area Schedule	
Total Site Area	154.12 ha
Less:	
Non Developable Land	21.08 ha
Easements	22.38 ha
Regional Roads	7.51 ha
Services Lot	1.23 ha
Estate Roads	7.0255 ha
Right of Way Roads	0.578 ha
E2 Zone non developable	1.43 ha
Development Areas	61.23 ha
Precinct 1	21.80 ha
Precinct 2	26.69 ha
Precinct 3	11.10 ha
Precinct 4	22.22 ha
Precinct 5	6.01 ha
Proposed Future Development	4.82 ha
Amenities Lot	0.25 ha
Total Developable	92.89 ha
Precinct 1 GLA	88,867 sqm
Precinct 2 GLA	263,090 sqm
Precinct 3 GLA	56,704 sqm
Precinct 4 GLA	112,178 sqm
Precinct 5 GLA	35,640 sqm
Amenities Lot GLA	345 sqm
Total GLA	556,824 sqm
Total Warehouse	529,772 sqm
Total Office	22,063 sqm
Others	4,989 sqm
Total GLA	556,824 sqm
Precinct 1 GFA	125,198 sqm
Precinct 2 GFA	269,390 sqm
Precinct 3 GFA	56,704 sqm
Precinct 4 GFA	112,178 sqm
Precinct 5 GFA	35,640 sqm
Amenities Lot GFA	345 sqm
Total GFA	599,455 sqm
Total Warehouse	529,772 sqm
Total Office	22,063 sqm
Others	4,989 sqm
Mezzanines (for Site 1A & 2B)	42,631 sqm
Total GFA	599,455 sqm

Goodman

BRICKWORKS

Legend

Development Lots

Service Lots

Basin Lots

Estate Road Lots

Regional Road Lots

Biodiversity Area

Residual Services Lot

Residual Lot

Lot 1 DP120679		Sub Total
Total Land Area	WEST	154.12 ha
Biodiversity Management Area	17.3353 ha	17.3353 ha
Regional Road 1 Lot 104	.6057 ha	
Regional Road 2 Lot 104	.9166 ha	
Regional Road 3 Lot 106	5.7625 ha	7.2849 ha
Services Lot 103	1.2346ha	1.2346 ha
Residual Lot	.5872 ha	.5872 ha
Residual Services Lot	19.9782ha	19.9782 ha
Estate Road Lot 103	2.8238 ha	
Estate Road Lot 2	Deleted	
Estate Road Lot 111	2.8414 ha	
Estate Road Lot 4	Deleted	
Estate Road Lot 5	Deleted	
Estate Road Lot 105	0.8533 ha	
Estate Road Lot 8	0.747 ha	7.2655 ha
Basin Lot 1	1.0828 ha	
Basin Lot 2	Not Used	
Basin Lot 3	2.0882 ha	
Basin Lot 4	Not Used	
Basin Lot 5	1.5153 ha	
Basin Lot 6	0.6748 ha	5.3611 ha
Development Lots 101 & 102	21.805 ha	
Development Lot 114	5.0751 ha	
Development Lots 106, 107 & 108	26.6961 ha	
Development Lots 113, 115 & 116	12.6797 ha	
Development Lot 4	Deleted	
Development Lot 117	7.433 ha	
Development Lot 118	7.6328 ha	
Development Lot 119	13.7466 ha	95.0683 ha

*All areas subject to survey.

SBA

ARCHITECTS

Oakdale West Estate - MOD 7

Kemps Creek, NSW

Indicative Ultimate Lot Layout

1:3000 @ A1

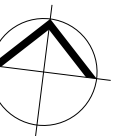
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02 June 2021

OAK MP 07 (C)

Job No 21116

0 60 300



APPENDIX C

Relevant Consent Conditions

Consent Condition		Section Addressed																																		
Schedule B – Conditions For The Concept Proposal																																				
STATUTORY REQUIREMENTS																																				
B4. The Applicant shall ensure that all licences, permits, and approvals/consents are obtained as required by law and maintained as required throughout the life of the Concept Proposal. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals/consents.																																				
LIMITS OF CONSENT																																				
B9. The following limits apply to the Concept Proposal: (d) any rooftop mechanical plant on buildings on Lots 2C, 2D, 2E, 3A, 3B, 3C, 3D, 3E, 4A, 4B and 4E are not to be operated during the night-time period; (e) forklifts are not to operate during the night-time period on Lots 2C, 2D, 2E, 3B, 3C, 3D, 3E, 4A, 4E and 5A; and (g) all traffic associate with operation of the Development shall use the West North South Link Road, and the future SLR, to access the site and shall not use Bakers Lane or Aldington Road.		(d) Section 3.2 (e) Section 3.2 (g) Section 3.3																																		
NOISE LIMITS																																				
B18. The Applicant shall ensure the Development does not exceed the noise limits in Table 3 at the receiver locations N1, N2, N3, N4 and N5 shown on the plan in Appendix 5. Table 3: Noise Limits dB(A)		Section 3.2																																		
<table><tr><th rowspan="2">Location</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr><tr><th>L_{Aeq} (15 minute)</th><th>L_{Aeq} (15 minute)</th><th>L_{Aeq} (15 minute)</th><th>L_{AMax}</th></tr><tr><td>N1 Emmaus Village Residential</td><td>44</td><td>43</td><td>41</td><td>52</td></tr><tr><td>N3 Kemps Creek – nearest residential property</td><td>39</td><td>39</td><td>37</td><td>52</td></tr><tr><td>N4 & N5 Kemps Creek – other residences</td><td>39</td><td>39</td><td>37</td><td>52</td></tr><tr><td>All other non-associated residences</td><td>40²</td><td>35²</td><td>35²</td><td>52</td></tr><tr><td>N2 Emmaus Catholic College (school)</td><td colspan="4">When in use: 45 L_{eq} (1h)</td></tr></table>	Location		Day	Evening	Night		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{AMax}	N1 Emmaus Village Residential	44	43	41	52	N3 Kemps Creek – nearest residential property	39	39	37	52	N4 & N5 Kemps Creek – other residences	39	39	37	52	All other non-associated residences	40 ²	35 ²	35 ²	52	N2 Emmaus Catholic College (school)	When in use: 45 L _{eq} (1h)				
Location			Day	Evening	Night																															
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N2 Emmaus Catholic College (school)	When in use: 45 L _{eq} (1h)																																			
Notes: 1. Noise generated by the development is to be measured in accordance with the relevant procedures and modifications, including certain meteorological conditions, of the Noise Policy for Industry (EPA, 2017). Refer to the plan in Appendix 2 for the location of residential sensitive receivers. 2. or background + 5 dB, whichever is higher.																																				
B19. The noise limits in Table 3 do not apply to receiver N3, N4 and N5 if the Applicant has a Noise Agreement with the relevant landowner to exceed the noise limits, and the Applicant has provided written evidence to the Planning Secretary that an agreement is in place.		Section 3.2																																		
BUSHFIRE PROTECTION																																				
B20. The Applicant shall ensure the Development complies with: (a) the relevant provisions of <i>Planning for Bushfire Protection 2019</i> ;		Section 3.9																																		

Consent Condition	Section Addressed
(b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; and (c) <i>AS2419.1 – 2005 Fire Hydrant Installations for Firefighting Water Supply</i> .	
B21. The Applicant must: (a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week; (b) comply with the requirements of TransGrid for any works in the TransGrid easement; and (c) advise TransGrid of any proposed amended or modified encroachment into the easement.	Section 3.1
WATER NSW	
B23. The Applicant must: (a) provide safe and unobstructed access for Water NSW plant and personnel to access the water pipelines corridor adjacent the Site, 24 hours a day, 7 days a week; (b) comply with the requirements of Water NSW for any works adjacent to or over, the water pipelines corridor; and (c) advise Water NSW of any proposed amended or modified encroachment into the water pipelines corridor.	Section 3.1
SCHEDULE D – CONDITIONS FOR STAGE 1 DA	
PART 1 – GENERAL CONDITIONS	
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT	
D1. 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 Stage 1 development, and any rehabilitation required under this consent.	Section 3.1
TERMS OF CONSENT	
D2. Stage 1 of 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 and RTS; (d) in accordance with the plans in Appendix 2 and Appendix 3; (e) in accordance with SSD 7348 MOD 1; (f) in accordance with the Applicant's Management and Mitigation Measures in Appendix 7; and (g) in accordance with modifications to this consent.	Noted
NOTIFICATION OF COMMENCEMENT	
D8. The date of commencement of each of the following phases of Stage 1 must be notified to the Department in writing, at least one month before that date, or otherwise agreed with the Planning Secretary: (a) construction; and	Noted

Consent Condition	Section Addressed
(b) operation.	
COMPLIANCE	
D19. 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 Stage 1.	Section 2.5
OPERATION OF PLANT AND EQUIPMENT	
D21. All plant and equipment used on site, or to monitor the performance of Stage 1 must be: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Section 3.1
TRANSGRID EASEMENT	
D30. The Applicant must: (a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week; (b) comply with the requirements of TransGrid for any works in the TransGrid easement on the Site; and (c) advise TransGrid of any proposed amended or modified encroachment into the easement.	Section 3.1
PART 2 – ENVIRONMENTAL PERFORMANCE CONDITIONS	
VISUAL AMENITY	
Landscape Management Plan D35. Prior to the commencement of construction of Stage 1, the Applicant must prepare a Landscape Management Plan (LMP), to the satisfaction of the Planning Secretary. The plan must form part of the CEMP in accordance with Condition D119 and the OEMP in accordance with Condition D130 and must: (a) be prepared in consultation with Council; (b) detail procedures for the retention of existing native vegetation in the north-western corner of the Site and protection of this vegetation from construction impacts; (c) include visual impact mitigation measures for construction including but not limited to: (i) the location of site sheds, compounds and machinery parking areas, avoiding the western and southern site boundaries, or other locations highly visible from adjacent residential properties; (ii) the contractor shall employ the use of a dust suppressing polymer agent ideally with a green tint to reduce the visual impact of the exposed building pads & to assist in reducing the dust generated on site. (d) detail the works required to construct the landscape bund along the western boundary of the Site, as shown on Figure 4 in Appendix 2, including provision for the landscaping to incorporate mature trees (no less than 75 litre pot size); (e) include a schedule of works which prioritises the construction of the landscape bund along the western boundary of the Site, as shown on Figure 4 in Appendix 2. (f) include a program for implementing the landscape bund as soon as reasonably practicable, and no later than prior to operation of Stage 1; (g) describe the integration of landscaping with fixed elements, including retaining walls and noise walls;	Section 3.7 Appendix F

Consent Condition	Section Addressed
<ul style="list-style-type: none"> (h) describe the monitoring and maintenance procedures to ensure the success of the landscaping works over the life of the Development; and (i) update the LEMP to include modifications to the western bund, bio-retention basin 2/3 and the noise wall approved under MOD 3. 	
<p>D36. The Applicant must:</p> <ul style="list-style-type: none"> (a) not commence construction of Stage 1 until the LMP is approved by the Planning Secretary. (b) must implement the most recent version of the LMP approved by the Planning Secretary; and (c) include the monitoring and maintenance procedures contained in the LMP within the OEMP required in accordance with Condition D130. 	Noted
<p>Landscaping</p> <p>D38. The Applicant must maintain all landscaping implemented as part of Stage 1, as shown on Figure 4 in Appendix 2, for the duration of the Development. If the monitoring carried out as part of Condition D35 indicates that any aspect of the landscaping has not been successful, the Applicant must undertake re-planting and rehabilitation works, as soon as reasonably practicable.</p>	Section 3.7
<p>Lighting and Security Cameras</p> <p>D40. The Applicant must ensure the lighting associated with Stage 1:</p> <ul style="list-style-type: none"> (a) complies with the latest version of <i>AS 4282-1997 - Control of the obtrusive effects of outdoor lighting</i> (Standards Australia, 1997); and (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network. 	Section 3.7
<p>D41. The Applicant must ensure any security cameras installed as part of Stage 1 are directed away from adjacent private properties.</p>	Section 3.7
<p>Signage and Fencing</p> <p>D43. All signage and fencing must be erected in accordance with the plans in the RtS.</p>	Section 3.7
TRANSPORT, ACCESS AND PARKING	
<p>Operating Conditions</p> <p>D69. The Applicant must ensure:</p> <ul style="list-style-type: none"> (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) are constructed and maintained in accordance with the latest version of <i>AS 2890.1:2004 Parking facilities Off-street car parking</i> (Standards Australia, 2004) and <i>AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities</i> (Standards Australia, 2002); (b) parking for Stage 1 is provided in accordance with the EIS and RtS for MOD 5; (c) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant Austroads guidelines; (d) Stage 1 does not result in any vehicles queuing on the public road network; (e) heavy vehicles associated with Stage 1 are not parked on local roads or footpaths in the vicinity of the Site; (f) all vehicles are wholly contained on site before being required to stop; (g) all loading and unloading of materials are carried out on Site; (h) all trucks entering or leaving the Site with loads have their loads covered and do not track dirt onto the public road network; and 	Section 3.3

Consent Condition	Section Addressed									
(i) the proposed turning areas in the car parks are kept clear of any obstacles, including parked cars, at all times.										
Operational Traffic Management Plan D69A. The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must: (a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW; (b) detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation; (c) include measures to maintain road safety and network efficiency; (d) detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise; (e) include a Driver’s Code of Conduct that addresses: (i) travelling speeds and adherence to site-specific speed limits; (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and (iii) procedures to ensure drivers implement safe driving practices.	Section 3.3 Appendix D									
D69B. The Applicant must: (a) not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and (b) implement the most recent version of the OTMP approved by the Planning Secretary for the duration of operation.	Noted									
NOISE										
Hours of Work D70. The Applicant must comply with the hours detailed in Table 5, unless otherwise agreed in writing by the Planning Secretary. <table><tr><th colspan="3">Table 5: Hours of Work</th></tr><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td>Operation</td><td>Monday – Sunday (including public holidays)</td><td>24 hours</td></tr></table>	Table 5: Hours of Work			Activity	Day	Time	Operation	Monday – Sunday (including public holidays)	24 hours	Noted
Table 5: Hours of Work										
Activity	Day	Time								
Operation	Monday – Sunday (including public holidays)	24 hours								
Operational Noise Limits D75. The Applicant shall undertake operation of Stage 1 in a manner that ensures the Development complies with the noise limits for the Concept Proposal in Condition B18 of this consent.	Section 3.3									
Noise Verification D75B. Within three months of commencing operation of any buildings on the site, the Applicant must prepare a noise verification report, to the satisfaction of the Planning Secretary. The noise verification report must: (a) be prepared by an appropriately qualified and experienced noise expert; (b) describe the noise monitoring undertaken to verify the effectiveness of the noise barrier; (c) demonstrate compliance with the noise limits in Condition B18; and (d) if required, recommend, prioritise and implement measures to improve noise controls to ensure the development meets the noise limits in Condition B18.	Section 3.3									
SOILS & WATER										

Consent Condition	Section Addressed																				
Discharge Limits D82. Stage 1 must comply with section 120 of the POEO Act, which prohibits the pollution of waters.	Section 3.6																				
Stormwater Management System D83. The Applicant must design, construct and operate a stormwater management system for Stage 1 that: (a) is designed by a suitably qualified and experienced person(s); (b) is generally in accordance with the conceptual design in the RtS; (c) is in accordance with applicable Australian Standards; (d) ensures the system capacity is designed in accordance with Australian Rainfall and Runoff (Engineers Australia, 2016), Managing Urban Stormwater: Council Handbook (EPA, 1997) and Stormwater Drainage Specifications for Building Development (Penrith Council, May 2018); (e) ensures peak stormwater flows from the Site do not exceed pre-development flows in any downstream areas for all rainfall events up to and including the 1 in 100-year average recurrence interval (ARI); (f) ensures peak stormwater flows from the Site do not exceed existing flows in the Water NSW drainage lines and water pipelines corridor; and (g) achieves the pollutant reduction targets specified in Council’s Water Sensitive Urban Design (WSUD) Policy, (December 2013).	Section 3.6																				
BUSHFIRE PROTECTION																					
D97. The Applicant shall ensure Stage 1 complies with: (a) the relevant provisions of <i>Planning for Bushfire Protection 2019</i> ; (b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD–7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; ; and (c) <i>AS2419.1 – 2005 Fire Hydrant Installations for firefighting water supply</i> .	Section 3.9																				
AIR QUALITY																					
Dust Minimisation D98. The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Section 3.4																				
Odour Management D102. The Applicant must ensure Stage 1 does not cause or permit the emission of any offensive odour, as defined in the POEO Act.	Section 3.4																				
HAZARDS AND RISK																					
Dangerous Goods D109. The storage of dangerous goods in Building 1A must not exceed the quantities provided in Table 6. Table 6: Maximum storage quantities of dangerous goods <table><tr><th>Class</th><th>Description</th><th>Packing Group</th><th>Quantity (kg)</th></tr><tr><td>1.4</td><td>Explosives</td><td>n/a</td><td>20,000</td></tr><tr><td>2.1</td><td>Flammable gas (LPG)</td><td>n/a</td><td>4125 (7,500 L)</td></tr><tr><td>2.1</td><td>Flammable gas (LPG) – kitchen</td><td>n/a</td><td>247.5 (450 L)</td></tr><tr><td>2.1</td><td>Flammable gas (aerosols)</td><td>n/a</td><td>70,000</td></tr></table>	Class	Description	Packing Group	Quantity (kg)	1.4	Explosives	n/a	20,000	2.1	Flammable gas (LPG)	n/a	4125 (7,500 L)	2.1	Flammable gas (LPG) – kitchen	n/a	247.5 (450 L)	2.1	Flammable gas (aerosols)	n/a	70,000	Section 3.9
Class	Description	Packing Group	Quantity (kg)																		
1.4	Explosives	n/a	20,000																		
2.1	Flammable gas (LPG)	n/a	4125 (7,500 L)																		
2.1	Flammable gas (LPG) – kitchen	n/a	247.5 (450 L)																		
2.1	Flammable gas (aerosols)	n/a	70,000																		

Consent Condition				Section Addressed
2.2	Non-flammable, non-toxic gas (aerosols)	n/a	25,000	
3	Flammable liquids	II & III	300,000	
4.1	Flammable solids	III	24,000	
5.1	Oxidising agents	III	25,000	
6.1	Toxic substances	III	45,000	
8	Corrosive substances	II & III	60,000	
9	Miscellaneous Dangerous Goods	III	105,000	
Hazard Audit D109A. Twelve months after the commencement of operation of Building 1A and every five years thereafter, or at such intervals as the Planning Secretary may agree, the Applicant must carry out a comprehensive Hazard Audit of Building 1A and within one month of each audit submit a report to the Planning Secretary. The audits must be carried out at the Applicant’s expense by a qualified person or team, independent of the development, and must be consistent with the Department of Planning’s Hazardous Industry Planning Advisory Paper No. 5, ‘Hazard Audit Guidelines’.				Section 4.3
D109B. The Applicant must not store more than 1.1 million kilograms of combustible liquid commodities at warehouse Building 1A.				Section 3.9
Bunding D110. The Applicant must store all chemicals, fuels and oils used on Site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA’s <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> (Department of Environment and Climate Change, 2007).				Section 3.9
WASTE MANAGEMENT				
Waste Storage D111. 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 3.5
Waste Management Plan D112. The Applicant must implement the Waste Management Plan (WMP) in the EIS for the duration of construction and operation of Stage 1.				Section 3.5
Statutory Requirements D113. The Applicant must assess and classify all liquid and non-liquid wastes to be taken off Site in accordance with the latest version of EPA's <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.				Section 3.5
D114. Waste generated outside the Site must not be received at the Site for storage, treatment, processing, reprocessing, or disposal.				Section 3.5
Pests, Vermin and Noxious Weed Management D115. The Applicant must: (a) implement suitable measures to manage pests, vermin and declared noxious weeds on the Site; and				Section 3.8 and 4.1

Consent Condition	Section Addressed
(b) inspect the Site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on Site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.	
PART 3 – ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING	
MANAGEMENT PLAN REQUIREMENTS	
<p>D118. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <p>(a) details of:</p> <ul style="list-style-type: none"> (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures; <p>(b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(c) a program to monitor and report on the:</p> <ul style="list-style-type: none"> (i) impacts and environmental performance of Stage 1; and (ii) effectiveness of the management measures set out pursuant to paragraph (b) above; <p>(d) 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>(e) a program to investigate and implement ways to improve the environmental performance of Stage 1 over time;</p> <p>(f) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> (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; and <p>(g) a protocol for periodic review of the plan.</p> <p><i>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	Section 1.4.1
OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN	
D130. The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of Condition D118 and to the satisfaction of the Planning Secretary.	Section 1.4.1
<p>D131. As part of the OEMP required under Condition D130 of this consent, the Applicant must include the following:</p> <p>(a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of operation of Stage 1;</p> <p>(b) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> (i) keep the local community and relevant agencies informed about the operation and environmental performance of Stage 1; (ii) receive, handle, respond to, and record complaints; (iii) resolve any disputes that may arise; (iv) respond to any non-compliance; (v) respond to emergencies; and 	Section 1.4.1

Consent Condition	Section Addressed
(c) include the following environmental management plans: (i) Landscape Management Plan (LMP) (see Condition D35); (ii) Flora and Fauna Management Plan (FFMP) (see Condition D88); (iii) (Waste Management Plan (WMP) (see Condition D112).	
D132. The Applicant must: (a) not commence operation until the OEMP is approved by the Planning Secretary; and (b) operate Stage 1 in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Section 1.4.1
REVISION OF STRATEGIES, PLANS AND PROGRAMS	
D133. Within three months of: (a) the submission of a Compliance Report under Condition D141; (b) the submission of an Environmental Representative Monthly Report under Condition D127; (c) the submission of an incident report under Condition D135; (d) the approval of any modification of the conditions of this consent; or (e) the issue of a direction of the Planning Secretary under Condition D2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed.	Section 5
REPORTING AND AUDITING	
Incident Notification, Reporting and Response D135. The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 8.	Section 2.6 and 4.2
Non-Compliance Notification D136. The Department must be notified in writing to compliance@planning.nsw.gov.au within seven (7) days after the Applicant becomes aware of any non-compliance.	Section 2.6 and 4.2
D137. 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.	Noted
D138. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Noted
Compliance Reporting D139. No later than 6 weeks before the date notified for the commencement of construction, a Compliance Monitoring and Reporting Program prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2018) must be submitted to the Department.	This has been prepared by SLR (2019).
D140. Compliance Reports of the Development must be carried out in accordance with the Compliance Reporting Post Approval Requirements (Department 2018).	Noted

Consent Condition	Section Addressed
D141. The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Department and notify the Department in writing at least 7 days before this is done.	Noted
Monitoring and Environmental Audits D142. 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&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing. <i>Note: For the purposes of this condition, as set out in the EP&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>	Section 4
ACCESS TO INFORMATION	
D143. At least 48 hours before the commencement of construction until the completion of all works under this consent, the Applicant must: (a) make the following information and documents (as they are obtained or approved) publicly available on its website: (i) the documents referred to in Condition D2 of this consent; (ii) all current statutory approvals for the Development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) the proposed staging plans for the Development if the construction, operation or decommissioning of the Development is to be staged; (v) 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; (vi) 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; (vii) a summary of the current stage and progress of the Development; (viii) contact details to enquire about the Development or to make a complaint; (ix) a complaints register, updated monthly; (x) the Compliance Report of the Development; (xi) audit reports prepared as part of any monitoring or environmental audit of the Development and the Applicant's response to the recommendations in any audit report; (xii) any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary.	Section 4.2

APPENDIX D

Operational Traffic Management Plan



Operational Traffic Management Plan

Oakdale West Estate – Framework Traffic Management Plan

Oakdale West Precinct

18/08/2021

1507r02

Document Control

Project No	1507r02
Project	Oakdale West Precinct-wide Operational Traffic Management Plan
Client	Goodman Property Services (Aust) Pty Ltd
File Reference	1507r02v3 Framework OTMP Oakdale West Estate

Revision History

Revision No.	Date	Details	Author	Approved by
-	25/03/2021	Draft	J. Laidler	
Issue I	22/06/2021	Issue I	J. Laidler	J. Laidler
Issue II	13/07/2021	Issue II	J. Laidler	J. Laidler
Issue III	18/08/2021	Issue III	J. Laidler	J. Laidler

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Contents

Glossary

1	Introduction	1
1.1	Overview	1
1.2	Background	3
1.3	Purpose of this Report	3
1.4	Exclusions	3
1.5	References	4
2	Estate Details	5
2.1	Estate Overview	5
2.2	Hours of Operation	7
2.4	Transport Infrastructure	8
3	Statutory Requirements	11
4	Traffic Management Plan	14
4.1	Pedestrian Management	14
4.2	Vehicle Management	15
4.3	Site Access	18
4.4	TransGrid Easement	18
4.5	Temporary or Unplanned Works	18
5	Driver Code of Conduct	19
5.1	Objectives of the Code	19
5.2	Code of Conduct	19
5.3	Management Team Responsibilities	20
5.4	Driver Responsibilities	20
5.5	Crash or incident Procedure	21
6	Parking Management	23
6.1	On-site Car Parking	23
6.2	On-street Parking	23
7	Plan Administration	25
7.1	Plan Maintenance	25
7.2	Monitoring Requirements	25
7.3	Key Responsibilities	0

Contents continued

Figures

Figure 1: Oakdale West Estate (MOD 6)	1
Figure 2: Site Appreciation and Road Hierarchy	5
Figure 3: Estate Site Plan (MOD 6)	6
Figure 4: Southern Link Access Road	7
Figure 5: Public Transport Services	9
Figure 6: Road Layout	10
Figure 7: Pedestrian/cyclist Priority of Movement at Site Access	14
Figure 8: Footpaths within Oakdale West Estate	15
Figure 9: Approved B-double Routes	17

Tables

Table 1 Condition of Consent D69A Response Locations	2
Table 2 Concept Plan Modifications	3
Table 3 Oakdale West Trip Generation	8
Table 4 key Roads	10
Table 5 MOD 6 Approval - Compliance Table	11
Table 6 Concept Plan Car Parking Rates	23
Table 7 Contingency Plan	26

Glossary

Acronym	Description
AGRD	Austroads Guide to Road Design
AGTM	Austroads Guide to Traffic Management
CC	Construction Certificate
Compass Drive	Previously known as the Western North South Link Road (WNSLR)
Council	Penrith Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPIE	Department of Planning, Industry and Environment
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)
WNSLR	Western North South Link Road (Refer also Compass Drive)

1 Introduction

1.1 Overview

Ason Group has been engaged by Goodman Property Services (Aust) Pty Ltd to prepare an Operational Traffic Management Plan (OTMP) in relation to Oakdale West Estate (OWE, or the Estate). This overarching Framework OTMP relates to the broader OWE precinct, with supplementary OTMPs for individual lots, as required, by relevant conditions of consent.

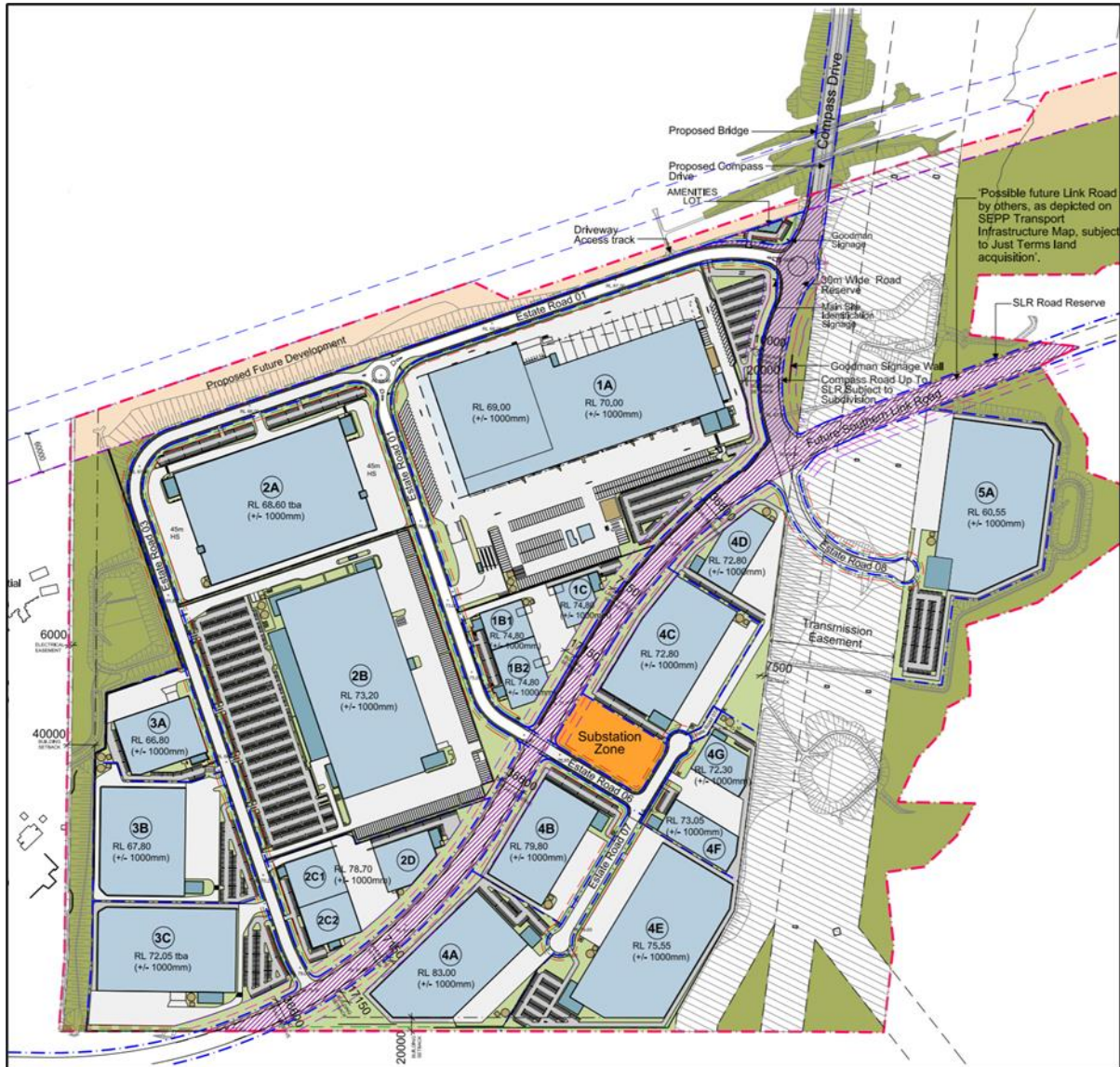


Figure 1: Oakdale West Estate (MOD 6)

This OTMP is in response to Condition D69A (and in response to D130) of the Concept Plan for the State Significant Development (SSD 7438), dated 10 March 2021. **Table 1** outlines these conditions.

TABLE 1 CONDITION OF CONSENT D69A RESPONSE LOCATIONS

Condition		Response
D69A	The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:	
(a)	be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW	Consultants from Ason Group are suitably qualified Traffic Engineers. Council and TfNSW shall be consulted following preparation of this plan, with relevant updates (if required) made following that consultation.
(b)	detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation;	Section 2.2 of this report outlines the approved hours of operation. The Estate will operate 24/7 with further site-specific hours for individual facilities to be subject to separate management plan(s). Section 5.2 outlines the maximum permissible vehicle size, truck routes and all approved B-double truck routes. The Estate has been designed for access by 26m B-doubles. Larger vehicles, if desired by individual tenants, shall be subject to separate permit approvals via the National Heavy Vehicle Regulator; a process that requires separate endorsement by Council outside the scope of this OTMP.
(c)	include measures to maintain road safety and network efficiency;	Refer to Section 7.2 for measures to maintain road safety and network efficiency.
(d)	detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise	Comments within the Driver Code of Conduct (Section 6) requires that drivers are to be cognisant of the noise and emissions requirements. Additionally, Section 7.2 includes requirements that each tenant shall manage their own business to minimise additional traffic and noise.
(e)	include a Driver's Code of Conduct that addresses: (i) travelling speeds and adherence to site-specific speed limits; (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and (iii) procedures to ensure drivers implement safe driving practices	A driver Code of Conduct can be found in Section 5. The drivers code of conduct addresses ways to minimise the impacts on the road network, with other road users, ensure truck routes are utilised and to manage pedestrian movements which all stem from following the NSW road rules.
D69B	The Applicant must:	
(a)	not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and	Noted.
(b)	implement the most recent version of the OTMP approved by the Planning Secretary for the duration of operation.	Noted - the most up to date version of the OTMP shall be implemented during the operation of the Site. Any updates to this OTMP shall be communicated to relevant stakeholders, including Council, TfNSW, DPIE and building tenants.

1.2 Background

A Concept Plan for the Estate was original approved by the Department of Planning & Environment on 13 September 2019. Subsequently, a number of amendments to the Estate master plan and individual development sub-precincts have occurred, resulting in the form now approved. A summary of the relevant changes to building areas under previous consents is provided in **Table 2** below.

TABLE 2 CONCEPT PLAN MODIFICATIONS

Land Use	Concept Plan	MOD 1	MOD 2	MOD 3	MOD 4	MOD 5	MOD 6
Total Warehouse	452,493	No Change in GFA	455,854	529,589	No Change in GFA	No Change in GFA	529,625
Total Office	22,776		25,138	66,177			69,830
Total	475,269		480,992	595,765			599,455

Further background can be found online, either via the Major Projects website (link to MOD 6 below¹) or Goodman's *Oakdale West Planning*² page.

1.3 Purpose of this Report

The purpose of this OTMP is in response to condition D69A (as outlined above) and other requirements. It provides guidance in relation to the parking and traffic management arrangements for the Estate with an overall objective to ensure safe and efficient movement of vehicles and personnel. This plan details the following:

- Thresholds for the type, frequency and number of trucks within the Estate,
- Detail the access and parking arrangements to ensure no queuing on the public road network,
- Appropriate internal traffic controls and signage,
- Driver Code of Conduct,
- Proposed crossings and signage for safe movement of pedestrians within the Estate, and
- Details in relation to governance and administration of the plan.

1.4 Exclusions

This OTMP does not cover the following:

- Traffic and pedestrian management associated with construction activities. Reference should be made to relevant Construction Traffic Management Plans (CTMP) or Traffic Control Plans (TCPs) specific to those works, as required.
- On-site traffic and parking management for individual Lots. Reference should therefore be made to the site-specific OTMPs for relevant details.

¹ <https://www.planningportal.nsw.gov.au/major-projects/project/40351>

² <https://au.goodman.com/oakdale-industrial-estate/oakdale-west-planning>

- Transport of Dangerous Goods is not covered by this OTMP. A Transport Emergency Response Plan (TERP) is required prior to transport of any Dangerous Goods. It is expected that such plans will be prepared by the Tenant involved in the transport of Dangerous Goods to/from the individual businesses within the Estate.

1.5 References

In preparing this Plan, reference is made to the following:

- Ason Group, Traffic Impact Assessment Report – Oakdale West Industrial Estate, Western Sydney Employment Area Concept Plan Modification Application 4, dated 12 May 2017 (MOD 4 Traffic Report)
- Ason Group, Transport Statement – Oakdale West Industrial Estate (SSD 7348) Modification 6, dated 09 November 2020 (MOD 6 Traffic Report)
- Department of Planning & Environment, Assessment Report – Oakdale West Industrial Estate (SSD 6917) Concept Proposal and Stage 1 DA Layout, October 2016
- Department of Planning & Environment, Assessment Report – Oakdale West Industrial Estate (SSD 6917 MOD 1) Concept Proposal and Stage 1 DA Layout, April 2017
- National Transport Commission, Australian Code for the Transport of Dangerous Goods by Road & Rail, Edition 7.5, dated 2017.
- RMS Technical Direction TDT 2013/04a, Guide to Traffic Generating Developments – Updated traffic surveys (RMS Guide TDT 04a)
- Roads and Maritime Services (RMS), Guide to Traffic Generating Developments (RMS Guide)
- TransGrid, TransGrid Easement Guidelines – Third Party Development

2 Estate Details

2.1 Estate Overview

OWE is a warehouse and industrial development precinct situated in Kemps Creek. The Precinct lies within a series of strategic growth corridors including the Western Sydney Growth Centre and Broader Western Sydney Employment Areas and is intended to be serviced by Compass Drive (previously known as the Western North South Link Road, WNSLR).

A total development floor area of 599,455m² is to be provided by the industrial buildings within the Estate, as outlined by the approved Concept Plan (SSD 7348 MOD 6).

Figure 2 below provides the context of the Estate with regard to existing road systems.

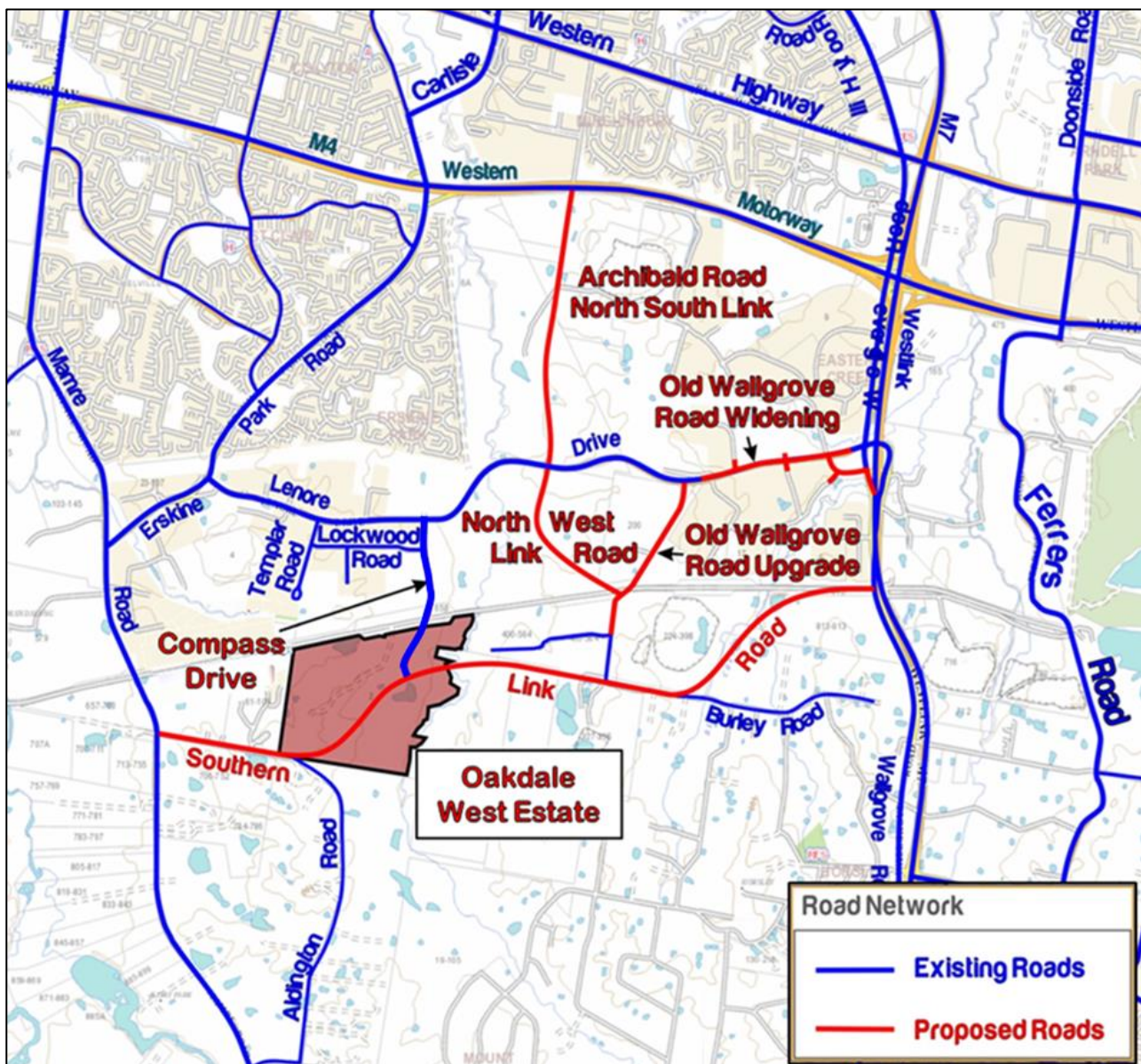


Figure 2: Site Appreciation and Road Hierarchy

The Estate comprises a number of industrial Lots as shown in **Figure 3** below.

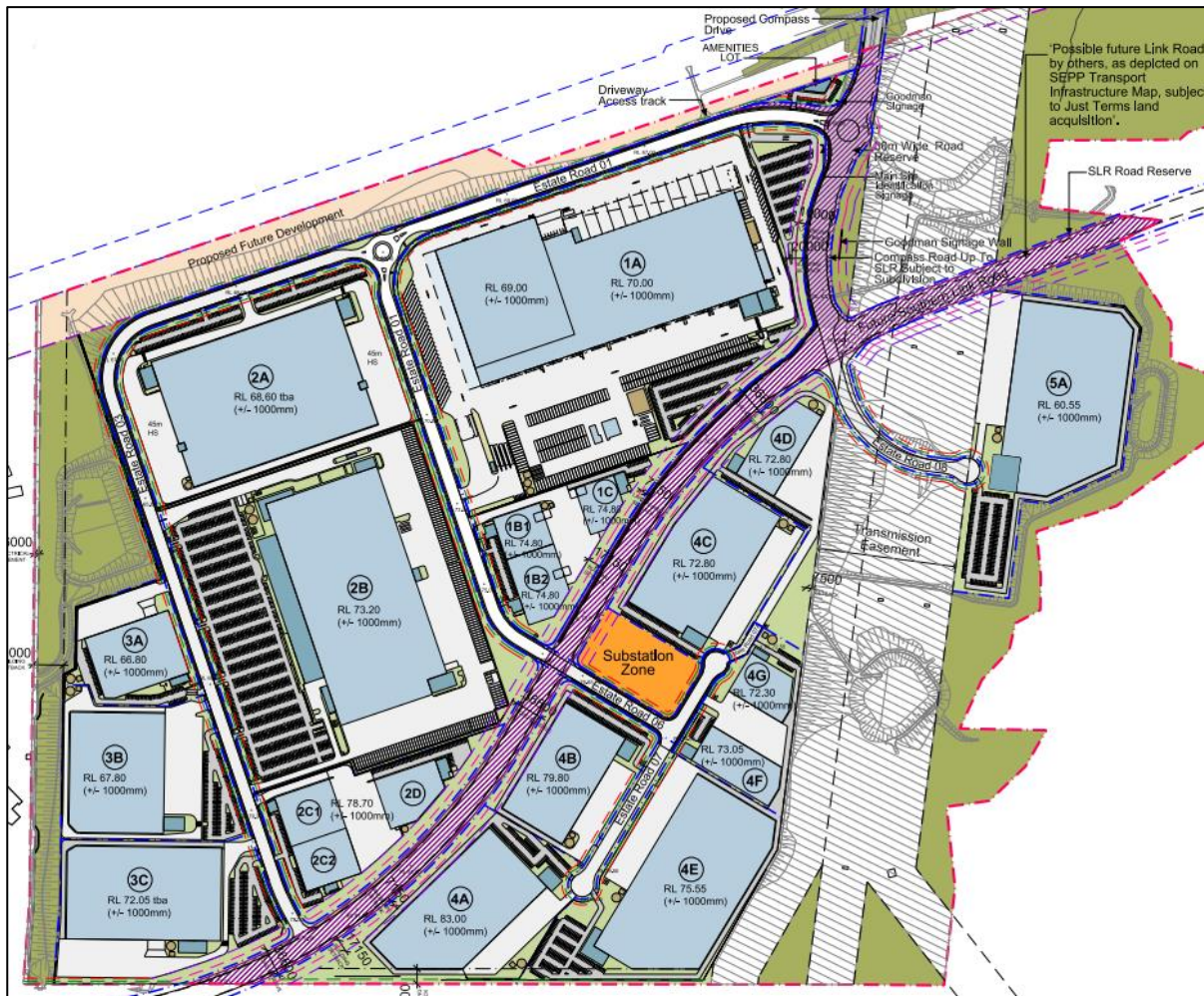


Figure 3: Estate Site Plan (MOD 6)

With reference to Figure 3, the key details relating to the Estate are as follows;

- An estate total Gross Floor Area (GFA) of 599,455m².
- 5 development sub-precincts with up to 20 buildings (separate tenancies) used for warehouse and distribution uses; and

All access to the Estate is provided via Compass Drive. Vehicles are expected to head south on Compass Drive and onto the internal estate roads.

An existing proposal with regards to the construction of the Southern Link Road (SLR) will form a connection with Mamre Road to the west and Wallgrove Road to the east.

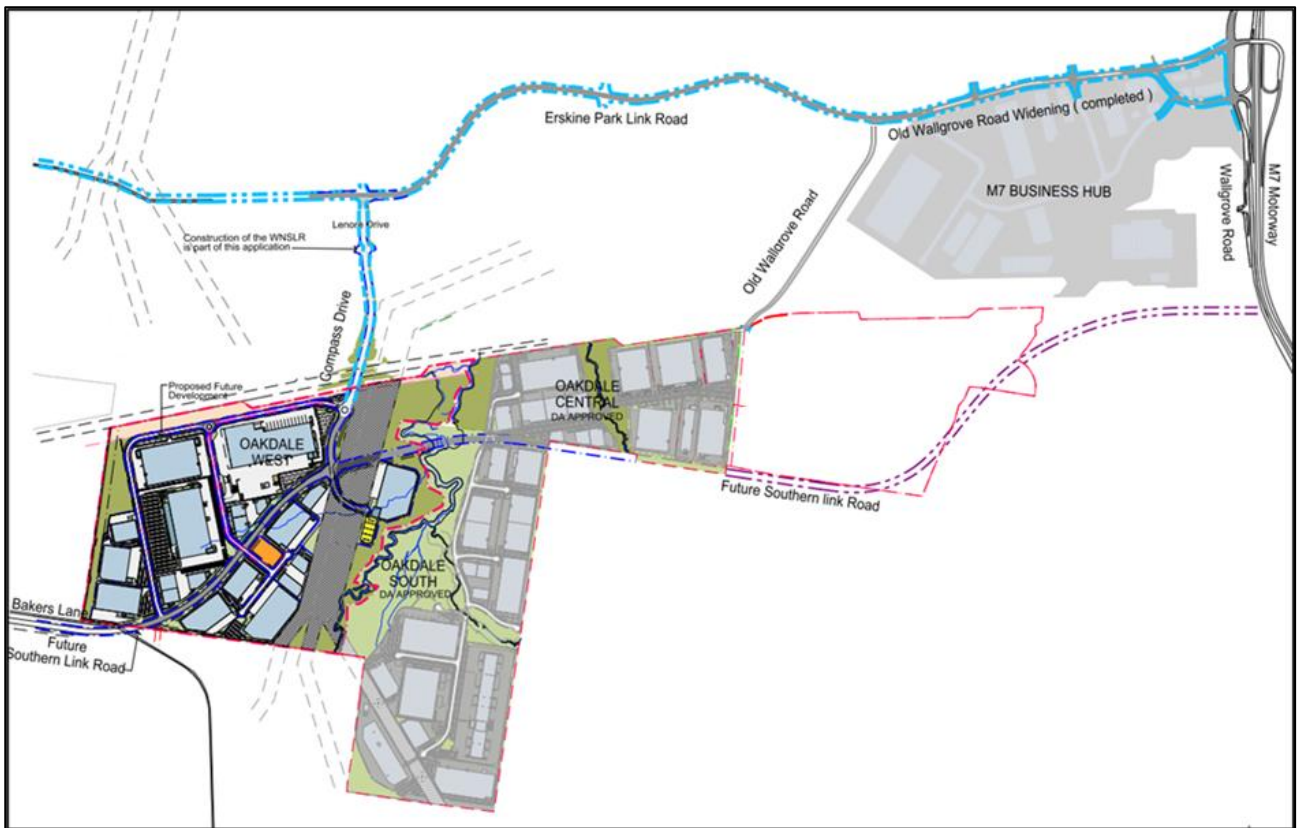


Figure 4: Access Road

2.2 Hours of Operation

Operation of each Site will be subject to site specific OTMP's. Notwithstanding, Oakdale West has publicly dedicated roads that will be accessible at all times, therefore the Estate will effectively be operational 24 hours a day, 7 days a week.

2.3 Approved Estate Vehicle Movements

Transport and traffic projections underpinning the surrounding road infrastructure is based upon the approved MOD 6 traffic volumes;

- AM peak 1,360 veh/hr.
- PM peak 1,044 veh/hr
- Daily 11,324 veh/day\

For reference, 1 veh/hr (or veh/day) relates to the number of vehicle movements rather than simply the number of vehicles. As such, 1 vehicle in & out equates to 2 vehicle movements. A breakdown of the relative contribution of individual Precincts assumed is provided in **Table 3** below.

TABLE 3 OAKDALE WEST TRIP GENERATION

Precinct	Key Details	Traffic Generation (vehicle movements)		
	GFA	AM	PM	Daily
1	125,198	103	78	2,499
2	269,390	924	633	4,953
3	56,759	93	93	1,082
4	112,123	175	175	2,036
5	35,640	58	58	674
TOTAL	599,110	1,354	1,038	11,244

It is acknowledged that these sub-precinct traffic generation figures are based on average trip generation rates and, as such, you would expect some variability for sites. However, at the precinct level this will balance out. It is for this reason that the relevant thresholds for traffic are established under this Framework OTMP as opposed to each sub-precinct plan. Notwithstanding, review of sub-precinct generation shall form a key trigger as an ongoing monitoring requirement.

2.4 Transport Infrastructure

2.4.1 Public Transport

Public transport services operating in the vicinity of the Estate are presented in **Figure 5**. Bus routes include:

- Route 738 bus route; connecting Mt. Druitt Railway Station to Eastern Creek and Horsley Park,
- Route 779 bus route; connecting St. Marys to Erskine Park Industrial Estate,
- Route 835 bus route; connecting St. Mary's Railway Station to the Prairiewood T-Way Station.

These services operate every 30 minutes during weekday (Monday to Friday) morning and evening periods.

2.4.2 Pedestrian & Cyclist Connectivity

Pedestrian footpaths are provided on both sides of all roads within the Estate. A Shared Path (pedestrians and cyclists) is provided along the southern side of Lenore Drive.

Cyclists are to use this path, where practicable, and shall slow to pass pedestrians in a safe manner.

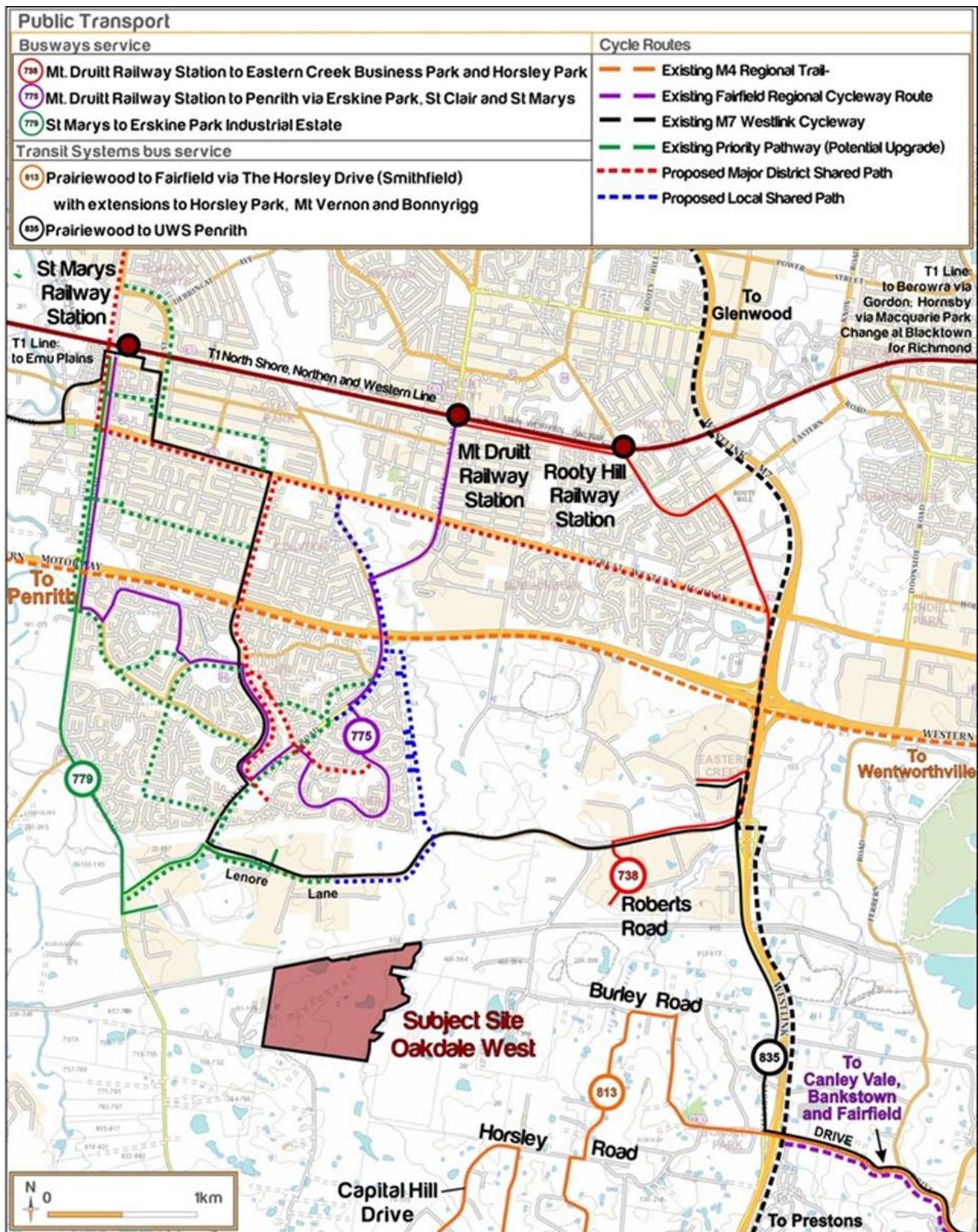


Figure 5: Public Transport Services

2.4.3 Roads

The key roads providing access for the OWE are provide below and illustrated within **Figure 6**.

Road	Category	No. of Lanes	Speed Limit (km/hr)	Parking Restrictions	Footpaths / Cycleway
M7 Motorway	Motorway	4	100	No Stopping	No
Wallgrove Road	Arterial	4	70	No Stopping	No
Lenore Drive	Sub-arterial	4	80	No Stopping	Yes
Old Wallgrove Road	Collector	4	80	No Stopping	Yes
Mamre Road	Collector	2	80	No Stopping	No
Compass Drive	Collector	4	60	No Stopping	Yes
Estate Road 01	Local	2	50	Yes	Yes
Estate Road 03	Local	2	50	Yes	Yes

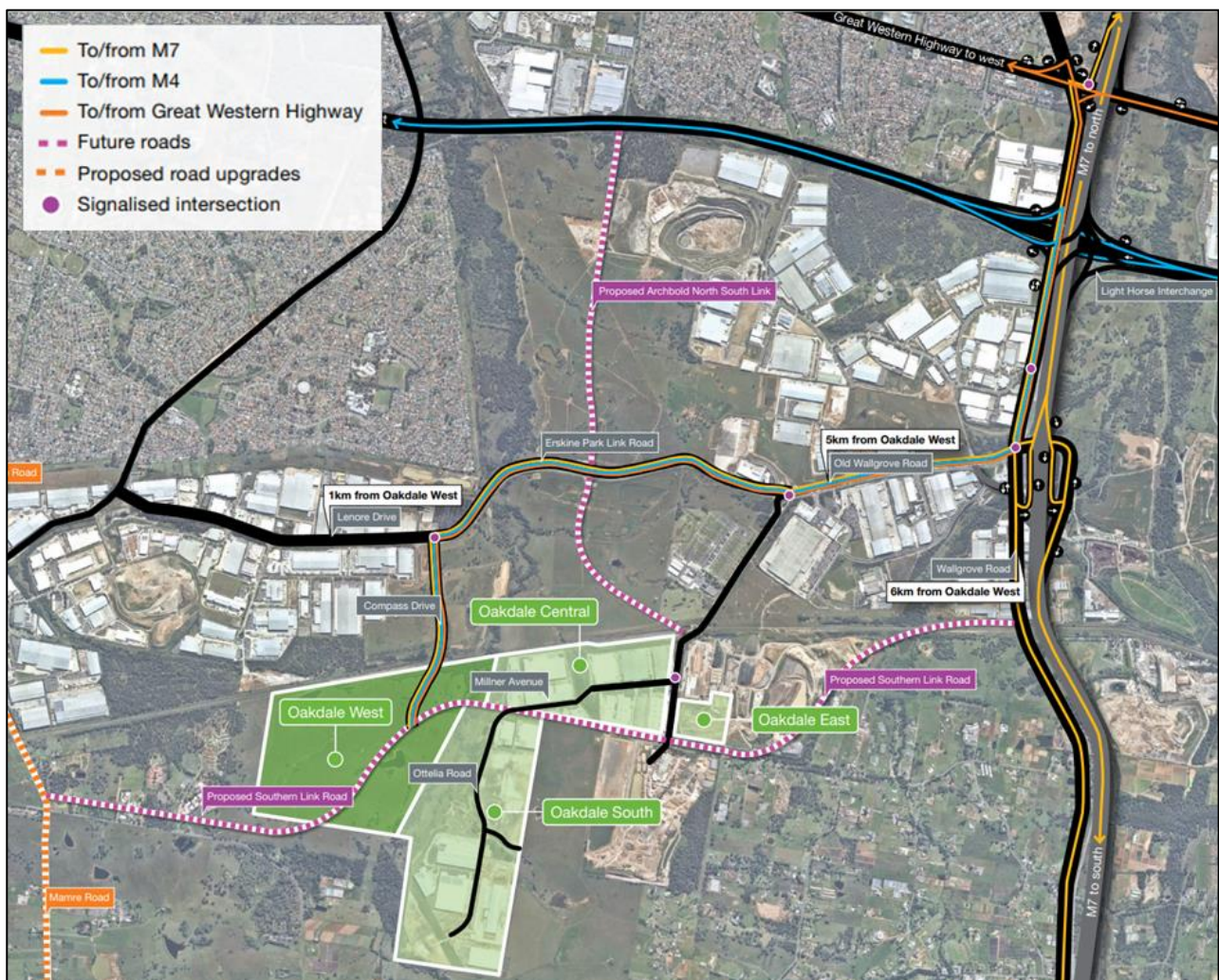


Figure 6: Road Layout

3 Statutory Requirements

A summary of the relevant conditions of approval – relating to operational traffic and parking management – for Oakdale West (Concept Plan, Stage 1 and Stage 2 works) are summarised below.

TABLE 5 MOD 6 APPROVAL - COMPLIANCE TABLE											
Requirement	Reference										
CONDITIONS FOR CONSENT FOR CONCEPT PROPOSAL											
In accordance with section 4.22 of the EP&A Act, each stage of the Concept Proposal (excluding Stage 1) is to be subject to future development applications (DAs). Future DAs are to be consistent with this development consent.	B1 (SSD-7348-Mod-6)										
To avoid any doubt, this Concept Proposal consent does not permit the construction or operation of any Development, except for the Stage 1 DA covered by Schedule D.	B2 (SSD-7348-Mod-6)										
<p>The following limits apply to the Concept Proposal for the Development:</p> <ul style="list-style-type: none"> a) the maximum GLA for the land uses in the Development shall not exceed the limits in Table 1. b) a minimum 60 metre (m) wide corridor along the northern Site boundary shall not be developed and shall be maintained and preserved for the future WSFL corridor, in accordance with the requirements of TfNSW. g) all traffic associate with operation of the Development shall use the West North South Link Road, and the future SLR, to access the site and shall not use Bakers Lane or Aldington Road <table border="1"> <thead> <tr> <th>Land Use</th><th>Maximum GLA (m²)</th></tr> </thead> <tbody> <tr> <td>Total Warehousing</td><td>529,625</td></tr> <tr> <td>Total Office</td><td>22,770</td></tr> <tr> <td>Other</td><td>4,429</td></tr> <tr> <td>Total GLA</td><td>556,824</td></tr> </tbody> </table>	Land Use	Maximum GLA (m ²)	Total Warehousing	529,625	Total Office	22,770	Other	4,429	Total GLA	556,824	B9 (SSD-7348-Mod-6)
Land Use	Maximum GLA (m ²)										
Total Warehousing	529,625										
Total Office	22,770										
Other	4,429										
Total GLA	556,824										
<p>The Applicant shall ensure the Concept Proposal provides car parking in accordance with the following rates:</p> <ul style="list-style-type: none"> a) 1 space per 300 m² of warehouse GFA. b) 1 space per 40 m² of office GFA; and c) 2 spaces for disability parking for every 100 car parking spaces. 	B13 (SSD-7348-Mod-6) B20 (SSD 10397-Mod-1)										
The Applicant shall provide bicycle racks, and amenity and change room facilities for cyclists in accordance with Planning Guidelines for Walking and Cycling (December 2004), NSW Department of Infrastructure, Planning and Natural Resources; Roads and Traffic Authority.	B14 (SSD-7348-Mod-6)										
CONDITIONS TO BE MET IN FUTURE DEVELOPMENT APPLICATIONS											
<p>Future DAs shall be accompanied by a transport, access, and parking assessment. The assessment must:</p> <ul style="list-style-type: none"> a) assess the impacts on the safety and capacity of the surrounding road network and access points during construction and operation of the relevant Stage. 	C9 (SSD-7348-Mod-6)										

<ul style="list-style-type: none"> b) demonstrate internal roads and car parking complies with relevant Australian Standards and the car parking rates in Condition B13. c) detail the scope and timing of any required road upgrades to service the relevant Stage; and d) detail measures to promote non-car travel modes, including a Sustainable Travel Plan identifying pedestrian and cyclist facilities to service the relevant Stage of the Development. 	
CONDITIONS FOR CONSENT FOR THE STAGE 1 DA	
<p>The Applicant must:</p> <ul style="list-style-type: none"> a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week. b) comply with the requirements of TransGrid for any works in the TransGrid easement on the Site; and c) advise TransGrid of any proposed amended or modified encroachment into the easement. 	D30 (SSD-7348-Mod-6)
<p>The Applicant must ensure:</p> <ul style="list-style-type: none"> a) internal roads, driveways, and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) are constructed and maintained in accordance with the latest version of AS 2890.1:2004 Parking facilities Off-street car parking (Standards Australia, 2004) and AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2002). b) parking for Stage 1 is provided in accordance with the EIS and RtS for MOD 5; c) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant Austroads guidelines. d) Stage 1 does not result in any vehicles queuing on the public road network. e) heavy vehicles with Stage 1 are not parked on local roads or footpaths in the vicinity of the Site. f) all vehicles are wholly contained on site before being required to stop. g) all loading and unloading of materials are carried out on Site. h) all trucks entering or leaving the Site with loads have their loads covered and do not track dirt onto the public road network; and i) the proposed turning areas in the car parks are kept clear of any obstacles, including parked cars, always. 	D69 (SSD-7348-Mod-6)
<p>The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:</p> <ul style="list-style-type: none"> a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW. b) detail the number and frequency of trucks, sizes of trucks, vehicle routes and hours of operation. c) include measures to maintain road safety and network efficiency. d) detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise. e) include a Driver's Code of Conduct that addresses: <ul style="list-style-type: none"> (i) travelling speeds and adherence to site-specific speed limits. (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and 	D69A (SSD-7348-Mod-6) B17 (SSD 10397 – Mod-1)

(iii) procedures to ensure drivers implement safe driving practices.												
a) not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and b) implement the most recent OTMP approved by the Planning Secretary for the duration of operation			D69B (SSD-7348-Mod-6) B18 (SSD 10397-Mod-1)									
The Applicant must comply with the hours detailed in Table 5, unless otherwise agreed in writing by the Planning Secretary.			D70 (SSD-7348-Mod-6) B21 (SSD 10397-Mod-1)									
<table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td>Construction</td><td>Monday – Friday Saturday</td><td>7am to 6 pm 8 am to 1 pm</td></tr><tr><td>Operation</td><td>Monday – Sunday (including public holidays)</td><td>24 hours</td></tr></table>				Activity	Day	Time	Construction	Monday – Friday Saturday	7am to 6 pm 8 am to 1 pm	Operation	Monday – Sunday (including public holidays)	24 hours
Activity	Day	Time										
Construction	Monday – Friday Saturday	7am to 6 pm 8 am to 1 pm										
Operation	Monday – Sunday (including public holidays)	24 hours										
Works outside of the hours identified in Condition D70 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			D71 (SSD-7348-Mod-6) B22 (SSD 10397-Mod-1)									

Refer to the Department of Planning & Environment's Major Project Assessments [website](#) for a full list of all conditions of approval.

4 Traffic Management Plan

4.1 Pedestrian Management

4.1.1 On-site Pedestrian Management

Refer to site-specific OTMPs for further detail with regard to on-site pedestrian management.

As a general rule, pedestrian access to on-site hardstand areas used by heavy vehicles should be restricted as far as practicable for safety purposes.

It should be noted that pedestrians have right-of-way when crossing driveways, therefore Drivers of Goodman Tenanted facilities will be required to give-way to pedestrians when entering or exiting individual Lots.

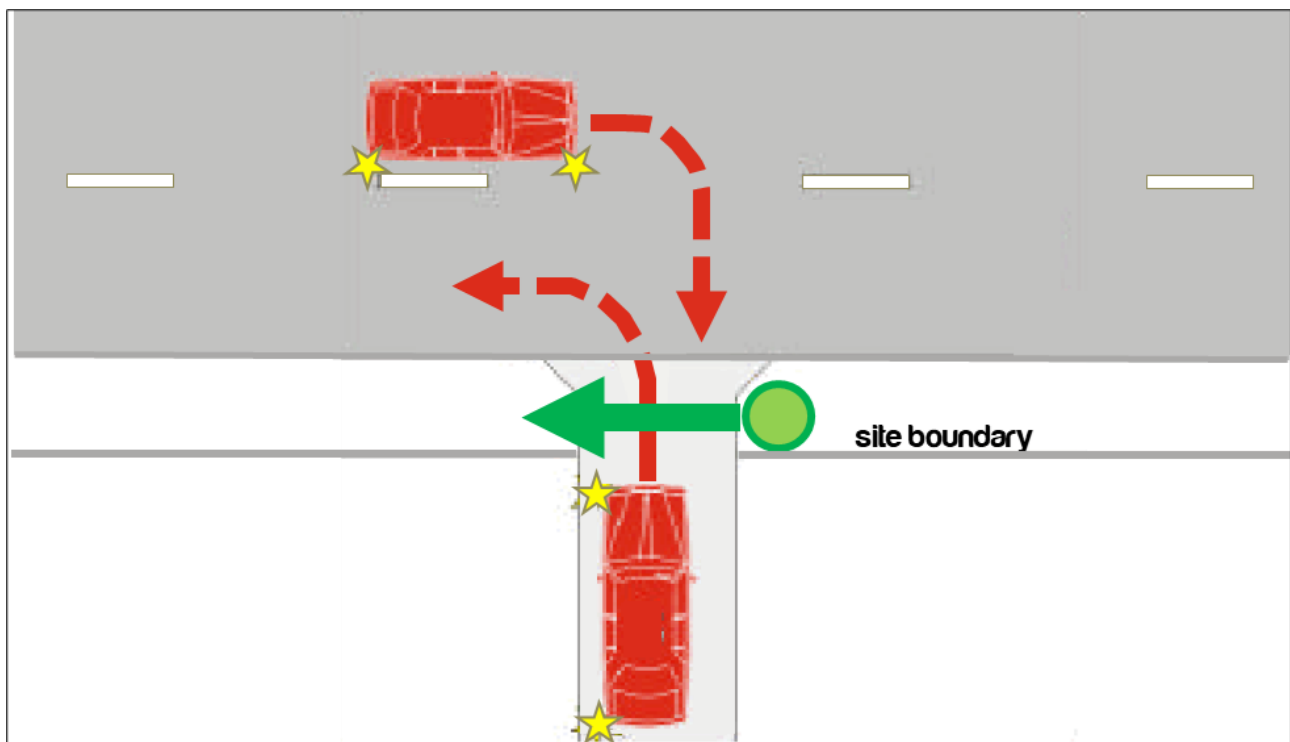


Figure 7: Pedestrian/cyclist Priority of Movement at Site Access

4.1.2 On-street Pedestrian Management

Pedestrians are to use footpaths and the Shared Path, as provided, wherever practicable. Pedestrian refuge islands are included on the splitter islands to the roundabouts along Estate Road 01 and Estate Road 03 and should be used wherever possible.

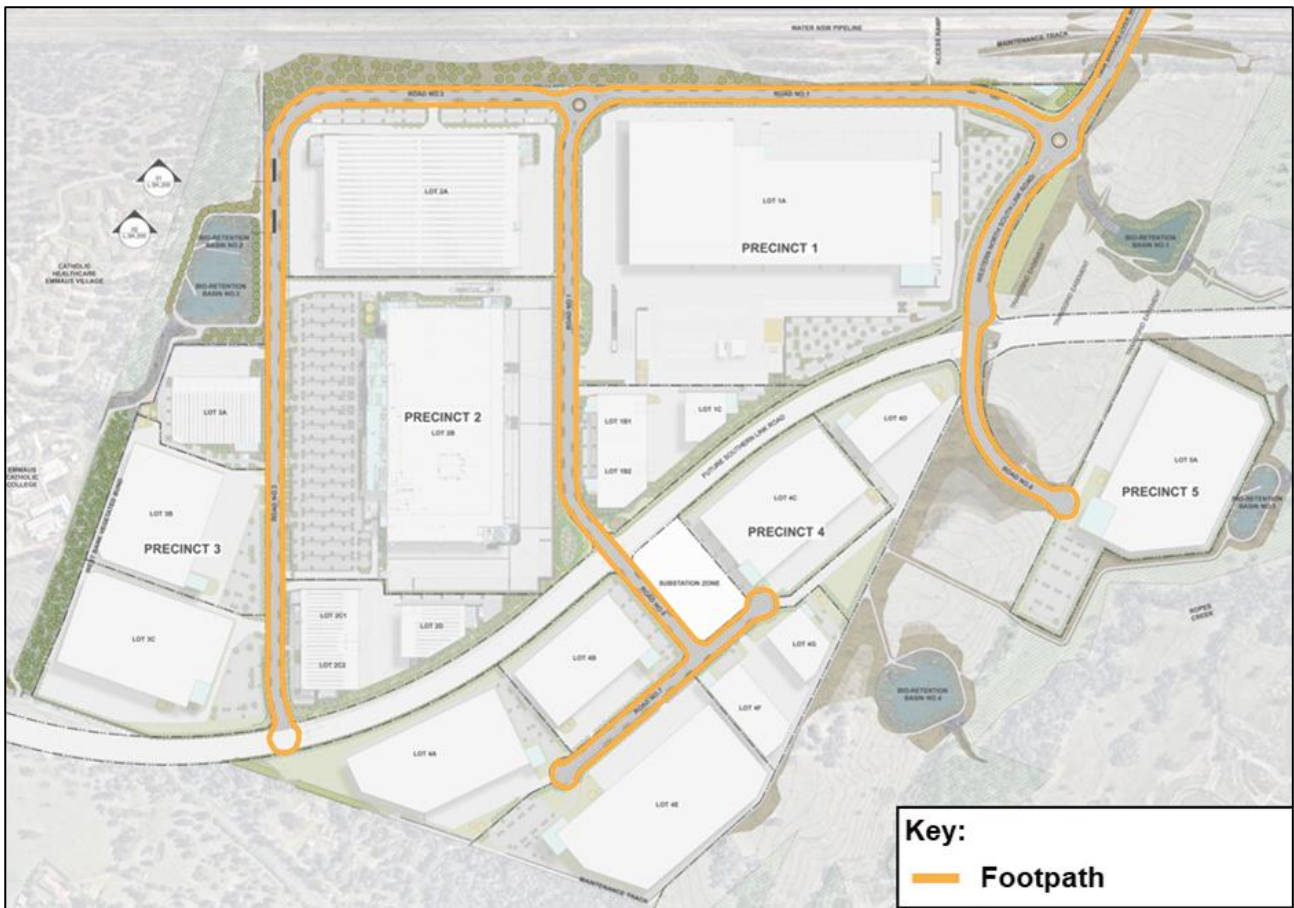


Figure 8: Footpaths within Oakdale West Estate

4.2 Vehicle Management

All Drivers of Goodman Tenanted facilities are to operate vehicles in a manner consistent with the requirements of applicable Work Health and Safety (WHS) legislation and other business specific policies.

All commercial vehicles drivers of Goodman Tenanted facilities are to be familiar with the Driver Code of Conduct – outlined in Section 6- before attending the Estate.

It is important to note that any posted speed signage within any of the Estate (private roads) should not replicate the design and appearance of the regulatory speed limit signage (a number within the red circle).

4.2.1 Maximum Vehicle Size

As indicated in Section 3.3, maximum vehicle size expected to access the Estate by Drivers of Goodman Tenanted facilities is a 26.0 metre B-double. Larger vehicles — including oversize vehicle configurations — shall also access the Estate, under relevant permit approvals.

Refer to site-specific OTMPs for further detail regarding further restrictions that may apply to individual Precincts or buildings.

4.2.2 Truck Access Routes

All commercial vehicles drivers of Goodman Tenanted facilities will access the Estate from Compass Drive. From that point, these heavy vehicles are expected to use the Classified Road network wherever possible, with the use of local Council roads only as necessary.

At all times drivers of Goodman Tenanted facilities are to adhere to the applicable Road Rules and the Drivers Code of Conduct outlined in Section 6.

Drivers of Goodman Tenanted facilities accessing the Estate shall adhere to the following access management measures:

- Drivers of Goodman Tenanted facilities turning right into driveways or side roads shall do so from as close to the centreline of the carriageway.

Note - if turning from a two-lane road - the RMS Heavy Vehicle Driver Handbook states that vehicles 7.5 metres or longer with a DO NOT OVERTAKE TURNING VEHICLE sign displayed on the back can turn right from the lane on the immediate left of the far-right lane.

- Heavy vehicles (in excess of 4.5 Tonne GVM) or long vehicles (over 7.5 metres in length) must not stop on a length of road outside a built-up area, except on the shoulder of the road.

In a built-up area where parking is permitted (for vehicles lighter than 4.5 Tonne GVM and under 7.5 metres in length), they must not stop for longer than one hour (buses excepted). For more information on where vehicles can stand or park, refer to the Road Users' Handbook.

4.2.3 Approved B-double Routes

At the time of preparing this plan, the approved B-double routes in the vicinity of the Estate are presented in **Figure 9**.

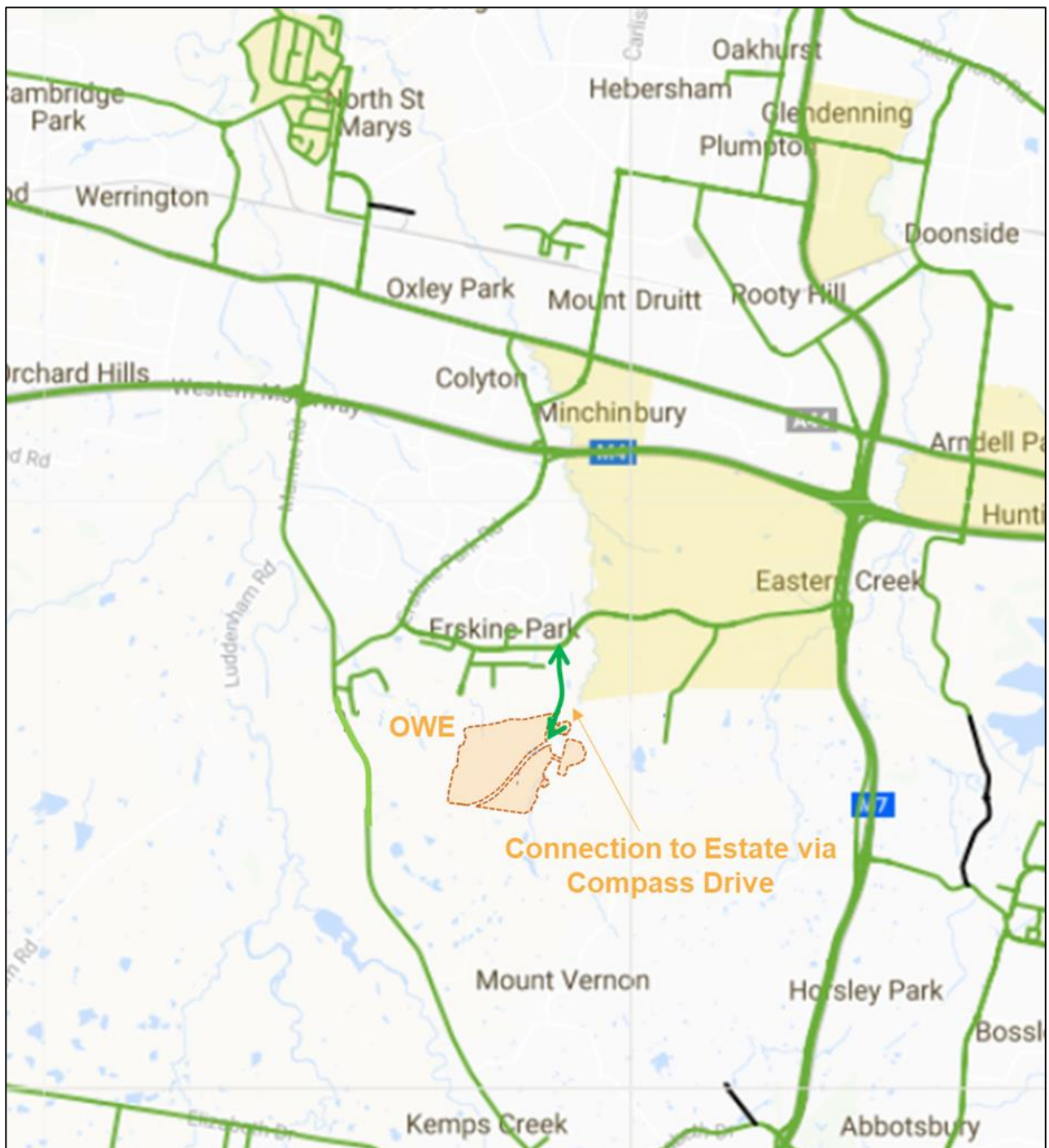


Figure 9: Approved B-double Routes

Up-to-date details regarding approved B-double routes can be obtained from the RMS web portal (<http://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html>).

4.3 Site Access

Details regarding access to individual Lots are provided within the site-specific OTMPs, prepared separately.

4.4 TransGrid Easement

The TransGrid easement shall remain clear at all times, unless otherwise agreed by TransGrid. In this regard, any access driveway crossing the easement shall be subject to No Stopping restrictions along the length of the TransGrid easement.

This requirement shall be emphasised in the sub-precinct OTMP requirements in relation to Stage 5 where most relevant.

4.5 Temporary or Unplanned Works

Construction works, and associated traffic management measures are not covered by this plan.

Notwithstanding, any traffic and pedestrian control in relation to temporary or unplanned works shall be designed in accordance with AS1742 and/or the TfNSW Traffic Control at Work Sites manual (ver. 6), as appropriate.

Where practicable, work areas and temporary pedestrian paths (if applicable) should be physically separated from vehicle movements by way of traffic cones, bollards and/or temporary pedestrian fencing.

4.6 Dangerous Goods

A Transport Emergency Response Plan (TERP) is required prior to transport of any Dangerous Goods. It is expected that such plans will be prepared by the Tenant involved in the transport of Dangerous Goods to/from the individual businesses within the Estate. Accordingly, transport of Dangerous Goods is not covered by this OTMP.

It is expected that any TERP would, as a minimum, be in accordance with the 2012 Emergency Response Guidebook or HB76: 2010 Dangerous Goods – Initial Emergency Response Guide.

5 Driver Code of Conduct

Parties in the supply chain under the Heavy Vehicle National Law (HVNL) are responsible to ensure breaches of road transport laws do not occur. Duty holders need to make sure that their actions or inactions do not contribute to or encourage breaches of the HVNL.

Drivers of Goodman Tenanted facilities operating on Estate Roads shall adhere to safe driving policies and adhere to the following Driver Code of Conduct (the Code).

5.1 Objectives of the Code

- To minimise the impact of the development on the local and regional road network;
- Minimise conflict with other road users;
- Minimise road traffic noise during night-time hours;
- Ensure truck drivers use specified routes; and
- Manage/control pedestrian movements.

5.2 Code of Conduct

The code of conduct requires that all drivers of Goodman Tenanted facilities must:

- Demonstrate safe driving and road safety activities.
- Comply with all traffic and road legislation.
- Adhere to site signage and instructions.
- Only enter and exit the site via the allocated entry and exit points.

Drivers of Goodman Tenanted facilities undertaking any of the following will be in a breach of conduct, result in administrative action and potential removal from Estate:

- 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

The above activities shall be enforced by licence checks, random drug and alcohol testing by each tenant's management team, and review of any community / enforcement feedback.

5.3 Management Team Responsibilities

Management (operator / manager / scheduler) is responsible to take all steps necessary to ensure drivers of Goodman Tenanted facilities are as safe as possible and will not require staff to drive under conditions that are unsafe.

Management is to achieve this by undertaking the following:

- Ensuring all work related vehicles are well maintained and that the equipment enhances driver, operator and passenger safety by way of:
 - Daily prestart inspections for all vehicles and associated equipment.
 - All vehicles must be fitted with reverse alarms.
 - Ensure all operators on-site have a current verification of competency (VOC) for their current driver's licence of the appropriate class.
 - Ensure maintenance requirements are met.
- Identify driver training needs and arranging appropriate training or re-training. This may include operator assessment as part of all inductions.
- Encouraging Safe Driving behaviour by:
 - Ensure rosters and schedules do not require drivers to exceed driving hours regulations or speed limits;
 - Keep records of drivers' activities, including work and rest times;
 - Ensure Drivers do not work while impaired by fatigue or drive in breach of their work or rest options;
 - Ensuring any Tenant is informed if their staff become unlicensed.
 - Not covering or re-imbursing 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.

5.4 Driver Responsibilities

All drivers of Goodman Tenanted facilities accessing the site must:

- Be responsible and accountable for their actions when operating a company vehicle or driving for the purposes of work.
- Be cognisant of the noise and emissions requirements imposed within the OEMP, and in a broader sense, the NSW/ Australian Road Rules.
- Display the highest level of professional conduct when driving a vehicle at work.
- Ensure they have a current Australian State or Territory issued driver licence for the class of vehicle they are driving, and this licence is to be carried.
- Immediately notify their supervisor or manager if their drivers' licence has been suspended, cancelled, or has had limitations applied.
- Comply with all traffic and road legislation at all times.
- Assess hazards while driving and demonstrate appropriate care.

- Regularly check the oil, tyre pressures, radiator and battery levels of company vehicles they regularly used.
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas.
- Not drive outside of the approved heavy vehicle routes. All drivers must obey weight, length and height restrictions imposed by the National Heavy Vehicle Regulator, and other Government agencies. Heavy Vehicles shall adhere to the routes outlined in Section 5.2.2.
- Be aware that at no time may a tracked vehicle 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.
- 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 any near-hits, crashes and scrapes to their manager, including those that do not result in injury.
- Report infringements to a manager at the earliest opportunity.
- Report vehicle defects to a manager prior to the next vehicle use.
- Adhere to the authorised site access and egress routes.
- Follow speed limits as imposed within the estate.
- Take reasonable care for his or her own personal health and safety.
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons.
- Notify their employer if they are not fit for duty prior to commencing their shift.
- Ensure all loads are safely covered and / or restrained, as necessary.
- Ensure no dirt or debris from the vehicles is tracked on to the public road network.
- Operate their vehicles in a safe and professional manner, with consideration for all other road users.
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device.
- Advise management of any situations in which the driver knows, or thinks, may present a threat to workplace health and safety.
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary.
- Have a valid Container Wright Declaration if they are to move freight containers.

5.5 Crash or incident Procedure

In the event of a crash or other incident whilst driving:

- 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.

6 Parking Management

6.1 On-site Car Parking

In accordance with the condition B13, individual sites shall provide on-site car parking in accordance with the following rates (unless specific approval for reduced rates is provided by a subsequent development consent).

TABLE 6 CONCEPT PLAN CAR PARKING RATES

Land Use	Minimum Car Parking Rate
Warehouse / Distribution	1 space per 300m ²
Office	1 space per 40m ²
Accessible	2 spaces per 100 spaces provided

On-site parking provisions is a matter for individual site-specific OTMPs.

6.2 On-street Parking

There are various parking restrictions within the Estate for on-street parking.

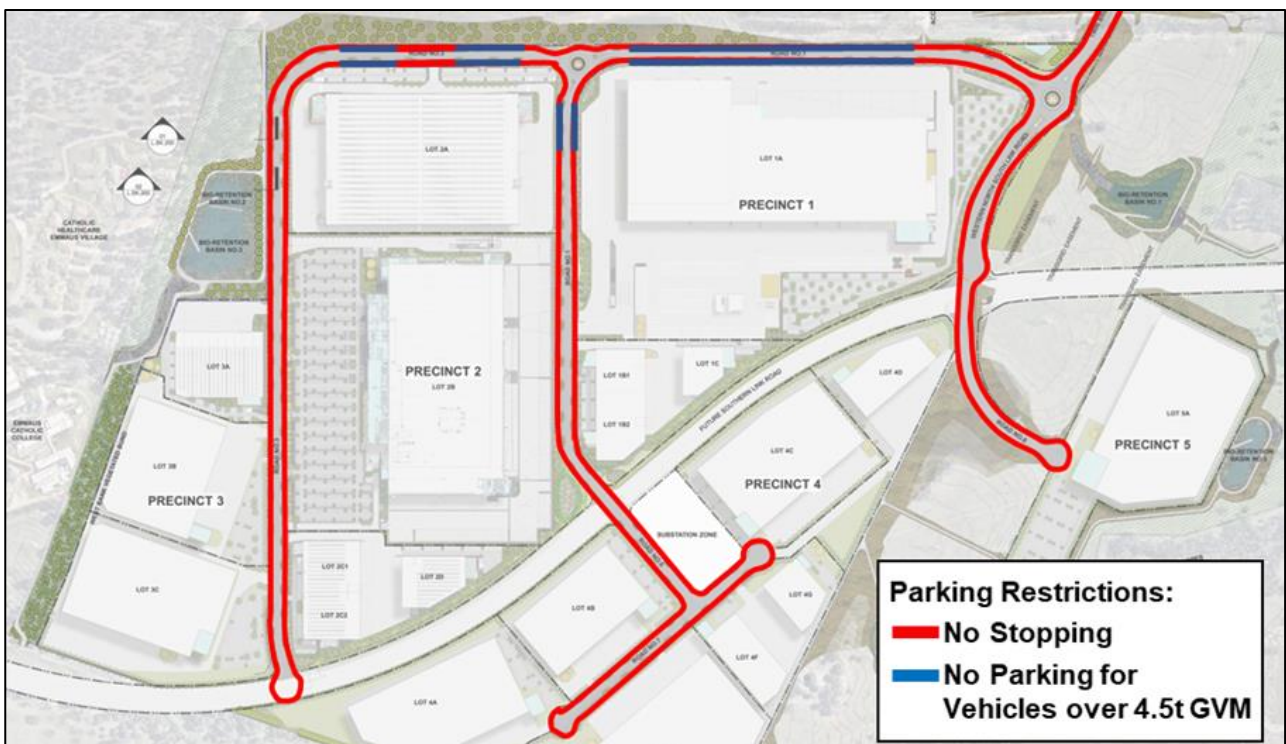


Figure 10: Parking Restrictions Within OWE

Drivers will ensure that trailers are parked within their designated areas and will not park trailers within circulation roadways and access roads (incl. emergency vehicle access roads). Management of respective lots shall remain the responsibility of the respective property's owner to ensure that no vehicles associated with business operations are parked on-street.

Management of respective lots will remain the responsibility of the respective property's owner to ensure that no vehicle associated with business operations are parked on street

7 Plan Administration

7.1 Plan Maintenance

This Plan shall be subject to ongoing review and will be updated as necessary in response to monitoring activities, changing requirements or in response to any documented WHS issues. In particular, a review of this Plan may be required where a new business occupies a tenancy and has different operational requirements to that envisaged under this Plan (refer to Section 2.3). Where a change of businesses does not alter the underlying characteristics of the operation, no change to this plan would be required.

As a minimum, ongoing review of the OTMP shall occur annually. All and any reviews undertaken should be documented, however key considerations regarding the review of the OTMP shall be:

- Annual surveys of the Estate access points to review traffic generation.
- Quarterly condition review in relation to dirt on public roadways for the first 2 years of operation. Following that, review can occur annually as part of the ongoing review cycle.
- Regular checks undertaken to ensure all loads are entering and leaving site covered.
- A dilapidation report is expected to be undertaken periodically to assess the condition of the road and note whether there has been any reduction in quality of the road. This report shall be forwarded to Council for appropriate action, where deemed necessary.

7.2 Monitoring Requirements

To ensure the effectiveness of this OTMP, various monitoring requirements have been established and expected to form part of the monitoring plan required to be included as part of the overarching OEMP.

A comprehensive contingency plan shall be established and included in the overarching OEMP. In relation to transport and parking, the following measures are to be included in that overarching plan.

TABLE 7 CONTINGENCY PLAN

Risk		Condition Green	Condition Amber	Condition Red
Operational Movements	Trigger	Visual monitoring of all traffic movements within OWE does not detect unsafe movement of traffic and risk to persons and property	Monitoring of all traffic movements within OWE detects unsafe movement of traffic and risk to persons and property	Monitoring of all traffic movements within OWE identifies several unsafe movements of traffic and risk to persons and property
	Response	Visual monitoring to continue daily as part of an ongoing process.	<ul style="list-style-type: none"> Review needed to address persistent unsafe movements. Modification of traffic controls to self-enforce appropriate vehicle manoeuvres within the site. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Direct cessation of unsafe movements.
	Trigger	Access roads within OWE have been inspected and noted that roads are clear, and conditions support a safe environment for all road users	Roads within OWE have been inspected and noted that vehicles are parked in unsafe areas, or other road / intersection congestion has been identified during peak periods	Roads within OWE have been inspected and noted that road and intersection congestion has been identified during most periods of the day
	Response	No action required.	<ul style="list-style-type: none"> Clear any impediments to access roads. Review OTMP and update where necessary. Provide additional training. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Report unsafe road conditions to Council for attention.
	Trigger	Following periods of adverse weather conditions (e.g., a significant heavy rain event), roads have been inspected prior to heavy vehicle traffic use and no issues found	Roads have been inspected following adverse weather conditions and minor issues found (small pot holes, dirt / debris, or pooling water)	Roads have been inspected following adverse weather conditions and major issues found (failed road integrity, large diameter pot holes, fallen light poles or trees)
	Response	No further action required until next adverse weather event.	<ul style="list-style-type: none"> Any impediments to access roads will be cleared. Road maintenance teams shall repair any pot holes and remove excess water when expected traffic volumes are lowest. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.

	Trigger	Observation of traffic control measures reveal no clear issues.	Observation of traffic control measures reveal minor issues regarding incorrect placement of signage, damaged or missing signage.	Observed traffic control measure are ineffective and creative major safety issues.
	Response	This traffic control inspection shall be completed every week for the first 2 months of operations and fortnightly thereafter for the first 6 months. Review shall continue monthly thereafter.	<ul style="list-style-type: none"> Rectify/ adjust traffic control measures to improve visibility or effectiveness. Review needed for additional or modified traffic control measures. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.
	Trigger	Operational traffic volume is in accordance with permissible and programmed volume constraints	Operational traffic volumes are within 90% of the permissible volume constraints	Operational traffic volumes exceed permissible volume constraints
	Response	This operational traffic volume review shall be completed monthly for the first 6 months of operation and bi-annually thereafter.	Review and investigate operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> Undertake additional surveys of the Estate to review generation in more detail. Review OTMP and update where necessary. Provide additional training to tenants. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Temporary halting of activities and resuming when conditions have improved. Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds.
Queueing	Trigger	No queuing identified	Queueing identified within the Estate	Queueing identified on the public road
	Response	No response required. Continue monitoring program	Review the delivery schedules prepared by the tenant. <ul style="list-style-type: none"> Drivers be provided with additional training and an extra copy of the Driver Code of Conduct. Provision of additional training to the tenants should be provided to ensure the most appropriate schedule can be created. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> Approved traffic thresholds to be enforced for each sub-tenancy. Review OTMP and update where necessary.

Incidents	Trigger	No incidents observed or reported	Near miss or minor incident occurred within the carriageway of OWE which did not require medical attention (such as tripping on raised footpath)	Major incident occurred within the carriageway of OWE which did not require medical attention (such as being hit by a truck while exiting a Site)
	Response	No action required at this stage, however continual reinforcement to all tenants to report all incidents shall continue.	Near miss to be reported to the appropriate Incident to be reported to Site Manager and Estate Coordinator, for immediate remedy.	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> • Temporary halting of activities and resuming when incident has been remedied. • Incident to be reported to Site Manager and Estate Coordinator. • Review OTMP and update where necessary.
Noise	Trigger	Operational noise volume is in accordance with permissible and programmed volume constraints	Operational noise volumes are within 90% of the permissible volume constraints	Operational traffic volumes exceed permissible volume constraints
	Response	No action. Continue ongoing monitoring activities.	Review and investigate noisy operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> • Undertake additional noise surveys to review cause in more detail. • Review OTMP (and other sub-plans) and update where necessary. • Provide additional training to tenants to provide information on lowering noise emissions. 	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> • Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds. • Review OTMP and update where necessary. • Provide additional training to tenants to provide information on lowering noise emissions.

7.3 Key Responsibilities

7.3.1 Management

Management of each respective business unit on-site shall ensure:

- All staff are provided with sufficient training to undertake the required tasks. This includes responsibility for measures to ensure that all staff and visitors are familiar with the Estate wide OTMP and will comply with their own site specific OTMP's.
- That all drivers of Goodman Tenanted facilities will not, in any manner, be knowingly overloaded.
- Operational noise levels remain nominal. In the event that noise is exceeded, then the tenant should undertake all feasible and reasonable mitigation and management measures to ensure noise levels are within acceptable levels. If noise levels cannot be kept below applicable limits, then a different operation method or equipment must be utilised.
- Drivers of Goodman Tenanted facilities 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.
- Drivers of Goodman Tenanted facilities must be wholly within site before being required to stop, as well as loading and unloading materials.
- Loading areas and turning areas within site are expected to be kept clear at all times.
- All vehicles must enter and exit the Site in a forward direction.
- Management must not, by their actions or requirements, force or coerce employees or drivers to break the law.

7.3.2 Council

Council shall commence proceedings for the approval and gazettal of Compass Drive for inclusion within the NHVR approved heavy vehicle network. The commencement of this process shall be underway prior to opening of the Estate.

Following the dedication of Estate roads to Council, it shall be the responsibility of Council to ensure the road environment is maintained to an acceptable standard. This includes (but not limited to) the maintenance of pot holes, lighting, and signage and line marking.

APPENDIX E

Waste Management Plan

OAKDALE WEST ESTATE

Waste Management Plan

Prepared for:

Goodman Property Services (Aust) Pty Ltd
The Hayesbery
1-11 Hayes Road
Rosebery NSW 2018 Australia

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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Aust) Pty Ltd (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.

DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
610.15612-R03-v2.0	13 July 2021	Celine El-Khouri	Andrew Quinn	Andrew Quinn
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CONTENTS

1	INTRODUCTION	6
1.1	Overview	6
1.2	Scope	6
1.3	Objective	6
1.4	Review of WMP	7
2	PROJECT DESCRIPTION	8
2.1	Overview of Proposed Development	8
2.1.1	Overview of proposed construction work	8
2.1.2	Overview of proposed operations	8
3	BETTER PRACTICE WASTE MANAGEMENT AND RECYCLING	10
3.1	Waste Management Hierarchy.....	10
3.2	Benefits of Adopting Better Practice	10
4	WASTE LEGISLATION AND GUIDANCE	11
5	CONSTRUCTION WASTE MANAGEMENT	13
5.1	Targets for Resource Recovery	13
5.2	Waste Streams and Classifications	13
5.3	Construction Waste Generation Rates	15
5.3.1	Estimation of Waste Quantities.....	16
5.4	Waste Avoidance Measures	17
5.5	Re-use, Recycling and Disposal	18
5.5.1	Site Specific Procedures	18
5.6	Waste Storage and Servicing	19
5.6.1	Waste Segregation.....	19
5.6.2	Servicing and Record Keeping	20
5.6.3	Space and Amenity	20
5.6.4	Contaminated or Hazardous Waste Management.....	21
5.7	Signage	21
5.8	Training and Awareness	21
5.9	Monitoring and Reporting	22
5.10	Roles and Responsibilities	22
6	OPERATIONAL WASTE MANAGEMENT	24
6.1	Targets for Resource Recovery	24
6.2	Waste Streams and Classifications	24
6.3	Operational Waste Generation Rates	26

CONTENTS

6.3.1	Operational waste types and quantities	26
6.4	Waste Storage and Servicing Requirements	29
6.4.1	Waste Storage Area Size	29
6.4.2	Bulky and Hazardous Waste Management.....	30
6.4.3	Compactor Management	32
6.4.4	Recycling Bale Management	32
6.5	Waste Avoidance, Reuse and Recycling Measures	33
6.5.1	Waste Avoidance.....	33
6.5.2	Reuse	33
6.5.3	Recycling	33
6.6	Signage	34
6.7	Communication strategies.....	34
6.8	Monitoring and Reporting	35
6.9	Roles and Responsibilities	35

DOCUMENT REFERENCES

TABLES

Table 1	SSD 7348 MOD 6 Conditions for Waste Management	6
Table 2	Legislation and guidance.....	11
Table 3	Potential waste types, classifications and management methods	14
Table 4	Waste generation rates applied to the Development's construction	16
Table 5	Anticipated types and estimated quantities of construction waste.....	16
Table 6	Construction waste management responsibility allocation.....	23
Table 7	Potential operational waste types, classifications and management methods.....	25
Table 8	Waste generation rates applied to the operations of the Project	26
Table 9	Estimated quantities of operational general waste and recycling for the Development.....	27
Table 10	Compacted operational waste and recycling quantities for the Development	28
Table 11	Dimensions and approximate footprint of bins	29
Table 12	Summary of waste storage for the Development	30
Table 13	Total recommended storage area for operations for the Development.....	31
Table 14	Operational waste management responsibility allocation	35

FIGURES

Figure 1	Site Plan	9
Figure 2	Waste management hierarchy.....	10
Figure 3	Examples of NSW EPA labels for waste skips and bins	21
Figure 4	Example of bin labels for operational waste.....	34

CONTENTS

APPENDICES

- Appendix A Architectural Drawings
- Appendix B Council Waste Management Plan Form

1 Introduction

1.1 Overview

SLR Consulting Australia Pty Ltd (SLR Consulting) was commissioned by Goodman Property Services (Aust) Pty Ltd (the Client) to prepare a waste management plan (WMP) for the construction and operation of Precinct 1 to Precinct 5 consisting of warehouse and distribution facilities located at Oakdale West, Horsley Park (the Development), as part of the Oakdale West Operational Environmental Management Plan in accordance with Condition D131 of SSD 7348.

The Development was previously approved under a Development Application (DA) submission in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant Development (SSD 15_7348) application.

Further details on the Development are provided in **Section 2**. The following WMP has been prepared based on architectural drawings provided by the Client (Refer **Appendix A**).

The WMP is prepared in accordance with all previous Modifications for SSD 7348. The latest Modification for SSD 7348 is MOD 6. The relevant condition of the SEARs for SSD 7348 MOD 6 is addressed in this report as shown in **Table 1**.

Table 1 SSD 7348 MOD 6 Conditions for Waste Management

SSD 7348 MOD 2 Conditions	Relevant Sections in this WMP
Details of the quantities and classification of waste streams generated during construction and operation and proposed storage, handling and disposal requirements.	Sections 5 Sections 6

1.2 Scope

This WMP applies to the construction and on-going operation of the Development. The provisions contained in the WMP must be implemented at all stages of the Development.

- See **Section 5** for the Construction WMP.
- See **Section 6** for the Operational WMP.

1.3 Objective

The principal objective of this WMP is to identify all potential wastes likely to be generated at the development site during construction and operational phases of the Development, including a description of how waste would be handled, processed and disposed of, or re-used or recycled, in accordance with Penrith City Council's (Council) requirements.

The specific objectives of this WMP are as follows:

- To encourage the minimisation of waste production and maximisation of resource recovery.
- To ensure the appropriate management of contaminated and hazardous waste.
- To assist in ensuring that any environmental impacts during the operational life of the Development comply with Council's development consent conditions and other relevant regulatory authorities.

1.4 Review of WMP

This WMP is not a static document. It is a working document that requires review and updating to ensure ongoing suitability for the proposed on-going operations at the site.

This WMP should be reviewed and updated:

- to remain consistent with waste and/or landfill regulations and guidelines
- should changes be made to site waste and recycling management, or
- to take advantage of new technologies, innovations and methodologies for waste or recycling management.

Changes made to the WMP, as well as the reasons for the changes made, should be documented by the site operator as part of the review process.

Copies of the original waste management plan (SLR, 2016), as well as all future versions of the WMP, should be retained by the site operator.

2 Project Description

2.1 Overview of Proposed Development

The Client is developing the Oakdale West site (Lot 11 in DP 1178389) at Erskine Park for the purposes of providing a warehouse and distribution complex. The Oakdale West site is a precinct in the wider Oakdale Estate development and forms part of a progressive development designed to make Oakdale a regional distribution park of warehouses, distribution centres and freight logistics facilities.

The Oakdale West project is a staged development which includes bulk earthworks, civil works and the construction of infrastructure and stormwater management.

The Oakdale West site is a 154 ha site located in the Oakdale Estate, a 421 ha area of land in the Western Sydney Employment Area. The size of the site remains unchanged since the previous WMP was prepared. Oakdale West Estate is the third of four stages of the broader Oakdale Estate under the management of Goodman Limited.

Oakdale West is a greenfield site previously used for stock grazing. The surrounding areas are primarily rural in nature, but, the area to the north is becoming more industrial. Land uses in the surrounding area include:

- Rural, including grazing and market gardens, and rural residential to the south-east, south and west.
- Sydney Water Pipeline and industrial land to the north, including industrial zones at Eastern Creek to the north and Erskine Park to the north-west.
- To the west, land uses include a number of sensitive uses such as an aged care facility (Catholic Health Care) and three schools named Mamre Anglican School, Emmaus Catholic College and Trinity Primary School. Other land uses include recreational and sporting facilities.

The Development will be developed in five stages, where each stage corresponds to the development of a precinct.

2.1.1 Overview of proposed construction work

The construction of the Development is anticipated to include the following tasks:

- Staged bulk earthworks across the whole site
- Staged trunk infrastructure for the site
- Staged subdivision
- Landscaping and public domain works, and
- Staged development comprising the construction of the warehouse and distribution facilities in each precinct.

2.1.2 Overview of proposed operations

Each of the five precincts within the Development contains several warehouses, with each warehouse consisting of the following:

- Mezzanine levels

- Adjoining offices for each warehouse
- Hardstand areas,
- Light duty areas,
- Small vehicle, heavy vehicle and bicycle parking areas, and
- Landscaping areas.

A site plan for the Development is provided in **Figure 1**.

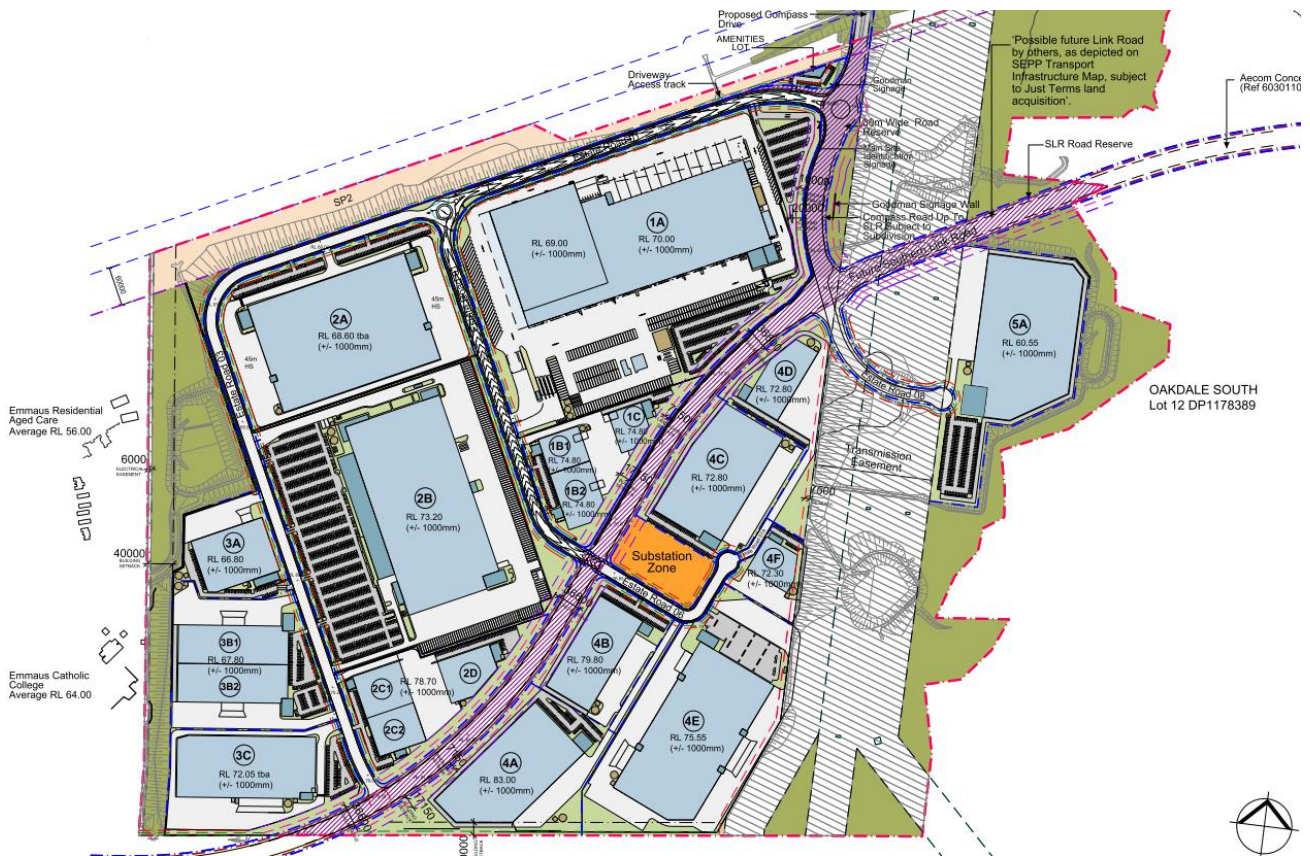


Figure 1 Site Plan

3 Better Practice Waste Management and Recycling

3.1 Waste Management Hierarchy

This WMP has been prepared in line with the waste management hierarchy (**Figure 2**), which summarises the objectives of the *Waste Avoidance and Resource Recovery Act 2001*.

The waste management hierarchy comprises the following principles, from most to least preferable:

- Waste **avoidance**, prevention or reduction of waste generation. Achievable through better design and purchasing choices.
- Waste **reuse**, reuse without substantially changing the form of the waste.
- Waste **recycling**, treatment of waste that is no longer usable in its current form to produce new products.
- Energy **recovery**, processing of residual waste materials to recover energy.
- Waste **treatment**, reduce potential environmental, health and safety risks.
- Waste **disposal**, in a manner that causes the least harm to the natural environment.

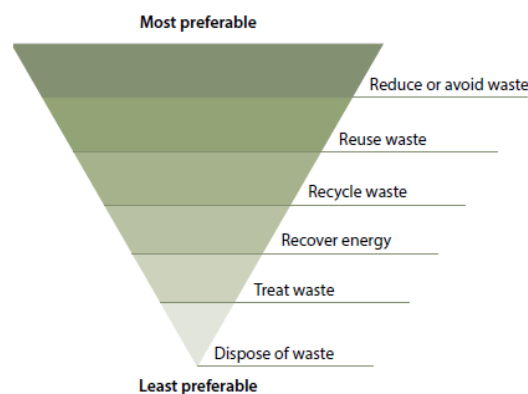


Image from NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21.

Figure 2 Waste management hierarchy

3.2 Benefits of Adopting Better Practice

Adopting better practice principles in waste minimisation offers significant benefits for organisations, stakeholders and the wider community. Benefits from better practice waste minimisation include:

- Improved reputation of an organisation due to social and environmental responsibility.
- Lowered consumption of non-renewable resources.
- Reduced environmental impact, for example, pollution, from materials manufacturing and waste treatment.
- Reduced expenses from lower waste disposal.
- Providing opportunities for additional revenue streams through beneficial reuse.

4 Waste Legislation and Guidance

The legislation and guidance outlined in **Table 2** below should be referred to during the demolition, construction and operational phases of the Development.

Table 2 Legislation and guidance

Legislation and Guidance	Objectives
Council legislation and guidelines	
Secretary Environmental Assessment Requirements (SEARs)	SEARs provide the additional requirements that must be completed when a critical state significant infrastructure project is submitted in a DA in NSW. The objective of SEARs submissions is to achieve better environmental outcomes by focusing on environmentally sensitive areas and areas of the greatest community concern. The provisions of the SEARs must be met for DA approval including the provision of a construction and operational waste management plan. This Development was previously approved under the SEARs for SSD 15_7348.
Penrith Local Environmental Plan (LEP) 2010 ¹	The Penrith LEP came into force for the entire Penrith local government area on 25 February 2015 and provides the legal framework of the Penrith Development Control Plan, including land use and development permitted in a set zone. The LEP also contains provisions to conserve local heritage and protect sensitive land.
Penrith Development Control Plan (DCP) 2014 ²	The Penrith DCP came into effect on 17 April 2015 and supports provision of the LEP planning controls by providing detailed planning and design guidelines. The DCP has been prepared in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> . One of the objectives of the DCP is to assist in reducing Penrith's ecological footprint by encouraging the diversion of waste from landfill. This WMP specifically addresses Part C5 – Waste Management of the DCP.
Waste Strategy 2017-2026, Penrith City Council	Council's waste strategy sets out the waste management targets for the Penrith local government area including working towards reduced waste generation and increased landfill diversion. The strategy was prepared in consultation with the community and informed by waste audit results. The strategy defines the actions required to reach the targets, including actions for waste diversion from landfill, resource recovery, technology innovation, community education and resource recovery facilities.
State and National legislation and guidelines	
Building Code of Australia (BCA) and relevant Australian Standards	The BCA has the aim of achieving nationally consistent, minimum necessary standards of relevant health and safety, amenity and sustainability objectives efficiently.
Council of Australian Governments National Construction Code 2016	The National Construction Code 2016 sets the minimum requirements for the design, construction and performance of buildings throughout Australia.
NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012	These better practice guidelines present information on waste minimisation and resource recovery as well as information on commonly used waste management provisions. The guidelines also provide benchmarks for assessing waste production rates in Australia.
NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21	The <i>NSW Waste Avoidance and Resource Recovery Strategy 2014-21</i> is aimed at ultimately "improving environment and community well-being by reducing the environmental impact of waste and using resources more efficiently" by presenting a framework intended to avoid and reduce waste generation, increase recycling, divert more waste from landfill, manage problem wastes better, reduce litter and reduce illegal dumping.

¹ <https://legislation.nsw.gov.au/#/view/EPI/2010/540>

² <https://www.penrithcity.nsw.gov.au/building-development/planning-zoning/planning-controls/development-control-plans>

Legislation and Guidance	Objectives
NSW EPA Resource Recovery Orders and Resource Recovery Exemptions	<p>The NSW EPA has issued a number of resource recovery orders and resource recovery exemptions under the POEO (Waste) Regulation 2014 for a range of wastes that may be recovered for beneficial re-use. These wastes typically include those from demolition and construction works, as well as operational wastes such as food waste.</p> <ul style="list-style-type: none"> Resource recovery orders present conditions which generators and processors of waste must meet to supply the waste material for beneficial re-use. Resource recovery exemptions contain the conditions which consumers must meet to use waste for beneficial re-use.
NSW EPA's Waste Classification Guidelines 2014	<p>The NSW EPA <i>Waste Classification Guidelines</i> assists waste generators to effectively manage, treat and dispose of waste to ensure the environmental and human health risks associated with waste are managed appropriately and in accordance with the <i>POEO Act 1997</i> and is associated regulations.</p>
<i>Protection of the Environment Operations Act (POEO) 1997 and Amendment Act 2011</i>	<p>The <i>POEO Act 1997</i> and <i>POEO Amendment Act 2011</i> are administered by the NSW Environment Protection Authority (NSW EPA) to enable the NSW Government to establish instruments for setting environmental standards, goals, protocols and guidelines. They outline the regulatory requirements for lawful disposal of wastes generated during the demolition, construction and operational phases of a development, as well as the system for licencing waste transport and disposal.</p>
<i>Waste Avoidance and Resource Recovery Act 2001</i>	<p>The <i>Waste Avoidance and Resource Recovery Act 2001</i> aims to promote waste avoidance and resource recovery and repeals the <i>Waste Minimisation and Management Act 1995</i>. Specific objectives of the <i>Waste Avoidance and Resource Recovery Act 2001</i> include:</p> <ul style="list-style-type: none"> encouraging efficient use of resources minimising the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste ensuring industry and the community share responsibility in reducing/dealing with waste, and efficiently funding of waste/resource management planning, programs and service delivery. <p>As of 2016, the addition to the Act of Part 5 defines the legislative framework for the "Return and Earn Container Deposit Scheme" whereby selected beverage containers can be returned to State Government authorities for a monetary refund.</p>

5 Construction Waste Management

While this WMP is prepared as part of the Oakdale West Operational Environmental Management Plan, indicative information is provided below on the waste management requirements for the construction stage of the Development.

Construction stages of developments have the greatest potential for waste minimisation.

Key construction activities will include construction of warehouse buildings, offices and other associated buildings and infrastructure as specified in **Section 2.1.2**.

5.1 Targets for Resource Recovery

The performance of each new development should contribute to the following target from the NSW EPA (2014) *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*:

- 75 % of total construction and demolition waste recycled, increasing to 80 % by 2021.

Additionally, in the interests of Council's additional commitments to waste management controls, the construction and excavation procedures should endeavour to reach the following outlined target from the DCP:

- Reduce the volume of demolition, construction and fit out waste, including excavation, going to landfill by 76%.

It is anticipated that the waste minimisation measures in the following sections will assist the Project to meet these targets. Waste reporting and audits can be used to determine the actual percentage of wastes that are being, or have been, recycled during the demolition and site preparation stage of the Project.

5.2 Waste Streams and Classifications

The Development is likely to generate the following broad waste streams:

- excavation material
- construction wastes
- plant maintenance waste
- packaging waste
- green waste from site clearing activities, and
- work compound waste from on-site employees.

A summary of likely waste types generated from site preparation and construction activities, along with their waste classifications and proposed management methods, is provided in **Table 3**.

For further information on how to classify a waste type refer to the NSW EPA (2014) *Waste Classification Guidelines*³. Further information on managing site preparation and construction wastes is available from the NSW EPA website⁴.

³ Available online from <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines>

⁴ <http://www.epa.nsw.gov.au/your-environment/waste/industrial-waste/construction-demolition>

Table 3 Potential waste types, classifications and management methods

Waste Types	NSW EPA Waste Classification	Proposed Management Method
Construction		
Sediment fencing, geotextile materials	General solid waste (non-putrescible)	Reuse at other sites where possible or disposal to landfill
Concrete	General solid waste (non-putrescible)	Off-site recycling for filling, levelling or road base
Bricks and pavers	General solid waste (non-putrescible)	Off-site recycling; Cleaned for reuse, rendered over or crushed for landscaping or driveway use
Gyprock or plasterboard	General solid waste (non-putrescible)	Off-site recycling or returned to supplier
Sand or soil	General solid waste (non-putrescible)	Off-site recycling
Metals such as fittings, appliances and bulk electrical cabling	General solid waste (non-putrescible)	Off-site recycling
Conduits and pipes	General solid waste (non-putrescible)	Off-site recycling
Timber	General solid waste (non-putrescible)	Off-site recycling; <i>Treated</i> : reused for formwork, bridging, blocking, propping or second hand supplier; <i>Untreated</i> : reused for floorboards, fencing, furniture, mulched second hand supplier
Doors, Windows, Fittings	General solid waste (non-putrescible)	Off-site recycling at second hand supplier
Insulation material	General solid waste (non-putrescible)	Off-site disposal
Glass	General solid waste (non-putrescible)	Off-site recycling; glazing or aggregate for concrete production
Asbestos	Hazardous waste	Off-site disposal
Fluorescent light fittings and bulbs	Hazardous waste	Off-site recycling or disposal; contact <i>FluoroCycle</i> for more information ⁵
Paint	Hazardous waste	Off-site recycling, Paintback collection ⁶ or disposal
Synthetic Rubber or carpet underlay	General solid waste (non-putrescible)	Off-site recycling; reprocessed and used in safety devices and speed humps
Carpet	General solid waste (non-putrescible)	Off-site recycling or disposal; reused for landscaping, insulation or equestrian uses
Plant Maintenance		

⁵ <http://www.fluorocycle.org.au/> or <http://www.environment.gov.au/settlements/waste/lamp-mercury.html>

⁶ <https://www.paintback.com.au/>

Waste Types	NSW EPA Waste Classification	Proposed Management Method
Empty oil and other drums or containers, such as fuel, chemicals, paints, spill clean ups	Hazardous waste: Containers were previously used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid waste (non-putrescible): Containers have been cleaned by washing or vacuuming.	Transport to comply with the transport of Dangerous Goods Code applies in preparation for off-site recycling or disposal at licensed facility
Air filters and rags	General solid waste (non-putrescible)	Off-site disposal
Oil filters	Hazardous waste	Off-site recycling
Batteries	Hazardous waste	Off-site recycling; Contact the Australian Battery Recycling Initiative ⁷ for more information
Packaging		
Packaging materials, including wood, plastic, including stretch wrap or LLPE, cardboard and metals	General solid waste (non-putrescible)	Off-site recycling
Wooden or plastic crates and pallets	General solid waste (non-putrescible)	Reused for similar projects, returned to suppliers, or off-site recycling. Contact <i>Business Recycling</i> for more information ⁸
Work Compound and Associated Offices		
Food Waste	General solid (putrescible) waste	Compost on site. Alternatively dispose to landfill with general garbage
Recyclable beverage containers, including glass and plastic bottles, aluminium cans and steel cans	General solid waste (non-putrescible)	Co-mingled recycling at off-site licensed facility or at a local NSW container deposit scheme 'Return and Earn' off-site licensed facility ⁹
Clean paper and cardboard	General solid waste (non-putrescible)	Paper and cardboard recycling at off-site licensed facility
General domestic waste generated by workers including soiled paper and cardboard, food stuffs and polystyrene	General solid waste (non-putrescible) mixed with putrescible waste	Disposal at landfill

5.3 Construction Waste Generation Rates

The Construction Site Manager will need to specify the types and quantities of wastes produced during construction and on this basis, the numbers and capacity of skip bins can be determined.

⁷ <http://www.batteryrecycling.org.au/home>

⁸ <http://businessrecycling.com.au/search/>

⁹ <http://returnandearn.org.au/>

In the absence of readily available construction waste generation rates from Council, SLR has adopted the 'Factory' and 'Office' waste generation rates from Appendix A of The Hills Development Control Plan (DCP) 2012 for estimating the type and quantities of waste generated from construction of the Development. The waste generation rates listed in the Hills DCP include '2 Bedroom', '3 Bedroom', 'Block of Flats', 'Factory' and 'Office'. SLR has adopted the 'Factory' and 'Office' rates to measure waste expected from the Development, as the construction of a factory and office is the most relevant in representing the construction of the industrial warehouse and office precinct. The waste generation rates are shown in **Table 4**.

Table 4 Waste generation rates applied to the Development's construction

Rate Type	Floor Area (m ²)	Waste types and quantities (m ³)						
		Timber	Concrete	Bricks	Gyprock	Sand or Soil	Metal	Other
Factory	1,000	0.25	2.10	1.65	0.45	4.80	0.60	0.50
Office	1,000	5.1	18.8	8.5	8.6	8.8	2.75	5

These waste generation rates are used to estimate the waste generated from the construction of the Development. These estimates are provided in **Table 5**.

5.3.1 Estimation of Waste Quantities

Using the estimated areas of the offices, warehouses and other infrastructure mentioned in **Section 2.1.2** and the construction waste generation rates shown in **Table 4**, SLR has calculated the estimated waste quantities for the Development components. The generation rates for 'Factory' are applied to calculate the waste quantities from the construction of the warehouse, mezzanine and other building areas and the rates for 'Office' are applied to calculate the waste quantities from the construction of the offices. These are presented below in **Table 5**. The areas quoted in **Table 5** are based on areas provided by the Client¹⁰. In the absence of dimensions and areas for hardstand and light duty spaces in each Precinct, SLR is unable to calculate the waste quantities generated from the construction of those areas.

Actual waste tonnage and composition will vary, however this estimate is provided so that the Construction Site Manager can make provision for on-site or off-site re-use and recycling opportunities.

Table 5 Anticipated types and estimated quantities of construction waste

Project Component		Area (m ²)	Waste types and quantities (m ³)						
			Timber	Concrete	Brick	Gyprock	Sand and Soil	Metal	Other
Precinct 1	Warehouses	80,858	25	170	135	40	390	50	45
	Offices	4,004	25	80	35	35	40	15	25
	Mezzanines	36,331	10	80	60	20	175	25	20
	Outbuildings	4,004	5	10	10	5	20	5	5
Precinct 2	Warehouses	254,064	65	535	420	115	1220	155	130
	Mezzanines	6,300	5	15	15	5	35	5	5
	Offices	8,947	50	170	80	80	80	25	45
	Gatehouse	80	5	5	5	5	5	5	5
Precinct 3	Warehouses	52,000	15	110	90	25	250	35	30

¹⁰ Areas provided in a spreadsheet from Goodman titled '21116_SSDA_MOD_7_Masterplan_Area Schedule_2021_REV_P1'

Project Component		Area (m ²)	Waste types and quantities (m ³)						
			Timber	Concrete	Brick	Gyprock	Sand and Soil	Metal	Other
	Offices	3,573	20	70	35	35	35	10	20
Precinct 4	Warehouses	108,097	30	230	180	50	520	65	55
	Offices	5,212	30	100	45	45	50	15	30
Precinct 5	Warehouses	33,943	10	75	60	20	165	25	20
	Offices	1,697	10	35	15	15	15	5	10
Totals		599,109	305	1,685	1,185	495	3,000	440	445

Waste estimates have been rounded up to the nearest 5 m³.

A waste management plan form provided by Council is attached in **Appendix B**. The form is also available on Council's website¹¹. This is to be updated by the Site Manager once waste streams, estimated quantities, and final disposal locations and recycling services have been identified.

Excavated spoil, if any, is to be classified by an appropriately experienced environmental consultant and separated into contaminated materials, if any, uncontaminated fill or ENM. Refer to **Section 5.6** for management of stockpiles. Uncontaminated fill or ENM should be retained on site and managed appropriately for beneficial re-use for filling earthworks. As a last resort, remaining uncontaminated fill or ENM is to be sent off-site to a licenced facility in accordance with the Protection of the Environment Operations (Waste) Regulation 2014.

For contaminated material management, refer **Section 5.6.4** of this WMP.

5.4 Waste Avoidance Measures

In accordance with Council's DCP and better practice waste management, the Building Designer should:

- Select materials with low embodied energy properties that suit the Project, such as:
 - prefabricated components and recycled materials, such as recycled steel and glass-wool insulation;
 - concrete with slag and fly ash content; and
 - fittings and furnishings that incorporate recycled materials and have been certified as sustainable or environmentally friendly by a recognised third-party certification scheme.
- Reduce the use of PVC.
- Choose construction materials with a longer lifespan and/or high potential for re-use.
- Use low formaldehyde wood products, post-consumer reused timber, Forest Stewardship Council-certified timber, wood plastic composite or recycled plastic timber substitute.
- Select pre-finished materials and prefabricated frames, trusses and cladding.
- Design for the use of modular components and standard material sizes.
- Integrate existing trees and shrubs in the landscape plan and design for the new Development.
- Design for deconstruction, rather than demolition.

The Building Contractor should:

¹¹ https://www.penrithcity.nsw.gov.au/images/documents/forms/Waste_Management_Plan_Application_Form.pdf

- Estimate required quantities of materials to reduce over-purchasing and excess materials.
- Include approximate quantities of materials in a purchasing policy to ensure correct quantities are purchased.
- Arrange delivery of materials on an 'as needed' basis to mitigate material degradation by weathering or moisture damage.
- Arrange to return excess materials to suppliers where possible and practicable.
- Reduce packaging waste by:
 - returning packaging to suppliers where possible and practicable
 - purchasing in bulk
 - requesting cardboard or metal drums rather than plastics
 - requesting metal straps rather than shrink wrap, and
 - using returnable packaging such as pallets and reels.
- Reduce unnecessary excavation and site disturbance.
- Ensure subcontractors are informed of and implement site waste management procedures.

5.5 Re-use, Recycling and Disposal

The Building Contractor should:

- Sort and segregate demolition and site preparation wastes to ensure efficient recycling of wastes.
- Store wastes on site appropriately to prevent cross-contamination and/or mixing of different waste types.
- Re-use formwork where appropriate.
- Recycle or dispose of waste oil in an appropriate manner.
- Retain roofing material cut-offs for re-use.
- Retain used crates for storage purposes unless damaged.
- Recycle cardboard, glass and metal wastes.
- Return packaging to suppliers where possible and practicable.
- Recycle or dispose of solid waste timber, brick, concrete, asphalt and rock, where such waste cannot be re-used on site, to an appropriately licenced construction and demolition waste recycling facility or an appropriately licenced landfill.
- Dispose of all asbestos and/or hazardous wastes in accordance with SafeWork NSW and NSW EPA requirements.
- Deliver batteries and florescent lights to drop off-site recycling facility.

5.5.1 Site Specific Procedures

The Construction Site Manager will also consider implementation of the following procedures:

- all used crates will be stored for reuse unless damaged

- all cardboard waste is to be recycled via on-site recycling compactors which shall be collected by an appropriate recycling contractor
- all glass and metals that can be economically recycled will be
- colour bond roof material off cuts to be stockpiled on site for reuse or recycling
- waste concrete will be disposed of at a crushing/recycling plant where practicable
- waste bricks will be crushed and utilised on site. All half or damaged bricks will be stored on site to be removed for offsite crushing and recycling
- excavation material will be reused on-site where possible with all excess reused on other projects or sold
- All other solid waste including bitumen paving, tile, timber, rock and soil will be taken to an appropriate materials recycling facility and/or landfill site and processed in an approved manner, and
- All garbage will be disposed of via a council approved system.

5.6 Waste Storage and Servicing

5.6.1 Waste Segregation

Waste materials produced from site preparation activities are to be segregated and stored separately on site, with clear signage identifying the purpose of different storage areas. It is anticipated that the site will have available space provided by the Building Contractor for separate storage in separate skip bins and/or appropriately managed stockpiles, of the following waste types:

- Bricks, concrete and scrap metal
- Metal and steel, if any, in a condition suitable for recycling at metal recycling facilities
- Timber
- Glass
- Hardstand rubble
- Excavation spoil, uncontaminated, if present
- Contaminated excavation spoil, if present
- Hazardous waste, if present
- Paper and cardboard
- Recyclable general waste, and
- Non-recyclable general waste.

If there is insufficient space onsite for full segregation of waste types, the Building Contractor is to consult with waste or recycling collection facilities to confirm which waste types may be co-mingled prior to removal from the site.

Areas designated for waste storage should:

- allow unimpeded access by site personnel and waste disposal contractors
- not be located on footpaths, public reserves and street gutters without Council approval

- employ adequate environmental management controls, for example, consideration of slope, drainage and proximity relative to waterways, stormwater outlets and vegetation, to prevent off-site migration of waste materials and/or contamination from the waste, and
- not present hazards to human health or the environment.

In accordance with Council's DCP, the WMP should identify the areas that will be used on site for the storage of materials, including areas designated for the separation of recyclables and disposal. It is recommended that the drawings for the Project are revised to indicate stockpiling and waste storage areas, with consideration of the recommendations noted above. This WMP should be revised to reflect these drawing updates.

5.6.2 Servicing and Record Keeping

The frequency of the waste removal will, in most cases, be dictated by the volume of material being deposited into each of the dedicated skips. Skips and bins are to be checked on a daily basis by the Site Manager to ensure that no overflow occurs. If skips and bins are reaching capacity, removal and replacement should be organised for the next 24 hours. All skips and bins leaving the site will be covered with a suitable tarpaulin to ensure that the spillage of wastes from the skips whilst in transit is eliminated.

The Building Contractor should:

- arrange for suitable waste collection contractors to remove the site preparation waste from site
- ensure waste bins are not filled beyond recommended filling levels
- ensure that all bins and loads of waste materials leaving site are covered
- maintain waste disposal documentation detailing, at a minimum:
 - Descriptions and estimated amounts of all waste materials removed from site.
 - Details of the waste and recycling collection contractor(s) and facilities receiving the waste or recyclables.
 - Records of waste and recycling collection vehicle movements, for example date and time of loads removed, licence plate of collection vehicles, disposal dockets from receiving facility.
 - Waste classification documentation for materials disposed to off-site recycling or landfill facilities.
- ensure lawful waste disposal records are available for inspection by regulatory authorities such as Council, SafeWork NSW or NSW EPA if required, and
- remove waste during hours approved by Council.

In accordance with Council's DCP Section C5, Part 5.3.1, Council officers may ask to be presented with weighbridge dockets and invoices for waste disposal and recycling services for the Project. Weighbridge dockets and invoices are to be kept on site at all times.

5.6.3 Space and Amenity

Waste storage areas will be accessible, present at all times and allow sufficient space for storage and servicing requirements. The storage areas will also be flexible in order to cater for change of use throughout the Project.

Where space is restricted, dedicated stockpile areas are to be delineated on the site, with regular transfers to dedicated skip bins for sorting. The positions of the designated waste holding areas on site will change according to building works and the progression of the Development, but must consider visual amenity, OH&S and accessibility in their selection.

All waste placed in stockpile areas and/or skips for disposal or recycling shall be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site. Appropriate siting of waste stockpile locations will take into account slope and drainage factors to avoid contamination of stormwater drains during rain events and allow manoeuvring space to facilitate ease of collection and safety.

Waste containers are to be kept clean and in a good state of repair.

5.6.4 Contaminated or Hazardous Waste Management

During the site preparation and construction phases, SLR recommends that a qualified and certified contractor is engaged to remove all contaminated or hazardous materials, for example, asbestos, and dispose of all contaminated or hazardous waste at an appropriately licenced facility.

All asbestos and other hazardous waste must be handled according to appropriate legislation and regulation including the Work Health and Safety Regulation 2011.

In accordance with Council's DCP, hazardous waste management at the site may require a licence from the EPA and approval from Council. If hazardous waste is identified for removal, Council and NSW EPA are to be consulted prior to undertaking any hazardous waste removal.

5.7 Signage

Standard signage is to be posted in all waste storage and collection areas. All waste containers should be labelled correctly and clearly to identify stored materials.

Signs approved by the NSW EPA for labelling of waste materials are available online¹² and should be used where applicable. A selection of signs prepared by NSW EPA is provided in **Figure 3**.



Figure 3 Examples of NSW EPA labels for waste skips and bins

5.8 Training and Awareness

All staff, including sub-contractors and labourers, employed during the demolition and construction phases of the Development must undergo induction training regarding waste management for the Development.

Induction training is to cover, as a minimum, an outline of the WMP including:

¹² NSW EPA approved waste materials signage <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>

- legal obligations
- emergency response procedures on site
- waste storage locations and separation of waste
- litter management in transit and on site
- the implications of poor waste management practices
- correct use of general purpose spill kit, and
- responsibility and reporting, including identification of personnel responsible for waste management and individual responsibilities.

It is the responsibility of the Contractor or site operator to notify Council of the appointment of waste removal, transport or disposal contractors.

5.9 Monitoring and Reporting

The following measures are to be undertaken to improve demolition and construction waste management and to provide reliable waste generation figures:

1. Conduct waste audits of current projects where feasible.
2. Note waste generated and disposal methods.
3. Look at past waste disposal receipts.
4. Record this information to track waste avoidance, reuse and recycling performance and to help in waste estimations for future waste management plans.

Records of quantities of waste re-used, recycled or disposed to landfill are to be maintained by the Building Contractor. Council's DCP Section C5, Part 5.3.1 states that evidence, such as weighbridge dockets or receipts, verifying recycling and/or disposal must be available for presentation to Council if requested.

Daily visual inspections of waste storage areas will be undertaken by site personnel and inspection checklists and logs recorded for reporting to the Site Manager on a weekly basis or as required. These inspections will be used to identify and rectify any resource and waste management issues.

Waste audits are to be carried out by the Building Contractor to gauge the effectiveness and efficiency of waste segregation procedures and recycling and reuse initiatives. Where audits show that the above procedures are not carried out effectively, additional staff training will be undertaken and signage re-examined.

5.10 Roles and Responsibilities

All personnel have a responsibility for their own environmental performance and compliance with all legislation. It will be the responsibility of the Building Contractor to implement the WMP, and an employee and subcontractor responsibility to ensure that they comply with the WMP at all times.

Where possible, an Environmental Management Representative should be appointed for the Development. Suggested roles and responsibilities are provided in **Table 6**.

Table 6 Construction waste management responsibility allocation

Responsible Person	General Tasks
Construction Site Manager	Ensuring plant and equipment are well maintained.
	Ordering only the required amount of materials.
	Keeping materials segregated to maximise reuse and recycling.
	Ultimately responsible for routinely checking waste sorting and storage areas for cleanliness, hygiene and safety issues, contaminated waste materials, and also ensuring that all monitoring and audit results are well documented and carried out as specified in the WMP.
Environmental Management Representative or equivalent role	Approaching and establishing the local commercial reuse of materials where reuse on-site is not practical.
	Establishing separate skips and recycling bins for effective waste segregation and recycling purposes.
	Ensuring staff and contractors are aware of site requirements.
	Provision of training of the requirements of the WMP and specific waste management strategies adopted for the Development.
	Contaminated waste management and approval of off-site waste transport, disposal locations and checking licensing requirements.
	Approval of off-site waste disposal locations and checking licensing requirements.
	Assessment of suspicious potentially contaminated materials, hazardous materials and liquid wastes.
	Monitoring, inspection and reporting requirements.

Daily visual inspections of waste storage areas may be delegated to other on-site staff. All subcontractors will be responsible for ensuring that their work complies with the WMP through the project induction and contract engagement process.

6 Operational waste management

Ineffective waste management for commercial premises can lead to environmental pollution, offensive odours, litter, attraction of vermin and occupational safety and hygiene problems.

Effective waste management reduces costs through the reuse of resources and minimisation of fees associated with removal, transportation and disposal of waste, and improves environmental outcomes locally, regionally and globally.

Effective waste management is achieved through the implementation of a WMP for the operational life of the Development.

6.1 Targets for Resource Recovery

The waste management performance of each new development should contribute to the overall NSW State targets for recycling outlined in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*. The targets include increasing waste diverted from landfill to 75% and recycling 70% of commercial, industrial and municipal solid waste¹³. Each commercial and industrial development has the ability to contribute to this NSW State target through an effective waste management plan.

It is anticipated that the waste minimisation measures in the following sections will assist the Development to meet the state's targets. Waste reporting and audits can be used to determine the actual percentage of waste that are being, or have been, recycled during operation.

6.2 Waste Streams and Classifications

The operation of the Project will generate the following broad waste streams:

- domestic wastes generated by employees, including food wastes
- bulk packaging wastes, including polystyrene, plastic wrapping and cardboard boxes
- office waste
- garden organic waste from landscaped areas
- bulky waste items such as furniture and e-waste, and
- stores, plant and general maintenance wastes.

From the site inception meeting, SLR understands the Development's waste will primarily be general wastes, paper and cardboard and plastic wrapping.

Potential operational waste types, their associated waste classifications, and management methods are provided in **Table 7**. For further information on how to determine a waste's classification, refer to the NSW EPA (2014) *Waste Classification Guidelines*.¹⁴ Suggestions for recycling drop off locations and contacts can be found on <https://businessrecycling.com.au/> for each waste type.

¹³ <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/140876-warr-strategy-14-21.pdf?la=en&hash=EC6685E6624995242B0538B18C2E80C0CA2E51B3>

¹⁴ Available online from <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines>

Table 7 Potential operational waste types, classifications and management methods

Waste Types	NSW EPA Classification	Proposed Management Method
General Operations		
Clean paper	General solid (non-putrescible) waste	Paper recycling at off-site licensed facility
Cardboard and bulky cardboard boxes	General solid (non-putrescible) waste	Cardboard recycling at off-site licensed facility
Recyclable containers including glass and plastic bottles, aluminium cans and steel cans	General solid (non-putrescible) waste	Recycling at off-site licensed facility Some containers that attract a deposit under the NSW Government's <i>Return and Earn Scheme</i> , may be separated by staff or contactors for redemption.
Food waste	General solid (putrescible) waste	Donate, if suitable; alternatively compost on or off-site or dispose to landfill with general garbage
Batteries	Hazardous waste	Off-site recycling. Contact the Australian Battery Recycling Initiative for more information
Mobile Phones	Hazardous waste	Off-site recycling. Contact Mobile Muster for more information
Clothes	General solid (non-putrescible) waste	Off-site reuse or recycling such as donations to St Vincent's De Paul
Bulky polystyrene	General solid (non-putrescible) waste	Off-site recycling or disposal at landfill
Furniture	General solid (non-putrescible) waste	Off-site reuse or disposal to landfill
E-waste	Hazardous waste	Off-site recycling
Printer toners and ink cartridges	Hazardous waste	Storage on-site, off-site recycling; free disposal box or bags and pickup service exists for printer toners and ink cartridges
General garbage, including non-recyclable plastics	General solid (putrescible and non-putrescible) waste	Disposal at landfill
Maintenance		
Glass other than containers	General solid (non-putrescible) waste	Off-site recycling
Light bulbs and fluorescent tubes	Hazardous waste	Storage on-site; off-site recycling or disposal. Contact FluoroCycle ¹⁵ or Lamp Recyclers ¹⁶ for more information
Empty oil, paint drums and chemical containers	Hazardous waste if containers used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid (non-putrescible) waste if containers cleaned by washing or vacuuming.	Storage on-site or transported to off-site recycling or disposal at licensed facility. Transport to comply with the transport of Dangerous Goods Code.
Garden organics including lawn mowing, tree branches, hedge cuttings, leaves	General solid (non-putrescible) waste	Reuse on-site or contractor removal for recycling at licenced facility

¹⁵ <https://www.fluorocycle.org.au/>

¹⁶ <https://www.lamprecyclers.com.au/>

6.3 Operational Waste Generation Rates

SLR has adopted the 'Offices' and 'Warehouse' waste generation rates from Council's DCP Industrial, Commercial and Mixed-Use Waste Management Guidelines for estimating the type and quantities of waste generated from the operational activities of the Development. The operational waste generation rates used are shown below in **Table 8**.

Table 8 Waste generation rates applied to the operations of the Project

Type of Premises	General Waste Generation (L/100 m ² /day)	Recycling Generation (L/100 m ² /day)
Warehouse	10	10
Offices	10	10

Using the waste generation rates in **Table 8** above, the approximate weekly waste quantities for the Project have been calculated and are presented in **Sections 6.3.1**. The operational waste quantities were additionally calculated based on the below assumptions:

- The floor areas are as provided by the Client¹⁷
- A week comprising seven days of operation, and
- General recycling consisting of approximately 60% paper and cardboard, and 40% other recycling¹⁸.

SLR understands that large quantities of the recycling stream will include pallets and plastic and cardboard packaging waste. To minimise packaging waste generated in the recyclables stream, it is recommended that packing waste is returned to the suppliers where possible. Standard pallets are recommended to be returned to their owners and non-standard and broken pallets are to be stockpiled and collected as required by a private waste contractor.

Additionally, it is anticipated that a substantial amount of the general waste stream will consist of food waste. As per Council's DCP, food scraps should be placed in specialised food waste bins and collected on a regular basis. To minimise food waste in the general waste stream, it is recommended that the food is donated, composted on site, or sent off-site to a composting facility.

If additional collection services are required, such as secured document destruction, these can be organised with a private waste contractor who can provide additional bins and take collected waste to an off-site licenced facility.

6.3.1 Operational waste types and quantities

The estimated quantities of operational waste generated by the Development are shown in **Table 9**. Operational waste quantities for Precinct 1 are addressed the waste management plan recently prepared by SLR for the Precinct 1 Modification application (SLR, Oakdale West Estate, Waste Management Plan, 9 February 2021, 610.1516-R02-v6.0) and have been included in **Table 9**.

¹⁷ Areas provided in a spreadsheet from Goodman titled '21116_SSDA_MOD_7_Masterplan_Area Schedule_2021_REV_P1'

¹⁸ <https://www.epa.nsw.gov.au/~media/EPA/Corporate%20Site/resources/warrlocal/140442-audits-2011.ashx>

Based on the anticipated operations of distribution, comingled recycling, that consists of wastes such as drink containers and other plastics, is anticipated to be minimal and primarily generated from the office areas. Hence the recycling breakdown of 60% paper and cardboard, and 40% other recycling has only been considered for the office spaces where comingled recycling will be generated. Mezzanine levels have not been included as these areas are anticipated to be used for storage and will only generate minimal quantities of waste.

Table 9 Estimated quantities of operational general waste and recycling for the Development

Warehouse	Location	Area (m ²)	General Waste (L/week)	Recycling Paper and Cardboard (L/week)	Recycling Other (L/week)
Precinct 1					
Warehouse 1A	Warehouse	68,160	143,150	143,150	
	Office	2,646	1,855	1,855	
Warehouse 1B1	Warehouse	3,658	68,075	68,075	
	Office	461	7,700	7,700	
Warehouse 1B2	Warehouse	5,472	350	350	
	Office	461	11,515	11,515	
Warehouse 1C	Warehouse	80,292	350	350	
	Office	3,940	6,335	6,335	
Precinct 2					
Warehouse 2A	Warehouse	44,000	30,800	18,480	-
	Office	2,400	1,680	1,015	700
Warehouse 2B	Warehouse	195,174	136,640	82,005	-
	Office	5,572	3,920	2,345	1,575
Warehouse 2C	Warehouse	9,885	6,930	4,165	-
	Office	680	490	315	210
Warehouse 2D	Warehouse	5,005	3,535	2,135	-
	Office	375	280	175	105
Precinct 3					
Warehouse 3A	Warehouse	10,000	7,000	4,200	-
	Office	1,000	700	420	280
Warehouse 3B1 & 3B2	Warehouse	21,000	7,000	4,200	-
	Office	2,100	700	420	280
Warehouse 3C	Warehouse	21,000	14,700	8,820	-
	Office	473	350	210	140
Precinct 4					
Warehouse 4A	Warehouse	25,678	17,990	10,815	-
	Office	1,197	840	525	350
Warehouse 4B	Warehouse	12,968	9,100	5,460	-
	Office	1,197	840	525	350
Warehouse 4C	Warehouse	22,798	15,960	9,590	-
	Office	1,197	840	525	350

Warehouse	Location	Area (m ²)	General Waste (L/week)	Recycling Paper and Cardboard (L/week)	Recycling Other (L/week)
Warehouse 4D	Warehouse	6,924	4,865	2,940	-
	Office	363	280	175	105
Warehouse 4E	Warehouse	35,700	24,990	15,015	-
	Office	1,050	735	455	315
Warehouse 4F	Warehouse	4,030	2,835	1,715	-
	Office	208	175	105	70
Precinct 5					
Warehouse 5A	Warehouse	33,943	23,765	14,280	-
	Office	1,697	1,190	735	490

Waste quantity estimates have been rounded up to the nearest 5 L.

'Other Recycling': comingled recycling excluding paper and cardboard.

Due to the anticipated quantity of operational general waste and recycling, a baler is recommended to be used for the storage compaction of paper and cardboard waste and a general waste compactor for the storage and compaction of general waste for several warehouses listed above. Based on an assumed compaction ratio for 1:3¹⁹ for general waste compactors and 1:10²⁰ for paper and cardboard balers, the compacted waste volumes generated by selected warehouses have been calculated and are shown in **Table 10** below. The warehouses that have not been incorporated in **Table 10** below will use general waste and recycling bins instead, as based on the quantities shown in **Table 9**, the bins will be sufficient for those warehouses.

Table 10 Compacted operational waste and recycling quantities for the Development

Warehouse	Compacted (m ³ /week)	
	General Waste	Paper and Cardboard Recycling
Warehouse 2A	-	1.95
Warehouse 2B	46.85	8.44
Warehouse 3C	-	0.90
Warehouse 4A	-	1.13
Warehouse 4C	-	1.01
Warehouse 4E	-	1.55
Warehouse 5A	-	0.02

Additionally, the Development is anticipated to produce minimal quantities of garden organics. Less than 100 L of garden organics are estimated to be generated per week. This waste will be taken by a landscaping contractor who will dispose of it at an off-site licenced facility.

¹⁹ <https://wasteinitiatives.com.au/products/waste-compactors/>

²⁰ https://cdn2.hubspot.net/hubfs/5089498/Orwak%20Brochures/Orwak%20Selection%20Guide_nz.pdf

6.4 Waste Storage and Servicing Requirements

6.4.1 Waste Storage Area Size

For each building that is a part of the Development, the waste storage area must be large enough to adequately store all quantities of operational waste and recycling between collections. Interim storage units are to be provided for general waste and recyclables on each floor in buildings three storeys or greater. All waste material will be transported from these units to the central waste storage area at the end of each day by the site cleaners.

All waste storage room calculations have considered the bin dimensions listed in Council's DCP and SLR's database on compactors and balers, as outlined in **Table 11**.

Table 11 Dimensions and approximate footprint of bins

Dimension	Height (mm)	Depth (mm)	Width (mm)	Footprint (m ²)
1,100 L Bin	1,330	1,240	1,090	1.35
1.5 m ³	1,190	1,080	2,070	2.24
3 m ³	1,540	1,520	2,060	3.13
25 m ³ compactor		6,850	2,500	17.13
Baler	2,170	1,400	1,890	2.65
500 kg bales	800	1,100	1,200	1.32

To allow for ready movement of bins into and out of the bin storage area, the bin storage area is to provide a floor area of at least twice the total minimum bin GFA. This can also act as a contingency in the event of spikes in waste generation. Additionally, in accordance with Council's DCP, an additional 0.2 m is to be permitted between the bins to allow for manoeuvrability. This has been considered in the calculation of the waste storage area for each of the buildings in the Development. The waste storage areas are shown in **Table 12**. The waste storage areas for Precinct 1 are addressed the waste management plan recently prepared by SLR for the Precinct 1 Modification application (SLR, Oakdale West Estate, Waste Management Plan, 9 February 2021, 610.1516-R02-v6.0) and have been included in **Table 12**.

The recommended storage areas do not include consideration for the storage of bulky and hazardous waste. For the additional storage space for bulky and hazardous waste, refer to **Section 6.4.2**.

The estimated number of bins required for weekly storage of operational waste and recycling generated by the Development are based on:

- The estimated quantities of operational waste and recycling as shown in Table 9 and Table 9Table 10
- Bin dimensions from the Council's DCP as shown in **Table 11**
- Garbage collection frequency of once per week for warehouse 2B
- Garbage collection frequency of five times per week for all other warehouses
- Paper and cardboard recycling collection frequency of once per week for warehouses 2A, 2B, 3C, 4A, 4E and 5A
- Paper and cardboard recycling collection frequency of three times per week for all other warehouses, and
- Other recyclables collection frequency of once per week for all warehouses.

Table 12 Summary of waste storage for the Development

Location	Bins Required			Total Number of Bins	Recommended Storage Area (m²)
	General Waste	Paper and Cardboard Recycling	Comingled Recycling		
Precinct 1					
Warehouse 1A	1 x 35 m³ compactor	2 x balers	2 x plastic film compactors	0	External storage
Warehouse 1B1	1 x 4,500 L 1 x 240 L	2 x 3,000 L 1 x 240 L		5	25.0
Warehouse 1B2	1 x 4,500 L 1 x 240 L	2 x 3,000 L 1 x 240 L		5	25.0
Warehouse 1C	1 x 3,000 L 1 x 240 L	1 x 4,500 1 x 240 L		4	20.0
Precinct 2					
Warehouse 2A	3 x 3 m³	1 x baler	1 x 1.5 m³	4	31.5
Warehouse 2B	1 x 25 m³ compactor	1 x baler	1 x 3 m³	1	53.7
Warehouse 2C	2 x 1,100 L	2 x 1,100 L	1 x 660 L	5	16.6
Warehouse 2D	1 x 3 m³	1 x 1,100 L	1 x 1,100 L	3	12.8
Precinct 3					
Warehouse 3A	2 x 1,100 L	2 x 1,100 L	1 x 1,100 L	5	13.5
Warehouse 3B1 & 3B2	2 x 1,100 L	2 x 1,100 L	1 x 1,100 L	5	13.5
Warehouse 3C	2 x 3 m³	1 x baler	1 x 1,100 L	3	23.7
Precinct 4					
Warehouse 4A	2 x 3 m³	1 x baler	1 x 1.5 m³	3	25.2
Warehouse 4B	1 x 3 m³	2 x 1,100 L	1 x 1,100 L	4	16.1
Warehouse 4C	2 x 3 m³	1 x baler	1 x 1,100 L	3	23.7
Warehouse 4D	1 x 3 m³	1 x 1,100 L	1 x 1,100 L	3	12.8
Warehouse 4E	2 x 3 m³	1 x baler	1 x 660 L	5	24.0
Warehouse 4F	1 x 1.5 m³	1 x 1.5 m³	1 x 1,100 L	3	12.8
Precinct 5					
Warehouse 5A	2 x 3 m³	1 x baler	1 x 1,100 L	3	24.0

6.4.2 Bulky and Hazardous Waste Management

As outlined in the Penrith DCP, additional storage space for the bulky waste stream must be provided. This stream includes broken pallets, broken storage units, e-waste and other materials that cannot be disposed of in the general or recyclable waste stream.

Council's guidelines do not provide storage area dimensions for bulky waste. In the absence of dimensions provided by Council, SLR has adopted storage area dimensions for bulky waste presented in The City of Sydney's Guidelines for Waste Management in New Developments. These are applied as they are the most recent recommendations for bulky waste storage that have been provided in guidelines for new developments in NSW and are applicable to non-residential developments. The recommended space for storing bulky wastes should be at least:

- 4 m² for developments between 100 m² and 2,000 m², and
- An additional 4m² for developments over 2,000 m² and for every 20,000 m² of office space.

In addition to the recommended waste storage area noted in **Table 12**, the total waste storage area recommended for the Development is identified in **Table 13** and includes the recommended storage area for bulky waste.

Table 13 Total recommended storage area for operations for the Development

Precinct	Location	Recommended Storage Area (m ²)		
		Waste and Recycling	Bulky waste	Total Storage Area
Precinct 1	Warehouse 1A	External storage	8	External storage
	Warehouse 1B1	25.0	8	33.0
	Warehouse 1B2	25.0	8	33.0
	Warehouse 1C	20.0	8	28.0
Precinct 2	Warehouse 2A	31.5	8	39.5
	Warehouse 2B	53.7	8	61.7
	Warehouse 2C	16.6	8	24.6
	Warehouse 2D	12.8	8	20.8
Precinct 3	Warehouse 3A	13.5	8	21.5
	Warehouse 3B1 & 3B2	13.5	8	21.5
	Warehouse 3C	23.7	8	31.7
Precinct 4	Warehouse 4A	25.2	8	33.2
	Warehouse 4B	16.1	8	24.1
	Warehouse 4C	23.7	8	31.7
	Warehouse 4D	12.8	8	20.8
	Warehouse 4E	24.0	8	32.0
	Warehouse 4F	12.8	8	20.8
Precinct 5	Warehouse 5A	24.0	8	31.7

Management may consider organising a skip as required to remove bulky waste items or engage a contractor to collect and transport these items for reuse, recycling or disposal at an EPA licensed facility.

In the unlikely event of hazardous waste generation, SLR also recommends using this space to separate and manage hazardous waste. In accordance with Council's DCP, hazardous waste management at the site must be placed in specialised containment bins and may require a licence from the EPA and approval from Council. If hazardous waste is identified for removal, Council and NSW EPA are to be consulted prior to undertaking any hazardous waste removal. Removal is to be undertaken by appropriately licensed specialised services.

SLR recommends that waste audits be undertaken approximately one month into the operational phase of the Development to quantify actual waste generation rates. The assessment of generated waste quantities will be influenced by management, employee and tenant attitudes to recycling and disposal, and the adequacy of signage and education provided for occupants.

6.4.3 Compactor Management

The waste produced by the Development will be stored in waste compactors. The compactors will be stored externally to the warehouses. Waste is to be taken directly to the compactors. As such, no designated waste storage area will be required.

The Development may choose to have general landfill waste and comingled recycling bins present and positioned in easily accessible areas throughout the offices for effective recycling results. Waste and recyclables from each holding area in the premises must be transferred to the centralised compaction area.

The waste and recycling compaction location should also incorporate measures to ensure best practice waste management and compliance with Council requirements, including:

- Screening from public view for visual amenity, noise control and odour control.
- Positioning away from public view, where possible.
- Flexibility in design to allow future uses, operational changes and tenancy changes.
- Positioning and design with the consideration for both the potential traffic hazards caused by the waste collection and the ease of access for tenants and contractors.
- Food scraps are to be placed in specialised containment bins.
- The construction of additional garbage areas, rooms and equipment are to comply with Building Code of Australia (BCA) requirements and Australian Standards.
- All waste areas are to be kept clean and odour and vermin free. It is the responsibility of the Operations Manager or equivalent personnel to check each area for cleanliness, hygiene and health and safety issues.
- The compactors are to be positioned in locations accessible to waste collection vehicles and be serviced directly.

6.4.4 Recycling Bale Management

It is important to note that bales of recyclable material are susceptible to degradation by exposure to the elements and vermin. Therefore, recycling bales should be stored indoors for no longer than two weeks until collection. An indoor bale storage area for the Development should:

- Be clean and well-maintained
- Be of sufficient size to store the required number of bales
- Be sufficiently lighted with vermin control measures
- Have appropriate security measures to prevent theft of bales, and
- Be equipped with a high-volume sprinkler system to retard the spread of fire.

The bales themselves should be stored with the following considerations:

- Bales should be placed on storage pallets, not directly on the floor or ground

- Bales should be stacked and secured in accordance with relevant SafeWork Australia Codes of Practice, and any other relevant legislation or guidance to prevent bales from presenting a risk of harm to workers
- Bales should not be stacked too close to sprinkler systems to avoid compromising the effectiveness of the fire suppression system, and
- Although not generally recommended, if bales are stored outdoors, they should be covered with plastic sheeting, or similar, as protection from exposure to the elements.

In accordance with better practice management and to reduce packaging waste generation, it is recommended that packaging materials are returned to the suppliers through the services of the supplier delivery trucks, allowing the reduction of waste further along the supply chain.

6.5 Waste Avoidance, Reuse and Recycling Measures

Some examples of how the reduction, re-use and recycling of waste can be achieved are listed below.

6.5.1 Waste Avoidance

Waste avoidance measures that could be used at the Development include:

- Participating in take-back services to suppliers to reduce waste further along the supply chain
- Avoiding printing where possible
- Review of packaging design to reduce waste but maintain 'fit for purpose'
- Providing ceramic cups, mugs, crockery and cutlery rather than disposable items
- Purchasing consumables in bulk to avoid unnecessary packaging
- Presenting all waste reduction initiatives to staff as part of their induction program, and
- Investigating leased office equipment and machinery rather than purchase and disposal.

6.5.2 Reuse

Possible re-use opportunities that could be used at the Development include establishing systems with in-house and supply chain stakeholders to transport products in re-useable packaging where possible.

6.5.3 Recycling

Possible recycling opportunities that could be used at the Development include:

- Collecting and recycling e-waste
- Flatten or bale cardboard to reduce number of bins required
- Paper recycling trays provided in office areas for scrap paper collection and recycling
- Collecting printer toners and ink cartridges in allocated bins for appropriate contractor recycling, and
- Development of 'buy recycled' purchasing policy.

6.6 Signage

Signs which clearly identify waste management procedures and provisions to staff and visitors should be distributed around the Development. Key signage considerations are:

- Clear and correct labelling on all waste and recycling bins, indicating the correct type or types of waste that can be placed into a given bin, as shown in **Figure 4**
- Signposts and directions to location of waste storage areas
- Clear signage in all waste storage areas to instruct users how to correctly separate waste and recycling
- Maintaining a consistent style colour scheme and system for signs throughout the Development, and
- Emergency contact information for reporting issues associated with waste or recycling management.

Colour-coded and labelled bin lids are necessary for identifying bins. All signage should conform to the relevant Australian Standard and use labels approved by the NSW EPA²¹. The design and use of safety signs for waste rooms and enclosures should comply with Australian Standard AS 1319 Safety Signs for the Occupational Environment and clearly describes the types of materials designated for each bin.



Figure 4 Example of bin labels for operational waste

6.7 Communication strategies

Waste management initiatives and management measures should be clearly communicated to building managers, owners, employees, customers and cleaners. Benefits of providing this communication include:

- improved satisfaction with services
- increased ability and willingness to participate in recycling
- improved amenity and safety
- improved knowledge and awareness through standardisation of services
- increased awareness or achievement of environmental goals and targets
- reduced contamination of recyclables stream
- increased recovery of recyclables and organics material, if implemented, and
- greater contribution to targets for waste reduction and resource recovery, the environment and heritage conservation.

²¹ NSW EPA waste signage and label designs <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>

To realise the above benefits, the following communication strategies should be considered:

- Use consistent signage and colour coding throughout the Development. Examples of signage are provided in **Section 6.6**
- Ensure all staff are trained in correct waste separation and management procedures
- Provide directional signage to show location of and routes to waste storage areas
- General waste and co-mingled recycling bins should be clearly labelled and colour-coded to ensure no cross contamination, where applicable
- Employees and cleaners should adhere to the WMP for compliance, in consultation with Management; and
- Repair signs and labels promptly to avoid breakdown of communications.

6.8 Monitoring and Reporting

Audit and visual assessment of bins prior to collection should be undertaken by Management in the first few months of being operational to ensure the waste management system is sufficient for the Development's needs, and also on a half-yearly basis to ensure WMP provisions are being maintained.

Where audits show that recycling is not carried out effectively, additional staff training should be undertaken by Management and signage re-examined.

6.9 Roles and Responsibilities

All contractors that are made with cleaners, tenants and building managers are to clearly explain the Development's waste management system and identify roles and responsibilities.

It should be the responsibility of Management to implement the WMP and a responsibility of the employees and cleaners to ensure that they comply with the WMP at all times. Management should routinely check waste sorting and storage areas for cleanliness, hygiene and safety, and also ensure all monitoring and audit results are well documented and carried out as specified in the WMP. An outline of waste management responsibilities is presented in **Table 14**.

Table 14 Operational waste management responsibility allocation

Responsible Person	General Tasks
Management	Ensure the WMP is implemented throughout the life of the operation.
	Update the WMP on a regular basis (e.g. annually) to ensure the Plan remains applicable.
	Undertake liaison and management of contracted waste collections.
	Organise internal waste audits on a regular basis.
	Manage any complaints and non-compliances reported through waste audits etc.
	Perform inspections of all waste storage areas and waste management equipment on a regular basis.
	Organise cleaning and maintenance requirements for waste management equipment.
	Monitor bins to ensure no overfilling occurs.
	Ensure effective signage, communication and education is provided to alert visitors, employees and cleaners about the provisions of this WMP and waste management equipment use requirements.
	Monitor and maintain signage to ensure it remains clean, clear and applicable.

Responsible Person	General Tasks
	Ensure waste and recycling storage rooms are kept tidy.
	Ensure that regular cleaning and daily transfer of bins is being undertaken by the cleaners
	Ultimately responsible for the management of all waste management equipment, cleaning requirements, waste transfer and collection arrangements.
Cleaners and Staff	Removal of general waste, recyclables, cardboard waste and hazardous waste from floor areas for transfer to centralised waste and recycling collection rooms on a daily basis or as required.
	Cleaning of all bins and waste and recycling rooms on a weekly basis or as required.
	Compliance with the provisions of this WMP.
Gardening Contractor, as applicable	Removal of all garden organics waste generated during gardening maintenance activities for recycling at an off-site location or reuse as organic mulch on landscaped areas.

APPENDIX A

Architectural Drawings

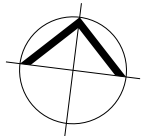


REFER TO DRAWING OAK MP03 FOR CONTINUATION

Legend	
	Site Boundary
	Lot Boundary
	3.75m Landscape Setback
	7.50m Building Setback
	7.15 m Landscape Setback along Main Roads
	17.15m Landscape Setback along Main Roads



Site Area Schedule	
Total Site Area	154.12 ha
Less:	
Non Developable Land	21.08 ha
Easements	22.38 ha
Regional Roads	7.51 ha
Services Lot	1.23 ha
Estate Roads	7.091 ha
E2 Zone non developable	1.43 ha
	60.72 ha
Development Areas	
Precinct 1	21.80 ha
Precinct 2	26.69 ha
Precinct 3	11.10 ha
Precinct 4	22.73 ha
Precinct 5	6.01 ha
Proposed Future Development	4.82 ha
Amenities Lot	0.25 ha
Total Developable	93.40 ha
Precinct 1 GLA	88,867 sqm
Precinct 2 GLA	263,090 sqm
Precinct 3 GLA	55,573 sqm
Precinct 4 GLA	113,309 sqm
Precinct 5 GLA	35,640 sqm
Amenities Lot GLA	345 sqm
Total GLA	556,824 sqm
Total Warehouse	528,963 sqm
Total Office	23,432 sqm
Others	4,429 sqm
Total GLA	556,824 sqm
Precinct 1 GFA	125,198 sqm
Precinct 2 GFA	269,390 sqm
Precinct 3 GFA	55,573 sqm
Precinct 4 GFA	113,309 sqm
Precinct 5 GFA	35,640 sqm
Amenities Lot GFA	345 sqm
Total GFA	599,455 sqm
Total Warehouse	528,963 sqm
Total Office	23,432 sqm
Others	4,429 sqm
Mezzanines (for Site 1A & 2B)	42,631 sqm
Total GFA	599,455 sqm



PRELIMINARY



Oakdale West Estate - MOD 7
Kemps Creek, NSW

Estate Masterplan

1:3000 @ A1	OAK MP 02 (P1)
1:6000 @ A3	Job No 21116
23 Feb 2021	



APPENDIX B

Council Waste Management Plan Form

WASTE MANAGEMENT PLAN

DEMOLITION, CONSTRUCTION AND USE OF PREMISES

.....●
If you need more space
to give details, you are
welcome to attach extra
pages to this form.

PLEASE COMPLETE ALL PARTS OF THIS FORM THAT ARE RELEVANT TO YOUR DEVELOPMENT APPLICATION (DA).

IF YOU NEED MORE SPACE TO GIVE DETAILS, YOU ARE WELCOME TO ATTACH EXTRA PAGES TO THIS FORM.

Council will assess the information you provide on this form along with your attached plans. We will take into account the types and volumes of waste that could be produced as a result of your proposed development, and how you are planning to:

- minimise the amount of waste produced
- maximise re-use and recycling
- store, transport and dispose of waste safely and thoughtfully.

APPLICANT DETAILS

First name

Surname

Postal Address

Street No.

Street name

Suburb

Post code

Contact phone number

Email address

DETAILS OF YOUR PROPOSED DEVELOPMENT

Street No.

Street name

Suburb

Post code

What buildings and other structures are currently on the site?

.....

.....

.....

Briefly describe your proposed development

.....

.....

.....

Applicant Signature

Date

SECTION 1: DEMOLITION

*Please include details on the plans you submit with this form, for example location of on-site storage areas/containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m ² or m ³)	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste				
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

SECTION 2: CONSTRUCTION

*Please include details on the plans you submit with this form, for example location of on-site storage areas/containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m ² or m ³)	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste				
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

SECTION 3: WASTE FROM ON-GOING USE OF PREMISES

If relevant, please list the type/s of waste that may be generated by on-going use of the premises after the development is finished.	Expected volume (average per week)

SECTION 4: ON-GOING MANAGEMENT OF PREMISES

If relevant, please give details of how you intend to manage waste on-site after the development is finished, for example through lease conditions for tenants or an on-site caretaker/manager. Describe any proposed on-site storage and treatment facilities. Please attach plans showing the location of waste storage and collection areas, and access routes for tenants and collection vehicles.

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APPENDIX F

Salinity Management Plan



Our Ref: PSM1541-125L

18 November 2015

Goodman Property Services (Aust) Pty Ltd
Level 17, 60 Castlereagh Street
SYDNEY NSW 2000

ATTENTION: KYM DRACOPOULOS
kym.dracopoulos@goodman.com

Dear Kym

RE: OAKDALE WEST PRECINCT – SALINITY MANAGEMENT PLAN

1 INTRODUCTION

This letter presents a Salinity Management Plan (SMP) prepared by Pells Sullivan Meynink (PSM) for Oakdale West Precinct. This was prepared to accompany our salinity investigation in accordance with our proposal (ref. PSM1541-116L Rev1 dated 9 October 2015).

The aim of the SMP is to provide controls for the potential impacts of the proposed development on site salinity and has been prepared in accordance with WSROC Salinity Code of Practice (2004) salinity management guidelines.

2 DOCUMENTS RELIED UPON

In preparing the SMP, we have taken into consideration:

1. The results of the salinity assessment completed by PSM and presented in our letter (Ref. PSM 1541-125L).
2. Details of the proposed developments as presented in the “*Oakdale West Optimised Masterplan Cut/Fill Plan*” by AT&L (ref. SKC051 15-272 issue P1 dated 2 June 2015).
3. WSROC Salinity Code of Practice (2004) salinity management guidelines.

3 OBJECTIVE OF SMP

The objective of this SMP is to effectively manage site salinity, to minimise the effect of the proposed development on the salinity processes and to protect the proposed development from salinity damage.

4 SALINITY ASSESSMENT

The PSM salinity assessment noted that:

1. The soils present on site are sodic to highly sodic.
2. The soils present on site are non-saline to slightly saline.

5 RECOMMENDATIONS

5.1 Development components

This SMP addresses the components of the proposed development at both the construction stage and for the permanent works. Recommendations regarding the following development components are provided in the following sections:

1. Earthworks
2. Gardens and landscaped areas
3. Roads, footpaths and hardstand areas
4. Surface water, stormwater and drainage
5. Detention basins
6. Durability of concrete structures in contact with the ground
7. Masonry structures
8. Groundwater management.

5.2 Earthworks

We understand that the development will be sympathetic to the site topography and the environment and thus aim to minimise the cut and fill. The design and construction of the earthworks should consider the following recommendations:

1. Vegetation cover should be established and maintained on permanent batters as soon as practical upon completion to control erosion.
2. The final surface of all areas of the development should be graded to prevent the ponding of surface water.
3. Subsoil drainage should be considered for areas where the designer considers accumulation of groundwater may occur. We do not consider that any significant such areas are likely at this site.
4. Erosion control of temporary batters, stockpiles and disturbed areas should be planned prior to undertaking the earthworks and implemented during the earthworks. Consideration should be given to:
 - a. Grading and sealing partially completed surfaces.
 - b. Installation of clearly visible fencing and traffic control measures to prevent unnecessary trafficking of areas and ensuing site disturbance.
 - c. Establishing set vehicular access points and roads.
 - d. Protecting stockpiles (temporary vegetation or mulching) where these are to be left in place for long durations.
5. Sediment control shall be implemented by means of sediment traps and silt fencing where considered necessary.
6. Where for landscaping purposes or erosion control the designer requires gypsum or lime stabilisation, these should be planned to be undertaken as part of the initial earthworks.

5.3 Gardens and landscaped areas

The proposed development will result in the majority of the site comprising roads, footpaths, and hardstand areas. Garden and landscaped areas are likely to be of limited extent. The design and construction of the gardens and landscaped areas should consider the following recommendations:

1. Where possible areas of established vegetation, particularly large trees, should be retained.
2. Selection of plant species should consider the soil conditions, including moderate salinity, relatively poor fertility and clayey low permeability soil profiles. Promotion of successful revegetation is likely to require use of nutrient rich topsoil. Saline topsoils should not be imported to site.

3. Recharge of groundwater and potential for water logging should be minimised by:
 - a. Adopting plant species with minimal watering requirements.
 - b. Adopting 'waterwise' gardening principles.
 - c. Minimising use of potable water in landscaped areas.
 - d. Properly designed and implemented irrigation systems.
 - e. Establishment of perennial species and deep rooted trees.

5.4 Roads, footpaths and hardstand areas

As stated, the proposed development will result in the majority of the site comprising roads, footpaths, and hardstand areas. The design and construction of roads, footpaths and hardstand areas should consider the following recommendations:

1. Roads, footpath and hardstand surfaces should be graded and the grades maintained at all times to prevent ponding of surface water at locations where this can result in infiltration into the underlying soils (e.g. pavement joints).
2. Connections between the roads, footpath and hardstand surfaces and the surface water and stormwater drainage infrastructure should be designed, constructed and maintained to restrict infiltration into underlying soils.
3. Services that are to be located below the roads, footpath and hardstand surfaces should be installed, where practical, at the time of construction.

5.5 Surface water, stormwater and drainage

Surface water, stormwater and drainage design should aim at restricting infiltration into the ground resulting in groundwater recharge. The design and construction of surface water, stormwater and drainage measures should thus consider the following recommendations:

1. Disturbance of natural drainage patterns should be reduced. Where these are disturbed or altered appropriate artificial drainage should be installed.
2. Stormwater and surface water should be managed to restrict infiltration.
3. Temporary water retaining structures used during construction should be managed to restrict infiltration.
4. Stormwater and surface water infrastructure should be designed and constructed to minimise the likelihood of leakage.
5. Guttering and down pipes should be connected and maintained.
6. Surface water runoff should be directed around all exposed surfaces, temporary stockpiles and landscaped areas.

5.6 Detention basins

Detention basins should be designed such that recharge into the groundwater system is controlled. On this basis, the design of temporary and permanent on site detention will need to consider the requirement to line the basin with an impermeable liner (clay layer or synthetic liner) or simply vegetate the exposed base.

In assessing the above requirement the design will need to consider the proposed basin location, the subsurface conditions at the basin, the proximity of the basin to other structures, the proposed storage volume and storage depth and the likely duration of water storage.

In saline environments reducing the water infiltration into the soil and groundwater recharge is considered desirable. On this site, the majority of the site is to be developed with roads and paved areas thus significantly reducing surface water infiltration. The amount of infiltration that can be tolerated at the detention basins will need to be assessed in terms of the overall water balance on site.

Where ponds intended to be permanently full are proposed, such as recreational or aesthetic ponds or fountains, it is recommended that the base of the permanent pond be lined with an impermeable liner. The liner to be adopted (clay or synthetic) shall be a matter of design.

5.7 Durability of concrete structures in contact with the ground

In designing structural concrete elements in contact with the ground the design should consider the results of the salinity, sulphate, chloride and pH testing on the soil and groundwater and the durability requirements in AS2159:2009 and AS3600:2009.

Both these standards provide guidance on minimum concrete grade/strength and minimum cover requirements.

Based on the results of the salinity assessments it is recommended that:

1. The design of structural concrete members in contact with the ground (excluding piles) adopt an A2 exposure classification as defined in AS3600:2009.
2. The design of concrete cast in situ piles adopt a mild classification as defined in AS2159:2009.

5.8 Masonry structures

Having given consideration to the very low to moderate soil salinity on site, the relatively deep water table, and the low permeability soils present on site it is considered that the design and construction of masonry structures including damp proof courses, moisture barriers and selection of brick and construction materials should be undertaken in accordance with the relevant building industry standard. We do not expect special attention to salinity will be required.

5.9 Groundwater management

The intention of groundwater maintenance at this site is to reduce the likelihood of recharge of the groundwater resulting in rising of the groundwater table to near the ground surface.

The very low to moderate soil salinity on site, the relatively deep water table, and the low permeability soils combine to reduce the likelihood of a rising groundwater table. Further, the development involves a very significant reduction in infiltration over the site.

Furthermore, the recommendations in Section 5.3 to 5.6 regarding gardens and landscaped areas, roads, footpaths and hardstand areas, surface water, stormwater and drainage and detention basins are aimed at reducing the potential for groundwater recharge.

In addition to these recommendations, use of infiltration pits to disperse surface water should be avoided.

5.10 Importation of soil

It may be required to import topsoil or other soil onto site. Materials to be imported to site should be assessed for suitability for the intended use. Saline or contaminated soils should not be imported to site.

6 SIGN OFF

We recommend the following:

The designer and contractor responsible for construction of the various development components be required to sign-off their design and the as built, certifying that:

“The works have been designed/constructed having given appropriate consideration to the recommendations in the SMP (Ref. PSM1541-125L dated xxx)”.

The designer and contractors should contact PSM during the works if they have any queries with regards to the requirements in the SMP or if conditions significantly differ from those described in this SMP.

Please do not hesitate to contact the undersigned if you have any queries.

For and on behalf of
PELLS SULLIVAN MEYNINK



CHRISTOPHER FERNANDEZ
Geotechnical Engineer



GARRY MOSTYN
Chief Engineer

APPENDIX G

Landscape Management Plan



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Oakdale West Estate (OWE)

Landscape Management Plan

Prepared by: Scape Design Pty Ltd
Prepared for: Goodman Property Services



DA MOD 6

Revision Schedule

Revision	Date	Issued by
03	08/01/19	HW & CH
04	12/06/19	HW & CH
05	25/06/19	MF & CH
06	17/07/19	HW & CH
07	20/08/19	MF & CH
08	21/08/19	MF & CH
09	20/09/19	MF & CH
10	04/10/19	MF & CH
11	31/10/19	MF & CH
12	14/11/19	MF & CH
13	30/03/20	MF & CH
14	12/08/20	MF & CH
15	29/10/20	MF & CH
16	12/02/21	CH

1	TABLE OF CONTENTS
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1	TABLE OF CONTENTS	iii
2	CONDITIONS	1
2.1	<i>Table of conditions</i>	1
3	INTRODUCTION	3
3.1	<i>General</i>	3
3.1.1	General conditions	3
3.1.2	Drawing reference	3
3.1.3	Workmanship and materials	3
3.1.4	Council Consultation	3
3.2	<i>Description</i>	3
3.2.1	Site location	3
3.2.2	Purpose of landscape management plan	4
4	SITE MANAGEMENT	5
4.1	<i>Environmental aspects</i>	5
4.1.1	Description	5
4.2	<i>Objectives & performance criteria</i>	5
4.2.1	Objectives	5
4.3	<i>Management actions</i>	5
4.3.1	Retention of existing environment	5
4.3.2	Temporary landscape management	6
4.3.3	Permanent landscape management	10
5	VISUAL AND LANDSCAPE TREATMENTS	13
5.1	<i>General</i>	13
5.1.1	Quality	13
5.1.2	Approach	13
5.1.3	Requirements	13
5.2	<i>Maintenance programs</i>	13
5.2.1	General conditions	13
5.2.2	Areas defined in landscape maintenance plan	14
5.2.3	Protection of persons and property	14
5.2.4	Rectification	14
5.2.5	Existing services	14
5.2.6	Access for maintenance	14
5.2.7	Logbook	15
5.3	<i>Maintenance works</i>	15
5.3.1	Plant care	15
5.3.2	Pruning	16
5.3.3	Spraying	16

5.3.4	Fertilising	17
5.3.5	Stakes, ties, treeguards and Root Barriers	17
5.3.6	Mulched surfaces	18
5.3.7	Hydromulching	19
5.3.8	Mowing and topdressing	19
5.3.9	Irrigation & watering	19
5.3.10	Erosion control measures	20
5.3.11	Final cleaning	20
5.3.12	Reinstatement	20
5.3.13	Adjoining property	20
5.3.14	Removal of plant	20
5.3.15	Urgent works	21
5.4	<i>Completion</i>	21
6	MAINTENANCE SCHEDULES	22
6.1	<i>Maintenance report schedule</i>	22
6.2	<i>Maintenance procedure schedule</i>	25
6.3	<i>Irrigation schedule</i>	26
6.4	<i>Pruning schedule</i>	27
6.4.1	Pruning schedule – Oakdale West Estate (OWE)	27
6.5	<i>Contingency Management Plan</i>	30
7	APPENDICES	33
7.1	<i>Referenced Landscape Drawings</i>	33
7.2	<i>Referenced Landscape Specification</i>	34
7.3	<i>Goodman Maintenance Guidelines</i>	39

2 CONDITIONS

2.1 TABLE OF CONDITIONS

Visual Amenity			
Condition No.		Condition	Action
D35. Prior to the commencement of construction of Stage 1, the Applicant must prepare a Landscape Management Plan (LMP), to the satisfaction of the Planning Secretary. The plan must form part of the CEMP in accordance with Condition D119 and the OEMP in accordance with Condition D130 and must:	(a)	be prepared in consultation with Council	Refer to Section 3.1.4 for Council Consultation
	(b)	detail procedures for the retention of existing native vegetation in the north-western corner of the Site and protection of this vegetation from construction impacts	Refer to Oakdale West Estate - Flora and Fauna Management Plan and Erosion and Erosion and Sediment Control Plan Refer to Section 4.3.1 of this LMP for species specific vegetation management.
	(c)	include visual impact mitigation measures for construction including but not limited to: (i) the location of site sheds, compounds and machinery parking areas, avoiding the western and southern side boundaries, or other locations highly visible from adjacent residential properties. (ii) procedures for progressive grassing of exposed soil, as soon as reasonably practical after disturbance, focusing on the areas where building construction will occur at a later stage	(i) Refer to Construction Environmental Management Plan and Section 4.3.2 for location of construction facilities operations. (ii) Refer to Section 4.3.2 of this LMP for procedures of progressive grassing techniques.
	(d)	detail the works required to construct the landscape bund along the western boundary of the Site, as shown on Figure 5 in Appendix 2, including provision for the landscaping to incorporate mature tree (no less than 75 litre pot size)	Refer to Section 4.3.3 of the LMP
	(e)	include a schedule of works which prioritises the construction of the landscape bund along the western boundary of the Site, as shown on Figure 5 in Appendix 2.	Refer to Section 4.3.3 of the LMP

	(f)	<i>include a program for implementing the landscape bund as soon as reasonably practicable and no later than prior to operation of Stage 1.</i>	Refer to Section 4.3.3 of this LMP
	(g)	<i>describe the integration of landscaping with fixed elements, including retaining walls and noise walls</i>	Refer to Section 4.3.3 of this LMP
	(h)	<i>describe the monitoring and maintenance procedures to ensure the success of the landscaping work over the life of the Development.</i>	Refer to Section 5 of this LMP
	(i)	<i>update the LMP to include modifications to the western bund, bio-retention basin 2/3 and the noise wall approved under MOD 3.</i>	Refer to Section 4.3.3 of this LMP
D36. The applicant must:	(a)	<i>not commence construction of Stage 1 until the LMP is approved by the Planning Secretary</i>	N/A
	(b)	<i>must implement the most recent version of the LMP approved by the Planning Secretary</i>	Noted
	(c)	<i>Include the monitoring and maintenance procedures contained in the LMP within the OEMP required in accordance with Condition D130</i>	N/A
Landscaping			
D37. The Applicant must complete the landscape bund along the western boundary of the Site as shown on Figure 5 in Appendix 2 within six months of commencing any construction including bulk earthworks.	-	-	Refer to Section 4.3.3 of this LMP

<p><i>D38. The Applicant must maintain all landscaping implemented as part of Stage 1, as shown on Figure 5 in Appendix 2, for the duration of the Development. If the monitoring carried out as part of Condition D35 indicates that any aspect of the landscaping has not been successful, the Applicant must undertake re-planting and rehabilitation works, as soon as reasonably practicable.</i></p>	-	-	<p>Refer to Section 5 of this LMP for maintenance requirements.</p> <p>Refer to Section 5.3.1 of this LMP for requirements of unsuccessful planting</p>
Management Plan Requirements			
<p><i>D118. Management plans required under this must be prepared in accordance with relevant guidelines, and include:</i></p>	(a)	<p><i>details of:</i></p> <ul style="list-style-type: none"> <i>(i) the relevant statutory requirements (including any relevant approval, license or lease conditions)</i> <i>(ii) any relevant limits or performance measures and criteria</i> <i>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures</i> 	<p><i>(i, ii)</i> In relation to landscape softworks, the following Australian Standards are applicable and have guided all landscape works: AS 4419-1998 Soils for landscaping and garden use, AS 4970-2009 Protection of existing trees on development sites (where not covered by council requirements) and AS 2303-2015 Tree stock for landscape use.</p> <p><i>(iii)</i> Refer to this LMP for more information.</p>
	(b)	<p><i>a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria</i></p>	<p>All landscape works have been designed using relevant Australian Standards as a guiding point. Refer to this LMP for more information.</p>
	(c)	<p><i>a program to monitor and report on the:</i></p> <ul style="list-style-type: none"> <i>(i) impacts and environmental performance of Stage 1</i> <i>(ii) effectiveness of the management measures set</i> 	<p><i>(i)</i> Refer to Section 6 of this LMP for maintenance and monitoring schedule</p> <p><i>(ii)</i> Refer to Section 6 of this LMP for maintenance and monitoring schedule</p>

		<i>out pursuant to paragraph (b) above</i>	
	(d)	<i>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</i>	Refer to Section 6.5 of this LMP for the contingency management plan
	(e)	<i>a program to investigate and implement ways to improve the environmental performance of Stage 1 over time</i>	Refer to Section 5.3 and Section 6 of this LMP for maintenance and monitoring requirements and schedules
	(f)	<i>a protocol for managing and reporting any:</i> <ul style="list-style-type: none"> <i>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria)</i> <i>(ii) complaint</i> <i>(iii) failure to comply with statutory requirements</i> 	Completed in CEMP
	(g)	<i>a protocol for periodic review of the plan</i>	Completed in CEMP

3 INTRODUCTION

3.1 GENERAL

3.1.1 GENERAL CONDITIONS

Contract: Oakdale West Estate (OWE)

Local Council(s): Penrith City Council

3.1.2 DRAWING REFERENCE

All landscape plans, details and specifications included in the project documents should be read in conjunction with the Landscape Management Plan. All structural and civil works components of the landscape design should be referenced to engineers' details and specifications. Read the Landscape Management Plan in conjunction with these packages. If in doubt about any details or if conflicts are found in the documents, seek advice.

3.1.3 WORKMANSHIP AND MATERIALS

All landscape works must be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques.

The landscape contractor must hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

3.1.4 COUNCIL CONSULTATION

Queries and consultation with Penrith City Council (PCC) have been resolved as per the table below:

Query	Penrith City Council (PCC) Advice	Action
-	-	No action required

3.2 DESCRIPTION

3.2.1 SITE LOCATION

The Oakdale West Estate is located in the Penrith Local Government Area (LGA) at the far south-western extent of the WSEA. The site is bound to the north by the Water NSW Pipeline and to the east by the Ropes Creek riparian corridor. Land along the eastern boundary of the site is also affected by a transmission easement associated with TransGrid infrastructure.

Other boundaries interface with adjoining rural lands used for a mix of rural-residential, agricultural. Emmaus Catholic College and Emmaus Retirement Village is located to the west of the site. To the east of the site is Goodman's Oakdale South estate.

3.2.2 PURPOSE OF LANDSCAPE MANAGEMENT PLAN

This Landscape Management Plan (LMP) has been developed as per the Development Consent for the Oakdale West Estate works specifically.

4 SITE MANAGEMENT

4.1 ENVIRONMENTAL ASPECTS

4.1.1 DESCRIPTION

The Landscape Management plan seeks to manage potential visual impacts as a result of operational activities that may affect local and regional visual receptors. These impacts need to be managed to minimise impacts to sensitive visual receptors, and satisfy the conditions of the DA.

4.2 OBJECTIVES & PERFORMANCE CRITERIA

4.2.1 OBJECTIVES

The objectives of this LMP include:

- *ensuring that the conditions of the DA and Goodman Landscape standards are met*
- *managing the visual impacts of the project to comply with the landscape performance criteria*
- *ensuring the visual and landscape treatments are consistent with the ecological revegetation works described in the Oakdale West Estate – Flora & Fauna Management Plan*

4.3 MANAGEMENT ACTIONS

4.3.1 RETENTION OF EXISTING ENVIRONMENT

Existing vegetation retention

Procedures detailing how existing native vegetation in the north western corner of the Site will be protected from construction impacts are provided for in the “Oakdale West Estate - Terrestrial Flora and Fauna Management Plan” (écologique, June 2019).

Generally, clearly marked and identified No-Go zones are to be established with star pickets and parawebbing, with site-wide vegetation clearing minimised where possible. Trees that are to be retained are to have a 2x dripline exclusion zone where no motor vehicles are to be operated. Compaction of soil and trampling of tree roots by machinery may lead to the damage and death of retained trees and should be avoided. All site offices, compounds and stockpile areas are to be located within the limits of clearing or otherwise away from No-Go zones. Construction vehicle movements are to be restricted to the haul road network or previously disturbed areas, and should not enter into retained vegetation areas beyond the approved impact areas. At no point is cleared vegetation to be bulldozed into adjacent bushland retained beyond the limits of clearing. These areas will be under the supervision of the project ecologist.

Sediment and erosion control measures are to be installed prior to earthworks and maintained for the duration of the works in accordance with the Project’s CEMP. Prior to soil disturbance, appropriate boundary sediment controls shall be installed around all biodiversity management areas and other isolated areas of remnant vegetation to be retained. Stockpiles are not to be placed within No-Go zones and shall be located at least 5 metres from existing vegetation, concentrated water flow areas, roads and hazard areas. Earth banks are to be constructed on the upslope side to divert water

around stockpiles. Further information on sediment and erosion control can be found in the "Oakdale West Estate - Terrestrial Flora and Fauna Management Plan" and the "Erosion and Sediment Control Plans"

Trees to be Retained and Protected

Refer to *Oakdale West Estate - Flora and Fauna Management Plan* for information and requirements relating to existing trees to be protected.

Tree protection measures must be in accordance with Australian Standard AS4970-2009 Protection of trees on development sites.

Any "Site works" including the demolition of existing structures or the entrance onto the site with any machinery for excavation, demolition or large-scale rubbish removal requires protection measures to be installed. These protection measures must be installed prior to the commencement of any site work in accordance with Australian Standard AS4970-2009 Protection of trees on development sites.

- *Identify and mark trees and shrubs to be retained using a suitable non-injurious, easily visible and removable means of identification.*
- *Protect from damage the trees and shrubs to be retained, including those beyond the site area, both above and below the ground.*
- *If a tree becomes damaged during the works or it is proposed to perform work on a tree, give written notice immediately and obtain instructions.*
- *Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under or near trees.*
- *Do not place spoil from excavations against tree trunks.*
- *Prevent wind-blown materials such as cement from harming trees and plants.*
- *Do not remove topsoil from, or add topsoil to, the area within the drip-line of trees.*

Where existing vegetation is to be retained, that vegetation must be protected from soil compaction, root, trunk and limb damage, soil contamination and changes in surface levels that affect the health of the vegetation.

4.3.2 TEMPORARY LANDSCAPE MANAGEMENT

Site compound access must be suitable in all weather conditions. Therefore, the main site compound is located just North of the Southern site boundary, near Bakers Lane.

The compound is identified below.



Site compounds along the southern site boundary have been offset by 40m to ensure minimal visual impact.



Image 1 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards Sensitive Receiver 2 and 3. Existing trees provide visual amenity to the proposed compound location.



Image 2 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 3 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 4 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 5 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 6 – Proposed Compound Location: Taken from proposed compound location towards Western Boundary. Existing levels are currently higher than the proposed pad bulk level. Landscape Bund to provide visual amenity and reduce the visual impact of works adjacent to school. Further detail of the Landscape Bund is located in the **Section 4.3.3 of this LMP**.

As part of the Soil and Water Management measures implemented by 'The Contractor', the topsoil that is stripped from the site will be stockpiled adjacent in berms adjacent to the tops/toes of batters. Once the earthworks batters in both cut and fill situations are complete, the topsoil will be placed back on these batters and revegetated as required. For completed building pad footprints, 'The Contractor' is to apply a stabilisation polymer with green dye to improve visual amenity of the Site, whilst simultaneously suppressing dust and erosion from exposed soil.

Landscape management actions to mitigate the construction of site sheds, compounds, and machinery parking areas fall into a temporary landscape treatment. The procedures for these treatments require progressive grassing on exposed soils following construction (after disturbance).

Progressive grassing involves seeding, which must be carried out within 2 days of completion of soil preparation, or in the case of inadequate weather conditions, as soon as reasonably practicable after preparation of earthworks. Seed mixture is to be agitated continuously during application, where it is to be applied uniformly over the whole surface. A minimum thickness must be achieved to ensure successful seed germination and growth. Further detail of progressive grassing techniques can be found within the **Landscape Specification and Drawings Packages**.

As outlined in the Visual Impact Assessment, generally visual impacts of site construction are minimal with the western edge being the main exception. As a result, a landscape bund is to be completed early on in the Projects timeline. Further detail of the Landscape Bund is located in the **Section 4.3.3 of this LMP**, and further information about visual impacts can be found in the "Visual Impact Assessment".

Refer to Detail 03-01-03 – L.CD.600 for pasture grass revegetation.

Refer to Section 7.1 and 7.2 in Appendices for referenced **Landscape Specification and Drawings**.

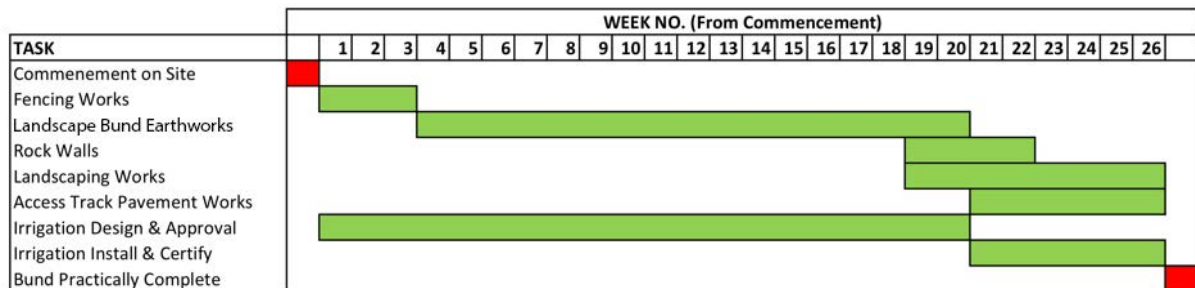
4.3.3 PERMANENT LANDSCAPE MANAGEMENT

Landscape Bund

The major screening element to be constructed will be the environmental bund along the western boundary of the site.

Once the site is established and environmental protections are in place, the new western boundary fence with snake barrier adjacent the school will be installed. Earthworks will commence to provide the spoil material for the western bund which will be formed, shaped, landscaped and irrigated, with a commitment made that this will be complete within 6 months of commencing earthworks on site, and prior to operation of Stage 1. Vegetation on this landscape bund is to incorporate mature trees that are no less than 75 litre in pot size. For further information regarding landscape bund implementation refer to the table below and Construction Management Plan.

Target Programme for Western Landscape Bund
Oakdale West Estate



Further detail of the landscape bund can be found within the Oakdale West Estate **Landscape Drawings** (Refer to Section 3 on Landscape Drawing L.CD.501 and detail 08-02-08 on Landscape Drawing L.CD.601).

Integration of landscaping with fixed elements

The Integration of fixed elements and the landscape within the Oakdale West Estate (OWE) include elements such as:

Bio Retention Basins No.'s 2, 3, 4 and 5

Bio Retention Basins are to have a 1m turf strip at the top of the batter to ensure the hinge point is covered as this is a critical erosion area. Below this, the basins are to be vegetated with **RM3** 'Pasture Grass Revegetation Mix'. Refer to Landscape detail 03-01-02 on L.CD.600 and Section 4.8 under **Landscape – Planting in the Landscape Specification** for further details. Refer to Section 7.1 and 7.2 in Appendices for referenced Landscape Specification and Drawings.

Drainage Culverts

All drainage culverts are to be finished as per the CIVIL ENG. Drawings. Monitor maintenance requirements at the interface of all drainage culverts & gutters (Section 5 of this LMP).

Entry Signage

Entry signage is typically to be installed within TF1 – Turf Rolls. Monitor Maintenance requirements of lawn care with interface elements (Section 5 of this LMP).

Fencing & Gates

All fencing and gates are to be finished as per the CIVIL ENG. Drawings. Monitor Maintenance requirements with lawn care at fence and gate interfaces (Section 5 of this LMP).

Maintenance and Access Tracks

Typically, the maintenance tracks around the Bio Basins are to be revegetated with **RM1A/B & RM3**. Refer to Landscape detail 03-01-02 and 03-01-03 on L.CD.600 for further details

Noise Walls

Noise walls are typically to be installed within TF1 – Turf Rolls or revegetation mixes (seed). Monitor maintenance requirements of lawn care, hydroseeding and their interfaces (Section 5 of this LMP).

Planted Verges (Excluding Turfing)

Where road medians and verges are to be planted, **250mm of mulch only** is to be used next to kerbing. Refer to Landscape detail 03-02-20 on L.CD.600 for further details.

Retaining Walls

Retaining walls and balustrading are to be finished as per CIVIL ENG. Drawings. Planting at the top of RW09 is inclusive of spill over species (PM4B) these are to be planted at the front of the top of the wall. PM4B is also to be planted at the base of the wall as a buffer between the outlet swale and RW09. **Refer to Section 4 on Landscape Drawing L.CD.501** for further detail.

5 VISUAL AND LANDSCAPE TREATMENTS

5.1 GENERAL

5.1.1 QUALITY

This section of the Landscape Management Plan describes the procedures to ensure the success of the landscaping work over the life of the development.

All landscaped areas must be maintained to the approval of the principal and landscape architect.

5.1.2 APPROACH

A proactive approach to all landscape tasks must be adopted to ensure that the appearance of the landscape as a whole is highly presentable at all times.

5.1.3 REQUIREMENTS

Contractors must submit annual routine landscape maintenance program to the Project Superintendent, Landscape Manager and/or the Landscape Architect within two weeks of the contract commencement date.

It is the contractor's responsibility to ensure the success of the landscaping work over the establishment period of the development.

5.2 MAINTENANCE PROGRAMS

5.2.1 GENERAL CONDITIONS

The Contractor shall rectify all defects during installation that become apparent in the works during the defect's liability period **(18 months)**.

The Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices between the date of practical completion and the date of final completion **(18 months)**.

The landscape maintenance works shall include, but not be limited to the following:

- *Replacing failed plants*
- *Pruning*
- *Herbicides/Insect and pest control*
- *Fertilizing*
- *Maintaining mulch*
- *Mowing*
- *Watering/Irrigation*
- *Weeding*
- *Rubbish removal; and Cleaning of the surrounding areas.*
- *Timber stakes and ties*

Ongoing maintenance: Ongoing maintenance facilitated by the Owner's corporation. Goodman is to contract the management of all landscape areas. The standard specification and reporting requirements of this contract are located in Goodman's Landscape Guidelines. **Refer to Section 7.3 in Appendices** for further detail.

Safety: Safety procedures/ plans are to be documented for review by Principal prior to commencement of work.

Failure to maintain the landscape planting in a healthy condition may result in the Principal arranging for the maintenance work to be carried out by others at your expense.

5.2.2 AREAS DEFINED IN LANDSCAPE MAINTENANCE PLAN

Hard and Soft Landscape works to be maintained throughout the maintenance program includes all landscape areas including the landscape bund and street trees.

5.2.3 PROTECTION OF PERSONS AND PROPERTY

Temporary works: Provide and maintain required barricades, guards, fencing, shoring, temporary roadways, footpaths, signs, lighting, watching and traffic flagging.

Accessways, services: Do not obstruct or damage roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services.

Property: Do not interfere with or damage property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees.

5.2.4 RECTIFICATION

Accessways, services: Rectify immediately any obstruction or damage to roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Provide temporary services whilst repairs are carried out.

Property: Rectify immediately any interference or damage to property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees.

5.2.5 EXISTING SERVICES

General: Attend to existing services as follows:

- *If the service is to be continued, repair, divert or relocate. Submit proposals.*
- *If the service crosses the line of a required trench, or will lose support when the trench is excavated, provide permanent support for the existing service. Submit proposals.*
- *If the service is to be abandoned, remove redundant parts, and make safe.*

Proposals: Submit proposals for action to be taken with respect to existing services before starting this work. Minimise the number and duration of interruptions.

5.2.6 ACCESS FOR MAINTENANCE

Requirement: Provide access for maintenance of plants and equipment.

Standards: Conform to the relevant requirements of AS 1470, AS 1657, AS/NZS 1892.1, AS 2865 and AS/NZS 3666.1.

Work Health and Safety: Conform to the requirements of the applicable Work Health and Safety regulations for all temporary and permanent works.

Protection from injury: Protect personnel from injury caused by contact with objects including those that are sharp or protrude at low level.

5.2.7 LOGBOOK

Ensure a Maintenance Logbook is recorded to demonstrate that maintenance work has been undertaken and what materials, including chemical materials, have been used throughout the maintenance and establishment period.

The logbook must include the date of visit, maintenance works completed, maintenance works in progress and maintenance works required. The logbook must give details of damaged, dead or missing plants and show their locations on the relevant sheets of the Drawings.

Use the logbook to identify chemicals used as well as the reason for their use. Submit the initial logbook for inspection prior to Practical Completion and again at the end of the Defects Liability Period as a prerequisite for granting Practical and Final Completion Certificates.

Record all major events and activities in the logbook. Ensure the logbook is available for inspection on request.

5.3 MAINTENANCE WORKS

5.3.1 PLANT CARE

Planting: Ensure the general appearance and presentation of the landscape and the quality of plant material at date of practical completion is maintained for the full planting establishment period. Trees, shrubs and groundcovers shall at all times display healthy growth. Spent flower heads or stalks shall be removed immediately following flowering.

All shrubs, hedges, ground covers and trees must be trimmed into shape as required to an acceptable presentation standard.

Excessive foliage impacting onto roads, paths, fencing and lighting must be pruned during all site visits. Leaf litter and or all cuttings should be removed from all gardens and site each visit and disposed of at contractor's cost. Any dead or dying plants/shrubs should be removed and replaced with same or comparable species. The Landscape Manager must be consulted when large trees need to be removed and or replaced. The contractor will maintain each plant in a healthy condition to increase the visual appeal of the gardens.

Replacements: Replace failed, dead and/or damaged plants at maximum 3-week intervals as necessary throughout the full plant establishment period. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the Contractor unless advised otherwise. If the cause of the failure is due to a controllable situation then correct the situation prior to replacing plants. Keep all planting areas as specified and free of grass and weed.

Carry out grass and weed removal at intervals of not more than four (4) weeks and ensure that weeds do not flower to form seed heads.

For those species listed by the relevant local government authority as noxious under the [Biosecurity Act 2015](#) take action as required by that local Government Authority (Penrith City Council). [Refer to the Flora and Fauna Management Plan \(FFMP\) for further information regarding Weed Management and Mitigation Measures.](#)

5.3.2 PRUNING

General: Prune to the Pruning schedule and AS 4373.

Any pruning requested by the Landscape Architect shall be performed, including any pruning of damaged growth or miscellaneous pruning considered as beneficial to the condition of the plants. All pruning works shall be undertaken in a manner equal to acceptable horticultural practice.

Pruning to ensure pathways, roads, lighting and services such as fire hydrants, overhead services and signs are kept clear from encroaching growth of plant material at all times.

- *Remove all damaged, dead or diseased wood by pruning to the nearest lateral shoot or active bud with a neat clean cut*
- *No more than 40mm - 50mm of new growth present on hedges at any time*
- *Remove all spent or dead flower heads from plants following flowering*
- *Prune young shrubs for shape by pinching out the growing tips to encourage lateral bushy growth*
- *Hedging shall be carried out to appropriate plants within garden beds. This should be carried out on a regular basis so as to avoid cutting back into 'old wood' in order to achieve the desired form.*
- *All existing hedges on site to be maintained*
- *Removal of suckers from base of trunks*
- *Formative pruning of trees to allow effective canopy development and retain natural or desired shape of the tree*
- *Pruning cuts shall be made and close to the bud at a 45° angle to ensure that any water is shed away from the bud*

5.3.3 SPRAYING

Responsibility for insect and disease control: Contractor

Period of treatment: Until the problem has been eliminated.

Chemical spray: Apply outside of normal working hours.

Avoid spraying:

- *whenever possible*
- *in the case of wet weather*
- *if wet weather is imminent*
- *if target plants are still wet after rain*
- *during windy weather*
- *if adjacent desirable species are too close to the target plants to be avoided.*

Do not spray where herbicide could fall into a watercourse or when wind conditions could cause drift outside the area to be treated or onto desirable plants.

After spraying, lop any dead weeds flush with the ground surface and dispose of the cuttings. Remove by hand any weeds which cannot be controlled by herbicide. Ensure that the entire weed including all roots is removed. Dispose of the weeds off site.

Immediately report to the Project superintendent/landscape manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work.

When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Record in the logbook all relevant details of spraying activities including:

- *Product brand / manufacturer's name*
- *Chemical / product name*
- *Chemical contents*
- *Application quantity and rate*
- *Date of application and location*
- *Results of application*

5.3.4 FERTILISING

Soil tests: Take samples from planting beds areas and conduct tests.

Fertilising: Base the fertilisation program on the soil testing results. Fertilise trees once every two years. Generally, apply an all-purpose fertiliser of N:P: K (nitrogen: phosphorus: potassium) 10:4:6 at recommended rates. Alternatively apply 12-month slow release fertiliser (such as Nutricote) at the manufacturer's recommended rate. Apply all-purpose fertiliser to shrubs annually in two bands and cultivated into the soil 100 mm deep.

Record in the logbook all relevant details of fertilizing including:

- *Product brand / manufacturer's name*
- *Fertilizer / product name*
- *Application quantity and rate*
- *Date of Application and Location*

5.3.5 STAKES, TIES, TREEGUARDS AND ROOT BARRIERS

Stakes

Generally: If plants are unable to be self-supported or if stakes are damaged, stake or restake the plants

Material: Hardwood, straight, free from knots or twists, pointed at one end.

Installation: Drive stakes into the ground at least one third of their length, avoiding damage to the root system.

Stake sizes and quantities:

- *For plants ≥ 2.5 m high: Three 50 x 50 x 2400 mm stakes per plant.*

- For plants 1 to 2.5 m high: Two 50 x 50 x 1800 mm stakes per plant.
- For plants < 1 m high: One 38 x 38 x 1200 mm stake per plant.

Ties

General: Provide ties fixed securely to the stakes, one tie at half the height of the main stem, others as necessary to stabilise the plant. Attach ties loosely so as not to restrict plant growth.

Tie types:

- For plants ≥ 2.5 m high: Two strands of 2.5 mm galvanized wire neatly twisted together, passed through reinforced rubber or plastic hose, and installed around stake and stem in a figure eight pattern.
- For plants < 2.5 m high: 50 mm hessian webbing stapled to the stake.

Marker stakes

Material: Timber offcuts 25 x 25 x 1200 mm. Dip the top 200 mm in white paint.

Installation: Drive firmly into the ground at least 300 mm from the plant. Do not tie to the plant.

Location of marker stakes:

- Trees in grass: Mark each tree.
- Rip line planting areas: Mark each rip line at every fifth plant along the line.

Trunk protection/Tree guards

Collar guards: 200 mm length of 100 mm diameter agricultural pipe split lengthways.

Removal: If plants are robust with well-developed systems and are strong enough to no longer require support, remove stakes and ties at the end of the planting establishment period (Defects Liability Period).

- Adjust and replace as required to ensure plants remain correctly staked.
- Repair any tree ties that have been broken and replace any missing stakes.
- Maintain the tree guards around each plant so that the natural plant growth is not impeded or restricted. Replace damaged and missing tree guards as soon as practicable after being identified.
- Remove tree guards progressively as plants mature and where it is deemed that the tree guard provides no further benefit to the establishment of the plant.

Root Barriers

Type/ location: Street Trees Refer Detail 08-02-22 on L.CD.601 City Green 'ReRoot' 600mm Depth

Supplier: City Green. Ph: +61 1300 066 949

<https://citygreen.com/products/reroot/>

5.3.6 MULCHED SURFACES

The contractor is required to maintain all areas of mulch cover within garden beds. Displaced mulch should be returned to the garden beds wherever possible. All areas of mulch cover must be packed to a depth of 75mm. If replacement of mulch is required, the contractor must notify the Landscape Manager and provide quotation for approval. Specific mulch must be approved prior to installation.

5.3.7 HYDROMULCHING

General: Maintain temporary and permanent grassing areas.

Weeding: Remove weeds that emerge in newly established hydroseeded/hydromulched areas.

Reseeding: Repair topsoil, supplementing if necessary, to achieve design surface levels. Reseed over the course of the contract to maintain required densities and repair bare patches.

Watering: Until germination, keep the surface damp and the topsoil moist but not waterlogged.

After germination: Water to maintain a healthy condition, progressively hardened off to the ambient climatic conditions

5.3.8 MOWING AND TOPDRESSING

Mow and edge all turf areas and remove all grass clippings. Do not mow if there is litter, roadside rubbish and debris left on the turf as the litter may be transformed into confetti-like pieces after mowing.

Unless directed otherwise, the cut grass height must not be less than 35 mm or greater than 75 mm. Do not remove more than 50% of the height of the uncut grass at any one time. The upper limit may be varied to account for terrain, species of grass and presence of debris. Clippings may remain where they fall, except for those that fall on road surfaces, line drains, footways or paved areas where they must be swept clear.

Lawn care

Lawn areas, including nature strips must be neatly mown and edged weekly in the high season (summer months), fortnightly in the low season (winter months), or weekly if required due to abnormal weather condition. All clippings must be removed from the site. All lawns must be fertilized once a year with an approved lawn fertilizer.

Interface Issues

Where landscape treatments requiring lawn care interface fixed elements such as signage, fencing and walling ensure optimal care to avoid damaging the fixed element.

5.3.9 IRRIGATION & WATERING

Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy growth, adjust and rectify as required.

Provide additional hand watering, if irrigation system fails or is yet to be installed. Undertake watering at two-day intervals for four weeks after completion of each planting area.

The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency. The system should be tested during each site visit to ensure proper operation timing is set correctly. Adjustments must be made where necessary.

It is the contractor's responsibility to submit a bi-monthly report throughout the defect's liability period. This report should include a comprehensive report on the operational function of the system.

Notification as to when the system is in need of major repair must be done so immediately as the cost of major repairs to the system can be claimed as variation to the contract price and should be invoiced separately.

When water restrictions prevent the use of the irrigation system, arrangements must be made by the contractor to provide an alternative system of watering. Under no circumstances should plant stock be allowed to perish through lack of water.

Locations of water supply points have been marked indicatively on Landscape Drawings; all irrigation supply conduits are subject to Sydney Water Approval.

5.3.10 EROSION CONTROL MEASURES

Where necessary, maintain the erosion control devices in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary. [Refer to the Erosion and Sediment Control Plan for erosion control measures.](#)

5.3.11 FINAL CLEANING

Lamp and filter replacement and the like are dealt with in the various SERVICES worksections.

General: Before practical completion, clean throughout, including interior and exterior surfaces exposed to view. Clean debris from the site, roofs, gutters, downpipes and drainage systems. Remove waste and surplus materials.

The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set.

Samples: Remove non-incorporated samples, prototypes and sample panels.

5.3.12 REINSTATEMENT

General: Before practical completion, clean and repair damage caused by installation or use of temporary work and restore existing facilities used during construction to original condition.

5.3.13 ADJOINING PROPERTY

Evaluation: At practical completion, for properties described in the Adjoining properties to be Recorded schedule inspect the properties with the project superintendent, recording any damage that has occurred since the pre-commencement inspection.

5.3.14 REMOVAL OF PLANT

General: Within 10 working days after practical completion, remove temporary works and construction plant no longer required. Remove the balance before the end of the defect's liability period.

5.3.15 URGENT WORKS

Not with standing anything to the contrary in the Contract, the Project Superintendent may instruct the Contractor to perform urgent maintenance works that place the completed contract works at risk.

If the Contractor fails to carry out the work within seven (7) days of such notice, the Project Superintendent (or representative) reserves the right without further notice to employ others to carry out such urgent and specified work and charge the cost to the Contractor. Such work shall include but not limited to the inspection and clearing of drains in the pavement and gardens.

5.4 COMPLETION

A final inspection shall be made by the Project Superintendent, Contractor and Landscape Architect before the completion of the Plant Establishment Maintenance Period (Defects Liability Period).

Any items requiring rectification shall be repaired before completion of the relevant works and finally approved prior to certification.

Maintenance requirements should extend for a minimum of 18 months after the completion of works (i.e. Practical Completion or PC). Prior to handover, the contractor(s) is/are required to submit all maintenance records, progress reports and a final monitoring report. The final monitoring report shall provide a summary of all works undertaken during the plant establishment period.

6 MAINTENANCE SCHEDULES

The following Maintenance Schedule is only applicable to the 'Defects Liability Period' and/or 'Establishment Period'.

6.1 MAINTENANCE REPORT SCHEDULE

General

Landscape Maintenance Schedule, Landscape Maintenance Procedure Schedule and Landscape Specification are to be read in conjunction with one another

Task	Activity	Frequency						Action
		D	W	F	M	3-6M	Y	
1	Logbook				x		x	<p>Complete a logbook entry when at site and at a minimum every two weeks.</p> <p>Upon request, make the logbook available for inspection. Submit copies of new entries in the logbook to the Contract Administrator on a monthly basis.</p> <p>Maintenance requirements should extend for a minimum of 1 year after the completion of works or until such time as a minimum 80% survival rate for all plantings and a maximum five percent (5%) weed cover for the treated riparian corridors, basins and verge/median planting is achieved.</p>
2	Planting and Replacement			x	x			<p>Inspect planting every 2 weeks and remove spent flowers and dead stalks as they become apparent.</p> <p>Inspect and replace failed plants within 2 weeks of observation of failure. Match species with original planted sizes and location of new with old.</p>
3	Pruning			x				Inspect every 2 weeks and prune as necessary to remove dead wood.

MAINTENANCE

								Pruning should Improve plant shape and promote healthy new growth.
4	Spraying			x				Inspect every 2 weeks and action as necessary. Do not spray if other nonchemical methods will satisfy the need to remove pests. Spray for disease control only when absolutely necessary.
5	Fertilising					x		Fertilise gardens every 3 months or in accordance with fertiliser manufacturer's directions.
6	Stakes and Ties			x			x	Inspect every 2 weeks, adjust and/or replace as necessary but remove as plants mature and are able to support themselves.
7	Mulching			x			x	Inspect and replace mulch deficiencies within 2 weeks of observation. Prior to placing new mulch aerate the soil by fork turning to a depth of at least 100mm, roughly level the soil and then place mulch. Do not disturb major plant roots while aerating soil. It can be expected that mulch will have significantly broken-down after an estimated 12-month period following initial application. It is therefore, recommended that all mulch beds are topped-up with a 50mm layer of woodchip/leaf mulch (Compliant with AS 4454) at this stage. This should be accompanied by a topdressing application of a 9-month, slow release, low phosphorous fertilizer to ensure that semi-established plantings do not suffer as a result of potential nitrogen draw-down that may be associated with the application of the 50mm mulch layer at yearly period.
8	Hydroseeding		x		x		x	Remove weeds monthly that emerge in newly established hydroseeded/hydromulched areas.

MAINTENANCE

								<p>Reseed monthly over the course of the contract to maintain required densities.</p> <p>Water until germination, keep the surface damp and the topsoil moist but not waterlogged. After germination: Water to maintain a healthy condition, progressively hardened off to the ambient climatic conditions</p>
9	Mowing and Topdressing			x	x	x		<p>Summer fortnightly. Winter monthly.</p> <p>Top-dress 6 monthly.</p>
10	Irrigation and Watering	x		x				<p>Water when and where necessary every day at site and at least every 2 weeks generally. Do not allow soil and plants to dehydrate. Allow for prolonged rain, windy and dry periods. Water in the early morning or late afternoon to avoid excessive evaporation during the heat of the day.</p>
11	Erosion Control Measures							<p>Refer to the Erosion and Sediment Control Plan for erosion control measures.</p>
12	Final Cleaning		x				x	<p>Inspect and remove litter immediately upon observation. Leave no waste on site. Dispose of waste material at a designated waste disposal site. All herbaceous weeds should be managed to be at very-low percentage cover levels, (as a minimum), or better. Pasture grasses should be prevented from spreading into any bushland zones by applying a spot glyphosate herbicide spray application on the 1-metre wide buffer zone, on a monthly basis or as required. Maintenance weeding for a period of 12 months after the completion of primary works with an increase in maintenance hours occurring throughout the warmer growing months.</p>

13	Urgent Works		x					Complete within 1 week (7 days) of notification. Inspect and clear drains as required.
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* Key: D – Daily, W – Weekly, F – Fortnightly, M – Monthly, 3-6M – Quarterly or Half Yearly, Y – Yearly

6.2 MAINTENANCE PROCEDURE SCHEDULE

Maintenance Scope of Works

The Maintenance procedure schedule should be used as a check list of tasks when in attendance

Week	Spring (Sep, Oct, Nov)	Summer (Dec, Jan, Feb)	Autumn (Mar, April, May)	Winter (June, July, Aug)
1	Mow and trim lawns	Mow lawns, weed	Mow Lawns	Weed
2	Weed; trim and adjust trees and shrubs	Weed; mow lawns, trim and adjust trees and shrubs	Weed; mow lawns, trim and adjust trees and shrubs	Mow and trim lawns Trim and adjust trees and shrubs
3	Mow and fertilise lawns; treat plant material for insects and disease	Mow lawns; weed; treat plant material for insects and disease	Mow and trim lawn	Weed
4	Weed; topdress, condition lawns and oversow bare patches; issue logbook	Weed; mow and trim lawns; issue logbook	Weed; mow lawns; issue logbook	Mow lawns; issue logbook
5	Fertilise all trees and shrubs in garden beds; mow and trim lawns	Mow lawns; weed	Mow lawns	Mow lawns
6	Weed; inspect mulch for deficiencies in cover; check and adjust irrigation	Mow lawns; check and adjust irrigation	Weed; inspect mulch for deficiencies in cover; check and adjust irrigation	Mow and trim lawns; treat for insects and disease; check and adjust irrigation
7	Reinstate mulch as required; treat plant material for insects and disease; mow lawns	Mow lawns; weed	Reinstate mulch as required; mow, trim and fertilise lawns	Weed
8	Weed; inspect condition of paving and furniture; issue	Mow and trim lawns; inspect condition of paving &	Weed; inspect condition of paving and furniture; issue	Mow lawns; Inspect condition of paving and furniture; issue

	logbook	furniture; issue logbook	logbook	logbook
9	Mow and trim lawns	Mow lawns; treat plant material for insects and disease	Mow lawns	Weed
10	Weed; mow lawns	Mow and topdress lawns	Weed; treat plant material for insects and disease	Mow and trim lawns
11	Mow and fertilise lawns; trim and adjust trees and shrubs	Mow lawns; trim and adjust lawns; weed	Weed	Mow lawns; treat plant material for insects and disease
12	Weed; mow lawns; treat plant material for insects and disease	Mow, trim & fertilise lawns	Weed	Mow lawns; treat plant material for insects and disease
13	Check and adjust irrigation; mow lawns; issue logbook	Check and adjust irrigation; mow lawns; weed; issue logbook	Check and adjust irrigation; mow lawns; weed; issue logbook	Check and adjust irrigation; weed; issue logbook

6.3 IRRIGATION SCHEDULE

The following Irrigation Schedule is only applicable to the 'Defects Liability Period' and/or 'Establishment Period'.

Irrigation Maintenance Schedule

The Irrigation Maintenance Schedule should be used as a check list of minimum attendance

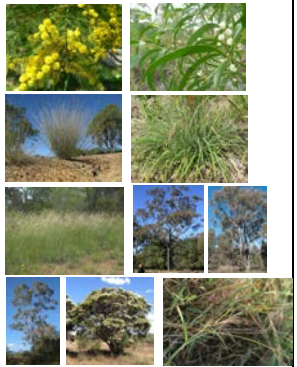
Task	Timeframe
Filters – Mainline	Monthly
Electrical Source Output (auto system)	Monthly
Controller (automatic system)	Monthly
Operation – Progression	Monthly
Activation of Valves	Monthly
Timing of Stations	Bi-Annually
Time and Day Readings	As Required
Exterior Appearance	Bi-Annually
Valve Operation	Bi-Annually
Open/Close Weeping	As Required
Sprinkler Operation	As Required
Rotaries – Clogged Nozzles	Bi-Monthly
Plant Obstructed Pattern	Bi-Monthly
Arc Coverage	Bi-Monthly

Radius Adjustment	Bi-Monthly
Pop-up Action	Bi-Monthly
Riser Seal Leaks	Bi-Monthly
Set to Grade	Bi-Monthly
Coverage Pressure	Bi-Monthly
Rotational Speed	Bi-Monthly
Clogged Screens	Bi-Monthly
Head Damage	Bi-Monthly
Piping	Bi-Monthly
Leaks – Broken or Cracked	As Needed
Poor Welding or Threading	As Needed
Connection	As Needed
Clogged Piping	As Needed
Irrigation Report	Bi-Monthly


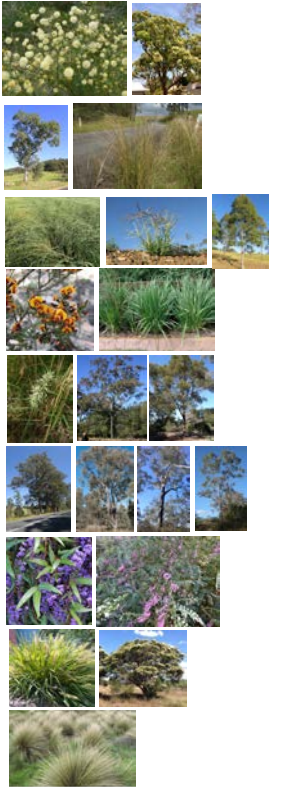
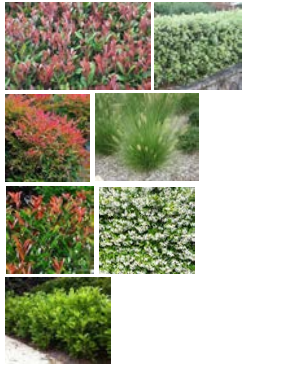
6.4 PRUNING SCHEDULE



The contractor is to prune all plants or shrubs species as required to satisfy Goodman's presentation standard. Pruning should be carried out on a 'needs-basis' specific to each plant. Pruning should be carried out to encourage new growth that will result in a dense canopy density. No more than 30mm of new growth should be seen before pruning takes place. All plant pruning should be carried out using best horticultural techniques. No hedging of native grasses permitted at any time.



6.4.1 PRUNING SCHEDULE – OAKDALE WEST ESTATE (OWE)

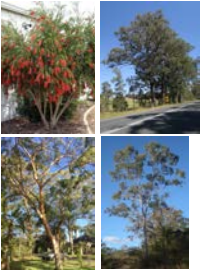



Plant Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
PM2	Native Screen Planting <i>Acacia decurrens</i> <i>Acacia implexa</i> <i>Aristida ramosa</i> <i>Cymbopogon refractus</i> <i>Dichelachne micrantha</i> <i>Eucalyptus crebra</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus tereticornis</i> <i>Melaleuca decora</i> <i>Themeda triandra</i>	Native Grasses Drought tolerant, low water and fertiliser requirements. Shrubs/Groundcovers Drought tolerant, low water and fertiliser requirements. General Trees Plant in moist soils and ensure sufficient water when young	Native Grasses Remove spent flowers and any dieback. Only prune to maintain safe access. Shrubs/Groundcovers Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access. Trees Prune during flower dormancy and to encourage dense canopy	

MAINTENANCE

Plant Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
PM3A	Verge Planting <i>Gazania tomentosa</i> <i>Hibbertia scandens</i> <i>Trachelospermum jasminoides</i> <i>Trachelospermum jasminoides</i> 'Tricolor'	Shrubs/Groundcovers Drought tolerant, low water and fertiliser requirements.	Shrubs/Groundcovers Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.	
PM4A	Mound Planting <i>Acacia falcata</i> <i>Angophora floribunda</i> <i>Angophora subvelutina</i> <i>Bothriochloa decipens</i> <i>Bursaria spinosa</i> <i>Chloris truncata</i> <i>Corymbia maculata</i> <i>Daviesia ulicifolia</i> <i>Dianella revolute</i> <i>Echinopogon caespitosus</i> <i>Eucalyptus crebra</i> <i>Eucalyptus eugenioides</i> <i>Eucalyptus fibrosa</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus pilularis</i> <i>Eucalyptus tereticornis</i> <i>Hardenbergia violacea</i> <i>Indigofera australis</i> <i>Lomandra longifolia</i> <i>Melaleuca decora</i> <i>Poa labillardieri</i>	Native Grasses Drought tolerant, low water and fertiliser requirements. Shrubs/Groundcovers Drought tolerant, low water and fertiliser requirements. General Trees Plant in moist soils and ensure sufficient water when young	Native Grasses Remove spent flowers and any dieback. Only prune to maintain safe access. Shrubs/Groundcovers Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access. Trees Prune during flower dormancy and to encourage dense canopy	
PM4B	Shrub and Groundcover Planting <i>Acmena smithii</i> 'Minor' <i>Metrosideros thomasi</i> <i>Nandina domestica</i> 'Gulf Stream' <i>Pennisetum alopecuroides</i> 'Nafray' <i>Photinia x fraseri</i> 'Red Robin' <i>Trachelospermum jasminoides</i> <i>Viburnum odoratissimum</i>	Native Grasses Drought tolerant, low water and fertiliser requirements. Shrubs/Groundcovers Drought tolerant, low water and fertiliser requirements.	Native Grasses Remove spent flowers and any dieback. Only prune to maintain safe access. Shrubs/Groundcovers Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.	

Plant Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
PM5	Basin Planting <i>Carex appressa</i> <i>Dianella longifolia</i> <i>Imperata cylindrica</i> <i>Juncus usitatus</i> <i>Lomandra longifolia</i>	Native Sedges/Grasses Tolerates periods of water inundation. If pruning for safe access is required never prune more than 1/3 of leaf total length.	Native Sedges Remove spent flowers and any dieback. Only prune to maintain safe access.	
PM7A	Feature Planting <i>Doryanthes excelsa</i> <i>Lorapetalum chinense rubrum</i> 'China Pink'	Shrubs/Groundcovers Drought tolerant, low water and fertiliser requirements.	Shrubs/Groundcovers Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.	

Revegetation Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
RM1A & RM1B	Native Grasses and Groundcovers on Fill Embankment/Cut Batter <i>Aristida vagans</i> <i>Austrostipa ramosissima</i> <i>Chloris truncata</i> <i>Cymbopogon refractus</i> <i>Danthonia tenuior</i> <i>Dichelachne micrantha</i> <i>Entolasia stricta</i> <i>Eragrostis brownii</i> <i>Imperata cylindrica</i> <i>Poa labillardieri</i> <i>Themeda australis</i>	Native Grasses Drought tolerant, low water and fertiliser requirements. Shrubs/Groundcovers Drought tolerant, low water and fertiliser requirements.	Native Grasses Remove spent flowers and any dieback. Only prune to maintain safe access. Shrubs/Groundcovers Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.	
RM3	Pasture Grasses <i>Cynodon dactylon</i> (Royal Bengal Couch)	Annual / Perennial Grasses Quick growing and soil stabilising species, ensure complete coverage of area and eradicate any competing undesirable species.	N/A	

Tree Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
Tree Mix 1	Street Trees <i>Callistemon viminalis</i> 'Hannah Ray' <i>Eucalyptus fibrosa</i> <i>Eucalyptus punctata</i> <i>Eucalyptus tereticornis</i>	Street Trees Plant in moist but well drained soils with full or partial sun.	Trees Prune during flower dormancy, to encourage dense canopy and maintain safe access.	
Tree Mix 2	General Trees <i>Angophora floribunda</i> <i>Corymbia maculata</i> <i>Eucalyptus crebra</i> <i>Eucalyptus fibrosa</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus tereticornis</i>	General Trees Plant in moist but well drained soils with full or partial sun.	Trees Prune during flower dormancy, to encourage dense canopy and maintain safe access.	
Tree Mix 3	Mound Trees <i>Angophora costata</i> <i>Eucalyptus amplifolia</i> <i>Eucalyptus crebra</i> <i>Eucalyptus fibrosa</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus tereticornis</i>	Mound Trees Plant in moist but well drained soils with full or partial sun. Ensure sufficient water when young.	Trees Prune during flower dormancy, to encourage dense canopy and maintain safe access.	
Tree Mix 4	Feature Street Trees <i>Magnolia grandiflora</i> 'Exmouth' <i>Pyrus calleryana</i> 'Bradford'	Feature Street Trees Plant in moist soils and ensure sufficient water when young. Mulch in summer to retain high moisture levels and fertilise in spring to enhance floral display.	Trees Prune during flower dormancy, to encourage dense canopy and maintain safe access.	

6.5 CONTINGENCY MANAGEMENT PLAN

Contingency Management Plan – Oakdale West Estate

Key Element	Trigger/Response	Condition Green	Condition Amber	Condition Red
Irrigation	Trigger	Irrigation system operating at optimum frequency.	Irrigation system yet to be installed.	Irrigation system fails.

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue to monitor.	Provide additional hand watering until system is installed.	Provide additional hand watering until system is repaired. The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency.
Plant Failure	Trigger	No significant plant failure is present. Monitoring verifies that there is <5% of plants failing.	Monitoring verifies there is plant failure at a rate between 5% -10%.	Monitoring verifies there is plant failure at a rate greater than 10%.
	Response	No response required. Continue to monitor.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species. of variety of the ones failed.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species. of variety of the ones failed.
Revegetation Failure	Trigger	Revegetation is growing to desired design surface levels	Monitoring verifies that weed emergence has occurred.	Monitoring verifies that weed emergence and plant failure has occurred.
	Response	No response required. Continue to monitor.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include the removal of weeds as per Section 5.3.7 of this LMP.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include removal of weeds and re-seeding of revegetation cover crop as per Section 5.3.7 of this LMP.

MAINTENANCE

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
Slope Failure	Trigger	No significant erosion is present that would constitute a safety hazard or compromise the capability of supporting the end land use. Monitoring verifies there are no gully or tunnel erosion features, or rill erosion >200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion 200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion > 200mm deep.
	Response	No response required. Continue to monitor.	A suitably trained person to inspect the site. Investigate opportunities to install water management infrastructure to address erosion. Remediate as appropriate.	Undertake a review of the drainage of the area and provide recommendations to appropriately remediate the erosion. Remediate as soon as practicable.

7 APPENDICES

7.1 REFERENCED LANDSCAPE DRAWINGS

7.2 REFERENCED LANDSCAPE SPECIFICATION

SD-163-18 Oakdale West Estate

Landscape – Planting

Quantity of Soil Additive

Plant Size	Quantity
"Viro-Tube"	Nil
"Forestry Tube"	20 grams
"Semi Advanced"	40 grams
"Advanced"	80 grams
"Super Advanced"	400 grams
"Semi Mature"	One kilogram

3.8 STAKES AND TIES

Stakes

Material: Hardwood, straight, free from knots or twists, pointed at one end.

Installation: Drive stakes into the ground at least one third of their length, avoiding damage to the root system.

Stake sizes:

- For plants ≥ 2.5 m high: Three 50 x 50 x 2400 mm stakes per plant.
- For plants 1 to 2.5 m high: Two 50 x 50 x 1800 mm stakes per plant.
- For plants < 1 m high: One 38 x 38 x 1200 mm stake per plant.

Ties

General: Provide ties fixed securely to the stakes, one tie at half the height of the main stem, others as necessary to stabilise the plant. Attach ties loosely so as not to restrict plant growth.

Tie types:

- For plants ≥ 2.5 m high: Two strands of 2.5 mm galvanized wire neatly twisted together, passed through reinforced rubber or plastic hose, and installed around stake and stem in a figure of eight pattern.
- For plants < 2.5 m high: 50 mm hessian webbing stapled to the stake.

Trunk protection

Collar guards: 200 mm length of 100 mm diameter agricultural pipe split lengthways.

3.9 SEED PREPARATION

Where site conditions are not suitable for the pre-treatment and mixing of native and grass seed, this work may be done off site in conditions conducive for this purpose.

HOLD POINT

Process Held:	Use of seed pre-treated off site.
Submission Details:	At least 3 working days prior to delivery, submit the accompanying certificate showing the species, variety, weight and place of pre-treatment.
Release of Hold Point:	The Principal will consider the submitted documents and may inspect the seed prior to authorising the release of the Hold Point.

Pre-treatment to Assist Germination

Where hot water is the specified pre-treatment, place the seed in a calico bag together with camphor granules as an insect repellent at the rate of 50 g per 10 litres of water. Immerse the bag in hot water with temperature of around 90°C for a minimum period of 60 minutes and then remove from the water, drain and allow to dry. When dry, mix the treated seed with the remaining seed and broadcast when conditions are suitable.

Seed that has been pre-treated must be used within five days of pre-treatment.

Where proprietary products are used to assist germination, use as recommended by the manufacturer.

Preparation for Hydromulching, Hydroseeding and Straw Mulching

Storage tanks, containers and equipment to be used in hydromulching, hydroseeding and straw mulching must be clean and free of contamination from previous operations.

Table- Application Rates for Materials

Material	Rate per Hectare
Hydromulching	
Water	35,000 litres
Organic fertiliser: pelletised poultry manure	250 kg
Seed	See Planting Schedule
Cellulose fibre mulch:	
– Sugar cane mulch, mixed with 20% (by weight) of shredded paper	3,500 kg
– Wood fibre mulch	2,500 kg
Binder: granulated 'Guar gum'	60 kg
Biodegradable green dye	As recommended
Hydroseeding	
Water	20,000 litres
Organic fertiliser: pelletised poultry manure	250 kg
Seed	See Planting Schedule
Biodegradable green dye	As recommended
Straw mulching	
Straw	5,000 kg
Binder	
– Undiluted residual bitumen emulsion	2,500 litres
– Granulated 'Guar gum'	100 kg

Produce hydromulch / hydroseed slurry mixtures by adding the specified materials into the tank and agitate until a homogenous blend is obtained.

Sowing Methods

Unless otherwise shown on the Drawings, sow areas with slopes of 5 to 1 or flatter, using one of the following methods:

- dry sowing
- for small areas only, by hand.

Unless otherwise shown on the Drawings, sow areas with slopes steeper than 5 to 1 in any direction, using one of the following methods:

- hydroseeding and straw mulching
- hydromulching
- for rock face batters, hydroseeding
- for small areas only, by hand.

Stepped batters must be topsoiled as described and hydroseeded or hydromulched.

SD-163-18 Oakdale West Estate

*Landscape – Planting***WITNESS POINT**

Process Witnessed: Sowing

Submission Details: Notify the Principal, not less than 5 clear working days prior to the intended time of sowing, giving details of the area to be sown.

3.10 DRY SOWING

Undertake dry sowing using either:

- a tractor drawn seed drill to place seed at a depth of 5 mm
- a spreader followed immediately by a single pass with an unweighted diamond harrow.

Where practicable, tractor passes with the seed drill or harrow must follow finished surface contours. Distribute seed and fertiliser evenly over the areas to be sown at the rates specified. Apply fertiliser concurrently with the seeding operation.

Gauge the application rate of the seed mix to ensure an even distribution over the areas sown, in accordance with the nominated rates. Maintain records of measurements and calculations to determine actual distribution rates for each lot.

Hydromulching and Hydroseeding

Carry out hydromulching / hydroseeding within 2 days of completion of soil preparation or, if delayed by weather conditions, as soon as weather conditions permit.

Agitate continuously the slurry to maintain a uniform consistency during application.

The sprayed hydromulch layer within 48 hours of application must have a minimum thickness at any location of 5 mm when using sugar cane mulch (mixed with shredded paper), or 2 mm when using wood fibre.

Straw Mulching

The straw mulch must comprise the materials and application rates set out in Table R178.1.

Apply the straw mulch uniformly using a purpose-made blower unit. Incorporate the emulsion as a spray into the air stream of the mulch blower or apply it in a separate operation within 12 hours from the application of straw mulch.

The straw mulch layer within 48 hours of application must have a minimum thickness at any location of 25 mm.

Weather Conditions for Hydroseeding, Hydromulching and Straw Mulching

Do not apply hydroseeding, hydromulching and straw mulching:

- when winds exceed 15 km/hr
- when temperatures exceed 37°C
- where the surface is too wet
- during rain periods or when rain appears imminent.

Signposting

Supply and install information signs approximately 1,500 x 600 mm stating, "NATIVE PLANT REGENERATION AREA—PLEASE KEEP OFF", including the requisite posts, brackets and fittings, where shown on the Drawings or as directed by the Principal. Support each sign at a height of 1.5 metres on two 75 mm dia steel posts set in concrete 500 mm deep into the ground at a distance of 900 mm apart.

SD-163-18 Oakdale West Estate

Landscape – Planting

Property	A	B	C
	Refer detail 03-02-21		
Supplier	ANL Ph: 131458		

Refer to detail 03-02-21

4.54.6 VEGETATION OF OPEN DRAINS**Preparation of Surface**

Treat weed infestation without using herbicides.

Where shown on the Drawings or directed by the Principal, apply the following protective treatment immediately to all or part of the surface to be vegetated.

Lining with Organic Fibre Mesh (Jute)

Where shown on landscape drawings, lay the runs of the mesh along the direction of water flow.

Slot the upstream end of the mesh into a trench 150 mm wide by 150 mm deep and pin the mesh to the base of the trench at 200 mm centres. Backfill the trench with soil and compact by foot.

Lay the mesh taut and evenly over the soil surface without any air pockets but do not stretch it.

Overlap adjacent runs of mesh by 100 mm with the higher run lapped over the lower.

Pin the mesh along the sides of each run at 500 mm centres and along the middle of each run at 1 m centres.

End overlaps must be 150 mm wide with the higher run end lapped over the start of the lower and pinned at 200 mm centres.

Refer to detail 03-02-04 & 03-02-19

4.64.7 TURFING FOR SLOPES AND OPEN DRAIN AREAS**Turfing for Slopes and Open Drain Areas**

Place turf on slopes and open drain areas where shown on the Drawings or where directed by the Principal.

Keep the turf moist at all times during transport and site storage and lay it in its final position as early as possible after delivery. Turf must be laid within 24 hours of delivery.

Prepare the surface areas to be turfed to the desired grades and levels. Surface levels (before turfing) for areas adjacent to kerbs must finish 35mm below the top of kerb to allow for turf thickness.

Remove loose rock and any extraneous material from these areas.

For slopes with gradient 5 to 1 or flatter, lightly tyne the existing ground surface to a depth of 50mm and then install 25mm of topsoil to act as turf underlay. Rake the soil to provide an even surface for the turf.

Unroll the turf and lay them in parallel strips abutting at all ends and edges of the rolls. Spread additional topsoil to fill all joints and hollows, and where necessary, lightly roll the surface of the newly laid turf.

For open drains areas and slopes with gradients steeper than 5 to 1, tyning of the ground surface is not required. Butt runs of turf hard against each other and place the turf perpendicular to the direction of water flow. Pin turf into position at 500 mm centres.

Refer to detail 03-02-04 & 03-02-19

4.74.8 COVER CROP**Cover Crop Schedule**

Species	Application Rate (kg/ha)
Cynodon dactylon (Royal Bengal Couch) – or similar	350.0

Scape Design

Date 29 October 2020

Page 37

Coolabah Oats	7.0
Eclipse Rye	16.0
Secale cereal 'Sterile' (Sterile Rye Corn)	3.0
<i>Note: Include cover crop species in ALL revegetation mixes, , modify mixes depending upon seasonal availability</i>	
Sub-Total	2950.0

Regularly overspray the stockpiles to maintain a dense coverage of cover crop sufficient to minimise weed colonisation.

Where weed cover becomes greater than 5% of the stockpile surface, eradicate weeds and then re-seed disturbed areas with cover crop.

Seeding must not be applied between the months of May – August due to dormancy.

Refer to details 03-01-02, 03-01-03

4.84.9 PLANT MATERIAL

Refer drawing L.CD.700

Refer to details 03-01-02, 03-01-03, 01-05-01, 03-02-01, 03-02-02, 03-02-03

4.94.10 AREAS DISTURBED BY CONTRACTOR

Restore areas outside the limits of the Works which are disturbed by you (such as areas for compounds, material storage, access and haul roads) with vegetation in accordance with the requirements of this Specification.

7.3 GOODMAN MAINTENANCE GUIDELINES

Appendix 2 | Specification

system again to re-flush if blockages are apparent and re-seal tube ends

Commissioning

The entire system should be tuned and tested to deliver an adequate amount of water to all plants and turf. Test the system in the presence of the Landscape Architect and/or irrigation designer to facilitate the issue of a Certificate of Practical Completion.

Maintain the system for the duration of the establishment maintenance period as detailed elsewhere in the specification. Replace any faulty, broken or stolen components. Leave the system operating as if it was newly installed upon acceptance of the completed work.

Maintenance

General

Gardens, lawns and landscaped areas must be maintained to Goodman's presentation standard and condition at all times. Goodman places a heavy emphasis on a high standard of landscaping to support their market image.

Plants and shrubs should be cultivated to maintain optimal growth while individual plants that don't thrive should be replaced with healthy specimens. Plants and shrubs should be pruned appropriately to promote growth. Where necessary, all plants should be dead headed to maintain optimal appearance.

Weeds should be removed at all visits while measures should be taken to discourage weed growth. Weeds must be removed from all garden beds, fence lines and surrounding areas, all paved areas and walkways, construction joints and any entrance areas. All large weeds should be removed by hand, small weeds are to be sprayed with appropriate industrial strength weed killer with blue dye additive.

A prophylactic chemical weeding program should be implemented. Goodman Building Manager must be notified and approve any application of chemical weed treatment. The contractor must specify the type of chemical weed treatment product used, where it was used and quantity used. The contractor must submit a certificate or signed documentation received from chemical weed treatment supplier confirming application of chemical treatment to Goodman Landscape Manager. Spraying is to occur during non-office hours to reduce any health hazard for occupants of the commercial offices or industrial estates.

Every effort must be made to ensure that all plants are adequately watered at all times. When irrigation is not permitted, alternative methods of watering should be discussed with the Building Manager.

A proactive approach must be adopted to ensure that appearance of the landscape as a whole is highly presentable at all times. Recommendations on new plant or shrub specimen, landscape design, modifications etc should be made to Goodman Landscape Manager where opportunities exist to enhance the appearance of the landscape generally or in specific areas.

Contractors must submit annual routine landscape maintenance program to Goodman Landscape Manager within two weeks of contract commencement date.

Lawn care

Lawn areas, including nature strips must be neatly mown and edged weekly in the high season (summer months), fortnightly in the low season (winter months), or weekly if required due to abnormal weather condition. All clippings must be removed from the site.

All lawns must be fertilized once a year with an approved lawn fertilizer.

Tree shrub and plant care

All shrubs, hedges, ground covers and trees must be trimmed into shape as required to an acceptable Goodman presentation standard. Flowering plants/shrubs should be pruned to promote optimal flowering at the appropriate times.

Excessive foliage impacting onto roads, paths, fencing and lighting must be pruned during all site visits.

Leaf litter and or all cuttings should be removed from all gardens and site each visit and disposed of at contractor's cost.

Any dead or dying plants/shrubs should be removed and replaced with same or comparable species. Goodman Landscape Manager must be consulted when large trees need to be removed and or replaced.

The contractor will maintain each plant in a healthy condition to increase the visual appeal of the gardens.

Guidelines for landscaping

60

Appendix 2 | Specification

Remove faded leaves, fronds and flowers to encourage new growth.

The contractor will prune all plants or shrubs species as required and satisfy Goodman's presentation standard. Pruning should be carried out on a 'needs-basis' specific to each plant. Pruning should be carried out to encourage new growth that will result in a dense canopy density. No more than 30mm of new growth should be seen before pruning takes place. All plant pruning should be carried out using best horticultural techniques. No hedging of native grasses permitted at any time.

Replacement of any plant or shrub which may die, fail to thrive, or are damaged due to contractors negligence must be replaced by the contractor without cost to Goodman. The replacement plant or shrub must be of a similar size, quality and identical species or variety to the plant or shrub which has failed, unless otherwise directed by Goodman Landscape Manager

Where plants fail due to vandalism, or where plants are stolen, the cost of replacement of the plants will be met by Goodman.

Mulch

The contractor is required to maintain all areas of mulch cover within garden beds. Displaced mulch should be returned to the garden beds wherever possible. All area of mulch cover must be packed to a depth of 75mm. If replacement of mulch is required, the contractor must notify Goodman Landscape Manager and provide quotation for approval. Specific mulch must be approved by Goodman representative prior to installation.

Guidelines for landscaping

Irrigation

The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency. The system should be tested during each site visit to ensure proper operation timing is set correctly. Adjustments must be made where necessary.

It is the contractors responsibility to submit a monthly report to Goodman which includes a comprehensive report on the operational function of the system.

Goodman Landscape Manager must be notified when the system is in need of major repair. The cost of major repairs to the system can be claimed as variation to the contract price and should be invoiced separately.

When water restrictions prevent the use of the irrigation system, arrangements must be made by the contractor to provide an alternative system of watering. Under no circumstances should plant stock be allowed to perish through lack of water.

Herbicide / pesticide application

Apply pesticide treatment to lawn areas to eliminate weeds/pests and diseases as soon as any attack is noticed. At any given time no more than 2% may be effected by weeds/pests and diseases. Spraying must occur during non-office hours to reduce any health hazard for occupants of the commercial offices or industrial estates. Do not use pesticides near streams, ditches, wetlands, or shorelines.

Rubbish

All rubbish generated by landscaping maintenance activities and from garden beds must be removed from the site at each visit and deposited at an approved waste collection depot at contractor's cost.

General rubbish accumulating within the driveways, car parks etc. will be removed by the landscape contractor on each weekly visit.

Fertilizing

Apply slow-release fertiliser in liquid form or in pellet form to all plants as required to maintain healthy growth conditions.

Fertilising of individual trees, individual palms, garden beds containing shrubs and groundcovers, and lawns should occur as required by individual species to maintain healthy growth conditions. All garden plants are to be fertilised in March and September of every year.

Seasol or other seaweed extract type fertilises and/or Dynamic Lifter or other organic fertiliser in pelletised form should be used. Do not use soluble fertilizers near streams, ditches, wetlands, or shorelines. Do not use blood and bone. All fertiliser is to be odourless.

Turf topdressing

The contractor is to review the condition of lawn areas to assess the need to provide topdressing. If topdressing is required, the contractor must report to Goodman Landscape Manager for approval. Premium topdressing mix must be 80% sand and 20% soil.

Appendix 2 | Specification

Repairs

Any repairs required to lawn areas should occur immediately following notification of the extent of works and approval to proceed by Goodman Landscape Manager.

Restaking

Where trees, palms, or shrubs require staking during plant establishment, the contractor will ensure that staking remains intact and rigid for its intended purpose. Staking that has failed must be repaired immediately to ensure no plant stress from winds.

Garden edging

The contractor is to review the condition of garden bed edging and ensure that no damage, sinking, or lifting has occurred. If any repair is required, contractor must notify Goodman Landscape Manager for approval. Contractor is to ensure that all garden edging is maintained in original condition.

Planters

The maintenance of any planter box (especially on-slab) requires careful attention to ensure that the waterproofing element is not affected. Any work done within planter box must be by hand. Neither machinery nor tools are to be used within any planter box that may cut and damage the waterproofing elements. The contractor will replenish soil nutrients and fertilisers in each planter box on a regular basis to ensure healthy continual growth of any plant species.

Letterboxes / directory boards

The contractor is to clean and wipe down directory boards and letter boxes at the entrance to the property and remove unwanted material (this is limited to a height accessible by ladder).

All hedges or shrubbery near directory boards must be kept trimmed, so that clear visual recognition by any emergency services can be ascertain the clear address of the site or direction to any part of the site.

Drains

All grated stormwater drains or strip drains in all car park levels and driveways zones must be inspected monthly and cleared of accumulation of debris, leaves and soil, so that there is no hindrance or impediment of their correct operation as stormwater drains.

All grated stormwater drains or strip drains in all gardens, lawn zones and pavement areas must be inspected weekly or after storms and maintained free of and accumulation of debris, leaves and soil, so that there is no hindrance or impediment of their correct operation as stormwater drains.

Any drains grate or section of strip drains that is rusted, faulty or may constitute a hazard to the site's tenants or visitors must be reported to Goodman Landscape Manager. Recommendation and replacement cost is to be submitted to Goodman Landscape Manager for approval.

Equipment

The contractor will supply all necessary equipment required to conduct landscape maintenance in the most efficient manner and with minimal interruption to tenants. All necessary equipment will be tested and tagged to comply with all relevant OH&S legislation and regulations.

Supervision / communication

Contractor is to appoint one point of contact (Supervisor/Operation Manager) to represent the contractor for the term of the agreement. The nominated point of contact should provide regular supervision to the on-site staff undertaking the works. Goodman anticipates that this supervisor should attend all sites as a minimum weekly to ensure presentation standards and workmanship is within required KPI's. The supervisor will also to attend site meetings with the relevant Goodman Landscape Manager to inspect the site and review any landscape maintenance issues and or variations each month.

A works report will be required to be filled out by the contractor and sent to Goodman, including relevant information regarding the following (Photos, Summary of works for period, works to be completed next month, safety issues, enhancement ideas, general issues). This report should be forwarded to Goodman on a monthly basis.

APPENDIX H

Flora and Fauna Management Plan

Abstract green lines of varying thickness and color (from light to dark green) sweep across the left side of the page, creating a dynamic, organic feel.

Oakdale West Estate

Operational Flora and Fauna Management Plan

prepared for

Goodman Property Services
(Aust). Pty Ltd

Oakdale East Industrial Estate Stages 2-5 - Biodiversity Assessment Report

prepared for

Goodman Property Services (Aust). Pty Ltd

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Revision Schedule

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Contents

1. Introduction	1
1.1. Background	1
1.2. Site context.....	1
2. Consent Conditions	3
3. Site Flora and Fauna	5
3.1. Flora	5
3.1.1 Native vegetation	5
3.1.2 Vegetation Management Plan	5
3.1.3 Exotic vegetation.....	8
3.2. Fauna	9
3.2.1 Eastern grey kangaroo.....	9
3.2.2 Snakes	9
3.2.3 Aquatic fauna	10
4. Potential Operational Impacts	11
4.1. Potential direct impacts.....	11
4.1.1 Native vegetation	11
4.1.2 Native fauna	11
4.2. Potential indirect impacts	11
4.2.1 Native vegetation	11
4.2.2 Native fauna	11
5. Mitigation Measures	12
6. Stop Work Procedure	15

Tables

Table 1-1. Biodiversity management areas	1
Table 2-1. Relevant consent conditions	3
Table 3-1. Threatened Ecological Communities	5
Table 3-2. Priority weeds known to occur in Oakdale West	8
Table 5-1: Biodiversity management and mitigation measures	12

Figures

Figure 1-1. Site context	2
Figure 3-1. Plant community types within the estate	6
Figure 3-2. VMP area.....	7
Figure 4-1. Stop work procedure	15

1. Introduction

1.1. Background

Goodman Property Services (Aust) Pty Ltd (Goodman) obtained Development Consent SSD 7348 for the staged development of Oakdale West Industrial Estate (Oakdale West) comprising a warehousing and a distribution hub at Kemps Creek in Western Sydney.

Under SSD 7348 consent condition D88 a Flora and Fauna Management Plan (FFMP) was prepared by écologique (v.7 dated 11/03/2020) as a subplan to the Construction Environmental Management Plan (CEMP), which was approved by the NSW Department of Planning's Secretary.

Most of the development activities addressed in the FFMP v.7 were associated with the the bulk earthworks associated with the SSD 7348 Concept Plan and Stage 1 works. These works have been completed compliantly with the FFMP v.7, which included:

- Clearing of native vegetation and potential fauna habitat, and associated requirements:
 - Pre-clearance surveys,
 - Clearance supervision, and fauna relocation procedures,
 - Relocation of large woody debris to biodiversity management areas,
 - Installation of snake deterrent fencing along the western boundary of Oakdale West, and
 - Installation of snake habitat rock piles (within biodiversity management areas)
- Decommissioning of farm dams, and associated requirements:
 - Pre-dam decommissioning surveys,
 - Identification of relocation sites for aquatic fauna found in farm dams,
 - Procurement of relevant approvals for relocating aquatic fauna, and
 - Aquatic fauna rescue and relocation procedures.

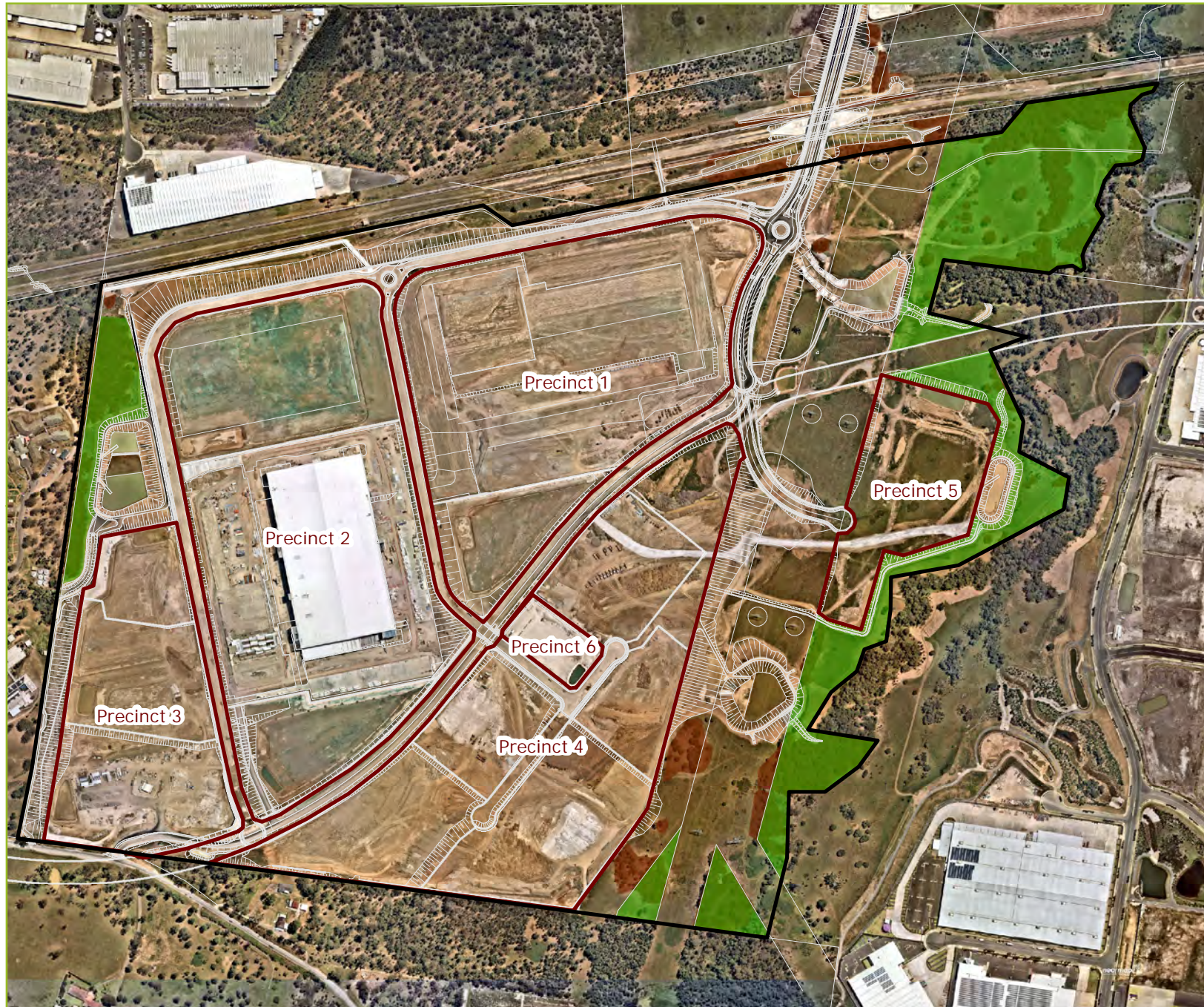
This FFMP has been prepared to fulfil SSD 7348 consent condition D131 C (ii), which requires that a FFMP be prepared as a subplan to the Oakdale West's Operational Environmental Management Plan (OEMP).

1.2. Site context

The total area of Oakdale West is approximately 154 hectares (ha) of which 89 ha is General Industry (IN1) zoned land across five designated precincts (Figure 1-1). The remaining areas include regional and estate roads, easements, a services allotment and biodiversity management areas. The biodiversity management areas (BMAs) are located in five separate areas as summarised in Table 1-1 and shown on Figure 1-1.

Table 1-1. Biodiversity management areas

BMA location	Area (ha)
Ropes Creek (north eastern section)	8.0
Ropes Creek (mid eastern section)	6.2
Ropes Creek (south eastern section)	0.8
South west of transgrid easement	0.5
Western boundary of the estate	2.0
Total area	17.5

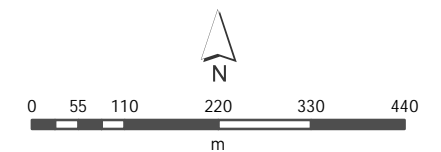


Oakdale West Estate SSD 7348

Fig. 1-1. Site Context
Operational FFMP

Legend

- Oakdale West boundary
- Precincts
- BMA_areas
- Native vegetation retained



Coordinate System: MGA Zone 56 (GDA 94) | Image sources: Nearmap 26 January 2021

2. Consent Conditions

Table 2-1 provides a summary of relevant consent conditions that have been complied with during Oakdale West's construction stage and identifies ongoing consent conditions that are addressed within this FFMP.

Table 2-1. Relevant consent conditions

SSD reference	Consent condition	Status
SSD 7348	D88. The Applicant must prepare a Flora and Fauna Management Plan (FFMP) for Stage 1, to the satisfaction of the Planning Secretary.	Completed compliantly
SSD 7348	D89. Bulk earthworks are not to commence until the FFMP is approved by the Planning Secretary and the most recent approved version of the FFMP is to be implemented for the duration of bulk earthworks and construction.	Completed compliantly
SSD 7348	D90. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire 172 ecosystem credits to offset the removal of 4.41 hectares of native vegetation on the Site.	Amended in MOD 1
MOD 1	D90. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire 173 ecosystem credits to offset the removal of 4.38 hectares of native vegetation on the Site.	Completed compliantly
SSD 7348	D91. The Applicant shall establish a Biodiversity Offset Area on the Site, consistent with the area described in the RTS, in accordance with a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust. D92. The Applicant must maintain the Biodiversity Offset Area on the Site in accordance with a Biodiversity Management Action Plan approved by the Biodiversity Conservation Trust (BCT).	Deleted in MOD 1
MOD 1	SSD 7348 Conditions D91 and D92 deleted and new Condition D91 inserted as follows: D91. Within 12 months of the date of the approval of MOD 1, or as otherwise agreed with the Planning Secretary, the Applicant must prepare and implement a VMP for the restoration and rehabilitation of 4.2 ha of Riparian Corridor adjacent to Ropes Creek to meet the objectives of the <i>Water Management Act 2000</i> .	Amended in MOD 6
MOD 6	Approval granted to amend the VMP extent as follows: <ul style="list-style-type: none"> Remove locations adjacent to the future SLR (due to future disturbance from its construction) Increase the extent from 4.2 to 4.45 ha 	VMP currently being implemented (refer Section 3.1.2).

SSD reference	Consent condition	Status
	<ul style="list-style-type: none"> Provide a wider riparian zone, which connects to isolated patches of retained vegetation 	
SSD 7348	<p>D93. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must:</p> <p>Offset 0.42ha of vegetation lost in the Erksine Park Biodiversity Corridor as a result of the WNSLR by carrying out planting within the area shown in the green edging on Figure 9 (Appendix 6 of consent conditions). Plant the areas shown in the green edging on Figure 9 (Appendix 6 of consent conditions) with species similar to those identified for zone 4a, on the south-eastern side of Ropes Creek, in the Biodiversity Management Plan Erskine Park Employment Area (HLA-Envirosciences, 2 May 2006).</p>	Amended in MOD 5
MOD 5	<p>MOD 5 sought to amend the area within which offsetting is take place due to this area no longer being available for this purpose.</p> <p>In consultation with the Planning Ministerial Corporation a new location has been agreed on and a VMP prepared and submitted with MOD 5 that details the amended location and methods in which the now obsolete Condition D93 will be fulfilled. Conditions D94 and D95 remain unchanged.</p>	Currently being implemented
SSD 7348	<p>D94. The Applicant shall monitor and maintain the planting for a period of six months to ensure a minimum 85% planting survival rate.</p> <p>D95. The Applicant must notify the Planning Ministerial Corporation at least one month before the completion of planting to enable the Planning Ministerial Corporation to arrange ongoing maintenance.</p>	
SSD 7348	<p>D96. Prior to construction of Stage 1, the Applicant must implement snake management measures to limit, to the extent practicable, movement of snakes from the Site into the adjacent school and retirement village on the western boundary of the Site. The measures (provision of alternative snake habitat on Site, fencing along the western boundary and installation of snake deterrents) shall be detailed in the CEMP.</p>	Completed compliantly

3. Site Flora and Fauna

3.1. Flora

3.1.1 Native vegetation

Four native plant community types (PCTs) occur within the estate, each of which are listed under either or both of the BC Act and EPBC Act (see Table 3-1). Most of these PCTs are located within the BMAs with four additional patches of native vegetation located outside of the BMAs as shown in Figure 3-1.

Table 3-1. Threatened Ecological Communities

ID	PCT common name	Status	
		BC Act	EPBC Act
PCT 835	Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	Endangered	Under consideration
PCT 849	Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin	Critically endangered	Critically endangered
PCT 850	Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin	Critically endangered	Critically endangered
PCT 1800	Cumberland Riparian Forest	Endangered	Vulnerable

All approved clearing of native vegetation has been completed. No further clearing of any native vegetation is permitted without first seeking additional approval.

3.1.2 Vegetation Management Plan

The Oakdale West Vegetation Management Plan (VMP) was prepared to meet the objectives of the WM Act, through the rehabilitation and restoration of a riparian corridor along Ropes Creek.

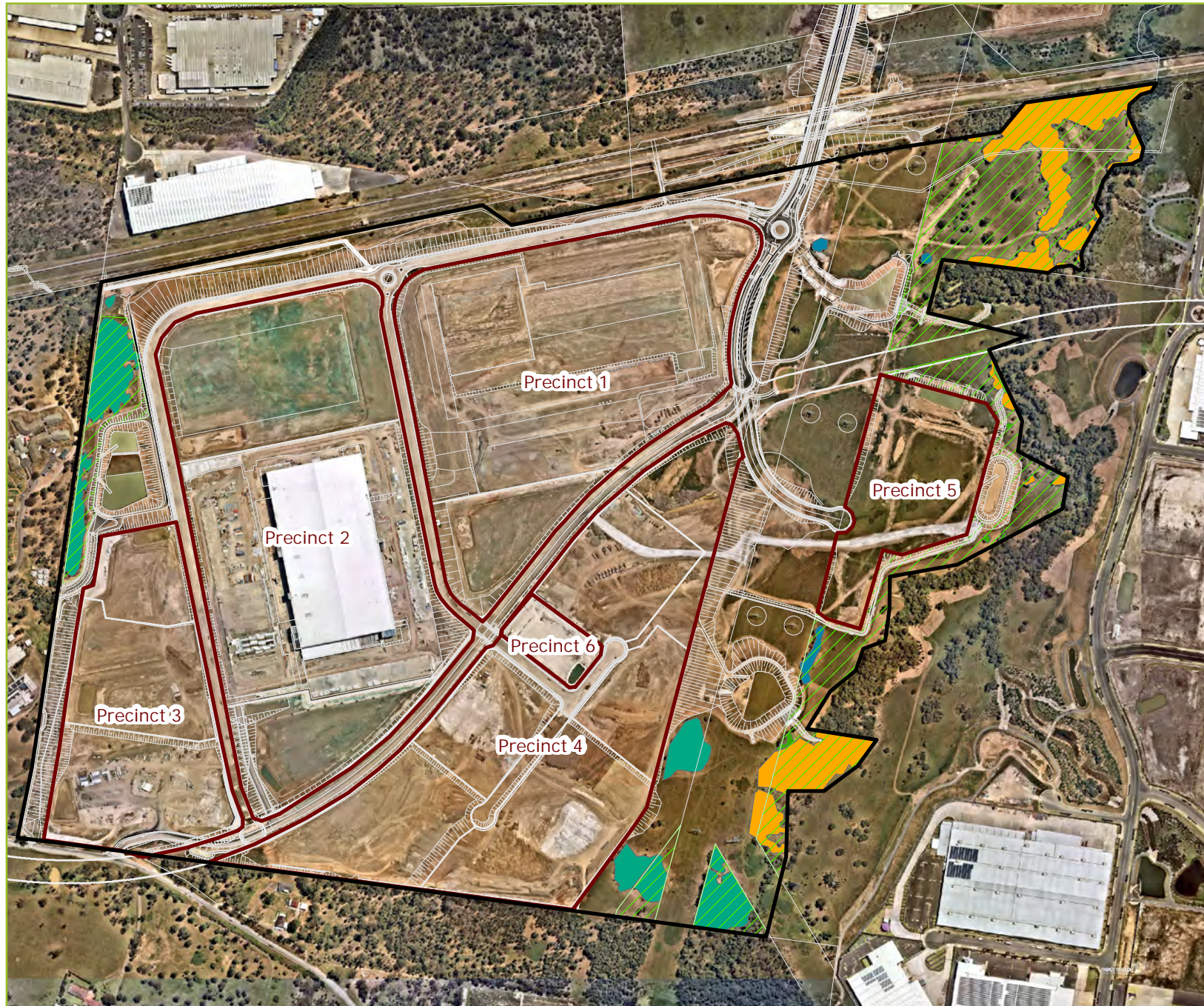
During the tender phase for implementation of the VMP (écologique, 2019) a number of site constraints were identified that resulted in the extent of the VMP being amended (écologique, 2020). Approved under MOD 6, the amended VMP resulted in the following:

- Removal of areas immediately adjacent to the future Southern Link Road (SLR), due to the future construction disturbance and inevitable damage to any restoration works undertaken in this vicinity;
- Increased the VMP extent from 4.2 to 4.45 ha by providing a wider riparian zone, which connects to previously isolated patches of retained vegetation; and
- Provision of canopy and shrub plantings (only) in two separate areas (while retaining an understory of pasture) to provide grazing habitat for the resident kangaroo population (see Section 3.2.1).

The VMP area is located within the Ropes Creek mid eastern section of the BMA (see Figure 3-2).

Outside of the VMP area, all remaining areas of the BMA are being passively managed through:

- Removal of cattle, replacement of redundant fencing and installation of new fencing (allowing natural regeneration to occur unhindered);
- Installation of large woody debris habitat (see Section 3.2.2); and
- Targeted weed control of scheduled weeds in accordance with the Biosecurity Act 2015 and as listed in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022 (see Section 3.1.3)

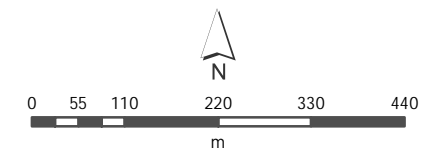


Oakdale West Estate SSD 7348

Fig. 3-1.
Native vegetation

Legend

- Oakdale West boundary
- Precincts
- BMA_areas
- Plant community types**
- PCT 850
- PCT 849
- PCT 835
- PCT 1800



Coordinate System: MGA Zone 56 (GDA 94) | Image sources: Nearmap 26 January 2021



Coordinate System: MGA Zone 56 (GDA 94) / Image sources: Nearmap 26 January 2021

Oakdale West Estate SSD 7348

Fig. 3-2. VMP extent

Legend

	Oakdale West boundary		VMP areas
	Precincts		Regeneration
	BMA_areas		Revegetation
	SLR		Revegetation - kangaroo habitat

3.1.3 Exotic vegetation

Remaining non-developed and non-landscaped areas within Oakdale West are dominated by exotic grasslands and predominantly located within the Transgrid electricity easement.

Within all native vegetation and exotic grassland areas, Goodman has a general biosecurity duty (GBD) of care to control priority weed species under the *Biosecurity Act 2015* (Biosecurity Act).

The Greater Sydney Regional Strategic Weed Management Plan 2017-2022 identifies both State level and regionally determined priority weeds. Priority weeds found within Oakdale West and GBD requirements are summarised in Table 3-2.

Table 3-2. Priority weeds known to occur in Oakdale West

Species	General Biosecurity Duty
State asset protection	
<i>Asparagus aethiopicus</i> ground asparagus, <i>Asparagus asparagoides</i> bridal creeper	<ul style="list-style-type: none"> A person must not import into the State or sell.
<i>Rubus fruticosus</i> blackberry	
<i>Senecio madagascariensis</i> fire weed	
Regional - eradication	
<i>Dovyalis caffra</i> Kei apple	<ul style="list-style-type: none"> The plant is eradicated from the land and the land is kept free of the plant. Local Control Authority is notified if the plant is found on the land. The plant or parts of the plant are not traded, carried, grown or released into the environment
Regional - Containment	
<i>Alternanthera philoxeroides</i> alligator weed	<ul style="list-style-type: none"> Land managers mitigate the risk of the plant being introduced to their land. Land managers prevent spread from their land where feasible. Land managers reduce the impact on priority assets. A person must not move, import into the State or sell.
<i>Olea europaea</i> subsp. <i>cuspidata</i> African olive	<ul style="list-style-type: none"> Land managers prevent spread from their land where feasible. Land managers reduce the impact on priority assets. The plant or parts of the plant are not traded, carried, grown or released into the environment
<i>Nassella trichotoma</i> Serrated tussock	<ul style="list-style-type: none"> Land managers mitigate the risk of the plant being introduced to their land. The plant or parts of the plant are not traded, carried, grown or released into the environment. Local Control Authority is notified if the plant is found on the land. The plant is eradicated from the land and the land is kept free of the plant. A person must not move, import into the State or sell.

Species	General Biosecurity Duty
Other weeds of regional concern	Asset to be protected
<i>Araujia sericifera</i> moth vine	Environment
<i>Bryophyllum delagoense</i> mother of millions	Environment, Agriculture, Human health
<i>Chloris gayana</i> Rhodes grass	Environment
<i>Eragrostis curvula</i> African lovegrass	Environment
<i>Juncus acutus</i> spiny weed	Environment
<i>Pennisetum clandestinum</i> kikuyu	Environment
<i>Senna pendula</i> var. <i>glabrata</i> Cassia	Environment

3.2. Fauna

The former agricultural land use of Oakdale West and surrounding environs has enabled a range of native fauna to coexist with previous land use practices. The most commonly observed terrestrial fauna species within Oakdale are the eastern grey kangaroo (*Macropus giganteus*), a range of reptile species (mainly snakes with lizards less conspicuous) and a range of bird species (including large raptor species).

Aquatic fauna common to the estate prior to the removal of four farm dams included the eastern long-necked turtle (*Chelodina longicollis*)¹ and both short and long finned eels (*Anguilla australis* and *Anguilla reinhardtii* respectively).

3.2.1 Eastern grey kangaroo

The installation of non-rural fencing and replacement of open pastoral land with hard stand has resulted in the removal of habitat for a resident population of eastern grey kangaroos (kangaroo).

The provision of BMA and the Transgrid easement areas continue to provide habitat for the kangaroo species albeit substantially reduced in comparison to the pre-development environment. Development has also considerably altered their accustomed movement patterns. It is likely to take some time before the resident population of kangaroos adapt their movement patterns to the changed environment.

While kangaroos are more commonly seen around the periphery of the estate's developed areas, they may still be observed nearer developed and road areas, particularly at dusk at dawn.

3.2.2 Snakes

The most commonly observed snakes across Oakdale West are:

- Red-bellied black snake (*Pseudechis porphyriacus*); and
- Eastern brown snake (*Pseudonaja textilis*).

A tiger snake (*Notechis scutatus*) was reportedly seen on a stockpile during construction but was not accurately identified and potential a banded form of the eastern brown snake.

¹ When visiting the neighbouring Oakdale South Estate, you may notice a street named 'Chelodina' after this species, which remains common within Ropes Creek and its tributary located in Oakdale South.

In response to concerns from the adjacent Emmaus Catholic College a range of snake deterrent measures were implemented to minimise movement of snakes from the estate into the school and the retirement village (located adjacent the estate's western boundary). These included the installation of the following:

- Fencing along the western boundary designed for snake deterrence;
- Rock piles (snake refuge habitat) located within the western BMA area; and
- Placement of large woody debris (additional snake refuge habitat) located within the western BMA area.

In addition to the above snake deterrent measures (and relevant to the operational stage of Oakdale West) is the installation of vermin controls within each Precinct's lots. Vermin, such as the black rat (*Rattus rattus*) and house mouse (*Mus musculus*) are common snake prey and minimising the occurrence of these introduced species is anticipated to minimise snake populations.

However, the red-bellied black snake and tiger snake are frequently associated with watercourses and wetlands, where they feed on amphibians (frogs). There are numerous urban tolerant frog species that will proliferate following rainfall periods within the estate's detention / bioretention basins and drainage swales.

In combination with the use of rock rip-rap to construct outflows from basins (which provides ideal snake habitat) there will always be a high likelihood of snakes occurring in these areas.

3.2.3 Aquatic fauna

Four farm dams were decommissioned during the earthworks for the Oakdale West development. Native aquatic fauna were rescued and relocated to various pre-determined locations within Ropes Creek under a relevant NSW Fisheries permit.

The majority of fauna relocated comprised small native fish species (mostly fire-tailed and Empire gudgeons) and long-finned eels, with smaller numbers of short-finned eels and long-necked turtles.

Both eel species are highly migratory and may attempt to return to the locations of the decommissioned dams. Although the pre-development overland drainage has been modified such that it is highly unlikely to encounter either of these species during the operational stage of Oakdale West.

Turtles are also capable of overland dispersal and may attempt to return to the location where dams were decommissioned. This is more realistic as one turtle has already been captured and relocated from the development area during the construction stage.

Until all individual lot construction detention basins are decommissioned and estate wide detention basins are retro-fitted to become bioretention basins, there is a potential for migratory aquatic fauna to be encountered within the developed estate.

4. Potential Operational Impacts

4.1. Potential direct impacts

4.1.1 Native vegetation

Potential direct impacts on native vegetation include unauthorised clearing of, or accidental damage to, native vegetation.

4.1.2 Native fauna

Potential direct impacts on native fauna include:

- Vehicle / mobile plant strike resulting in injury or death of terrestrial fauna;
- Injury or death of fauna that inadvertently become stranded in allotments; and
- Injury or death of aquatic fauna during decommissioning of on lot and estate wide basins.

4.2. Potential indirect impacts

4.2.1 Native vegetation

Potential indirect impacts on native vegetation include:

- Accidental spills or failure of stormwater management controls and resultant pollution of areas of remnant vegetation;
- Rubbish / litter from the site entering adjacent vegetation, through either accident drift or deliberate dumping; and
- Introduction of biosecurity risks (such as priority weeds, pathogens or other disease).

4.2.2 Native fauna

Potential indirect impacts on native fauna include:

- Accidental spills or failure of stormwater management controls and resultant pollution of downstream aquatic habitat; and
- Introduction of biosecurity risks (such as feral pests, pathogens or other disease);

5. Mitigation Measures

The potential to encounter wildlife and the requirement for the ongoing protection of native remnant vegetation must be considered in accordance with Schedule 2 - Administrative Conditions that require:

- An obligation to minimise harm to the environment; and
- Compliance with biodiversity management and mitigation measures (see Table 5-1).

Table 5-1: Biodiversity management and mitigation measures

ID	Measure/Requirement	Responsibility
GENERAL MANAGEMENT REQUIREMENTS		
FF1	Ongoing management of retained native vegetation to be in accordance the Oakdale West VMP (écologique, 10/11/2020)	Management / Contractors
FF2	Ongoing maintenance and management of other areas of planted native vegetation including road batters, embankments and bio-retention basins in accordance with the Oakdale West Landscape Management Plan (Scape Design, 14/11/2019)	Management / Contractors
WILDLIFE PROTECTION		
FF3	All personnel including contractors are to be made aware of the possibility of encountering fauna, through any estate or individual lot works induction processes	Management / Contractors / Employees
FF4	All personnel including contractors are to report any injured or near miss incidents with wildlife	Management / Contractors / Employees
FF4	Incident reports are to be assessed on an ongoing basis. An adaptive management approach should be undertaken in the event that wildlife is being reported within the estate. Particularly, should any wildlife be killed, injured (or near misses for such) be reported from Compass Drive and estate roads (e.g. wildlife signage, information / notification to tenants)	Management

ID	Measure / Requirement	Responsibility
FF5	Regular monitoring of basin dewatering must be undertaken once water levels are below one third full to determine whether any aquatic fauna is likely to require capture and relocation.	Management / Contractors
FF6	Should unexpected fauna be encountered within any estate work sites or individual lots or sub-lot /building areas, the stop works procedure provided in Section 6 must be followed.	Management / Contractors / Employees
EROSION AND SEDIMENT CONTROL		
FF6	Offsite discharges shall be managed in strict accordance with relevant Erosion & Sediment Control Plans.	Management / Contractors
FF7	A spill kit shall be provided in an easily accessible location in the event that fuel or other contaminant spills occur.	Management / Contractors / Future tenants
WEED, PEST SPECIES AND PATHOGEN MANAGEMENT		
FF8	<p>All tenants fleet and contractor vehicles are to be clean (particularly tyres) before entering the estate - to ensure mud, weeds (and potential pathogens) from other areas are not transported into the estate.</p> <p>Tenants at their own expense, shall ensure that all material deposited on road pavements, or road reserves, is promptly and effectively removed. This may include but not be limited to:</p> <ul style="list-style-type: none"> • Mud, weeds (and potential pathogens) brought in on vehicles, plant and machinery; and • Materials spilled from tenant's vehicle fleet and contractor vehicles/trucks. 	Future tenants
FF9	Future tenants are to install rodent (electronic or sonar) repellents to minimise prey for snakes	Management / Future tenants

ID	Measure / Requirement	Responsibility
FF10	<p>Waste management shall be in accordance with relevant Waste Management Plans, which at a minimum should require the following:</p> <ul style="list-style-type: none">• All waste placed in skips or bins for disposal or recycling will be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site;• Lids on skips or bins are to be kept closed at all times; and• Employ adequate environmental management controls to prevent off-site migration of waste materials and contamination from the waste. For example, consideration of slope, drainage, proximity relative to waterways, stormwater outlets and vegetation.• All waste entering non-developed areas of the estate, in particular BMA and landscaping areas, shall be collected and removed by tenants, at their own expense.	Management / Future tenants

6. Stop Work Procedure

All tenants' personnel and contractors shall comply with the following procedure in the event any fauna is unexpectedly encountered:

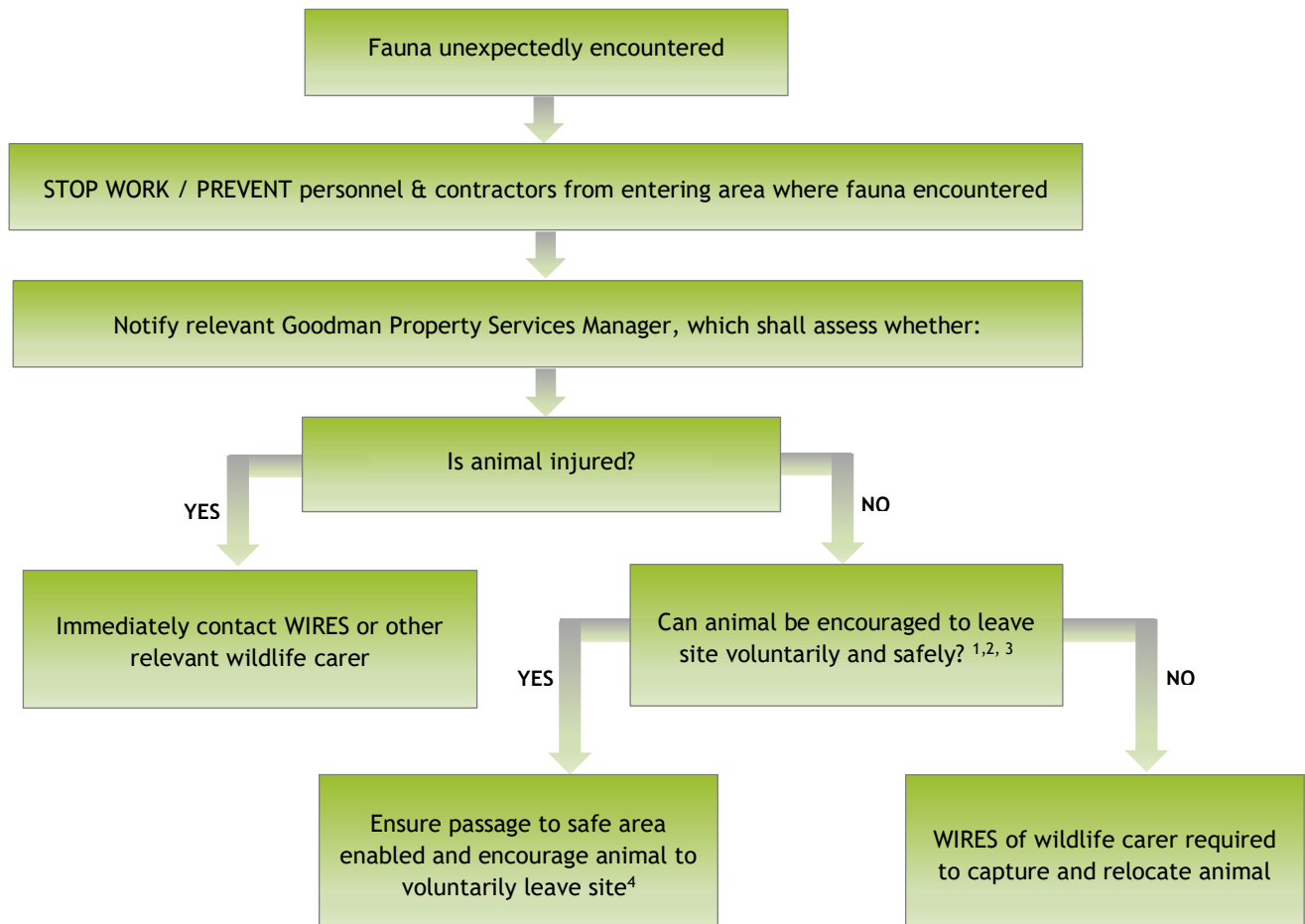


Figure 4-1. Stop work procedure

FOOTNOTES

¹ Snakes are to be left alone and not disturbed. A specialist reptile handler should be engaged for capture and relocation (WIRES to be contacted for advice).

² Nocturnal species (e.g. any small marsupials such as possums) should be left alone until wildlife carer is able to capture and relocate animal at dusk.

³ Nocturnal and injured animals shall be protected from disturbance (through temporary flagging tape or signage and communication to all personnel that the area is a temporary no go zone). If animal is stranded in direct sunlight some form of shading is to be erected to protect the animal until wildlife carer arrives at the site. In the event that attempts to provide protection or shading is too distressing for animal, the animal should be left alone and monitored from a safe distance until wildlife carer arrives at the site.

⁴ Should safe passage be obstructed by fencing or other immovable impedances, Footnote 3 should be implemented.



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APPENDIX I

Vegetation Management Plan



Oakdale West Estate

Vegetation Management Plan

prepared for

Goodman Property
Services (Aust.) Pty Ltd

écologique | environmental consulting

Oakdale West Estate

Vegetation Management Plan

prepared for

Goodman Property Services (Aust.) Pty Ltd

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02/10/2019

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Revision Schedule

Rev No	Date	Description	Issued to
1	19/07/2019	Draft VMP for review	Goodman
2	05/08/2019	VMP for MOD 1 submission	Goodman
3	02/10/2019	VMP for MOD 1 submission - amended consent condition numbers	Goodman

Executive Summary

Background

Goodman Property Services (Aust.) Pty Ltd (Goodman) are currently developing the Oakdale West Industrial Estate (Oakdale West) under State Significant Development approval (SSD7348). Consent approved the removal of approximately 4.4 ha of native vegetation.

Consent conditions are based on various assessment and strategy reports lodged and approved under the original SSD7348, which has included:

- Biodiversity Assessment Reports (2017, 2018) prepared under the NSW Framework for Biodiversity Assessment (FBA), which calculated that 172 ecosystem credits would need to be retired to offset native vegetation clearing (consent condition D90).
- Biodiversity Offsetting Strategies (2017, 2018), which specified how Goodman would establish and manage a biodiversity offset area in order to offset the required ecosystem credits as conditioned under consent condition D91 (which required the establishment of a biodiversity conservation area)

However, during the time since the SSD7348 was lodged and assessed, the *Threatened Species Conservation Act 1995* (TSC Act), under which the FBA was based, has been repealed and replaced by the *Biodiversity Conservation Act 2016* (BC Act).

Transitional arrangements provisioned for under the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* (BC Reg.) expired in February 2018. This has resulted in the redundancy of the approved Biodiversity Offset Strategy.

Purpose of VMP

This Vegetation Management Plan (VMP) has been prepared to support a development modification (MOD 1) for Oakdale West. Relevant to the site's biodiversity, the intent of MOD 1 is as follows:

- To overcome the redundancy of the BOS while avoiding lengthy delays associated with reassessment under new legislation.
- Meet the objectives of the *Water Management Act 2000* (WM Act) through the rehabilitation and restoration of a riparian corridor along Ropes Creek, which would otherwise have been restored as part of the proposed biodiversity offset area.

This VMP applies to an area of approximately 4.2 ha which extends along the western side of Ropes Creek as shown in Figure 1-2. The areas of the Ropes Creek corridor are considered commensurate with the proportion of the SSD7348 development footprint that has encroached onto waterfront land.

Site constraints that have been considered in determining the extent of the VMP proposed are shown on Figure 1-1 and outlined below:

- The alignment of the future Southern Link Road (SLR) which traverses the Ropes Creek riparian corridor;
- Feasible management boundaries and access constraints, given that Oakdale South's boundaries extend to the western side of Ropes Creek and conflict with the future development of Oakdale West under SSD7348;
- The alignment of the existing electricity easement, which also precludes restoration works; and
- The proposed preferred alignment of the Western Sydney Freight Line (WSFL), which has been identified by Transport for NSW as requiring a 60m easement along the northern boundary of Oakdale West.

Goodman may choose to establish the remainder of the former biodiversity offsetting area as a Biodiversity Stewardship Site under agreement with the Biodiversity Conservation Trust (BCT). In the interim this area will continue to be protected by way of the following:

- Removal of cattle, replacement of redundant fencing and installation of new fencing
- Habitat placement (large woody debris), which is provisioned for in civil contracts for the development and detailed in the Flora and Fauna Management subplan to the Construction Environmental Management Plan (CEMP)
- Targeted weed control of scheduled weeds in accordance with the Biosecurity Act 2015 and as listed in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022

Contents

Glossary / Abbreviations	vi
1. Introduction	1
1.1 Overview	1
1.2 Consultation	2
1.2.1 Department of Planning and Environment	2
1.2.2 Department of Industry	2
1.3 Land to which this VMP applies	2
2. Site Description	6
2.1 Ropes Creek riparian corridor	6
2.2 Native Vegetation	6
2.2.1 Plant Community Types	6
2.2.1 Flora species	7
2.3 Introduced Vegetation	7
3. Restoration Approach	8
3.1 Overview	8
3.2 Assisted Bushland Rehabilitation	8
3.3 Reconstruction through revegetation	9
3.4 Threatening processes	9
3.4.1 Weed infestations	9
4. Management Actions	10
4.1 Management Zones	10
4.2 Weed Control	10
4.2.1 Primary weeding	10
4.2.2 Secondary weeding	10
4.2.3 Maintenance weeding	10
4.3 Soil amelioration	11
4.4 Mulching	11
4.5 Planting program	11
4.5.1 Plant procurement	11
4.5.2 Planting procedure	12
4.5.3 Practical completion	12
4.5.4 Planting establishment /defects liability	12
4.6 Performance measures	12
4.7 Compliance certification	13
5. References	15

Appendix A. Weeds of the riparian zone	16
Appendix B. Planting Schedule	20

Tables

Table 2-1. PCTs identified within the Ropes Creek riparian corridor	6
Table 4-1. VMP implementation schedule	13

Figures

Figure 1-1. Site Constraints.....	4
Figure 1-2. Proposed VMP Extent	5
Figure 4-1. VMP management zones	14

Glossary / Abbreviations

Abbreviations	Expanded text
BAR	Biodiversity Assessment Report
BC Act	NSW Biodiversity Conservation Act 2016
BC Reg.	NSW Biodiversity Conservation (Savings and Transitional) Regulation 2017
BCT	NSW Biodiversity Conservation Trust
BOS	Biodiversity Offset Strategy
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
DoEE	Australian Department of Environment and Energy
DOI	NSW Department of Industry
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
FM Act	Fisheries Management Act 1994
MNES	Matters of National Environmental Significance
OEH	NSW Office of Environment and Heritage
PCT	Plant community type
RTS	Response to Submissions
SSD	State Significant Development
TSC Act	NSW Threatened Species Conservation Act 1995
VMP	Vegetation Management Plan
WM Act	NSW Water Management Act 2000
WNSLR	Western North South Link Road

1. Introduction

1.1 Overview

Oakdale West Industrial Estate (Oakdale West) is a State Significant Development (SSD7348) being developed by Goodman Property Services (Goodman).

Oakdale West is a staged development for a warehousing and distribution hub, which includes estate-wide earthworks, infrastructure and services and the construction of the Western North South Link Road (WNSLR).

The SSD7348 application was supported by the following documentation in response to SEARs and subsequent stakeholder submissions:

- Environmental Impact Statement (EIS) (Urbis, November 2017)
- Response to Submissions (RTS) (Urbis, May 2018)
- Supplementary RTS (Urbis, October 2018)
- Biodiversity Assessment Report (BAR) (Cumberland Ecology 2017 and écologique 2018)
- Biodiversity Offset Strategy (Cumberland Ecology 2017 and écologique 2018)

Consent for SSD7348 approves the removal of approximately 4.41 hectares (ha) of remnant native vegetation, subject to the following consent conditions:

- D90. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire 172 ecosystem credits to offset the removal of 4.41 hectares of native vegetation on the Site.
- D91. The Applicant shall establish a Biodiversity Offset Area on the Site, consistent with the area described in the RTS, in accordance with a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust.

The Biodiversity Offset Strategy (BOS) specified how Goodman would meet the above consent conditions. However, during the time since the SSD7348 was lodged and assessed, the *Threatened Species Conservation Act 1995* (TSC Act) was replaced by the *Biodiversity Conservation Act 2016* (BC Act).

Investigations and assessment required to prepare both the Oakdale West BAR and BOS used the former TSC Act biodiversity assessment methods.

Transitional arrangements provisioned for under the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* (BC Reg.) expired in February 2018. This has resulted in the redundancy of the BOS, which was approved under SSD7348.

This Vegetation Management Plan (VMP) has been prepared to support a development modification (MOD 1) for Oakdale West. Relevant to the site's biodiversity, the intent of MOD 1 is as follows:

- To overcome the redundancy of the BOS while avoiding lengthy delays associated with reassessment under new legislation
- Meet the objectives of the *Water Management Act 2000* (WM Act) through the rehabilitation and restoration of a riparian corridor along Ropes Creek, which would otherwise have been restored as part of the proposed Biodiversity Offset Area.

1.2 Consultation

1.2.1 Department of Planning and Environment

The neighbouring Oakdale South Estate (Oakdale South SSD6917) recently lodged a modification MOD 11) for the same reasons as the Oakdale West SSD7348 MOD 1.

In preparing the Oakdale South SSD6917 MOD 11, consultation was undertaken with the Department of Planning and Environment (the Department) and that the same issue would occur for Oakdale West SSD7348 was also discussed.

In response the Department consulted with Office of Environment and Heritage (OEH) on the matter, and issued the following suggestions which applied to both Oakdale South SSD6917 and Oakdale West SSD7348:

- Purchase of appropriate BBAM credits from the market (i.e. credits assessed and calculated under repealed legislation) available on the market assessed under the repealed legislation), or
- Obtain a statement of reasonable equivalence to convert the existing BBAM credit obligation into BAM credits (i.e. credits assessed and calculated under the BC Act) and,
 - Enter into a biodiversity stewardship agreement under the BC Act on a parcel of land to generate the relevant credit types, then retire the relevant credits, or
 - Pay an amount equivalent to those credits into the Biodiversity Conservation Trust (BCT).

Oakdale South SSD6917 has obtained a statement of reasonable equivalence from the OEH and will be fulfilling its offsetting requirements through a combination of purchasing and retiring ecosystem credits from the market and direct payment to the BCT.

Oakdale West SSD7348 intend on taking the same approach and propose also to restore/rehabilitate and maintain areas of the Ropes Creek riparian corridor to fulfil the objects of the WM Act.

1.2.2 Department of Industry

The Department of Industry (DOI) was consulted during the assessment of SSD7348, specifically in relation to the proposed Biodiversity Offsetting Strategy encompassing the Ropes Creek riparian zone and meeting the objects of the WM Act.

The RTS and supplementary RTS for Oakdale West SSD7348 provided a number of diagrams in response to DOI's submissions, which illustrated the areas of the proposed development's footprint that encroached onto waterfront land.

The masterplan footprint for Oakdale West SSD7348 has been amended since the issue of the RTS and supplementary RTS. As a result the areas of the development that encroach onto waterfront land have also been amended and are illustrated in Figure 1-1 of this VMP.

1.3 Land to which this VMP applies

This VMP applies to an area of approximately 4.2 ha which extends along the western side of Ropes Creek as shown in Figure 1-2.

The areas of the Ropes Creek corridor are considered commensurate with the proportion of the SSD7348 development footprint that has encroached onto waterfront land.

Site constraints that have been considered in determining the extent of the VMP proposed are shown on Figure 1-1 and outlined below:

- The alignment of the future Southern Link Road (SLR) which traverses the Ropes Creek riparian corridor;
- Feasible management boundaries and access constraints, given that Oakdale South's boundaries extend to the western side of Ropes Creek and conflict with the future development of Oakdale West under SSD7348;

- The alignment of the existing electricity easement, which also precludes restoration works; and
- The proposed preferred alignment of the Western Sydney Freight Line (WSFL), which has been identified by Transport for NSW as requiring a 60m easement along the northern boundary of Oakdale West¹.

The remainder of the biodiversity offsetting area identified in the redundant BOS will continue to be protected by way of the following:

- Removal of cattle, replacement of redundant fencing and installation of new fencing
- Habitat placement (large woody debris), which is provisioned for in civil contracts for the development and detailed in the Flora and Fauna Management subplan to the Construction Environmental Management Plan (CEMP)
- Targeted weed control of scheduled weeds in accordance with the Biosecurity Act 2015 and as listed in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022

Goodman may choose to establish this area in the future as a Biodiversity Stewardship Site under agreement with the Biodiversity Conservation Trust (BCT).

¹ Should the WSFL eventually be constructed at this location, the impacts to the remnant native vegetation that would result will become the responsibility of TfNSW. For the purpose of SSD7348 MOD 1, the proposed development will not impact on this area.

Oakdale West Estate

Vegetation Management Plan

RIPARIAN GUIDELINES

- Ropes Creek 3rd order
- Tributary 1st order
- - - 40m - waterfront land
- 30m - riparian buffer
- ▨ Waterfront land encroachment

OAKDALE WEST

- ▭ Oakdale West boundary
- ▭ Native vegetation to be retained
- ▨ Fenced conservation area
- Oakdale West siteworks
- WNSLR siteworks

SITE CONSTRAINTS

- - - Electricity easement
- - - Future WSFL
- Future Southern Link Road

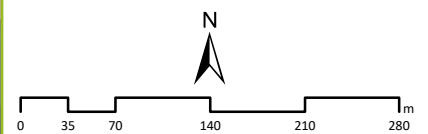
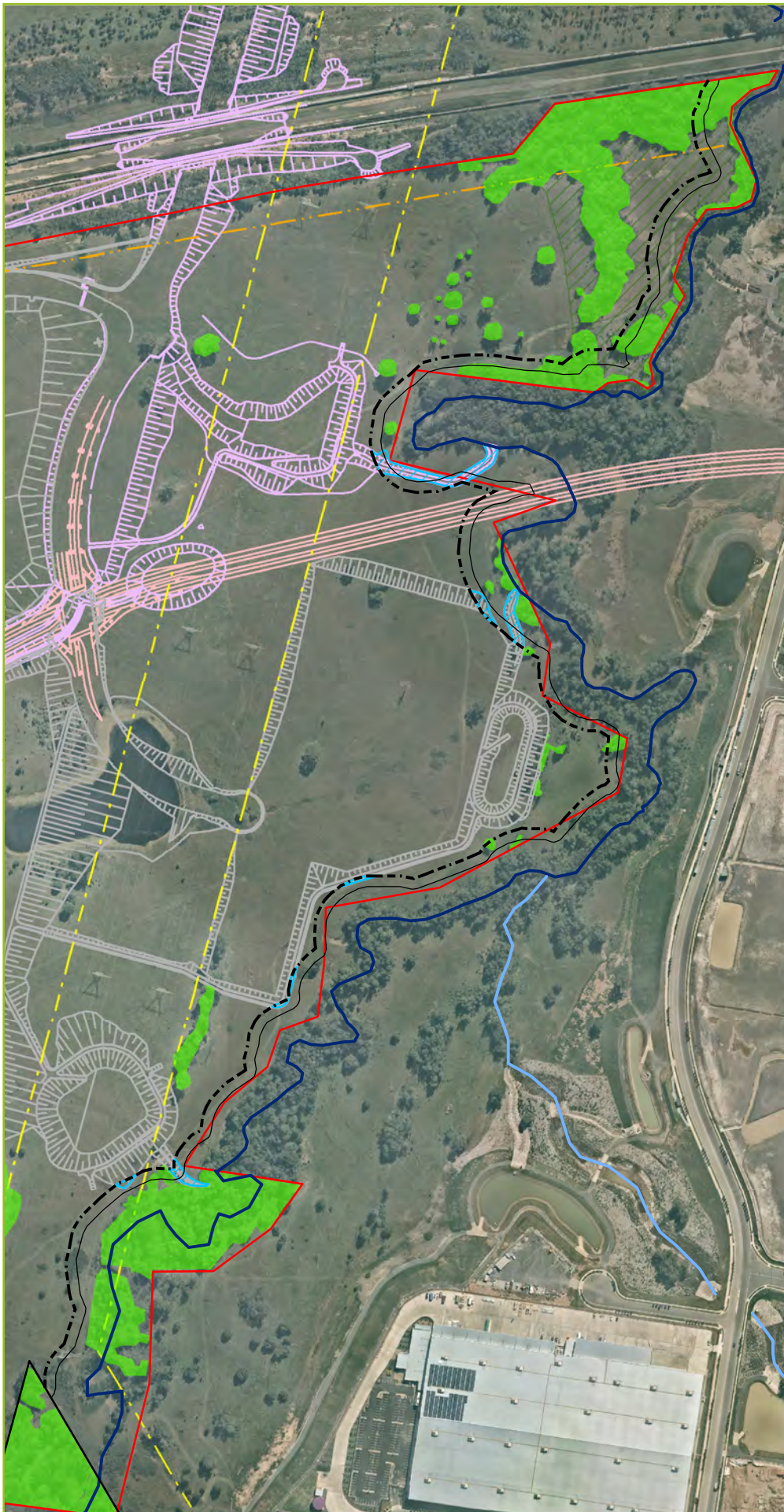
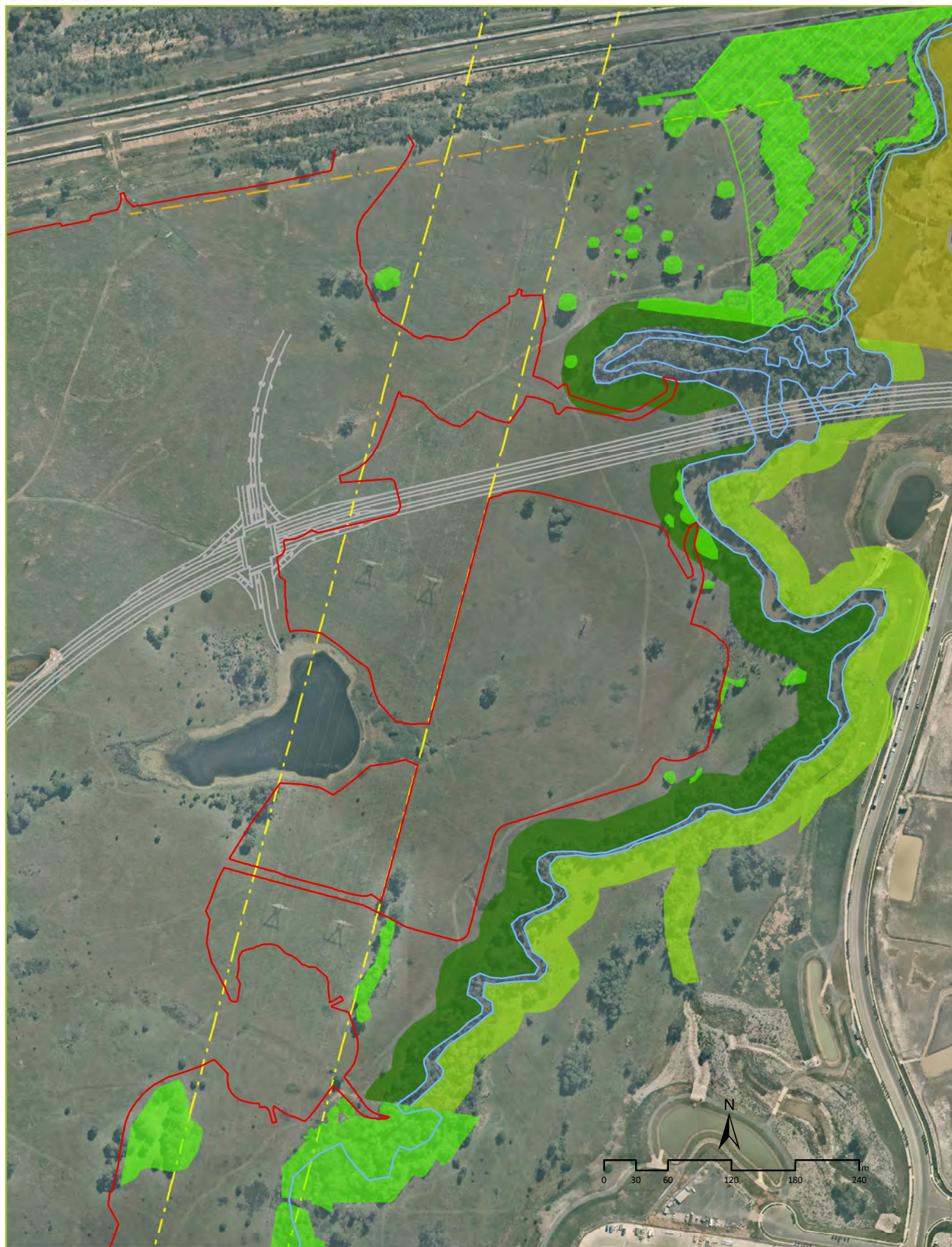


Figure 1-1
Site constraints

Coordinate System: MGA Zone 56 (GDA 94)
Image sources: Nearmap 7 April 2019





Oakdale West Estate VMP

Figure 1-2 Proposed VMP extent

Coordinate System: MGA Zone 56 (GDA 94)
Image sources: Nearmap 7 April 2019

- | | |
|---|--|
| Oakdale West VMP extent | Extent of works |
| Oakdale South VMP extent | Ropes Creek |
| Native vegetation to be retained | Electricity easement |
| Oakdale Central biodiversity area | Future WSFL |
| Fenced conservation area | Future Southern Link Road |

2. Site Description

2.1 Ropes Creek riparian corridor

As can be seen from Figure 1-1, the Ropes Creek riparian corridor broadly defines the eastern boundary of Oakdale West although much of the creek itself lies within the neighbouring Oakdale South Estate

Ropes Creek is a 3rd order Strahler stream order watercourse, as mapped on the NSW Hydro Line dataset². As such, this watercourse generally needs to be retained with a 30m vegetated riparian zone to each side of the channel.

A 30m riparian zone will be restored from the top of the western bank of Ropes Creek as part of the Oakdale West SSD7348 development. A corresponding 30m riparian zone will be restored from the top of the eastern bank of Ropes Creek as part of the Oakdale South SSD6917 development.

The Oakdale West SSD7348 development footprint encroaches marginally onto waterfront at five separate areas (see Figure 1-1), which in total amounts to 485m².

The outlets from three bioretention basins are located within the riparian corridor (see Figure 1-1), which are permitted, so long as they create minimal harm, and as they relate to meeting the objectives of the WM Act and the DOI's guidelines for controlled activities on waterfront land.

2.2 Native Vegetation

2.2.1 Plant Community Types

The Ropes Creek riparian corridor is subject to a significant level of remnant riparian vegetation. Investigations and assessment under the former biodiversity assessment method (BAM) identified two plant community types (PCTs) within the corridor, as summarised in Table 2-1.

Table 2-1. PCTs identified within the Ropes Creek riparian corridor

ID	PCT common name	Status	
		BC Act	EPBC Act
PCT 835	Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	Endangered	Not listed
PCT 1232	Swamp Oak floodplain forest fringing estuaries, Sydney Basin Bioregion and South East Corner Bioregion	Endangered	Endangered

Since investigations and collection of floristic data were undertaken to support the SSD7348 development application, a major upgrade to the NSW Vegetation Information System (VIS) took effect for the Sydney Metropolitan region.

Appropriate to the Ropes Creek riparian corridor is the inclusion of "Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley" (PCT 1800) which is a more appropriate PCT than PCT 1232.

² The Water Management (General) Regulation 2018 hydro line spatial data is a dataset of mapped watercourses and waterbodies in NSW. Based on the Spatial Services (Department of Finance, Services & Innovation) the data set is used to determine the Strahler stream order of a stream to identify whether an exemption from the requirement for a water licence or approval under the Water Management (General) Regulation 2018 applies.

The allocation of PCTs is only necessary for the assessment of native vegetation removal and calculation of ecosystem credits that are required to offset impacts to native vegetation. For the purpose of this VMP the appropriateness of PCT allocation is provided to justify the assemblage of vegetation communities and associated constituent plant species) proposed for restoration purposes.

A further consideration is the dominance of *Casuarina glauca* (swamp oak), which is regenerating through widespread suckering and resultant monospecific gene pool. The aim of this VMP is to ensure that a diverse range of endemic riparian flora is reinstated, which includes genetic diversity.

2.2.1 Flora species

Native flora species observed within the riparian corridor consists of a canopy dominated by swamp oak and *Melaleuca styphelioides* (prickly-leaf paperbark) with less frequently occurring *Eucalyptus tereticornis* (river redgum), *E. moluccana* (grey gum) and *Angophora floribunda* (rough barked apple gum).

Regenerating *Bursaria spinosa* (native blackthorn) is the most dominant species in the shrub layer species with various acacia species also present (*Acacia implexa*, *A. decurrens*, *A. floribunda* and *A. parramattensis*).

Native ground layer plant species are scattered throughout the riparian corridor including patches of native grasses such as *Microleana stipoides* (weeping meadow grass) and other herbs (such as *Dichondra repens*, *Pratia purpurascens*, *Brunoniella australis*).

Given the extent of remnant vegetation within the corridor, a medium to high level of natural resilience is expected.

2.3 Introduced Vegetation

Sections of Ropes Creek are infested with *Juncus acutus* (spiny rush) within the channel and lower creek banks. *Alternanthera philoxeroides* (alligator weed) is known to occur upstream of the VMP subject area but has yet to be identified within downstream reaches.

Higher elevated creek banks and the riparian corridor support moderate populations of grazed exotic grasses with scattered patches of *Rubus fruticosus* (blackberry) and individuals of *Lycium ferocissimum* (African boxthorn), *Dovyalis caffra* (kei apple) and *Cestrum parqui* (green cestrum). Most of which are identified as priority weed species in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022 (refer Section 3.4.1).

3. Restoration Approach

3.1 Overview

The specific objectives of this VMP align with those prescribed in the NSW Guidelines for vegetation management plans on waterfront land (DPIW July 2012) (the guidelines). The main objective being to provide a stable watercourse and riparian corridor which will emulate local native vegetation communities. Specific issues that need to be addressed within this VMP include:

- Conserve and protect environmentally sensitive areas and biodiversity values;
- Restore and rehabilitate degraded bushland and areas of significant vegetation;
- Ensure the protection of threatened species, populations or ecological communities;
- Limit the impact of development upon existing native vegetation;
- Provide habitat connectivity and fauna corridors;
- Promote sustainable vegetation management;
- Undertake responsive site management and landscaping to ensure that bushland values are conserved; and
- Specify appropriate environmental protection works to enhance the ecological and bushland amenity value of the site.

A combination of assisted bushland regeneration and reconstruction through revegetation shall be undertaken in areas of remnant native vegetation and pasture land within the VMP riparian zones (respectively).

3.2 Assisted Bushland Rehabilitation

Assisted bushland regeneration works shall be implemented in areas where natural regeneration is likely, by removing obstacles and making amendments to abiotic conditions to effect the regeneration of remnant native vegetation with varying resilience levels.

The aim of assisted bushland regeneration is to create conditions that favour the ecosystem's own recovery processes. The following principles from OEH's Conservation Management Notes (OEH 2011) apply to this VMP:

- Working where the natives are stronger, i.e. looking after the good areas and creating the conditions that promote their expansion into adjoining more degraded areas. An exception to this approach in the VMP riparian corridors will be targeting priority weed species in accordance with the *Biosecurity Act 2015*;
- Avoiding excessive disturbance because it often favours weed regrowth. But employing some disturbance where it is needed to trigger native plant regeneration or to treat compacted soil;
- Avoiding mulching (mostly) because mulch suppresses germination of seedlings, although it should be used in the following circumstances:
 - Small, low resilience patches within the regeneration area where natural leaf litter is available from nearby sources, and
 - On the edges of bushland areas to define the limits of the regeneration zone, and to suppress the encroachment of exotic grasses.
 - Above all, mulching shall avoid burying resilient areas where natural recruitment from the soil seed bank is evident.

Management activities relating to the assisted bushland regeneration are detailed in Section 4.

3.3 Reconstruction through revegetation

Where areas are found to have a low capacity for natural regeneration (i.e. former pasture land), these shall be fully reconstructed through revegetation of canopy, shrub and ground layer plant species constituent of River-flat Eucalypt Forest communities (RFEF). Reconstruction activities generally entail the following:

- Spraying out of introduced pasture grasses, herbs and forbs using a combination of selective and non-selective herbicides and high volume and low volume applications;
- Planting of local RFEF tree, shrub and groundlayer species; and
- Jute matting or mulching, depending on the location.

Section 4 details management activities relating to the reconstruction through revegetation.

3.4 Threatening processes

The most significant threatening processes that contribute or have contributed to degradation of the site's riparian corridors include:

- Past clearing of native vegetation;
- Grazing;
- Weed infestations, and
- Disturbance of soil and soil-stored native seed from various works associated with past land uses and proposed development.

The site's boundary will be securely fenced and grazing cattle removed. The existing natural riparian corridors will be demarcated as 'no go' zones and silt fencing installed to prevent movement of sediments in runoff entering these zones, during construction.

3.4.1 Weed infestations

Weed infestations will be managed as outlined in this VMP and in accordance with the *Biosecurity Act 2015*. The *Biosecurity Act 2015* replaces the *Noxious Weeds Act 1993*, which was repealed in August 2017.

The *Biosecurity Act 2015* itself is tenure neutral, in that unlike the previous *Noxious Weeds Act 1993* there is no scheduled "list" of weeds. As such all weeds need to be categorised by a risk they pose in relation to human health, biodiversity or agricultural production. The General Biosecurity Duty (GBD) is a key feature of the *Biosecurity Act 2015* (S22). Simply put, it means that all private and public land managers (or anyone who deals with weeds) must prevent, eliminate or minimise the risk of those weeds present.

The Greater Sydney Regional Strategic Weed Management Plan 2017-2022 identifies both State level and regionally determined priority weeds and high-risk activities that are relevant to the Oakdale West are listed in Appendix 1.

4. Management Actions

4.1 Management Zones

The VMP applies to two management zones: (a) assisted bushland regeneration, and (b) reconstruction through revegetation.

Work activities specific to these management zones are summarised in Table 4-1 and detailed in the following Sections with relevant work areas shown in Figure 4-1.

4.2 Weed Control

4.2.1 Primary weeding

Primary weeding is the first stage of bushland regeneration and reconstruction, which will require a range of techniques such as: the selective spraying of weeds with herbicides; cutting/scraping and painting deep rooted woody weeds and climbers with hand tools, chainsaws and brushcutters and painting cut stumps with herbicide; and selective hand removal of weeds.

Primary weeding is required in all VMP zones with a priority given to:

- Species scheduled under the *Biosecurity Act 2015* (see Table A, Appendix A);
- Widespread growth of spiny rush; and
- Woody weeds and climbers.

Additionally:

- Herbicide should not be allowed to fall into a watercourse or when wind conditions could cause drift outside the area to be treated or onto desirable plants.
- Weeds that cannot be removed by hand are to be manually removed, ensuring that the entire weed including all roots is removed;
- Damage to native plant species should be avoided during any weeding works; and
- All seed, flowering and invasive vegetative parts of weeds should be bagged and disposed of appropriately off site.

4.2.2 Secondary weeding

Secondary weeding involves the selective removal or treatment of weeds, whilst allowing regenerating or planted native plants to increase in size, abundance and percentage cover.

Secondary weeding should be undertaken at intervals of not more than four weeks following the completion of primary weeding and continue throughout the plant establishment period in reconstruction areas and as an ongoing task in assisted bush regeneration areas.

All herbaceous weeds should be managed to be at very-low percentage cover levels, (as a minimum 5% cover), or better. Particularly problematic herbaceous weeds with wind-blown seeds should be prevented from seeding at all times throughout the site.

4.2.3 Maintenance weeding

It can be expected that the remnant and revegetated areas in each VMP zone will always require a certain level of maintenance weeding, as weed seeds and vegetative propagules make their way on site from the soil stored seedbank, via water, wind and bird droppings. However, it can be expected that the amount of weeding required will decrease once the regenerating native plants grow, recover and become more resistant to disturbance and weed colonisation.

Maintenance weeding shall extend for a minimum of three years following the completion of the Plant Establishment / Defects Liability Period (refer Section 4.5.4) or until such time as a minimum

80% survival rate for all plantings and a maximum five percent (5%) weed cover for each VMP management zone.

4.3 Soil amelioration

In areas not subject to construction disturbance it is anticipated that existing soils will be suitable for revegetation following weed control without the need for amelioration.

Where construction activities have disturbed site soils (e.g. compaction, loss of topsoil) the following shall apply:

- All debris, stones and left over building materials (arising from the works) are to be removed from site.
- Stones exceeding 25 mm, clods of earth exceeding 50 mm, and weeds, rubbish or other deleterious material brought to the surface during excavation or cultivation, must be removed.
- Supply and cultivate/spread 50mm layer of organic compost within 50mm layer of topsoil.
- Organic compost to be pH neutral; low in phosphorus suitable for planting Australian natives; free from clods of soil, rock, rubbish, and other non-organic matter.

4.4 Mulching

The higher elevated parts of VMP reconstruction zones are to be mulched with a minimum 100mm layer of mulch to assist with weed suppression, improve soil water conservation and soil erosion control.

Mulch is to be placed to the required depth, clear of plant stems, and raked to an even surface flush with the surrounding finished levels. Mulch is to be spread so that after settling it is:

- Smooth and evenly graded between design surface levels
- Flush with adjacent finished levels
- Of the required depths (100 mm depth)
- Sloped towards the base of plant stems, but not in contact with the stem

4.5 Planting program

4.5.1 Plant procurement

Plant procurement involves the sourcing of plant species that are consistent with those provided in the Planting Schedule (provided in Appendix B).

Plant procurement shall either be undertaken by Goodman or the Contractor (to be determined on engagement of Contractor).

Most commercial nurseries that supply plant stock to the Western Sydney Region have the capacity to provide suitable seed or other propagative materials without the need for targeted collection of seed/ propagation materials. However at least four to six months advance notice will be required to ensure that the species listed the Planting Schedule (provided in Appendix B) are able to be supplied at the intended commencement of planting.

Plant stock is to be inspected by the Contractor and Site Superintendent (or otherwise appointed Goodman representative) at least one month prior to commencement of planting works and on delivery to the site.

Plants that are not: true to species; vigorous and healthy; with a well-developed root system; free from disease / pests; and are not without scars or dead wood; are to be rejected at delivery.

Planting shall be undertaken immediately after acceptance of plant delivery. If this is not possible: appropriate storage to keep the plants in good condition on the site, adequately protected from frost, wind, sun and vermin, and secured from vandals; shall be facilitated.

4.5.2 Planting procedure

Planting shall generally entail the following:

- Dig hole sufficient for root ball of plant. The removal from the container and the positioning of the plant is to be done with minimum disturbance to the roots.
- Slow-release native plant fertiliser (low phosphorous formulated native plant fertiliser tablet/granules) and water saving crystals shall be placed into the planting hole.
- After planting, the soil shall be replaced and carefully firmed, leaving a slight depression around each plant to allow for water collection. Soil is to be replaced in the hole so that the base of the stem is level with the soil surface, not set below the soil, or sitting above.
- All plants should be watered-in thoroughly after planting to settle any air pockets around the root ball of the plant and to give the plant a good initial supply of water.

4.5.3 Practical completion

It is anticipated that Practical Completion can be achieved within six months from commencement of the bush regeneration/restoration works in each VMP zone. During this time planting establishment is to be achieved through watering, weeding, pest/disease control, replacing dead plant material and repairing/replacing erosion control matting/mulch. All plants should be watered thoroughly on at least 4 to 6 occasions, during this period.

Failure to maintain each VMP management zone in a stable and healthy condition may result in the Superintendent arranging for the maintenance work to be carried out by others at the expense of the Contractor.

Practical Completion shall require a minimum 80 per cent survival rate of each species planted and a maximum of:

- 5 per cent weed cover in restoration zones
- 10 percent weed cover in rehabilitation zones

4.5.4 Planting establishment /defects liability

The Plant Establishment / Defects Liability Period shall be in force for 18 months after Practical Completion of each stage of the works or until the site is stable, whichever is the longer period.

Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or of any other cause, shall be removed and replaced at the Contractor's expense by work or materials of the required standard.

4.6 Performance measures

Performance targets are necessary to objectively measure the progress and the achievement of the VMP objectives. The anticipated timing of VMP management activities and related performance measures are outlined below and in Table 4-1.

- 1) All environmental and priority weeds are to be continuously suppressed and, if possible, eradicated from the site using recognised appropriate bush regeneration methods in accordance with best practice.
- 2) Weed control and revegetation works are to be carried out by a qualified bushland regeneration contractor for a period of 5 years.
- 3) Regeneration/restoration specified vegetation communities with a minimum 80% cover of native species achieved.
- 4) Weed control targets should eventually progress down to between 5% - 10% (or less) at the end of year 5.

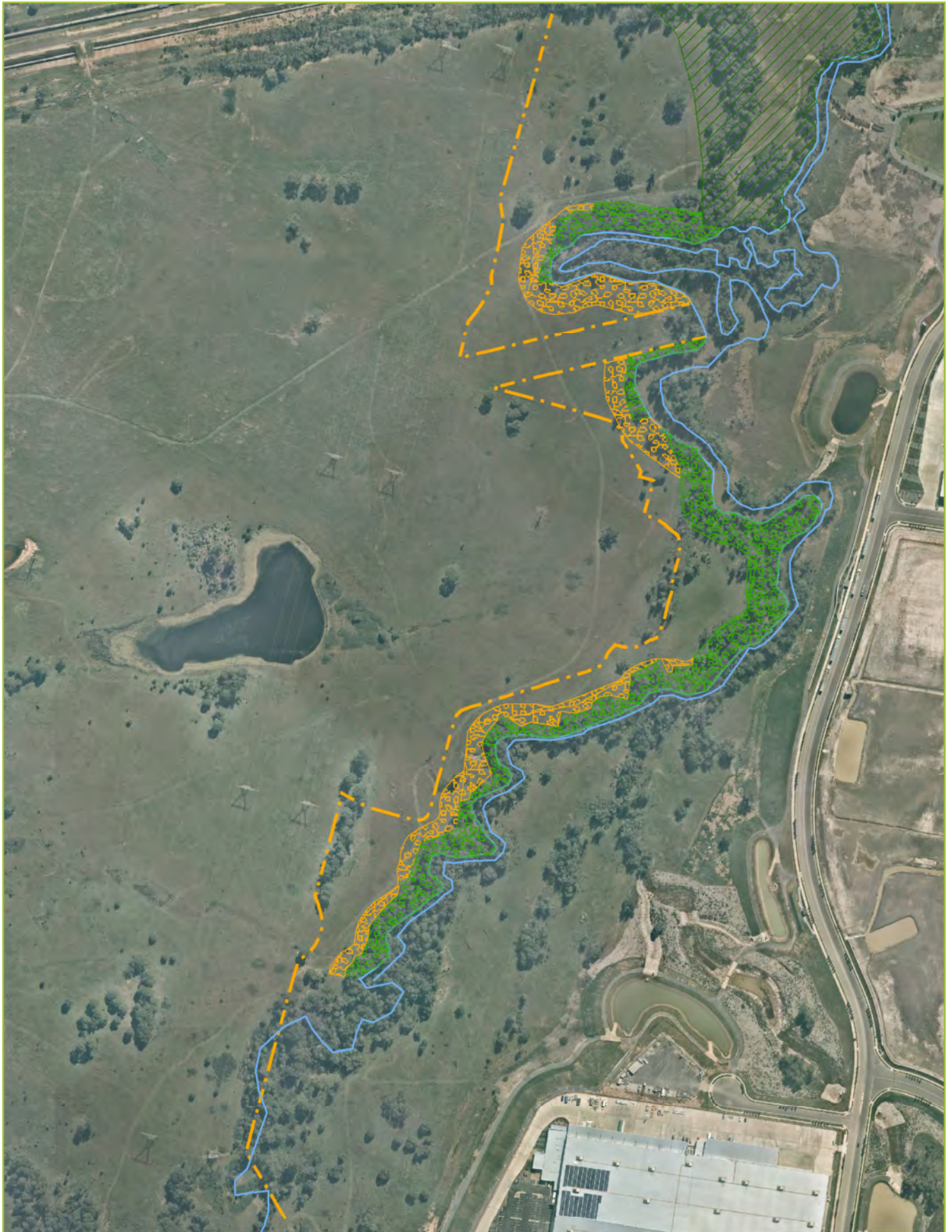
Table 4-1. VMP implementation schedule






Task	Timing	Performance measure
Plant procurement	Minimum 4-6mths pre-commencement of VMP implementation	Plants that are not: true to species; vigorous and healthy; with a well-developed root system; free from disease / pests; and are not without scars or dead wood; shall be rejected at delivery.
Completion of revegetation planting works	Practical Completion	<ul style="list-style-type: none"> 100% of management zones treated 100% of plants installed
Plant establishment	6 months	<ul style="list-style-type: none"> Minimum 90% per cent survival rate of each species planted in all zones Maximum 10% weed cover in reconstruction zones Maximum 20% weed cover in regeneration zones
Defects Liability Period	18 months	<ul style="list-style-type: none"> Minimum 80% per cent survival rate of each species planted in all zones Maximum 10% weed cover in reconstruction zones Maximum 20% weed cover in regeneration zones
Maintenance Period	36 months	<ul style="list-style-type: none"> Minimum 80% per cent survival rate of each species planted in all zones Maximum 5% weed cover in reconstruction zones Maximum 10% weed cover in regeneration zones

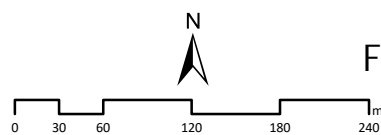
4.7 Compliance certification

Site audits, monitoring and reporting on the progress and achievement of the VMP performance targets shall be undertaken by the Site Superintendent or other representative nominated by Goodman. In general, reporting and compliance certificates shall be issued for the following items:

- Completion of primary weed control works
- Completion of secondary weed control works
- Inspection of plant materials delivered to site prior to commencement of planting works
- Completion of revegetation planting works (Practical Completion)
- Completion of plant establishment period
- Defects Liability Period
- Satisfactory achievement of revegetation/restoration works as per VMP performance targets (Section 4.6).



-  Regeneration
-  Revegetation
-  Fenced conservation area
-  Ropes Creek
-  Former_BOS_extent



Oakdale West Estate VMP

Figure 4-1 Proposed VMP extent

Coordinate System: MGA Zone 56 (GDA 94)
Image sources: Nearmap 7 April 2019

5. References

Cumberland Ecology (2017) Oakdale West State Significant Development Application Biodiversity Assessment Report, prepared for Goodman Property Services (Aust.) Pty Ltd, March 2017.

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Appendix A. Weeds of the riparian zone

Species / Common names	Management measures
Shrubs	
<i>Cestrum parqui</i> Green cestrum	<p>Schedule 2: Regional Priority Weed</p> <p>Regional Priority Weed Objective - ASSET PROTECTION:</p> <p>Land managers mitigate the risk of the plant being introduced to land used for grazing of livestock.</p> <p>Land managers prevent spread from their land where feasible.</p> <p>The plant or parts of the plant are not traded, carried, grown or released into the environment.</p> <p>The plant should be fully and continuously suppressed and destroyed on grazing land</p> <p>Implement quarantine and/or hygiene protocols</p> <p>Schedule 3: Local Priority Weed</p> <p>Land managers have mitigated the risk of the plant being introduced to land used for grazing of livestock</p> <p>The plant should be fully suppressed and destroyed on grazing land.</p>
<i>Dovyalis caffra</i> Kei apple	<p>Schedule 2: Regional Priority Weed</p> <p>Regional Priority Weed Objective - ERADICATION</p> <p>The plant is eradicated from the land and the land is kept free of the plant.</p> <p>Destruction of all infestations where feasible.</p> <p>Manage in accordance with New Weed Incursion Plan.</p> <p>Detailed surveillance and mapping to locate all infestations</p> <p>Local Control Authority is notified if the plant is found on the land.</p> <p>The plant or parts of the plant are not traded, carried, grown or released into the environment.</p>
<i>Lantana camara</i> Lantana	<p>Schedule 1: State Priority Weed</p> <p>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response: Identify priority assets for targeted management.</p>
<i>Lycium ferocissimum</i> African boxthorn	<p>Schedule 1: State Priority Weed</p> <p>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response: Identify priority assets for targeted management.</p>

Species / Common names	Management measures
<i>Olea europaea</i> subsp. <i>cuspidata</i> African olive	<p>Schedule 2: Regional Priority Weed</p> <p>Regional Priority Weeds Objective - CONTAINMENT:</p> <p>Oakdale West lies within the region classified as the core infestation area. The following applies:</p> <p>The plant or parts of the plant are not traded, carried, grown or released into the environment.</p> <p>Implement quarantine and/or hygiene protocols.</p> <p>Surveillance and mapping to locate all infested properties.</p> <p>Monitor change in current distribution to ensure containment of spread.</p> <p>Land managers prevent spread from their land where feasible.</p> <p>Land managers reduce the impact on priority assets.</p> <p>Identify priority assets for targeted management</p>
<i>Rubus fruticosus</i> agg Blackberry	<p>Schedule 1: State Priority Weed</p> <p>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response: Identify priority assets for targeted management.</p>
<i>Ulex europaeus</i> Gorse	<p>Schedule 1: State Priority Weed</p> <p>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Schedule 2: Regional Priority Weed</p> <p>Regional Priority Weeds Objective - CONTAINMENT:</p> <p>Land managers prevent spread from their land where feasible</p> <p>Destruction of all infestations, aiming at local eradication where feasible.</p> <p>Detailed surveillance and mapping to locate all infestations.</p> <p>Implement quarantine and/or hygiene protocols.</p> <p>Monitor progress towards eradication</p>
Aquatic and semi-aquatic	
<i>Alternanthera philoxeroides</i> Alligator weed - Weed of National Significance	<p>Schedule 1: State Priority Weeds</p> <p>State Priority Weed Objective - CONTAINMENT:</p> <p>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Schedule 2: Regional Priority Weed</p> <p>Regional Priority Weeds Objective - CONTAINMENT:</p>

Species / Common names	Management measures
	<p>Oakdale West lies within the region classified as the core infestation area. The following applies:</p> <p>Prevent spread from their land where feasible.</p> <p>Mitigate the risk of the plant being introduced to their land.</p> <p>Reduce the impact on priority assets.</p> <p>Implement quarantine and/or hygiene protocols.</p> <p>Manage in accordance with the Priorities for the control of Alligator Weed in the Sydney Region.</p>
<i>Cyperus difformis</i> Dirty Dora	Other
<i>Cyperus eragrostis</i> Umbrella sedge	Other
<i>Juncus acutus</i> Spiny rush	Other
Vines/scramblers	
<i>Anredera cordifolia</i> Madeira vine	<p>Schedule 1: State Priority Weed</p> <p>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response:</p> <p>Identify priority assets for targeted management.</p>
<i>Araujia sericifera</i> Moth vine	Other
<i>Asparagus aethiopicus</i> ground asparagus † <i>A. africanus</i> climbing asparagus <i>A. asparagoides</i> bridal creeper <i>A. plumosus</i> climbing asparagus fern	<p>Schedule 1: State Priority Weed</p> <p>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response: Identify priority assets for targeted management.</p> <p>†<i>A. africanus</i></p> <p>Destruction of all infestations where feasible.</p> <p>Manage in accordance with New Weed Incursion Plan.</p> <p>▫ Detailed surveillance and mapping to locate all infestations</p>
<i>Asparagus virgatus</i> Asparagus fern	<p>Schedule 3: Local Priority Weed</p> <p>The plant or parts of the plant have not been traded, carried, grown or released into the environment.</p> <p>Surveillance and mapping to locate all infested properties and maintain currency of exclusion zone and objectives.</p>
<i>Modiola caroliniana</i> Creeper mallow	Other

Species / Common names	Management measures
Grasses	
<i>Axonopus fissifolius</i> Carpet grass	Other
<i>Briza subaristata</i> hilean quaking grass	Other
<i>Bromus catharticus</i> Prairie grass	Other
<i>Ehrharta erecta</i> Panic veldtgrass	Other
<i>Lolium perenne</i> Ryegrass	Other
<i>Paspalum dilatatum</i> Paspalum	Other
<i>Pennisetum clandestinum</i> Kikuyu	Other
<i>Sporobolus africanus</i> Parramatta grass	Other
Herbs	
<i>Anagallis arvensis</i> Scarlet pimpernel	Other
<i>Brassica fruticulosa</i> Twiggy turnip	Other
<i>Cirsium vulgare</i> Spear thistle	Other
<i>Hypochaeris radicata</i> Catsear	Other
<i>Senecio madagascariensis</i> Fireweed	Schedule 1: State Priority Weed State Priority Weed Objective - ASSET PROTECTION (Whole of State): Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell. Regional Strategic Response: Identify priority assets for targeted management.
<i>Sida rhombifolia</i> Paddy's lucerne	Other
<i>Solanum americanum</i> American black nightshade	Other
<i>Solanum linnaeanum</i> Apple of Sodom	Other
<i>Sonchus oleraceus</i> Common sowthistle	Other

Appendix B. Planting Schedule

Zone	Species	density/m ²	%mix	Qty
RC reconstruction (15,604m²)				
Trees/large shrubs	Acacia decurrens	0.05	5	40
	Acacia parramattensis	0.05	5	40
	Angophora floribunda	0.05	15	115
	Eucalyptus amplifolia	0.05	15	115
	Eucalyptus eugenoides	0.05	15	115
	Eucalyptus moluccana	0.05	15	115
	Eucalyptus tereticornis	0.05	15	115
	Melaleuca styphelioides	0.05	15	115
			100	770
Smaller shrubs	Acacia floribunda	0.2	8	250
	Breynia oblongifolia	0.2	10	312
	Clerodendrum tomentosum	0.2	10	312
	Daviesia genistifolia	0.2	8	250
	Daviesia ulicifolia	0.2	8	250
	Dillwynia sieberi	0.2	8	250
	Dodonaea spp.	0.2	10	312
	Goodenia ovata	0.2	10	312
	Indigofera australis	0.2	10	312
	Ozothamanthus diosmifolium	0.2	10	312
	Pultenea spp.	0.2	8	250
			100	3,122
Grasses	Aristida ramosa/vagans	2	5	1,560
	Cymbogon refractus	2	10	3,120
	Chloris truncata/ventricosa	2	5	1,560
	Dicanthium sericeum	2	5	1,560
	Dichelachne micrantha	2	10	3,120
	Echinopogon ovata	2	10	3,120
	Eriochloa pseudochritcha	2	5	1,560
	Imperata cylindrica	2	10	3,120
	Microlaeana stipoides	2	10	3,120
	Poa labillardieri	2	10	3,120
	Rytidosperma racemosum	2	10	3,120
	Themeda triandra	2	10	3,120
			100	31,200
Sedges/Sedge-like	Lomandra longifolia	1	50	7,802
	Dianella longifolia	1	50	7,802

Zone	Species	density/m ²	%mix	Qty
			100	15,604
Herbs	Arthropodium spp.	0.05	as available	780
	Bulbine bulbosa	0.05		
	Clematis spp.	0.05		
	Desmodium varians	0.05		
	Dichondra repens	0.05		
	Glycine clandestina	0.05		
	Hardenbergia violacea	0.05		
	Oplismenus aemulus	0.05		
	Oxalis perannans	0.05		
	Plectranthus parviflorus	0.05		
	Pratia purpurescens	0.05		
	Scaveola albida	0.05		
	Veronca plebeia	0.05		
	Wahlenbergia gracilis	0.05		
				780
Total plants RC reconstruction				51,476
RC Regeneration (30% of 26,071m ²)				
Smaller shrubs	Acacia floribunda	0.2	8	125
	Breynia oblongifolia	0.2	10	156
	Clerodendrum tomentosum	0.2	10	156
	Daviesia genistifolia	0.2	8	125
	Daviesia ulicifolia	0.2	8	125
	Dillwynia sieberi	0.2	8	125
	Dodonaea spp.	0.2	10	125
	Goodenia ovata	0.2	10	125
	Indigofera australis	0.2	10	125
	Ozothamanthus diosmifolium	0.2	10	125
	Pultenea spp.	0.2	8	156
			100	1468
Grasses	Aristida ramosa/vagans	2	5	782
	Cymbogon refractus	2	10	1,564
	Chloris truncata/ventricosa	2	5	782
	Dicanthium sericeum	2	5	782
	Dichelachne micrantha	2	10	1,564
	Echinopogon ovata	2	10	1,564
	Eriochloa pseudochritcha	2	5	782
	Imperata cylindrica	2	10	1,564
	Microlaeana stipoides	2	10	1,564
	Poa labillardieri	2	10	1,564

Zone	Species	density /m ²	%mix	Qty
	Rytidosperma racemosum	2	10	1,564
	Themeda triandra	2	10	1,564
			100	15,640
Sedges/Sedge-like	Lomandra longifolia	1	50	3,910
	Dianella longifolia	1	50	3,910
			100	7,820
Herbs	Arthropodium spp.	0.05	as available	391
	Bulbine bulbosa	0.05		
	Clematis spp.	0.05		
	Desmodium varians	0.05		
	Dichondra repens	0.05		
	Glycine clandestina	0.05		
	Hardenbergia violacea	0.05		
	Oplismenus aemulus	0.05		
	Oxalis perannans	0.05		
	Plectranthus parviflorus	0.05		
	Pratia purpurescens	0.05		
	Scaveola albida	0.05		
	Veronca plebeia	0.05		
	Wahlenbergia gracilis	0.05		
Total plants RC revegetation zone				25,319



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APPENDIX J

Consultation

Penrith City Council

Operational Traffic Management Plan

RE: Oakdale West - Estate Framework OTMP and the site specific OTMP for Building 2B

 Alasdair Cameron <Alasdair.Cameron@goodman.com>
To:  Stephen Masters
Cc:  Lachlan O'Reilly
 Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Many thanks Steve,
We will update the plans to correct the errors and submit to the department.
Many thanks for your input.

Regards
Alasdair

From: Stephen Masters <stephen.masters@penrith.city>
Sent: Tuesday, 17 August 2021 11:34 PM
To: Alasdair Cameron <Alasdair.Cameron@goodman.com>
Subject: Oakdale West - Estate Framework OTMP and the site specific OTMP for Building 2B

Hi Alasdair,

I have reviewed both the Estate Framework OTMP and the site specific OTMP for Building 2B and can advise that they are generally acceptable to Council however there are a number of typos within the documents that relate to the Oakdale South Estate (e.g access to the estate, bus routes, Ottelia Road etc). I have highlighted some of the text in the attached documents. May I request that the operational plans be updated to reflect the Oakdale West Industrial Estate.

Please telephone me tomorrow to discuss.

Regards









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Transport for New South Wales

Operational Traffic Management Plan

RE: Oakdale West Estate Stage 2 Development SSD 10397 Operational Traffic Management Plan Consultation.

 Alasdair Cameron <Alasdair.Cameron@goodman.com>
To:  Raymond Tran
Cc:  Pahee Rathana;  Malgy Coman;  Stephanie Partridge;  Lachlan O'Reilly;  Luke Ridley;  Kym Dracopoulos

Raymond,
Many thanks for your response, duly noted.

Regards
Alasdair

From: Raymond Tran <Raymond.Tran@transport.nsw.gov.au>
Sent: Thursday, 5 August 2021 1:39 PM
To: Alasdair Cameron <Alasdair.Cameron@goodman.com>
Subject: RE: Oakdale West Estate Stage 2 Development SSD 10397 Operational Traffic Management Plan Consultation.

Dear Alasdair

Please see following comment from Transport for NSW (Network & Safety Services):

- Any posted speed signage within the site (private roads) should not replicate the design and appearance of the regulatory speed limit signage (a number within the red circle).

Kind regards,

Raymond Tran
Network & Safety Officer
Western Parkland City
Network and Asset Management
Transport for NSW

T 02 8843 3133
Level 5, 27 Argyle Street Parramatta NSW 2150



From: Alasdair Cameron
Sent: Friday, 16 July 2021 8:29 AM
To: Pahee Rathan <Pahee.RATHAN@transport.nsw.gov.au>
Cc: Kym Dracopoulos <Kym.Dracopoulos@goodman.com>; Luke Ridley <Luke.Ridley@goodman.com>; Lachlan O'Reilly <Lachlan.O'Reilly@goodman.com>
Subject: Oakdale West Industrial Estate- Operational Traffic Management Plan Consultation.

Dear Pahee,

We're hoping to commence the operational phase at Oakdale West soon.

Condition D89a of consent for SSD7348 (Oakdale West) requires us to consult with TfNSW on the Operational Traffic Management Plan (OTMP) prior to the operational stage of development:

Operational Traffic Management Plan

D69A The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:

- (a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW;
- (b) detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation;
- (c) include measures to maintain road safety and network efficiency;
- (d) detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise;
- (e) include a Driver's Code of Conduct that addresses:
 - (i) travelling speeds and adherence to site-specific speed limits;
 - (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and
 - (iii) procedures to ensure drivers implement safe driving practices.

We'd therefore be grateful if you're able to review the OTMP (see attached) and provide us any comments you may have. A 'no comment' response would satisfy the consultation requirements if you have no feedback.

We would be extremely grateful if you provide this proof of consultation no later than **23 July 2021**
Please let me know if you have any questions. Thank you for your help.

Regards
Alasdair

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