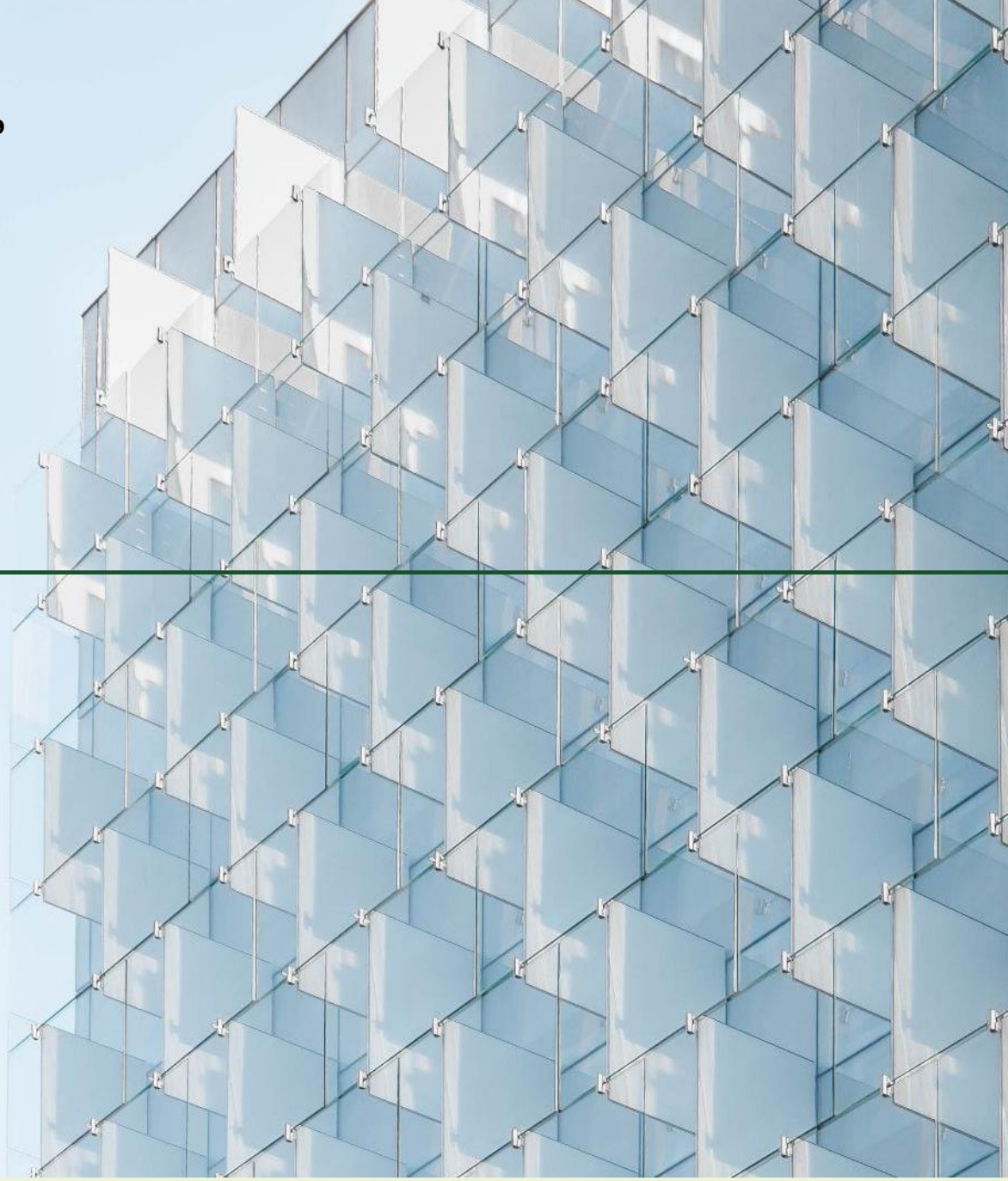
Ref: **SSD-25725029**
WTJ21-302



WILLOWTREE PLANNING

ENVIRONMENTAL IMPACT STATEMENT:
PROPOSED MANUFACTURING FACILITY AND ASSOCIATED WAREHOUSE

657-769 MAMRE ROAD, KEMPS CREEK
LOT 10 APPROVED UNDER SSD 9522

—

Prepared by Willowtree Planning Pty Ltd
on behalf of Altis Frasers JV Pty Ltd

9 November 2021

SYDNEY

—

Suite 4, Level 7
100 Walker Street
North Sydney NSW 2060

NEWCASTLE

—

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GOLD COAST

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WILLOWTREE
PLANNING

DOCUMENT CONTROL TABLE			
Document Reference:	WTJ21-302		
Contact:	Cameron Gray		
Version and Date	Prepared by	Checked by	Approved by
Version No. 1 – DRAFT (27/08/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.2 – DRAFT (22/09/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.3 – DRAFT (05/10/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.4 – DRAFT (08/10/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.5 – DRAFT (13/10/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.6 – DRAFT (20/10/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.7 – DRAFT (26/10/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
Version No.7 – FINAL (04/11/2021)	Cameron Gray Senior Planner	Andrew Cowan Director	Andrew Cowan Director
			

SECTION 4.12 CERTIFICATE

Declaration Form	**Submission of Environmental Impact Statement (EIS)** prepared under the *Environmental Planning and Assessment Act 1979 – Part 4, Division 4.3, Section 4.12*

EIS Prepared by	
Name	Cameron Gray
Qualifications	Bachelor of Planning (Honors Class 2 Division 1)
Address	Suite 4, Level 7 100 Walker Street North Sydney, NSW 2060

In Respect of	Proposed Warehouse/Industrial Facility

Development Application	
Applicant Name	Altis Frasers JV Pty Ltd
Applicant Address	Level 14, 60 Castlereagh Street, Sydney NSW 2000

Land to be Developed	657-769 Mamre Road, Kemps Creek • Proposed Lot 10 (Approved under SSD 9522)

EIS	This document contains a complete EIS

Certificate	I certify that I have prepared the contents of this EIS to the best of my knowledge: • It is in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*, • Contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and • That the information contained in the statement is neither false nor misleading.

Signature

Name	Cameron Gray
Position	Senior Planner
Qualification	Bplan (Honors), UNSW
Date	9 November 2021

Signature

Name	Andrew Cowan
Position	Director
Qualification	BURP, UNE MPD, UTS
Date	9 November 2021

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GLOSSARY OF KEY TERMS

TERM	MEANING
BAM	Biodiversity Assessment Methodology
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
BC Regulation	*Biodiversity Conservation Regulation 2017*
BDAR	Biodiversity Development Assessment Report
BOS	Biodiversity Offset Scheme
CIV	Capital investment value
Council	Penrith City Council
DPIE	Department of Planning, Industry and Environment
DCP	Development Control Plan
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPA	Environment Protection Authority
EPBC Act	*Commonwealth Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
GFA	Gross Floor Area
GSC	Greater Sydney Commission
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007*
LGA	Local Government Area
MNES	Matter of National Environmental Significance
NSW RMS	NSW Roads and Maritime Services
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
SEARs	Secretary's Environmental Assessment Requirements (SSD 25725029), dated 3 September 2021
SEPP	State Environmental Planning Policy
SEPP 33	*State Environmental Planning Policy No. 33 — Hazardous and Offensive Development*
SEPP 64	*State Environmental Planning Policy No 64—Advertising and Signage*
Sqm or m²	Square metres
Subject Site/Site/study area	657-769 Mamre Road, Kemps Creek
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
TfNSW	Transport for NSW
Willowtree Planning	Willowtree Planning Pty Ltd
WSEA SEPP	*State Environmental Planning Policy (Western Sydney Employment Area) 2009*

EXECUTIVE SUMMARY

This Environmental Impact Statement (EIS) has been prepared by Willowtree Planning Pty Ltd (Willowtree Planning), on behalf of Altis Frasers JV Pty Ltd (Altis/Frasers). The EIS is submitted to the of Department of Planning, Industry and Environment (DPIE), in support of a State significant development (SSD) application to construct, fit out and operate a manufacturing facility and associated warehouse facility at 657-769 Mamre Road, Kemps Creek (proposed Lot 12) which will be occupied and operated by Ardex.

Ardex is a manufacturer and supplier of products which include renders, screeds, floor levelling and adhesive products, decorative surface finishes, mortars used in repair applications, tile adhesives, grouts, silicone products, waterproofing membranes, primers, bonding agents and additives, sealants, sealers, sound proofing systems, a range of "natural stone" products, and a range of tools used for flooring and wall applications.

In short, the proposal involves:

- A new purpose-built manufacturing facility and associated warehouse for the production and distribution of Ardex products with the following production capacities:
    - Up to approximately 48,000 tonnes per annum (tpa) of powder products; and
    - Up to approximately 25,000 KL per annum of liquid products.
- The operation of the warehouse and distribution facility by Ardex; and
- Torrens Title subdivision to create the subject allotment (proposed Lot 12).

The proposed development is afforded to land at 657-769 Mamre Road, Kemps Creek. The Site forms part of the broader industrial estate (known as The Yards), that was approved under SSD 9522 in December 2020. Under SSD 9522, the proposed allotment is notated as Lot 10. Such land is described throughout this EIS as the 'Subject Site'.

The Subject Site is located within the Penrith Local Government Area (LGA) and is zoned IN1 General Industrial under the provisions of *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (WSEA SEPP). Development for the purpose of warehousing and industry is permissible with consent in the IN1 General Industrial zone under the WSEA SEPP.

The proposed development is classified as SSD under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it involves the construction and operation of a "metal, mineral and extractive metal processing" with a Capital Investment Value (CIV) of more than $30 million.

As such, this EIS must be prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs). Under the EP&A Act, it is required that a request for SEARs must be made prior to the lodgement of any application for SSD. SEARs were requested for the proposed development (reference: SSD 25725029) and later issued by the DPIE on the 3 September 2021 (refer to **Appendix 1**).

In addition to the general requirements, the SEARs for the proposal outline several Key Issues to be addressed as part of this EIS, including:

1. Statutory and Strategic Context
2. Suitability of the Site
3. Community and Stakeholder Engagement
4. Traffic and Transport
5. Soils and Water
6. Urban Design and Visual
7. Air Quality and Odour
8. Noise and Vibration

9. Infrastructure Requirements
10. Aboriginal Cultural Heritage
11. Biodiversity
12. Social Impact
13. Ecologically Sustainable Development
14. Waste Management
15. Bush Fire
16. Hazards and Risk
17. Greenhouse Gas and Energy Efficiency
18. Airport Safeguarding
19. Planning Agreement/Development Contribution

The findings of this EIS identify that the proposal can be accommodated, subject to suitable management and mitigation measures, without any adverse environmental impacts beyond that considered appropriate by the relevant legislation.

Further, the proposed manufacturing facility and associated warehouse will be consistent with the objectives of the WSEA SEPP and relevant IN1 General Industrial zone. Based on the findings of this EIS, the proposal would support the use of the Subject Site for industry, providing employment opportunities in Western Sydney. The proposal is suitable for the local context and would not result in any significant environmental impact. As such, it is recommended that the proposal be approved by DPIE.

SITE CONTEXT

The Subject Site is described as proposed Lot 10 under SSD 9522, more commonly known as 657-769 Mamre Road, Kemps Creek. The Subject Site has a total area of approximately 15.8ha and the area which will contain the proposal is 4.3ha. The Subject Site forms part of the broader estate (known as The Yards).

In its existing state, the Subject Site is undeveloped and is undergoing bulk earthworks and infrastructures works as per SSD 9522. The Subject Site in its existing state is depicted in **Figures 1** to **4** below.

Figure 1 **Site Context Map** (Source: Pace Architects, 2021)

Figure 2 **Existing Site as viewed from the East** (Source: Geoscapes, 2021)

Figure 3 **Existing Site as viewed from the South West** (Source: Geoscapes, 2021)

Figure 4 **Existing Site as viewed from the West** (Source: Geoscapes, 2021)

PROJECT DESCRIPTION

Development Consent under this proposal is sought for:

- Minor earthworks involving cut and fill works, site preparation works and the establishment of a building pad;
- Infrastructure comprising civil works and augmentation of utilities servicing;
- Construction, internal fit out and operation of a manufacturing facility and warehouse (27,470m^2), comprising:
    - Manufacturing areas and associated warehouse (24,970m^2)
    - Ancillary office areas (2,500m^2)
    - 163 car parking spaces and 12 bicycle spaces
    - Powder silo tower
    - Liquid silo tower
    - Associated business identification signage
    - Site Landscaping (4,348m^2)
    - 13 loading docks
    - Three (3) vehicle crossovers
- Production capacity up to approximately 48,000 tonnes per annum (tpa) of powder products, resulting in an indicative weekly maximum of 932.0 tonnes and daily maximum of 131.5 tonnes;
- Production capacity up to approximately 25,000 KL per annum of liquid products, resulting in an indicative weekly maximum of 480.7 KL and daily maximum of 68.5 KL;
- Storage of dangerous goods, comprising:
    - Class 2.1 – LPG
    - Class 3 – Flammable Liquid
    - Clause 4.1 – Flammable Solids
    - Clause 5.1 – Oxidising Substances
    - Clause 6.1 – Sub-risk Toxic Substances
    - Class 8 – Corrosive Substances
- Hours of operation being on a 24 hours per day, 7 days per week, basis; and
- Torrens Title subdivision to create the subject allotment (proposed Lot 12) measuring approximately 4.3ha.

PLANNING AND LEGISLATIVE FRAMEWORK

All relevant Federal and State legislation, as well as Environmental Planning Instruments (EPIs), have been considered in the preparation of this EIS. The proposal is considered to be satisfactory in terms of its legislative context, on the basis that:

- The proposal is permissible in the zone;
- The objectives of the zone are satisfied;
- The range of applicable SEPPs have been considered;
- Strategic policies that apply to the locality and wider region have identified that the proposed use is consistent with the strategic context of the area; and
- The proposed development can satisfy the relevant provisions of the BCA and applicable Australian Standards.

Refer to **PART D** of this EIS.

PUBLIC NOTIFICATION AND CONSULTATION

A range of authorities have been consulted with during the preparation of this application including:

- Penrith City Council
- Central (Western) Team, Place Design and Public Space Group (Department of Planning, Industry and Environment)
- Environment Protection Authority (Department of Planning Industry and Environment)
- Environment, Energy and Science Group (Department of Planning Industry and Environment)
- Transport for NSW
- NSW Rural Fire Service
- WaterNSW
- Western Sydney Airport Corporation
- Civil Aviation Safety Authority
- Western Sydney Planning Partnership
- Surrounding landowners and stakeholders

The consultation process is detailed in **PART E** and **Appendix 13**.

ENVIRONMENTAL IMPACT ASSESSMENT

An assessment of environmental impact has been undertaken against the relevant planning controls and policies. Additionally, a number of expert consultants have been engaged to specifically consider relevant aspects of the proposal. As a result, the proposed development complies with the relevant controls and it is considered that appropriate mitigation measures can be put in place to minimise any identified risks.

The proposed development is considered acceptable in a legislative sense.

JUSTIFICATION FOR THE PROPOSED DEVELOPMENT

Thorough consideration of the environmental impacts of the proposal has been undertaken in the environmental impact assessment process and in the preparation of the EIS. In assessing the impacts of the proposed development, consideration has been given to social, economic and environmental matters. As identified in this EIS, the proposed development is not considered to represent an environmental risk, or a development that might be out of context with the surrounding locality.

CONCLUSION

The findings of this EIS demonstrate that the proposed development can proceed with consent. All assessed impacts have been examined and deemed acceptable, in relation to all the relevant legislative requirements applicable to the Subject Site. Furthermore, the proposed manufacturing facility and associated warehouse is consistent with the objectives of the *A Metropolis of Three Cities – Greater Sydney Region Plan,* the *Western City District Plan* and the WSEA SEPP.

Based on the findings of this EIS, the Subject Site can successfully support a manufacturing facility and associated warehouse, inclusive of related development, under this application, with acceptable environmental impacts. The proposed development is a logical use of an otherwise vacant industrial lot that is contiguous with surrounding vacant industrial lands. The proposal is deemed to result in significant operational efficiencies for Ardex as the operator of the manufacturing and associated warehouse.

The proposed development is deemed suitable for its intended purpose, having regard to its regional and local context and would not result in any significant environmental impacts. As such, it is requested that the proposed development be approved, subject to reasonable and relevant conditions.

PART A PRELIMINARY

1.1 INTRODUCTION

This EIS has been prepared by Willowtree Planning, on behalf of Altis Frasers JV Pty Ltd. The EIS has been submitted to the DPIE, in support of an application for SSD, for the construction of a new manufacturing facility and associated warehouse and operation for the production and distribution of Ardex products at 657-769 Mamre Road, Kemps Creek (proposed Lot 10).

The proposed development consists of a manufacturing facility and associated warehouse which will form part of the new Kemps Creek Warehouse, Logistics and Industrial Facilities Hub being developed as a joint venture between Altis/Frasers under SSD 9522. The proposed development would be operated by Ardex involving:

- A new purpose-built manufacturing facility for the production, warehousing and distribution of Ardex products;
- The operation of the manufacturing facility by Ardex; and
- Torrens Title subdivision to create the subject allotment (proposed Lot 12).

The proposal seeks to operate 24 hours per day, seven (7) days per week, and would generate approximately 300 construction jobs for the new purpose-built manufacturing facility and a total of approximately 140 operational jobs for full time staff.

The particulars of this proposal are summarised below:

- Minor earthworks involving cut and fill works, site preparation works and the establishment of a building pad;
- Infrastructure comprising civil works and augmentation of utilities servicing;
- Construction, internal fit out and operation of a manufacturing facility and warehouse (27,470m^2), comprising:
    - Manufacturing areas and associated warehouse (24,970m^2)
    - Ancillary office areas (2,500m^2)
    - 163 car parking spaces and 12 bicycle spaces
    - Powder silo tower
    - Liquid silo tower
    - Associated business identification signage
    - Site Landscaping (4,348m^2)
    - 13 loading docks
    - Three (3) vehicle crossovers
- Production capacity up to approximately 48,000 tonnes per annum (tpa) of powder products, resulting in an indicative weekly maximum of 932.0 tonnes and daily maximum of 131.5 tonnes;
- Production capacity up to approximately 25,000 KL per annum of liquid products, resulting in an indicative weekly maximum of 480.7 KL and daily maximum of 68.5 KL;
- Storage of dangerous goods, comprising:
    - Class 2.1 – LPG
    - Class 3 – Flammable Liquid
    - Clause 4.1 – Flammable Solids
    - Clause 5.1 – Oxidising Substances
    - Clause 6.1 – Sub-risk Toxic Substances
    - Class 8 – Corrosive Substances
- Hours of operation being on a 24 hours per day, 7 days per week, basis; and
- Torrens Title subdivision to create the subject allotment (proposed Lot 12) measuring approximately 4.3ha.

This EIS describes the Subject Site and proposed development. It also responds to the SEARs and assesses the proposed development in terms of all relevant matters set out in legislation, EPIs and associated planning policies.

The structure of this EIS is as follows:

- **PART A Preliminary**
- **PART B Site Analysis**
- **PART C Proposed Development**
- **PART D Legislative and Policy Framework**
- **PART E Consultation**
- **PART F Environmental Risk Assessment**
- **PART G Planned Management and Mitigation Measures**
- **PART H Proposed Development Justification**
- **PART I Conclusion**

1.2 PROJECT TEAM

The Project Team involved in the preparation of this application includes:

TABLE 1: PROJECT TEAM		
Documentation	Consultant	Location
Plans		
Survey Plan	Boxell Surveyors	**Appendix 2**
Architectural Plans	Pace Architects	**Appendix 3**
Landscape Plans	Habit8	**Appendix 4**
Civil Engineering Plans	Costin Roe	**Appendix 5**
Reports		
Aeronautical Impact Assessment	Landrum & Brown Worldwide	**Appendix 6**
Air Quality Impact Assessment	North Star Air Quality	**Appendix 7**
Architectural Design Report	Frasers Property	**Appendix 8**
BCA Assessment Report	MBC Group	**Appendix 9**
Biodiversity Assessment Report Waiver	Ecoplanning	**Appendix 10**
Bushfire Assessment	Peterson Bushfire	**Appendix 11**
Civil Engineering Report	Costin Roe	**Appendix 12**
Community and Stakeholder Participation Strategy	SLR Consulting	**Appendix 13**
Dangerous Goods Design Report	Riskcon Engineering	**Appendix 14**
Draft Mamre Road Precinct Development Control Plan Table	Willowtree Planning	**Appendix 15**
Ecologically Sustainable Development Report	Frasers Property	**Appendix 16**
Environmental Impact Statement	Willowtree Planning	**Whole document**
Environmental Site Assessment	JBS&G	**Appendix 17**
Fire Safety Strategy Report	Affinity Fire	**Appendix 18**
Geotechnical Investigation Report	PSM	**Appendix 19**
Greenhouse Gas and Energy Efficiency Assessment	North Star Air Quality	**Appendix 20**
Heritage Letter of Advice	Biosis	**Appendix 21**

TABLE 1: PROJECT TEAM		
Documentation	Consultant	Location
Noise and Vibration Impact Assessment	Renzo Tonin	**Appendix 22**
Plan of Operational Management	Ardex	**Appendix 23**
Quantity Surveyors Cost Report	Northcroft	**Appendix 24**
Service Infrastructure Assessment	Landpartners	**Appendix 25**
Social Impact Assessment	SLR Consulting	**Appendix 26**
Traffic Impact Assessment	Ason Group	**Appendix 27**
Visual Impact Assessment Report	Geoscapes Landscape Architecture	**Appendix 28**
Waste Management Plan	LG Consult	**Appendix 29**

1.3 THE PROPONENT

See **TABLE 2 2** below for contact details.

TABLE 2: PROPONENT CONTACT DETAILS	
Company Details	Altis/Frasers
Contact Name	Paul Solomon
Position	Planning and Infrastructure Manager
Contact Number	(02) 9767 2951
Email Address	Paul.Solomon@frasersproperty.com.au

1.4 CAPITAL INVESTMENT VALUE

The CIV of the proposed development in accordance with the CIV definition under the *Environmental Planning & Assessment Regulation 2000* (EP&A Regulation), is estimated to be $71,844,673.00.

A Quantity Surveyors (QS) Costings Report, prepared by Northcroft, is included in **Appendix 24**.

1.5 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

An application requesting SEARs was submitted to DPIE (reference: SSD 25725029) and subsequently issued on the 3 September 2021 and are addressed within this EIS.

For reference, the full SEARs, as issued, are annexed in **Appendix 1** of this EIS. An overview of how the SEARs have been satisfied are outlined in **Table 3** below. This EIS is also consistent with the minimum requirements for an EIS, as set out in Clauses 6 and 7 of Schedule 2 of the EP&A Regulation.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
General Requirements	
The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation).	Refer to **Section 4.3.2** of this EIS.
In addition, the EIS must include: • a detailed description of the development, including:	Refer to **PART C** and **PART H** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
- an accurate history of the site, including development consents - the need and justification for the proposed development - a description of processing operations (including flow diagrams for each processing stream), including a description of the technology to be installed, outputs and the quality control measures that would be implemented - details of how raw materials and finished product would be stored (including the maximum daily storage capacity of the site) and handled on site, and transported to and from the site - a description of the maximum daily, weekly and annual processing capacities - alternatives considered including a description of feasible options within the development which may include a layout options analysis - likely staging of the development - likely interactions between the development and existing, approved and proposed operations on the site and in the vicinity of the site - plans of any proposed building works - contributions required to offset the proposal and - infrastructure upgrades or items required to facilitate the development, including measures to ensure these upgrades are appropriately maintained.	
• consideration of all relevant environmental planning instruments, including identification and justification of any inconsistences with these instruments	Refer to **PART D** of this EIS.
• consideration of the issues discussed in the public authority responses to request for key issues (Attachment 2)	Refer to **PART E** of this EIS.
• a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment	Refer to **PART F** of this EIS.
• a detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: - a description of the existing environment, using sufficient baseline data - an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes and - a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/ or contingency plans to manage significant risks to the environment	Refer to **PART F** and **PART G** of this EIS.
• a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.	Refer to **PART G** of this EIS.
• an assessment demonstrating the proposal is consistent with the conditions, requirements and development standards of SSD 9522.	Refer to **PART C** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
The EIS must also be accompanied by: • high quality files of maps and figures of the subject site and proposal	**Whole document**
• a report from a qualified quantity surveyor providing: – a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the Regulation), including details of all assumptions and components from which the CIV calculation is derived. The report shall be prepared on company letterhead and indicate applicable GST component of the CIV	Refer to **Section 1.4** and **Appendix 24** of this EIS.
– an estimate of jobs that will be created during the construction and operational phases of the proposed development	Refer to **Section 3.2** and **Appendix 24** of this EIS.
– certification that the information provided is accurate at the date of preparation.	Refer to **Appendix 24** of this EIS.
Key Issues	
The EIS must address the following specific matters:	
1. Statutory and Strategic Context	
• detailed justification for the proposal and the suitability of the site	Refer to **Section 6.1.1** of this EIS.
• detailed justification that the proposed land use is permissible with consent	Refer to **Section 4.3.10** and **Section 01** of this EIS.
• details of any proposed subdivision of land	Refer to **Section 6.1.1** of this EIS.
• a detailed description of the history of the site, including the relationship between the proposed development and all development consents and approved plans previously and/or currently applicable to the site	Refer to **PART B** of this EIS.
• demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. This includes, but is not limited to: - State Environmental Planning Policy (State and Regional Development) 2011 - State Environmental Planning Policy (Infrastructure) 2007 - State Environmental Planning Policy (Western Sydney Employment Area) 2009 (SEPP WSEA) - State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 (SEPP WSA) - State Environmental Planning Policy No 33 - Hazardous and Offensive Development - State Environmental Planning Policy No 55 – Remediation of Land - State Environmental Planning Policy No 64 – Advertising and Signage - Greater Sydney Region Plan – A Metropolis of Three Cities - Our Greater Sydney 2056: Western City District Plan - Future Transport Strategy 2056 and supporting plans - Mamre Road Precinct Structure Plan (DPIE, 2020) and the Local Road Network Structure Plan - Western Sydney Aerotropolis Plan (DPIE, 2020)	Refer to **PART D** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
- Draft/Final Mamre Road Precinct Development Control Plan.	
2. Suitability of the Site	
• detailed justification that the site can accommodate the proposed development having regard to its potential environmental impacts, site constraints, permissibility and strategic context.	Refer to **Section 0** of this EIS.
• an analysis of site constraints	Refer to **Section 0** of this EIS.
3. Community and Stakeholder Engagement	
• a community and stakeholder participation strategy identifying key community members and other stakeholders including: - details and justification for the proposed consultation approach(s) - clear evidence of how each stakeholder identified in the community and stakeholder participation strategy has been consulted - issues raised by the community and surrounding landowners and occupiers - clear details of how issues raised during consultation have been addressed and whether they have resulted in changes to the development - details of the proposed approach to future community and stakeholder engagement based on the results of consultation.	Refer to **PART E**, **Section 6.1.3** and **Appendix 13** of this EIS.
4. Traffic and Transport	
• including a quantitative traffic impact assessment prepared in accordance with relevant Roads and Maritime Services and Austroads guidelines, that includes: – details of all daily and peak traffic volumes likely to be generated during construction and operation, including a description of key access / haul routes, vehicle types and potential queuing impacts – an assessment of the predicted impacts of traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity, including SSD-9522. The assessment needs to consider the impact on Mamre Road at Bakers Lane (Aldington Road) for the duration of the works. – details of vehicles waiting to unload, unloading / servicing, including predicted haulage routes, including over size over mass vehicles and impacts to the state road network – detailed plans of all proposed site access points, justification for their location and an assessment of potential traffic impacts from the proposed access points	Refer to **Section 6.1.4** and **Appendix 27** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
– detailed plans of the proposed layout of the internal road and pedestrian network and parking on site in accordance with the relevant Australian Standards and Mamre Road Precinct Development Control Plan – demonstrating compliance with clause 33C of the SEPP WSEA, specifically the integration with the Mamre Road Precinct dedicated freight corridor (DFC) including provision for access from the DFC to the entire estate – swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site – details of road upgrades, infrastructure works or new roads or access points required for the development.	
5. Soils and Water	
• a surface and ground water assessment that includes: – an assessment of potential surface and groundwater impacts on watercourses, riparian areas, groundwater, groundwater-dependent communities nearby, adjacent licensed water users, and measures proposed to reduce and mitigate these impacts – a detailed site water balance including a description of the water demands and breakdown of water supplies, and any water licensing requirements – details of stormwater/wastewater management system including the capacity of onsite detention system(s), onsite sewage management and measures to treat, reuse or dispose of water – description of the measures to minimise water use – consideration of the NSW Aquifer Interference Policy (2012), the Guidelines for Controlled Activities on Waterfront Land (2018) and relevant Water Sharing Plans – detailed flooding assessment including the management of flood prone land and potential impacts of the development on flood evacuation. To assess the impacts of the proposed development, information for pre and post-development scenarios including modelling of the local overland flows are to be included – characterisation of water quality at the point of discharge to surface and/or groundwater against the relevant water quality criteria – a Water Cycle Management Strategy that considers on-lot stormwater management measures, adequate disposal of stormwater and avoids negative impacts downstream – modelling undertaken in accordance with the MUSIC modelling toolkit and stormwater quality and flow targets, a flow duration curve spreadsheet and MUSIC model file – description of the proposed erosion and sediment controls during construction.	Refer to **Section 6.1.5** and **Appendix 12** this EIS.
6. Urban Design and Visual	
• a visual impact assessment (including photomontages and perspectives) of the development layout and design, including:	Refer to **Section 4.3.10**, **6.1.46** and **Appendix 28** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
– a detailed design and options analysis of the development including diagrams, illustrations and drawings with reference to the built form, height, setbacks, bulk and scale in the context of the immediate locality, the wider area, the desired future character of the area and consideration of Clause 31 of SEPP WSEA – a visual impact assessment (including photomontages and perspectives) of the development layout and design (buildings and storage areas) including details of staging, site coverage, setbacks, open space, landscaping, height, colour, scale, building materials and finishes, façade design, signage and lighting. The assessment must consider potential impacts on: - views, vistas, open space, the Wianamatta-South Creek corridor and significant vantage points in the broader public domain - nearby public and private receivers – consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks – detailed plans showing suitable landscaping which incorporates endemic species and maximises opportunities for green infrastructure.	
7. Air Quality and Odour	
• a quantitative assessment of the potential air quality, dust and odour impacts of the development (construction and operation) on sensitive receivers, in accordance with the relevant Environment Protection Authority guidelines and details of proposed mitigation, management and monitoring measures.	Refer to **Section 6.1.7** and **Appendix 7** of this EIS.
8. Noise and Vibration	
• a quantitative noise and vibration impact assessment undertaken by a suitably qualified acoustic consultant in accordance with the relevant Environment Protection Authority guidelines and Australian Standards which includes: – the identification of impacts associated with construction, site emission and traffic generation at noise affected sensitive receivers, including the provision of operational noise contours and a detailed sleep disturbance assessment – details of noise monitoring survey, background noise levels, noise source inventory and 'worst case' noise emission scenarios – consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area – a cumulative impact assessment inclusive of impacts from other developments – details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise and vibration following application of mitigation these measures and details of any proposed compliance monitoring programs.	Refer to **Section 6.1.8** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
9. Infrastructure Requirements	
• an infrastructure management plan that includes: – a detailed written and/or graphical description of infrastructure required on site – details of the existing capacity of the site to service the proposed development and any extension or augmentation, property tenure or staging requirements for the provision of utilities, including arrangements for electrical network requirements, drinking water, wastewater and recycled water – a description of how any upgrades will be co-ordinated, funded and delivered on time and be maintained to facilitate the development – identify the existing infrastructure on the site or within the network which may be impacted by the construction and operation of the proposal and the measures to be implemented to address any impacts on this infrastructure.	Refer to **Section 09** and **Appendix 25** of this EIS.
10. Aboriginal Cultural Heritage	
• an addendum to the existing Aboriginal Cultural Heritage Assessment Report (ACHAR) Mamre South Precinct State Significant Development – Proposed Warehouse, Logistics and Industrial Facilities Hub: ACHAR prepared by Biosis and dated 31 July 2020. The addendum must summarise the test and salvage excavations undertaken to date and detail whether the test and salvage excavation results require a refinement of the predictive model. If the predictive model has substantially changed, then a new ACHAR and additional Aboriginal consultation with the existing Registered Aboriginal Parties (RAPs) must be undertaken.	Refer to **Section 6.1.10** of this EIS.
11. Biodiversity	
• an assessment of the proposal's biodiversity impacts in accordance with the Biodiversity Conservation Act 2016, including the preparation of a Biodiversity Development Assessment Report (BDAR) where required under the Act, except where a waiver for preparation of a BDAR has been granted.	Refer to **Section 6.1.911** and **Appendix 10** of this EIS.
12. Social Impact	
• a social impact assessment in accordance with the Department's Draft Social Impact Assessment Guideline – State significant projects (October 2020)	Refer to **Section 6.1.12** and **Appendix 26** of this EIS.
• an analysis of any potential economic impacts of the development, including a discussion of any potential economic benefits to the local and broader community.	Refer to **Section 6.1.12** and **Appendix 26** of this EIS.
13. Ecologically Sustainable Development	
• a description of how the proposal will incorporate the principles of ecologically sustainable development in the design, construction and ongoing operation of the development	Refer to **Section 4.3.71**, **Section 6.1.163** and **Appendix 16** of this EIS.
• consideration of the use of green walls, green roofs and/or cool roofs in the design of the development	Refer to **Section 6.1.163** and **Appendix 16** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
• a description of the measures to be implemented to minimise consumption of resources, especially energy and water.	Refer to **Section 6.1.163** and **Appendix 16** of this EIS.
14. Waste Management	
• including details of the quantities and classification of waste streams generated during construction and operation and proposed storage, handling and disposal requirements.	Refer to **Section 6.1.134** and **Appendix 29** of this EIS.
15. Bush Fire	
• a bush fire assessment report that addresses the aims and objectives of Planning for Bushfire Protection 2019	Refer to **Section 6.1.115** and **Appendix 11** of this EIS.
16. Hazards and Risk	
• including a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011) with a clear indication of class, storage and handling quantities and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).	Refer to **Section 6.1.196** and **Appendix 14** of this EIS.
17. Greenhouse Gas and Energy Efficiency	
• including an assessment of the energy use of the proposal and all reasonable and feasible measures that would be implemented on site to minimise the proposal's greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050).	Refer to **Section 6.1.17** and **Appendix 20** of this EIS.
18. Airport Safeguarding	
• including a risk assessment of the proposed development on Western Sydney Airport operations, addressing the Western Sydney Aerotropolis Plan and the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020. The assessment is to address the emissions associated with the exhaust stacks on the Obstacle Limitation Surface.	Refer to **Section 4.3.10**, **Section 6.1.18** and **Appendix 6** of this EIS.
19. Planning Agreement/Development Contributions	
• including consideration of any applicable State and local development contributions and/or details of any Voluntary Planning Agreement and demonstration that satisfactory arrangements have been made or will be made to provide or contribute to the provision of the necessary local and regional infrastructure required by SEPP WSEA or any other policy or plan.	Refer to **Section 6.1.19** of this EIS.
Consultation	
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: • Penrith City Council • Department of Planning, Industry and Environment, specifically the:	Refer to **PART E** of this EIS.

TABLE 3: HOW THE SEARS HAVE BEEN SATISFIED	
Requirements	Satisfied by
- Central (Western) team, Place Design and Public Spaces Group - Environment, Energy and Science Group - Environment Protection Authority • Endeavour Energy • Transport for NSW • Rural Fire Service • Sydney Water • WaterNSW • Western Sydney Airport Corporation • Civil Aviation Safety Authority • Western Sydney Planning Partnership • surrounding local landowners and stakeholders The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	

PART B SITE ANALYSIS

2.1 SITE LOCATION & EXISTING SITE CHARACTERISTICS

The Subject Site encompasses a portion of Lot 10, a residual portion of land to be subdivided under SSD 9522 as part of the development of an industrial estate known as the Yards (refer to **Figure 5**). It is noted that the plan in **Figure 5** shown below was approved under Modification 1 on 3 September 2021.

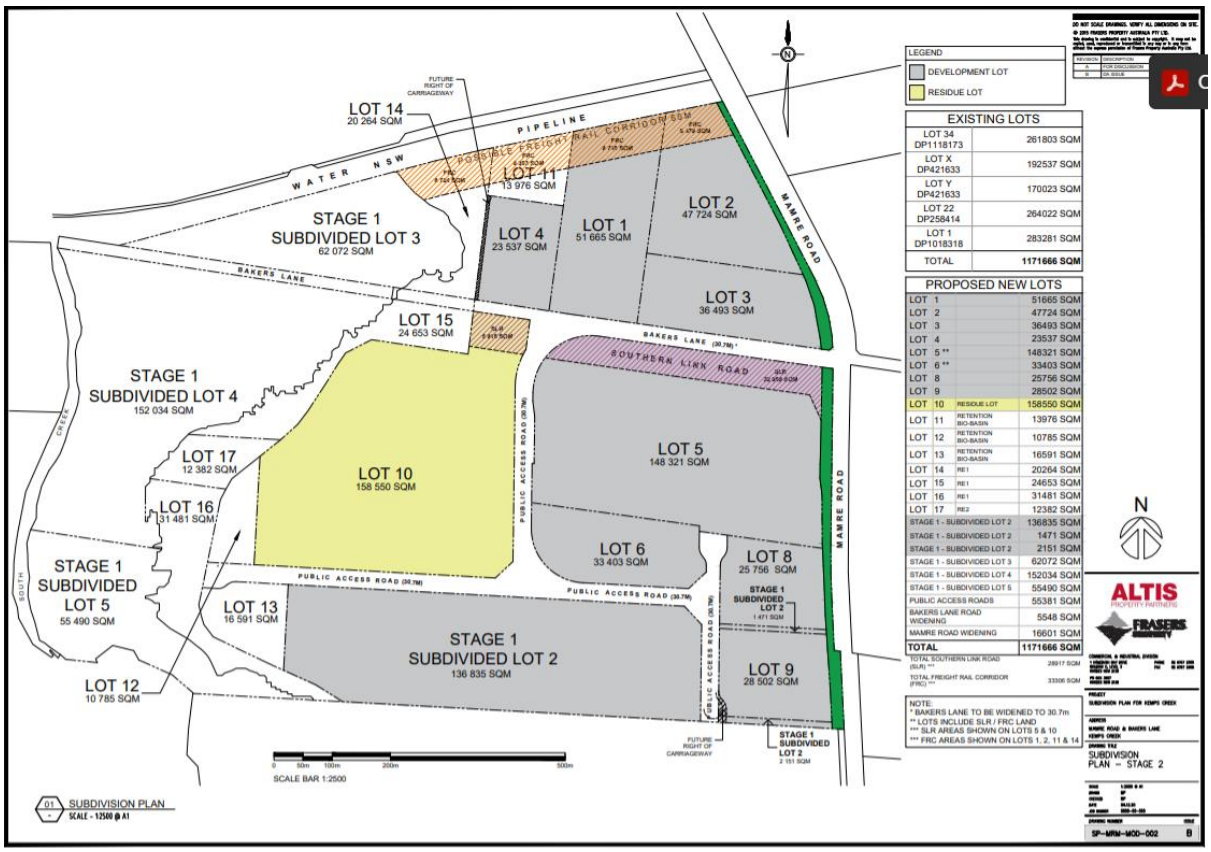

Figure 5 **Estate Subdivision Plan** (Source: Altis, 2021)

The entire area of Lot 10 is 15.8ha. The proposed development seeks to utilise only 4.3ha of the land. This portion of Lot 10 is referred to in the EIS as the Subject Site.

In its existing state, the Subject Site is undeveloped. Access to the Site is proposed via the estate access roads approved under SSD 9522, which gain access to the regional road network via an intersection with Mamre Road.

An overview of the Site characteristics are included in **TABLE 4Table 4**, as follows:

TABLE 4: SITE CHARACTERISTICS	
Component	Description
Address and legal description	Proposed Lot 10, described as 657-769 Mamre Road, Kemps Creek.
Site area	4.3ha
Current use	Undeveloped. In its existing state, the Subject Site as part of the site preparation works for the broader industrial estate under SSD 9522 is undergoing bulk earthworks

TABLE 4: SITE CHARACTERISTICS	
Component	Description
Topography	The surface of the Subject Site is generally flat and void of any vegetation, resulting from works carried out under SSD 9522.
Access	Access to the Subject Site is proposed via the estate access roads approved under SSD 9522, which are accessed from Mamre Road, a Classified Road under the control of Transport for NSW.
Vegetation	Any native vegetation within the Site has been approved to be cleared under SSD 9522.
Watercourses	There are no mapped watercourses within the Site. South Creek is located to the west of the Subject Site.
Heritage	The Subject Site is not identified as containing an item of heritage or being within a heritage conservation area.

2.2 DEVELOPMENT HISTORY

On 21 December 2020, DPIE granted approval to SSD 9522, and works are currently underway to construct the industrial estate. The particulars of this Application as approved are outlined as follows in **Table 5**:

TABLE 5: SSD 9522 DEVELOPMENT PARTICULARS	
Project Element	Development Particular
Site Area	118ha
Developable Area	89.495ha (construction of all roads and buildings).
Gross Floor Area	166,355m^2
Subdivision	17 lot Torrens Title Subdivision comprising two (2) stages: Stage 1: • Five (5) residual allotments proposed. Stage 2: • 17 development allotments proposed. **Note:** The subject Proposal would be located on proposed Lot 10 Stage 2 Subdivision
Built Form	Eight (8) Warehouse buildings (comprising 10 tenancies), including ancillary offices, hardstand, car parking area and associated landscaping.
Primary Land Uses	Lots 1-13 (including Stage 1 Subdivided Lot 2): • Warehousing and Distribution. • **Note:** Lots 11-13 comprise the proposed OSD basins. Lots 14-17: ▪ Public Recreation and Private Recreation.
Bulk Earthworks	Cut: -60,350m^3; Detailed Excavation: -109,600m^3; Fill: +2,072,750m^3; and Balance: +1,902,800m^3 (Import required).
Landscaping	New Vegetation Area: 91,700m^2; Number of New Trees: 1,250; and Approximate Canopy Cover (average): 141,250m^2.

TABLE 5: SSD 9522 DEVELOPMENT PARTICULARS	
Project Element	Development Particular
Site Access	Access is achieved from Mamre Road and the Estate access roads including a signalised intersection in Mamre Road and Bakers Lane which sits within the alignment of the future Southern Link Road.
Infrastructure and Services	Services to the Subject Site are able to be successfully augmented where necessary including potable water, waste water, Telstra/NBNCO, electricity and gas.
Biodiversity and Vegetation Clearing	14.41ha of Native Vegetation identified on-site: 9.29ha proposed to be cleared.
Employment Generation	1,650 full time jobs, comprising: • 950 operational jobs • 700 construction jobs **Note:** The SSD 9522 as approved will deliver in the order of 3,150 full time jobs, being 2,000 operational jobs and 1,150 construction jobs upon completion of the entire Estate.

Modification 1 to SSD 9522 was approved by DPIE on 3 September 2021. The key material changes to the original scheme are:

- Stage 1 Subdivision Plan (**Figure 6**):
    - Amendment to Lot 1, comprising an increase in site area from 680,972m^2 to 684,083m^2;
    - Increase in the size of the easements from 5,548m^2 to 5,550m^2; and
    - Construction of a slip lane to facilitate access into Lot 5.

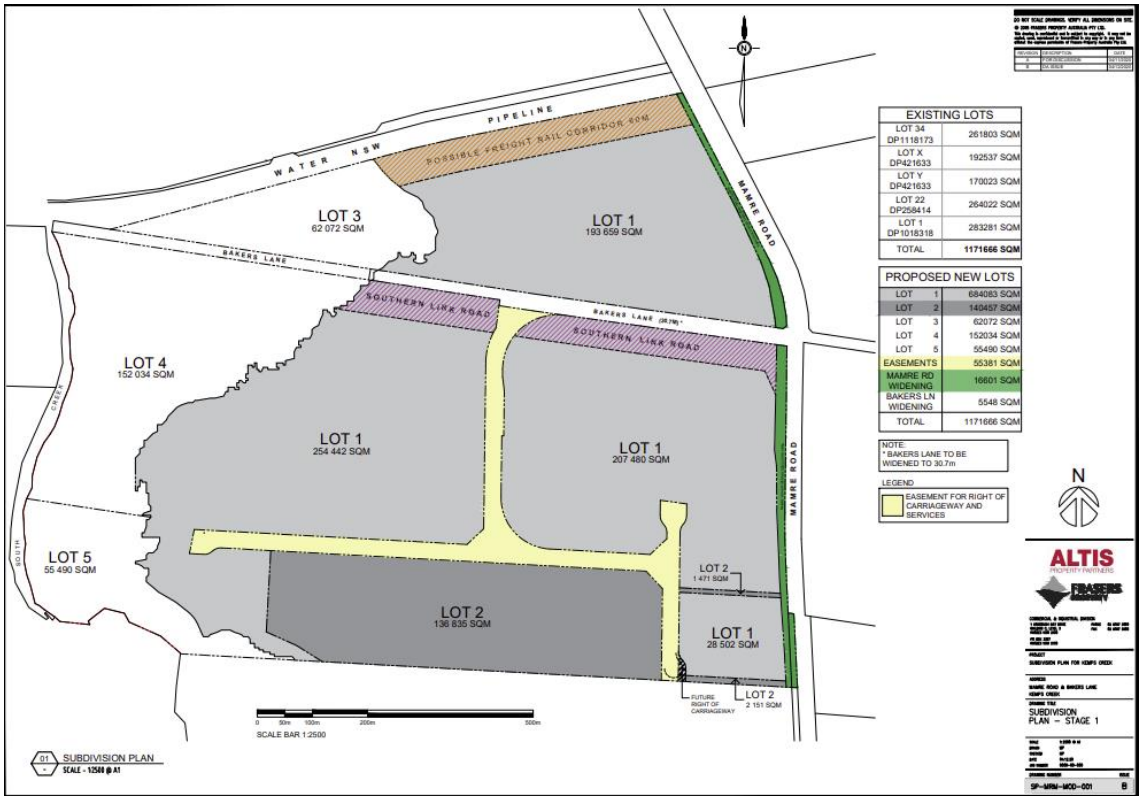

Figure 6 **Stage 1 Subdivision Plan** (Source: Altis/Frasers, 2020)

- Stage 2 Subdivision Plan (**Figure 7**):

    - Amendment to Lot 5, comprising an increase in site area from 40,726m^2 to 148,321m^2;
    - Amendment to Lot 6, comprising a decrease in site area from 37,947m^2 to 33,403m^2;
    - Removal of Lot 7;
    - Amendment to Lot 8, comprising a decrease in site area from 44,315m^2 to 25,756m^2;
    - Amendment to proposed Lot 10 (part lot), which will now become part of Lots 5 & 6.
    - Amendment to proposed Lot 10 (part lot), comprising an increase in site area from 144,988m^2 to 158,550m^2;
    - Amendment to the site area of the public access roads comprising an increase from 58,490m^2 to 55,381m^2; and
    - Amendment to the site area of the Southern Link Road intersecting the Site from 29,375m^2 to 28,917m^2.

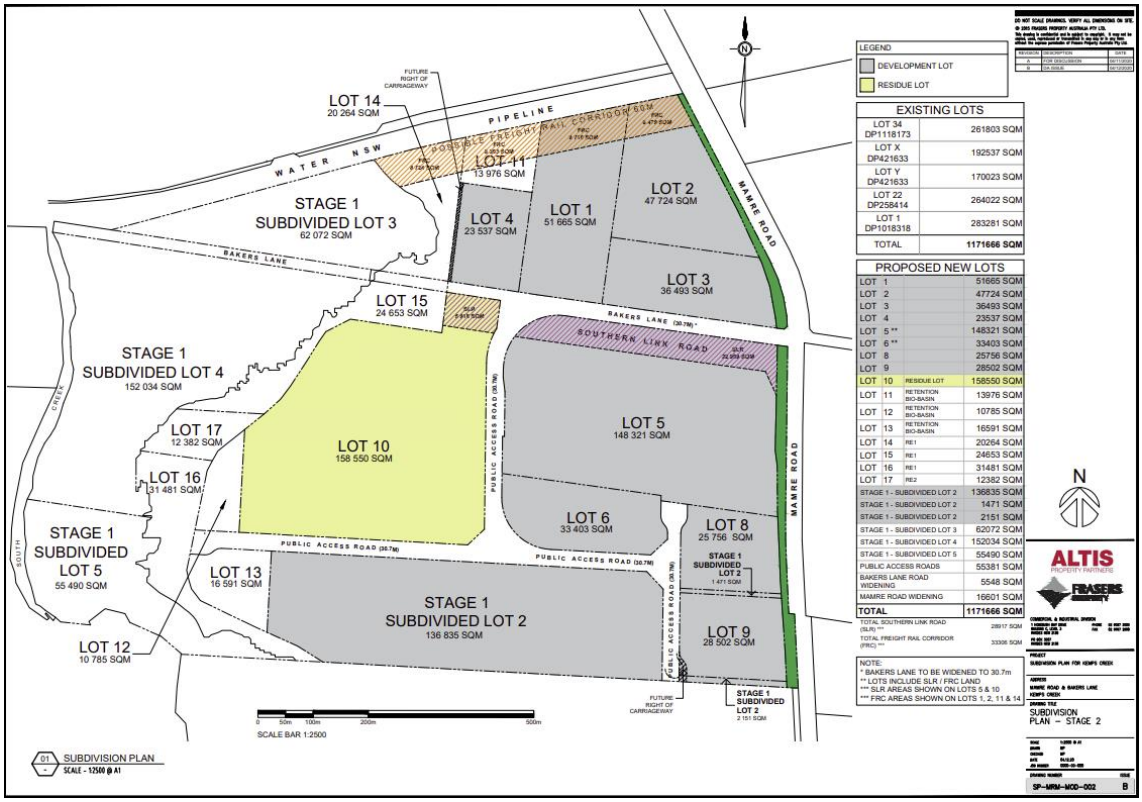

Figure 7 **Stage 2 Subdivision Plan** (Source: Altis/Frasers, 2020)

- Masterplan:

    - Increase in overall GFA across the Site from 162,355m^2 to 186,123m^2 – this includes an amendment to Condition A6 of SSD 9522;
    - Increase in overall car parking from 744 spaces to 772 spaces;
    - Decrease in the Site area of the public access roads from 58,49 m^2 to 55,381m^2;
    - Amendment of the N-S road;
    - Landscape setbacks amended to 3.75m in accordance with the development consent and consistent with draft Mamre Road Precinct DCP.

All civil and site preparation works approved under SSD 9522 will be completed prior to the operation of the proposed development in accordance with the below staging sequence:

- Stage 1 – Bulk earthworks on the eastern side of the lot, site infrastructure works, building works and subdivision of the eastern portion of the lot;
- Stage 2 – Bulk earthworks on the western side of the lot, remaining site infrastructure and building works and subdivision of the central portion of the lot;
- Stage 3 – Subdivision of the western portion of the lot.

Modification 2 is currently under assessment by DPIE, which seeks consent for:

- Bakers Lane and N-S Road to be amended to 26.4m;
- Southern East-West Road to be amended to 24m;
- Cul-de-sac south of Lot 5 to be amended to 25.2m;
- Reconfiguration of allotment boundaries which results in an overall increase of 7,961m^2;
- Increase in GFA pertaining to Lots 6 and 8 (1,335m^2) as a result of the road width amendments;
- Amendment to condition A6 to recognise increased GFA;
- Deletion of condition B4;
- Amendment to condition B6 to recognise revised road widths; and
- Deletion of condition B11 as a result of modified sequence 1A.

A number of applications are under assessment or determination in the surrounding locality and are described below in **Table 6** and shown in **Figure 8**.

TABLE 6: STATE SIGNIFICANT DEVELOPMENT APPLICATIONS, DEVELOPMENT APPLICATIONS AND MODIFICATION APPLICATIONS IN THE VICINITY OF THE SUBJECT SITE

Application number	Address	Description	Status
SSD-10101987	706-769 Mamre Road, Kemps Creek – Kemps Creek Data Centre	SSDA for a data centre	EIS pending exhibition
DA20/0564	772-782 Mamre Road	Construction of Industrial Warehouse including Ancillary Office & Associated Site Works	Under assessment by Penrith City Council
SSD-10272349	754-770 and 784-786 Mamre Road, Kemps Creek – GPT Industrial Estate	SSDA for a Concept Masterplan comprising five industrial buildings and Stage 1 works including construction and use of one industrial building for warehouse and distribution or manufacturing purposes, Site preparation works, realignment of a riparian corridor, stormwater and associated works, internal road network, signage and landscaping	EIS pending exhibition
SSD-5211	788-804 Mamre Road, Kemps Creek	SSDA for a waste and resource management facility	Director General's Environmental Assessment Requirements issued by the former Department of Planning and Infrastructure in April 2012

TABLE 6: STATE SIGNIFICANT DEVELOPMENT APPLICATIONS, DEVELOPMENT APPLICATIONS AND MODIFICATION APPLICATIONS IN THE VICINITY OF THE SUBJECT SITE			
Application number	Address	Description	Status
SSD-10448	788-882 Mamre Road, Kemps Creek – Aspect Industrial Estate	SSDA for a Concept Masterplan comprising 11 industrial buildings and Stage 1 works for Site preparation, construction and use of two warehouse and distribution buildings, stormwater and associated works, internal road network, signage and subdivision	Request for Additional Information issued by DPIE on 29 March 2021.
SSD-17647189	884-928 Mamre Road, Kemps Creek – Access Logistics Park	SSDA for one warehouse building, demolition and bulk earthworks, 13-lot Torrens Title subdivision, constriction and operation of internal roads, infrastructure and utilities	EIS pending exhibition
SSD-10479	106-228 Aldington Road, Kemps Creek – 200 Aldington Road Industrial Estate	SSDA for Concept plan comprising 13 development lots for 356,660m^2 of warehouse floor space, 17,770m^2 office and 200m^2 café floor space, internal road layouts, parking and hardstand areas, landscaping, utilities and services and a Stage 1 development including Site preparation, bulk earthworks, road works, infrastructure and utilities and a warehouse building with a total gross floor area of 52,500m^2	Request for additional information issued by DPIE on 28 April 2021
SSD-9138102	290-308 Aldington Road and 59-62 & 63 Abbotts Road, Kemps Creek – ESR Kemps Creek Logistic Park	SSDA for construction of seven warehouse and distribution buildings including offices, loading docks, parking and hardstand areas, landscaping, utilities and services. Associated works including demolition and bulk earthworks, vegetation removal and construction of internal roads	Response to submissions being prepared
SSD-17552047	155-217 Aldington Road, Kemps Creek (Lot 33 DP258949 and Lots 25-28 DP 255560) – Frasers Property Industrial, Warehouse and Logistics Hub	Development Consent under this proposed development is sought for the construction and operational use of a Warehouse and Logistics Hub pertaining to the following scope of works: • Bulk earthworks involving dam dewatering, cut and fill	EIS pending exhibition

TABLE 6: STATE SIGNIFICANT DEVELOPMENT APPLICATIONS, DEVELOPMENT APPLICATIONS AND MODIFICATION APPLICATIONS IN THE VICINITY OF THE SUBJECT SITE			
Application number	Address	Description	Status
		works and pad construction; • Nine-lot Torrens title subdivision; • Proposed construction of internal public access roads of 24m and 25.2m wide and connections to existing and future local roads; • Construction of one warehouse and distribution centre with two portions on Proposed Lot 9 with a total building area of 65,327m^2.	

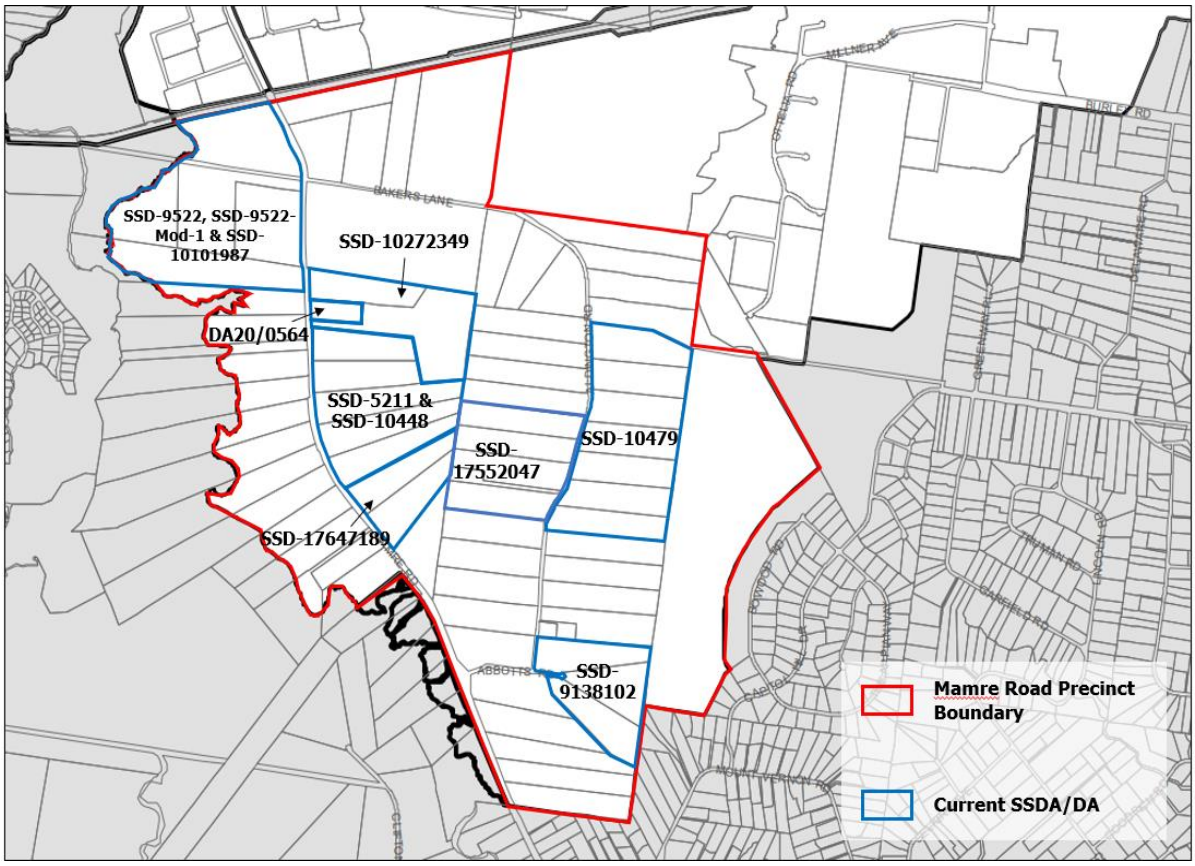

Figure 8 **Surrounding Development** (Source: NSW Legislation 2021)

The proposed development has been designed and sited to consider the existing, approved and proposed development and operations within the estate, as discussed throughout this EIS. It is generally considered that the proposed development will not result in any unreasonable impacts nor is it sensitive to such development.

It is noted that a SSDA (SSD1010987) for a proposed Data Centre has been lodged with DPIE at 707-766 Mamre Road and is currently pending exhibition. The proposed Data Centre will be separated from the Subject Site by a public road and given the nature of the low intensity land use, is one that is unlikely to generate significant traffic, noise or visual impacts. Similarly, it is considered that the proposed development has been appropriately designed and sited so as to not result in any unreasonable impacts to the Data Centre, which is not considered to be a sensitive land use.

2.3 LAND OWNERSHIP

The Subject Site and the broader industrial estate are jointly owned and controlled by Altis/Frasers.

2.4 EASEMENTS AND ENCUMBRANCES

The encumbrances noted within the Certificate of Title and Deposited Plan (DP) for each lot are summarised in **Table 7**:

TABLE 7: ENCUMBRANCES ON TITLE	
Type and Reference	Description and Location
Lot 1 DP1018318	
AQ964488	Caveat by Ahmed Fiazuddin & Rubina Fareen
AR171087	Planning agreement pursuant to Section 7.6 of the EP&A Act
Lot 1 DP1271677	
H532088	Covenant affecting the part shown so burdened in the title diagram
AR171334	Planning agreement pursuant to Section 7.6 of the EP&A Act of the part formerly in X – Y/421633 & 22/258414
AR171085	Planning agreement pursuant to Section 7.6 of the EP&A Act of the part formerly in 34/1118173

The proposed development has been designed in accordance with the abovementioned easements and encumbrances.

2.5 SITE CONTEXT

The Subject Site is located within the Mamre Road precinct, located approximately 40km west of Sydney's CBD, 22km west of Parramatta and 12km south of Penrith. It is 7km from the M7 Motorway and 5km from the M4 and in proximity to a bus network. Additionally, the Subject Site is located within close proximity to active transport links, such as bicycle routes, providing an additional mode of accessible transport.

The precinct is undergoing significant transformation following rezoning of the land to IN1 General Industrial. As discussed in **Table 6** there is a variety of recently approved developments and applications under assessment by Council and DPIE. The industrial estate comprises a western portion of the larger area referred to as the Mamre Road Precinct, located in Precinct 12 of the WSEA SEPP.

To the south of the Subject Site, is undeveloped land within the Mamre Road Precinct zoned IN1 General Industrial and RE1 Public Recreation. To the east of the Site are a number of education and healthcare facilities including Mamre Anglican School, Emmaus Catholic College and the Catholic Healthcare retirement living community. The remainder of the land to the east is generally undeveloped land zoned IN1 General Industrial.

To the north along Mamre Road is undeveloped industrial zoned land and an established industrial area referred to as the Mamre West Precinct, located in Precinct 13 of the WSEA SEPP. The nearest land use zones, including low density residential dwellings and the Twin Creeks Golf and Country Club, are zoned E2 Environmental Conservation, RE1 Public Recreation and RE2 Private Recreation located to the west of the Subject Site, which are noted to be appropriately separated from the proposal at a distance of approximately 1.25km from the Subject Site.

Generally, the broader context of the Subject Site is typified by undeveloped land, employment-generating land uses and rural areas. The employment generating land uses are predominately located along the enterprise corridor of Mamre Road and the industrial zone to the north of the Site.

2.6 SITE SUITABILITY

The Subject Site is located within a generally undeveloped area undergoing significant transformation to maximise the development potential and employment generation of the IN1 General Industrial zoned land under the WSEA SEPP. The proposed development will facilitate the use of the Subject Site for manufacturing and associated warehousing, which is consistent with the zoning and the applications submitted for assessment within the surrounding locality.

Accordingly, the Subject Site is considered to be suitable for the proposed development and is consistent with the aims and objectives of the IN1 General Industrial zone, in that it seeks to facilitate employment generating development that responds to the characteristics of the land and is compatible with surrounding land uses.

The location of the Subject Site has been strategically selected as it is to the centre of the broader industrial estate and separated from existing and future sensitive receivers. The Subject Site is suitable for the size and scale of the development proposed and represents a quality outcome for otherwise unutilised industrial land.

In summary, the Subject Site is highly-suited to accommodate the proposed development and the ongoing manufacturing operations of the facility based on the following factors:

- The WSEA SEPP allows for the proposed development as a permissible use;
- The Subject Site is readily accessible via the regional road network;
- The proposed development would be compatible with future development of the surrounding lots for warehouses and industrial uses;
- The Subject Site will be serviced through the construction of the industrial estate at no cost to Government;
- The proposed development causes minimal impact on the environment;
- The Site will complement functions of the wider Mamre Road area; and
- The proposed built form is designed to mitigate any impacts on surrounding properties.

The suitability of the Subject Site for the proposed development is discussed further in **Section 6.1.2** of this EIS.

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PART C PROPOSED DEVELOPMENT

3.1 OBJECTIVES OF THE PROPOSAL

The aim of the proposed development is to provide a purpose-built Ardex manufacturing, warehouse and distribution facility, in line with Industry Best Practice, which will:

1. Generate employment – during construction and once the development is operational;
2. Manufacture quality products to support the construction industry in Australia decreasing reliance on international manufactured products;
3. Improve access to jobs for residents of the immediate community and wider locality;
4. Supplement, support and compliment the WSEA;
5. Demonstrate architectural excellence, through its siting and design compatibility, with minimal visual impact;
6. Provide suitable mitigation measures where required, to minimise any unforeseen impacts arising in the future; and
7. Co-locate Ardex operations so as to achieve efficiencies and improved environmental outcomes;

3.2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

TABLE 8: PROPOSED DEVELOPMENT PARTICULARS

Project Element	Development Particular
Site Area	15.8ha. The area which will contain the proposal is 4.3ha which will subdivided under this application.
General	The proposed development is considered SSD, pursuant to Schedule 1, Part 9 of SRD SEPP
Primary Land Use	A new purpose-built manufacturing facility for the production, warehousing and distribution of Ardex products with the following production capacities: • Up to approximately 48,000 tonnes per annum (tpa) of powder products; and • Up to approximately 25,000 KL per annum of liquid products.
Total GFA	27,470m^2
Floor Space Ratio	0.67:1
Building Height	Warehouse component: 13.7m Tower elements: 22m and 38m
Landscaping	4,348m^2
Earthworks	Earthworks components are proposed as follows: ▪ 6,900m^3 of cut ▪ 16,570m^3 of fill
Car parking	163 spaces
Bicycle Spaces	12 spaces
Infrastructure and Services	All required infrastructure and services will be provided from Mamre Road and the approved internal road network, including potable water, waste water, electricity, gas and telecommunications.
CIV	$71,844,673.00 (incl. GST)
Construction Jobs	Approximately 300 direct construction jobs
Operational Jobs	Approximately 140 ongoing jobs

Construction of the proposal would involve no demolition activities but will comprise minor earthworks (cut and fill), building and construction of pavements and hardstand, and construction of a new manufacturing and warehouse facility with associated offices.

3.2.1 Subdivision

SSD 9522 included provisions for subdivision to create the subject allotment. The subject proposal involves a further subdivision to create a lot for the subject facility, being Lot 12 measuring 4.3ha in area. A Subdivision Plan has been prepared which details the proposed subdivision (**Figure 9** below and **Appendix 3**).

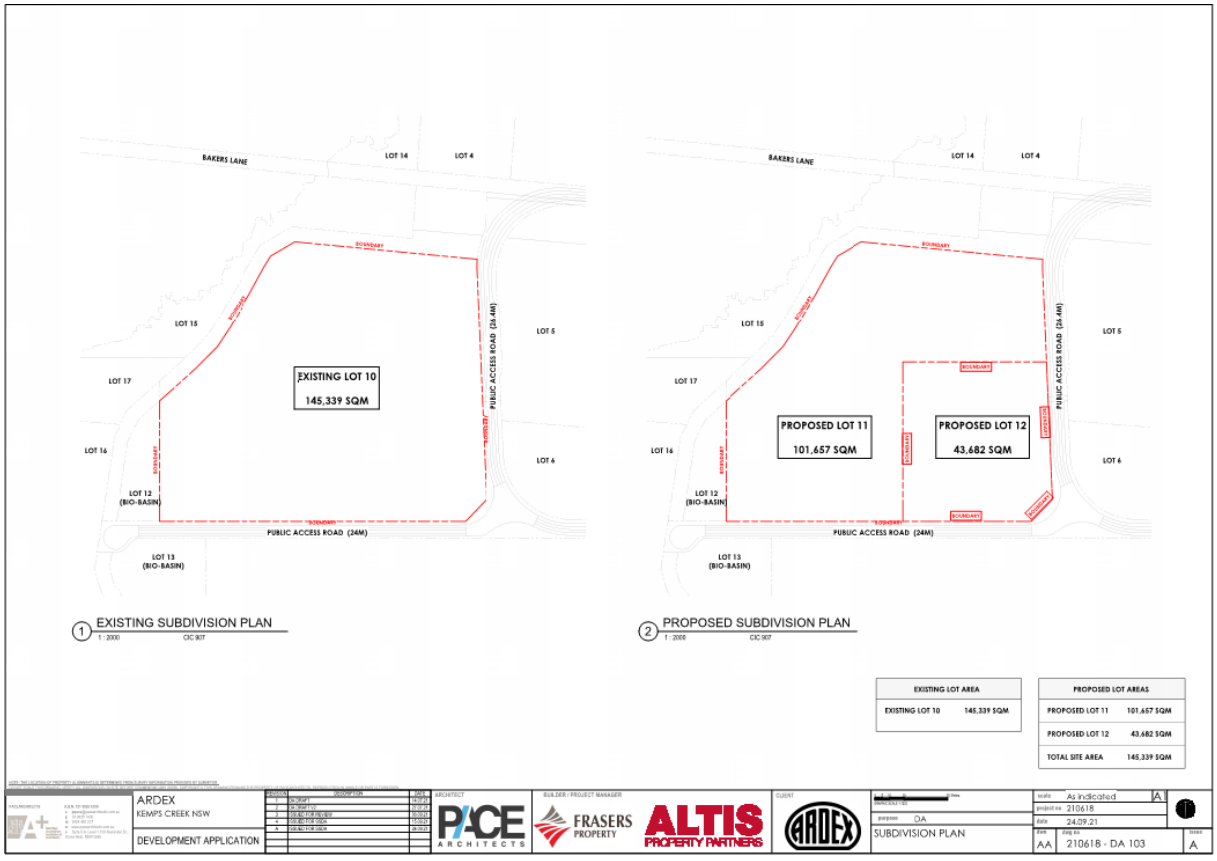


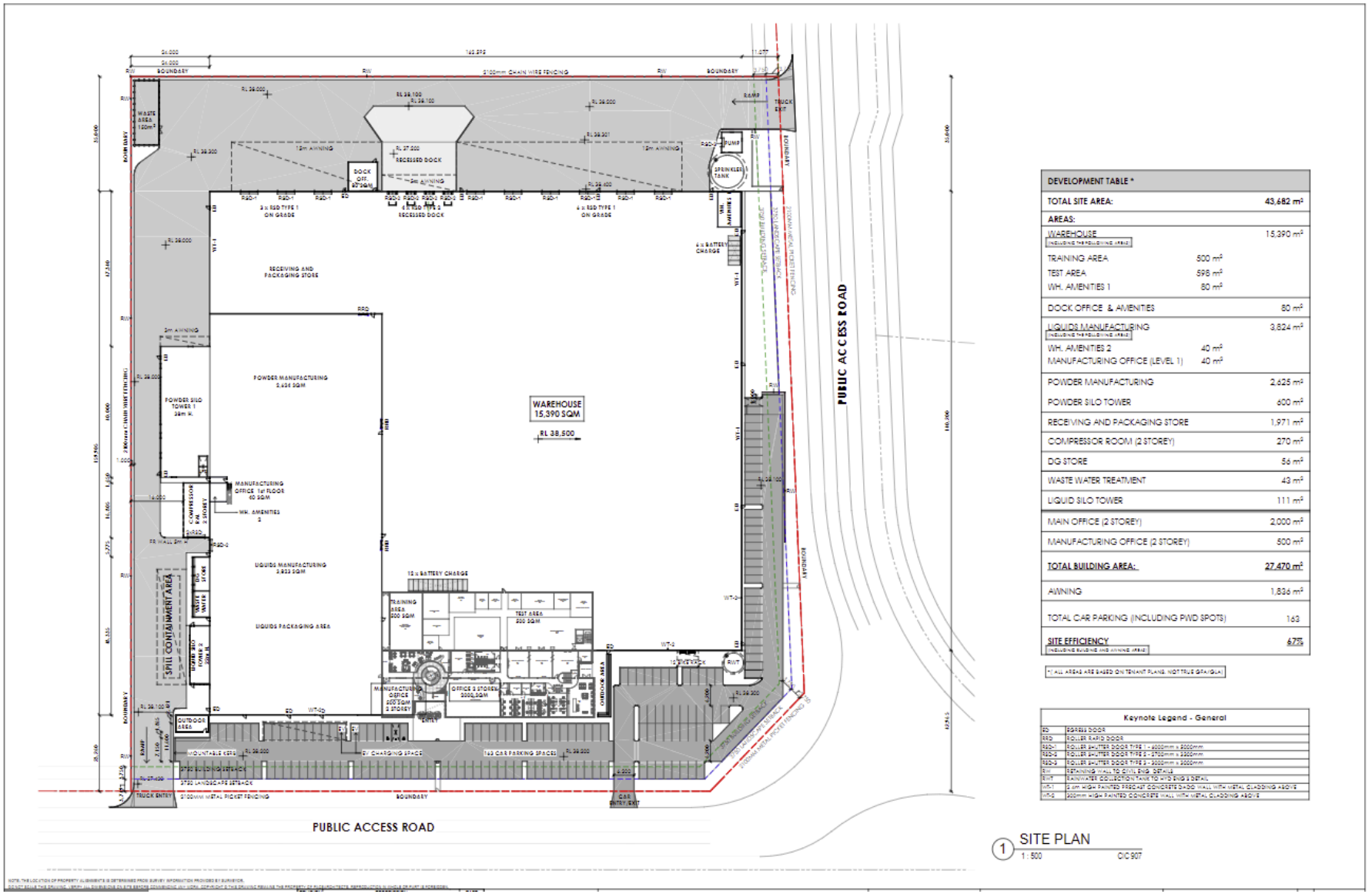
Figure 9 **Proposed Subdivision Plan** (Source: Pace Architects, 2021)

3.2.2 Built Form

The built form component of the proposed development includes the construction of a manufacturing, facility and associated warehousing which has a total floor area of 27,470m^2. The proposed development contains the following building components as shown in **Table 9**.

TABLE 9: BUILDING AREAS	
Component	Area
Warehouse (including the following): - Training area - Test area - Warehouse amenities 1	15,390m^2
	500m^2
	598m^2
	80m^2
Dock office and amenities	80m^2
Liquids manufacturing (including the following): - Warehouse amenities 2 - Manufacturing office (level 1)	3,824m^2
	40m^2
	40m^2
Powder manufacturing	2,625m^2
Powder silo Tower	600m^2
Receiving and packaging store	1,971m^2
Compressor room (two-storey)	270m^2
Dangerous goods store	56m^2
Waste water treatment	43m^2
Liquid silo tower	111m^2
Main office (two-storey)	2,000m^2
Manufacturing office (two-storey)	500m^2
Total GFA	**27,470m^2**
Awning	1,836m^2
Car parking	163 spaces
Bicycle Spaces	12 spaces

The built-form component of the proposed development also includes earthworks and infrastructure, for which consent is sought. The Site Plan, Floor Plan and a Perspective are demonstrated below in **Figures 10** to **12**.



DEVELOPMENT TABLE *		
TOTAL SITE AREA:		43,682 m²
AREAS:		
WAREHOUSE (INCLUDING THE FOLLOWING AREAS)		15,390 m²
TRAINING AREA	500 m²	
TEST AREA	598 m²	
WH. AMENITIES 1	80 m²	
DOCK OFFICE & AMENITIES		80 m²
LIQUIDS MANUFACTURING (INCLUDING THE FOLLOWING AREAS)		3,824 m²
WH. AMENITIES 2	40 m²	
MANUFACTURING OFFICE (LEVEL 1)	40 m²	
POWDER MANUFACTURING		2,625 m²
POWDER SILO TOWER		600 m²
RECEIVING AND PACKAGING STORE		1,971 m²
COMPRESSOR ROOM (2 STOREY)		270 m²
DG STORE		56 m²
WASTE WATER TREATMENT		43 m²
LIQUID SILO TOWER		111 m²
MAIN OFFICE (2 STOREY)		2,000 m²
MANUFACTURING OFFICE (2 STOREY)		500 m²
TOTAL BUILDING AREA:		27,470 m²
AWNING		1,836 m²
TOTAL CAR PARKING (INCLUDING PWD SPOTS)		163
SITE EFFICIENCY (INCLUDING BUILDING AND AWNING AREAS)		67%

*(ALL AREAS ARE BASED ON TENANT PLANS, NOT TRUE GFA/GLA)

Keynote Legend - General	
ED	EGRESS DOOR
RRD	ROLLER RAPID DOOR
RSD-1	ROLLER SHUTTER DOOR TYPE 1 - 4000mm x 5000mm
RSD-2	ROLLER SHUTTER DOOR TYPE 2 - 3700mm x 3300mm
RSD-3	ROLLER SHUTTER DOOR TYPE 3 - 3000mm x 3000mm
RW	RETAINING WALL TO CIVIL ENG. DETAILS
SWT	RAINWATER COLLECTION TANK TO HYD ENG'S DETAIL
WT-1	2.5m HIGH PAINTED PRECAST CONCRETE DADO WALL WITH METAL CLADDING ABOVE
WT-2	900mm HIGH PAINTED CONCRETE WALL WITH METAL CLADDING ABOVE

1 SITE PLAN
1 : 500 CIC 907

Figure 10 **Proposed Site Plan** (Source: Pace Architects, 2021)

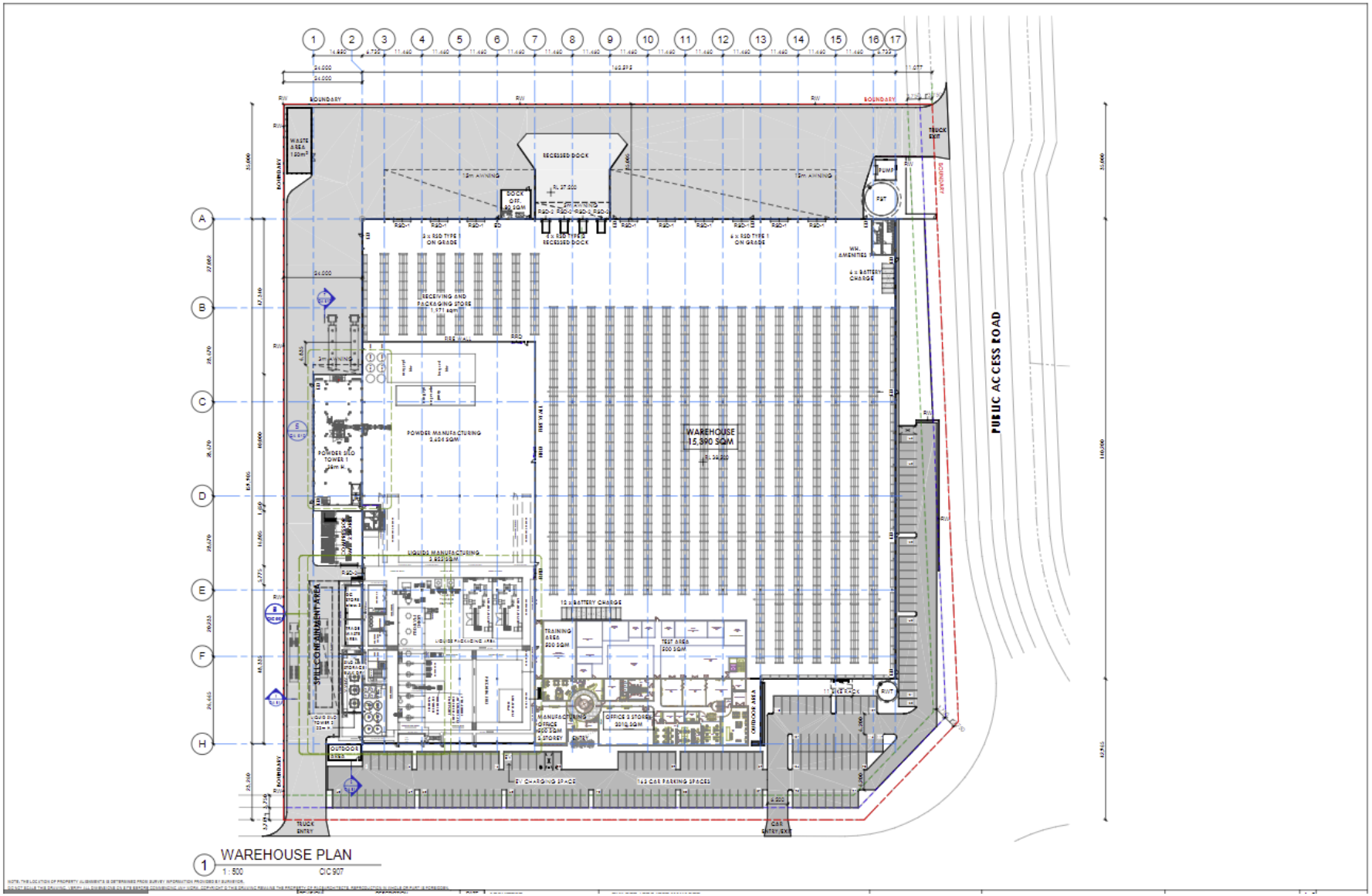


Figure 11 **Proposed Ground Floor Plan** (Source: Pace Architects, 2021)

Figure 12 **Proposed Building Perspectives** (Source: Pace Architects, 2021)

The full package of Architectural Plans is included in **Appendix 3** of this EIS.

3.2.2.1 Height / Scale

The proposed building heights vary with the tower elements reaching heights of 22m and 38m. The remainder of the building is at a conventional warehouse height, being 13.7m. The tower elements are to be provided for tower and liquid manufacturing associated with production and are required to accommodate the necessary plant and equipment. These elements total 4.6% of the total building footprint. The towers have been located internal to the Subject Site and setback from the future estate roads.

Located external to the building are some ancillary silos which are lower than the 13.7m component of the main building.

3.2.2.2 Colour / Materials & Finishes

The building presents a palette of coloured, banded, prefinished metal cladding to both warehouse and towers, and painted precast concrete dado wall at ground level. This industrial backdrop is softened with the curtain wall glazing of the office and detailed with concealed mullions and surface fritting to the glass, presenting a refined façade language. Solid aluminium panel cladding further adds to the refinement of the façade with a high-quality metallic finish, providing a sleekness to the design.

3.2.3 Signage

The proposed development involves the erection of the signage identified within the Signage Plan contained in **Appendix 3**. The following signage is proposed:

- One (1) x estate identification sign measuring 2,400mm (wide) by 8,000mm (height);
- One (1) x estate identification sign measuring 1,200mm (wide) by 3,8000mm (height);
- One (1) x estate navigation sign measuring 950mm (wide) by 2,000mm (height);
- One (1) x building identification sign measuring 950mm (wide) by 3,200mm (height);
- One (1) x building navigation sign measuring 950mm (wide) by 2,000mm (height);
- One (1) x customer identification sign measuring 2,400mm (wide) by 2,400mm (height);
- One (1) x customer identification sign measuring 4,800mm (wide) by 4,000mm (height);
- One (1) x customer identification sign measuring 5,400mm (wide) by 3,400mm (height); and
- One Mega Graphic

The proposed signage is detailed below in **Figure 13**.

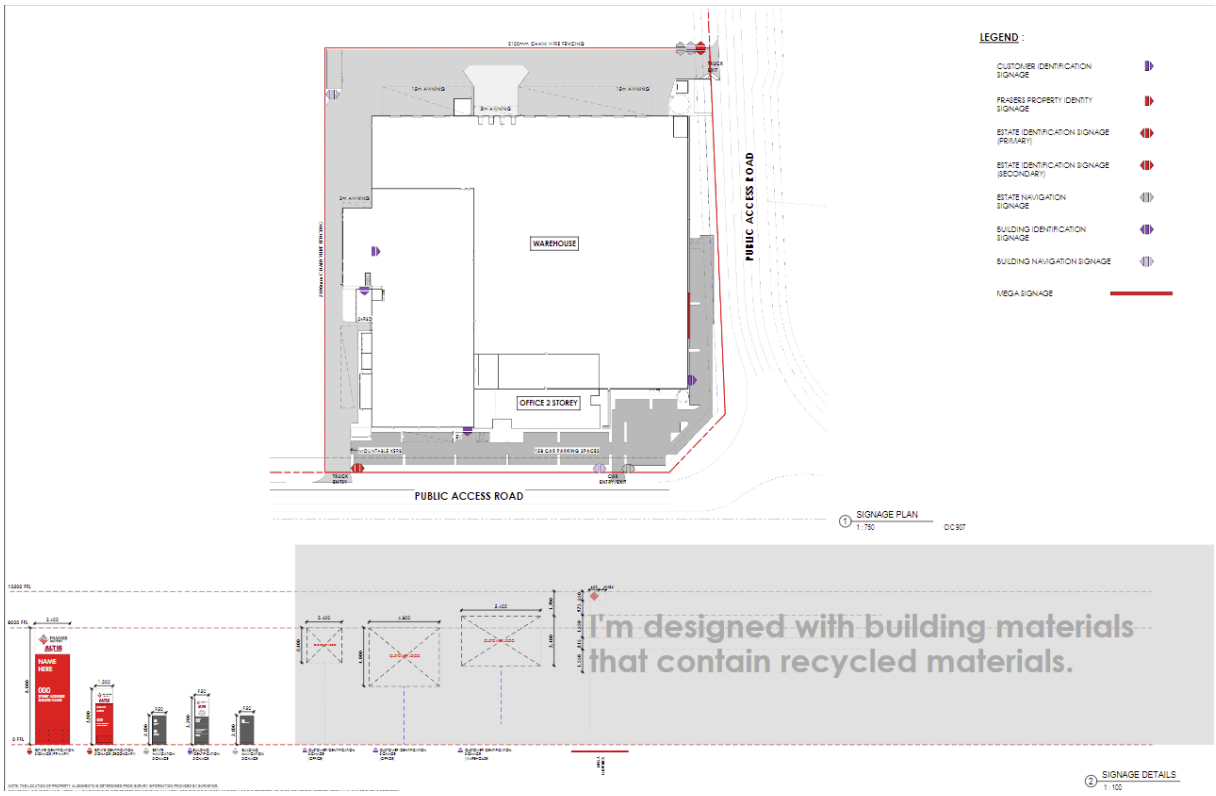


Figure 13 **Signage Plan** (Source: Pace Architects, 2021)

3.2.4 Access and Servicing

Vehicle access to the Subject Site will be facilitated by the road network approved under SSD 9522. No change to the estate road network is proposed. The Subject Site has three proposed vehicular access points from the estate roads. It has a separate car entry / exit point and truck entry point on the public access road to the south of the Subject Site, measuring 6,2m and 12.4m in width respectively. It has a truck exit point located on the public access road to the east of the Site (North-South spine road – NS Road 01), measuring 16m in width.

The industrial estate and the new estate roads will be accessed from a signalised intersection in Mamre Road and Bakers Lane which sits within the alignment of the future Southern Link Road.

All required infrastructure and services will be provided from Mamre Road and the approved internal road network, including potable water, waste water, electricity, gas and telecommunications.

3.2.5 Traffic and Parking

As detailed in the Traffic Assessment in **Appendix 27** and based on operational information provided, the proposed development is anticipated to generate 44 trips per hour in the AM peak period and 5 trips per hour PM peak period (inbound and outbound movements) and 250 total vehicle trips throughout the day (inbound and outbound movements). These traffic generation numbers would represent a decrease in the trip generation rates modelled under SSD 9522 which included detailed traffic modelling for the entire Kemps Creek Industrial Estate.

On-site car and bicycle parking provisions for Lot 10 in this development will be provided in the order of 163 car and 12 bicycle spaces.

3.2.6 Landscaping

To help mitigate and soften the building particularly from Mamre Road and receptors to the north, tree planting will be provided at regular intervals along the southern and eastern boundaries of the Site with underplanted native groundcovers. The proposed landscaping is shown below in **Figure 14**.

A total of 117 new trees are proposed to be planted with a total canopy cover of 4,348m^2, being 10% of the Subject Site area. The following planting strategy has been employed within the landscaping plan:

Integration:

- Setback planting and buffer planting shall be integrated with soft engineering swales and shall link with the re-vegetated creek corridor. The proposed on-lot landscaping would integrate well with the road reserve landscaping including street trees approved and being delivered under SSD 9522.

Connectivity:

- The streetscape uses pedestrian and bike paths to connect all buildings within the development with public space and the creek corridor while linking in with the regional bike network.

Multifunctionality:

- The planting strategy allows for the various micro-climate ecosystems created by built form and roads. All planting links back to the local endemic planting and creek corridor environment.

Landscape Plans, prepared by Habit8, are included in **Appendix 4** of this EIS.

Figure 14 **Landscape Masterplan** (Source: Habit8, 2021)

3.2.7 Site Preparation/Earthworks

It is noted that the Subject Site preparation and bulk earthworks were approved under SSD 9522 and are currently underway on the Subject Site.

The earthworks which are currently being constructed under SSD 9522 bulk earthwork, when completed, will provide large near flat development pads, though include 1:200 falls over the Subject Site. These falls are provided to enable runoff and erosion and sediment control during the period between the estate earthworks being completed, and the Site specific development earthworks. Minor filling and trimming earthworks will be required as part of the proposed development. These works would include final trimming and shaping of the Subject Site to suit the detailed architectural layout, final pavement and coordination of subgrade levels with slab profiles and grading to suit drainage requirements.

Detailed assessment of the earthworks level will be completed during detailed design stage and some adjustment to the final pad and building floor levels (within +/-500mm) may be required subject to final geotechnical testing, topsoil assessments and bulking/compaction allowances and slab/ pavement profiles. It is noted that the earthworks estimates noted below, represent on average less than 0.4m of filling over the Subject Site. The overall earthworks quantities for the proposed development are as follows:

- Topsoil Cut: Nil
- Raw Cut: 1,600m^3
- Raw Fill: 16,570m^3
- Detail Excavation: 5,300m^3
- Excess of Fill: 9,670m^3

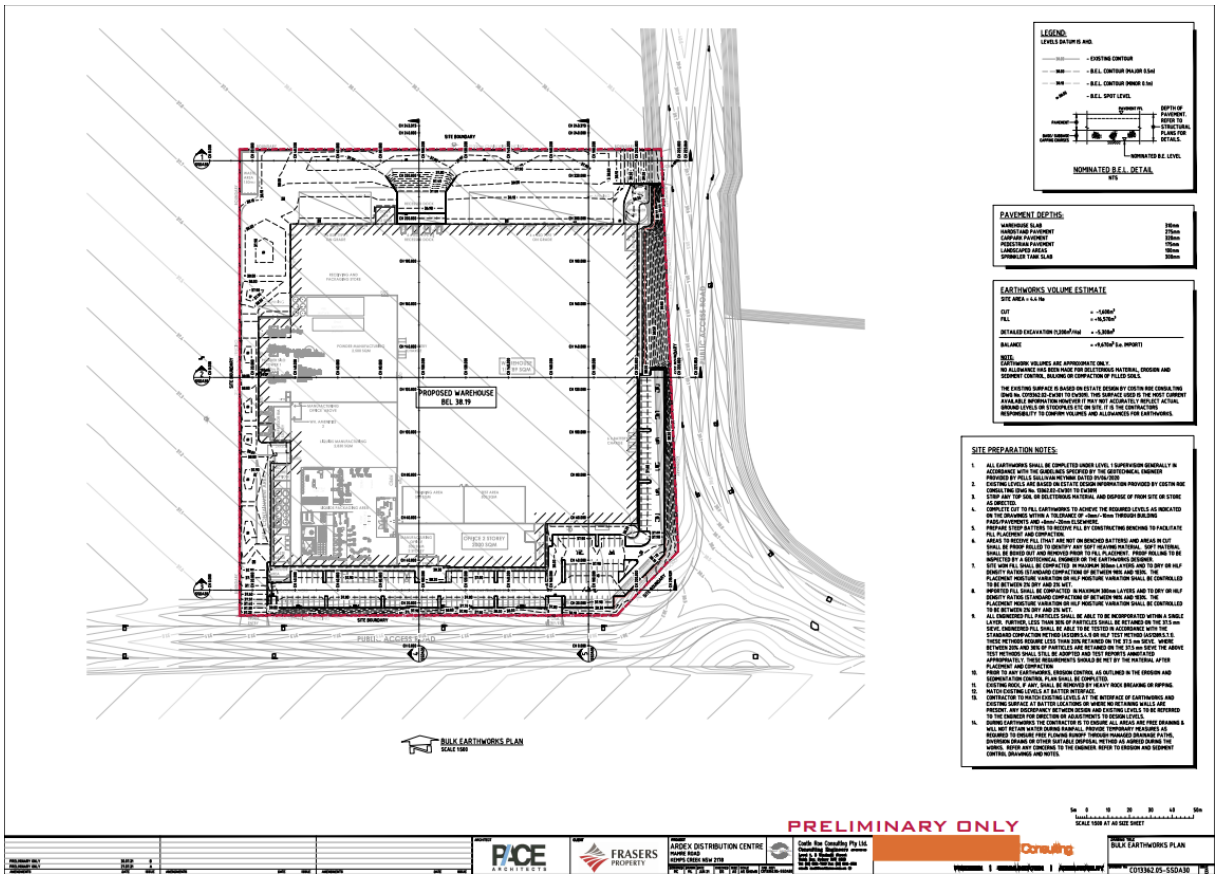


Figure 15 **Bulk Earthworks Plan** (Source: Costin Roe Consulting, 2021)

3.2.8 Demolition

As the Site is currently vacant, no demolition works are required.

3.2.9 Stormwater

There is no formal drainage currently on the Subject Site however several local depressions and natural gullies are present. There are also several dams from prior rural farming operations on the land which lie in relation to the natural gullies.

The overall estate is affected by overland flow from minor upstream catchments to the east. A catchment of approximately 30ha is conveyed around the industrial estate via existing infrastructure in Mamre Road, diverting along the southern boundary of the Site to South Creek. Two smaller catchments are also required to be conveyed through the Site. Management of these upstream catchments is detailed in the approved SSD 9522.

Two regional water quality and quantity management basins are being constructed as part of the Yards infrastructure works. Estate Basin 1 is located in the south western corner of the Yards Estate on Lot 11 and 12 and Basin 2 is located in the north western corner on Lot 13. These basins attenuate stormwater from the newly constructed estate and discharges to the Council trunk drainage system located to the north of the facility. The proposed development lies within the Estate Basin 1 catchment area and therefore drains to this basin.

The legal point of discharge for the Ardex development is to a pipe stub located in the south western corner of the Subject Site. The drainage connection stub is being provided as part of the currently under construction stormwater system for the Yards Estate development.

The proposed stormwater system for the current development is to consist of a major/minor system which conveys surface water from the proposed development lots to in-ground drainage connection points provided as part of the infrastructure construction works. Site water ultimately drains via the estate infrastructure to the combined water quality/detention basis in the south western corner of the Site. A summary of the main stormwater management measures is provided as follows:

- In-ground drainage system designed to accommodate the 1 in 20 year ARI storm event;
- Overland flow paths to convey the 1 in 100-year ARI storm event from the Site to the Estate Basin;
- Discharge of stormwater to estate infrastructure and estate stormwater management basin to the east of the Site;
- Rainwater reuse in accordance with the estate development.

3.2.10 Employment Generation

Construction jobs are expected to be in the order of approximately 300, whilst operational jobs would be expected to be approximately 140 future staff.

3.2.11 Dangerous Goods

The Subject Site will hold some dangerous goods (raw materials and finished goods). An assessment of the dangerous goods has been carried out by Riskcon Engineering Pty Ltd (Riskcon) and is included in **Appendix 14** of this EIS. The assessment has determined that quantities of dangerous goods will be below the *State Environmental Planning Policy No.33 (Hazardous and Offensive Development)* (SEPP 33) risk screening thresholds. The quantities stored are identified in **Table 10** below.

TABLE 10: QUANTATIES STORED AND SEPP 33 THRESHOLD					
Class	Description	PG	Quantity (kg)	SEPP Threshold (kg)	Threshold Exceed (Y/N)
2.1	LPG	n/a	900	10,000	N
3	Flammable Liquid	II	111,675	200,000	N
		III	71,973	200,000	N
4.1	Flammable Solids	II	484	5,000	N
5.1	Oxidising Substances	III	153	5,000	N
(6.1)	(sub-risk Toxic Substances)			2,500	N
6.1	Toxic Substances	II	2,000	25,000	N
8	Corrosive Substances	II	13,302	25,000	N
		III	21,297	50,000	N

3.2.12 Operational Details

Ardex is a manufacturer and supplier of products which include renders, screeds, floor levelling and adhesive products, decorative surface finishes, mortars used in repair applications, tile adhesives, grouts, silicone products, waterproofing membranes, primers, bonding agents and additives, sealants, sealers, sound proofing systems, a range of "natural stone" products, and a range of tools used for flooring and wall applications. Ardex sells to wholesalers, tilers and other building trades as well as into the retail market, in particular under the Dunlop brand. Ardex's brands are often specified by architects because of their quality, innovation and particular attraction to interior designers and architects. No sale of products is proposed from the Subject Site.

The Subject Site will include offices, research and development laboratory, warehouse storage of raw materials and packaging, distribution of packed products, and manufacturing of powder and liquid products. Powder manufacturing will involve the use of dry powder batching, mixing and bagging processes where most batching is completed via an automated process with some manual dosing into industrial mixers, and then followed by semi-automatic bagging and palletising. The activities will primarily consist of mixing non-flammable and non-combustible powdered chemicals (including cement, limestone and sand) to produce saleable products for the construction industry.

Liquid manufacturing will involve the use of liquid batching, mixing and filling processes, where most batching is completed via a semi-automated process with manual dosing into various industrial mixers. The activities will primarily consist of mixing and filling water dispersed polymers (emulsion/latex) with or without non-combustible fillers, silicon packing, as well as water dispersion of epoxy resins to produce saleable products for the construction industry. There may be some limited batching of flammable goods under controlled conditions in future years. The operational process is depicted below in **Figure 16**.

Figure 16 **Operational Process Flow** (Source: Ardex, 2021)

3.2.13.1 Powder Manufacturing

Powder manufacturing involves the use of dry powder batching, mixing and bagging processes where most batching is completed via an automated process with some manual dosing into industrial mixers, and then followed by semi-automatic bagging and palletising. The activities will primarily consist of mixing non-flammable and non-combustible powdered chemicals (including cement, limestone and sand) to produce saleable products for the construction industry. The design of the new powder manufacturing facility will include a state-of-the-art production process based on a uniquely designed vertical tower plant layout, that utilises the force of gravity in the production cycle. The proposed process incorporates an innovative design to improve quality, productivity, process reliability and energy efficiency. Maximum capacity of the plant will be 48,000 tonnes of powder based products per annum based on a 24-hour, 7 day/week operation.

A tower height of 38m for the vertical powder plant has been proposed rather than the older, less efficient horizontal powder plants or "Split-tower" plants, which are around 12m - 25m in height. Vertical Tower plants are now standard for Ardex's facilities across the world. Ardex Australia's recently built Brisbane plant is a vertical tower plant.

The current Ardex Programmable Logic Control (PLC) Batch Control System at the existing Sydney facilities consists of a dosing system, conveyor system, batch-bin lifting system, mixing system, and a bagging system. Although the system is integrated, it poses a significant business risk to Ardex Australia due to frequent downtime issues. The system continues to be problematic even after significant upgrades in 2018. There is a medium-term risk from a serious system failure, therefore full replacement is required in the short-term.

The proposed PLC Batching Control system is provided as a turn-key integrated solution by the vendor of the new production plant. It utilises a proprietary and innovative management control software system specifically designed for batch processes on specialty chemicals and building materials, when different formulas are used on multi-line installations. It combines flexibility and power, whilst remaining user-friendly. These features ensure easy and efficient management of production formulas and batch recipes, stocks of raw materials, real-time monitoring of the process underway, as well as detailed traceability of production, stock movements, and production reports. It can integrate with the company's Enterprise Resource Planning (ERP) system to schedule production and execute manufacturing orders, and is part of Ardex's Industry 4.0 initiative.

There are significant advantages in using the vertical powder plant as opposed to the horizontal powder plant, including:

- More energy efficient – the horizontal powder plant uses more than double the electricity for the same production output when compared to the vertical powder plant. This results in significant reductions in carbon emissions, and a significantly reduced load on local electrical transmission infrastructure.
- Reduced noise & dust emissions – the improved design of the vertical plant results in reduced noise & dust emissions from the powder plant line.
- The vertical powder plant also requires less cleaning and less maintenance than the horizontal powder plant, and overall is considered the superior plant option
- Reduced manufacturing footprint

A process flow diagram of the powder plant is provided in **Figure 17** and a process description provided in **Table 11**.

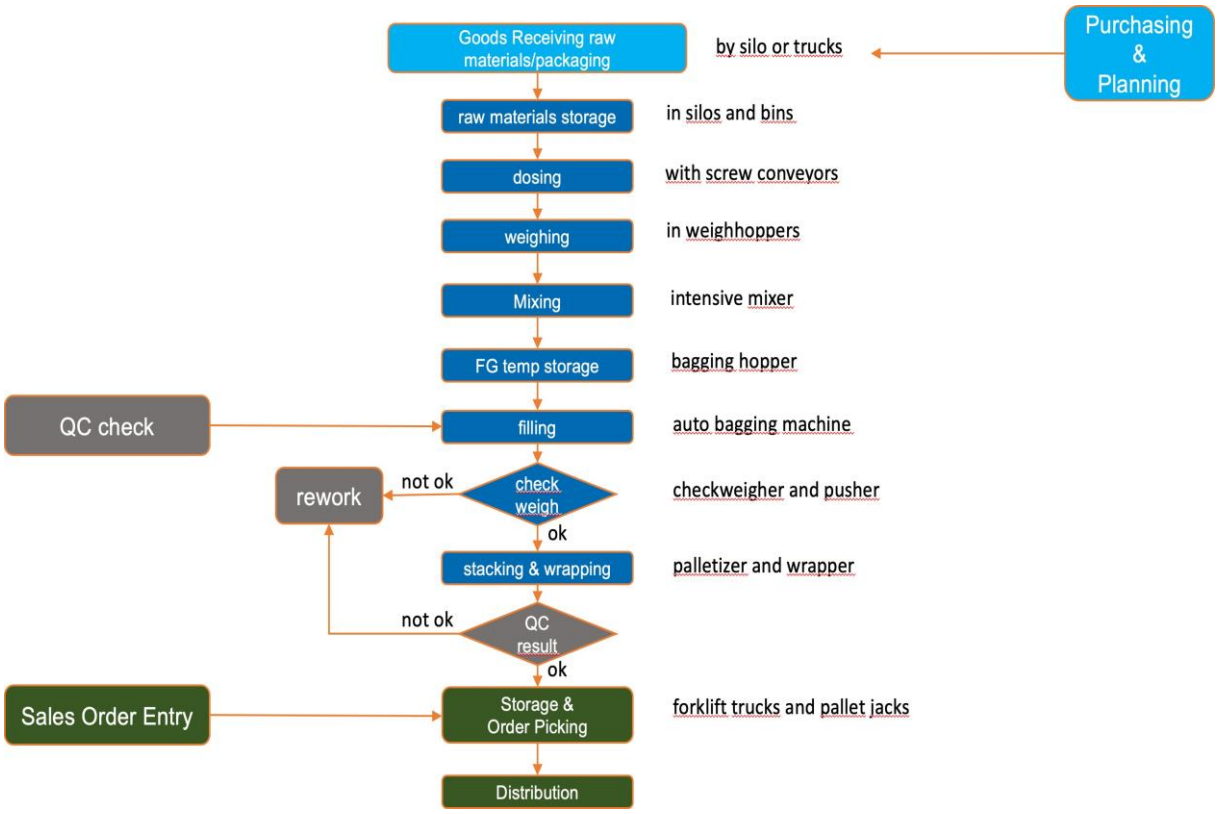


Figure 17 **Powder and Plant Process Flow Diagram** (Source: Ardex, 2021)

TABLE 11: POWDER PLANT PROCESS DESCRIPTION			
Aspect	Description		
Raw Materials	**Sands & Inert Materials:** Silica sand & Calcium Carbonates	**Cements** Portland & High Aluminacements	**Additives** Cellulosic thickeners Vinyl co-polymer ethyleneacetate Retarders Pigments Hydrated lime
Raw Material Receipt & Storage	**Sands & Inert Materials:** Pumped pneumatically into large silos from tankers or received in bulk bags (1000Kg) and decanted to Small silos	**Cements** Pumped pneumatically into large silos from tankers or received in bulk bags (1000Kg) and decanted to Small silos	**Additives** Received in bulk bags or 20Kg bags and decanted to small silos or received in 10Kg to 20Kg bags for manual addition (minor additives)
Material Dosing and Mixing	Screw conveyors transport raw materials and additives from the silos to the weighing hoppers. Computer controlled dosing occurs based on the formula recipe to a high level of accuracy. Materials are then transported by gravity into the mixer		
Product Packaging	Finished products are filled into 20Kg bags. Bags are then palletised and stored in the distributionwarehouse for off-site distribution		
Finished Products	Renders, screeds, floor levelling and adhesive products, mortars used in repair applications, tile adhesives, grouts.		

The powder production plants are automatically controlled by a PLC system through a central computer managed by the operator. Operator control panels are also located at several tower levels.

Figure 18 below provides a graphical section of the Powers Tower, outlining the manufacturing process whereby raw materials are filled into eight (8) silos, the products are sorted, dosed and mixed, then measured into saleable quantities.

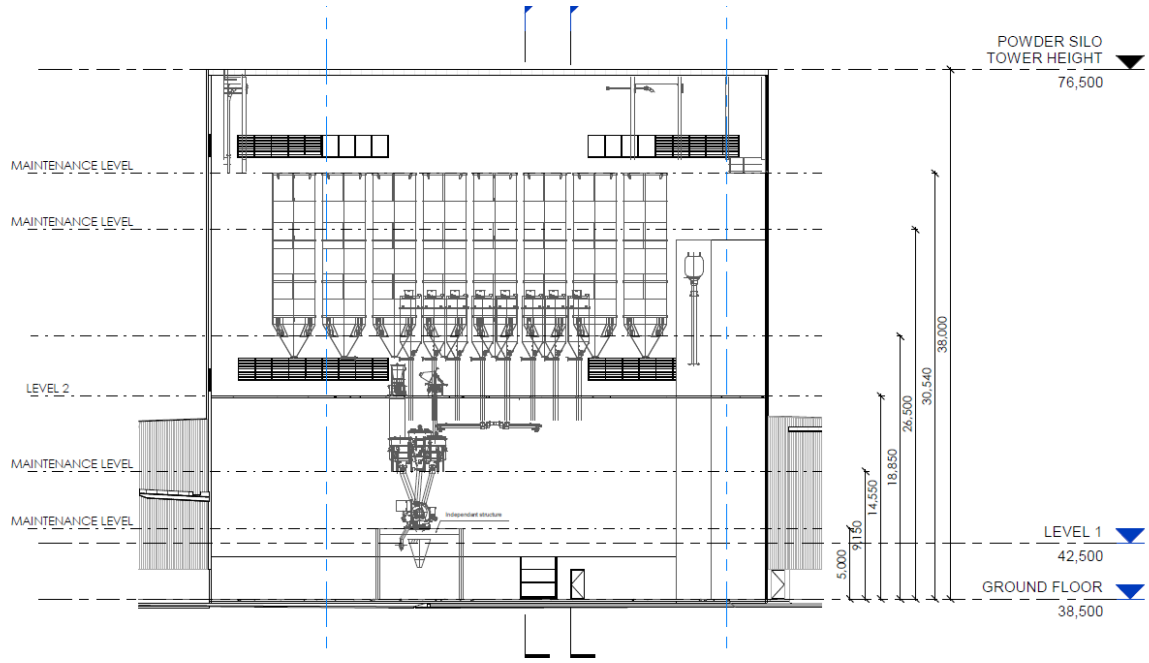


Figure 18 **Powder Tower Section** (Source: Ardex, 2021)

3.2.13.2 Liquids Manufacturing

Liquid manufacturing will involve the use of liquid batching, mixing and filling processes, where most batching is completed via a semi-automated process with manual dosing into various industrial mixers. The activities will primarily consist of mixing and filling water dispersed polymers (emulsion/latex) with or without non-combustible fillers, silicon packing, as well as water dispersion of epoxy resins to produce saleable products for the construction industry. The new manufacturing facility is designed to achieve high efficiency, increased production volumes, high quality standards, and the ability to manufacture more complex product formulations. Maximum capacity of the plant will be 25,000KL of liquids based products per annum based on a 24-hour, 7 day/week operation.

The current manufacturing plants each have a standalone PLC dosing and filling system. The systems are very basic and not integrated with batch formulae and provide no production reports. The proposed PLC Batching Control system will be designed to integrate all manufacturing plants, ensuring easy and efficient management of production formulas and batch recipes and provide full reporting capability. Expected benefits include higher level of process automation and control as well as improved batch yields and quality. It will have capability to integrate with the company's Enterprise Resource Planning (ERP) system and is part of Ardex's Industry 4.0 initiative.

A process flow diagram of the liquids plant is provided in **Figure 19** and the process description provided in **Table 12** below. The dosing according to the formula is semi-automatically controlled by PLC via a central computer and an operator panel.

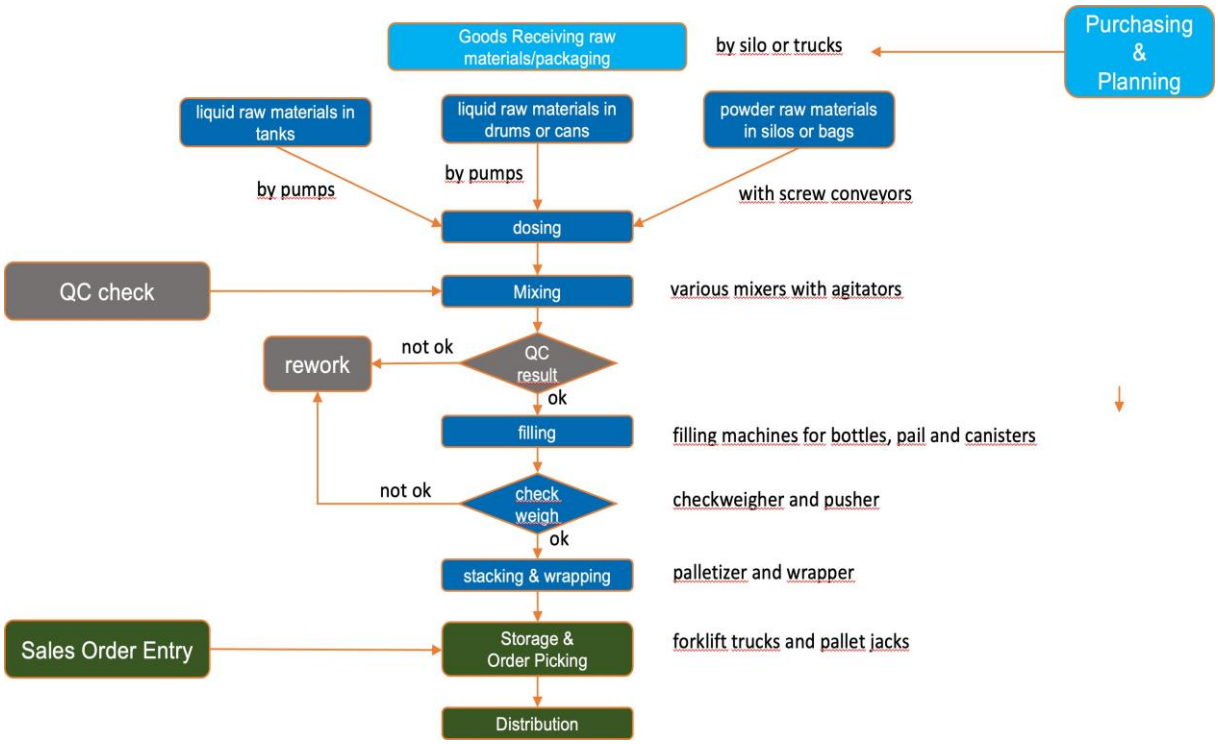


Figure 19 **Liquids Process Flow Diagram** (Source: Ardex, 2021)

TABLE 12: LIQUID PLANT PROCESS DESCRIPTION			
Aspect	Description		
Raw Materials	**Water Dispersion Polymers** Acrylic and Vinyl acetate copolymers Modified Acrylics Polyurethane dispersion SBR dispersions	**Fillers** Silica Sand Calcium carbonate Rubber crumb	**Additives** Surfactants - Pigments Epoxy resin Biocides Solvent Butyl DiGlycol Carbitol 200Kg
Raw Material Receipt & Storage	**Water Dispersion Polymers** Pumped pneumatically into silos from tankers or received in 1000Kg IBCs or 200L drums. Pumped into specific mixers	**Fillers** Bulk Silica sand and Calcium Carbonate transferred pneumatically into silos from tankers. Rubber crumb received in 1000 Kg bags. Other fillers received in 20Kg bags	**Additives** Received in IBC, 200L drums or 20Kg bags. Stored in raw material/receiving store before transferring to liquids manufacturing area. Dangerous goods (Class 3, 8 & 9) stored in designated areas
Material Dosing and Mixing	Screw conveyors transport fillers (silica sand and calcium carbonate) from silos to weighing hoppers. Water dispersion polymers are pumped from silos tanks or drums to mixers. Most liquid additives are pumped from drums to mixers. Some manual additions of raw materials are required. Computer controlled dosing occurs based on the formula recipe to a high		

	level of accuracy. After mixing and QA testing, products are pumped or pressed to filling equipment at ground level.
Product Packaging	Finished products are filled into bottles and pails ranging in size from 0.5Kg to 20Kg. Products are then palletised and stored in the distribution warehouse for off-site distribution.
Finished Products	Liquid grouts, waterproofing membranes, roof pointing repair products, mastics for tiling applications, Silicone tubes for tiling and waterproofing applications.

Figure 20 and **21** below provides details of the liquids manufacturing area and section of the process, detailing where raw materials are filled into the liquids tower into silo's then transferred into the mixing area.

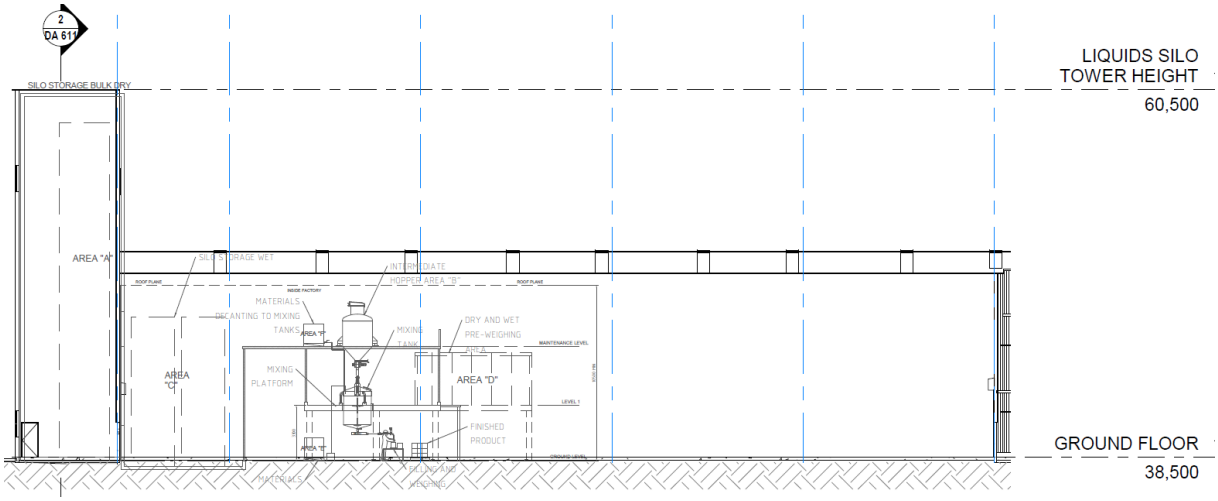


Figure 20 **Liquid Manufacturing Section** (Source: Ardex, 2021)

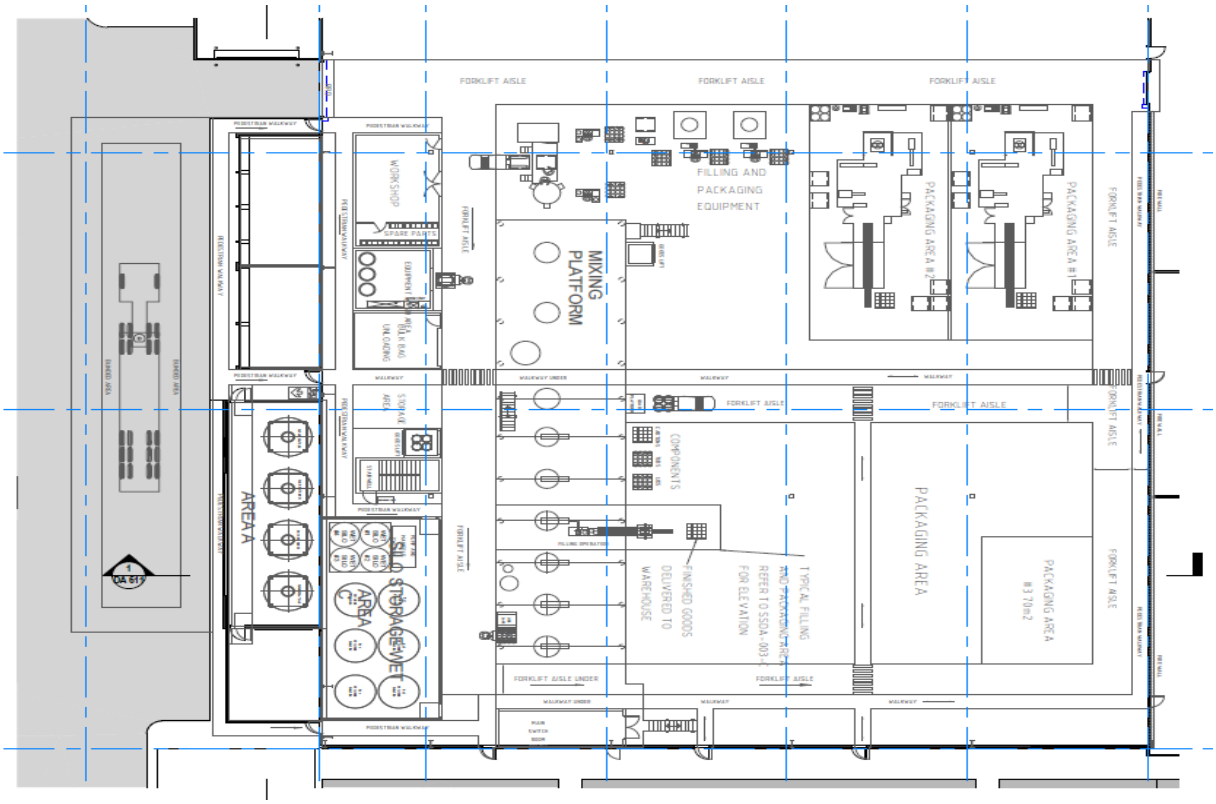


Figure 21 **Liquids Manufacturing Plant** (Source: Ardex, 2021)

3.2.13.3 Storage of Products

The new facility will store raw products within the silos described above, or within the mixing tanks as part of the manufacturing process, with finished goods packaged up ready for distribution to retail stores.

3.2.13.4 Staff

The maximum anticipated employee numbers on the Subject Site at any one time is expected to be approximately 140 staff spread across the manufacturing, warehousing, office and test/training areas.

3.2.13.5 Car Parking and Traffic

Employee, contractor, and visitor parking has been accommodated within the Subject Site, with 163 spaces allocated. The additional 23 (on top of max employee numbers) will cater for contractors and visitors.

3.2.13.6 Hours of Operation

The proposed development is expected to operate 24 hours a day, 7 days a week. This is required to ensure adequate product supply to the market.

3.2.13.7 Customer/Visitors

The proposed facility includes a test and training area for contractors and visitors to view and test the Ardex products whilst supervised. Adequate car parking facilities and amenities have been provided to accommodate this use.

Visitors to the Site are limited to known auditors, suppliers of raw material, equipment providers and contractors. Raw material and equipment providers and visitors are managed to normal business hours only, unless there is an emergency and works are required immediately. Equipment contractors are managed through our maintenance operating system and are expected to be on Site as per agreed schedules.

3.2.13.8 Site Deliveries and Truck Movements

Vehicle movements throughout the Subject Site will be managed by an internal traffic management plan. Vehicles (including trucks and tankers) will visit the Subject Site to deliver raw materials, provide maintenance to the manufacturing operation and to pick up finished goods.

The operational heavy vehicle types are described as follows:

- 8.8 m MRVs
  - 10 daily incoming trips and 10 daily outgoing trips
  - 1 incoming trip and 1 outgoing trip in AM Peak Hour
  - 1 incoming trip in the PM Peak Hour

- 20.0 m AVs
  - 15 daily incoming trips and 10 daily outgoing trips
  - 1 incoming trip and 1 outgoing trip in AM Peak Hour
  - 1 incoming trip and 1 outgoing trip in the PM Peak Hour

- 26.0 m B-double trucks
  - 10 daily incoming trips and 15 daily outgoing trips
  - 1 incoming trip and 1 outgoing trip in AM Peak Hour
  - 1 incoming trip and 1 outgoing trip in the PM Peak Hour

3.2.13.9 Finished Products

Transfer of finished products to end customers is achieved via a third party transport provider or retailer of primary freight.

Finished goods are distributed via the retail or wholesale trade with the retail trade accounting for approximately 90% of all vehicle movements. **Figure 22** below shows the typical finished product types that will be manufactured at the proposed facility.

Figure 22 **Ardex Finished Products** (Source: Ardex, 2021)

3.2.13.10 Volume of Materials

Key raw material deliveries for liquids and powder manufacturing are shown in the **Tables 13** and **14** below.

TABLE 13: LIQUID RAW MATERIALS DELIVERIES

Raw Materials (usage >100 tonne/annum)	Average Daily Delivery (t)	Pack Size	Storage
Calcium Carbonate Filler 1	14.8	Bulk	35m^3 silo storage area "A"
Filler Sane 1	12.8	Bulk	35m^3 silo storage area "A"
Water Based Acrylic/Modified Acrylic Emulsion 1	10.7	Bulk	35kL silo storage area "C"
Water Based Acrylic/Modified Acrylic Emulsion 2	4.6	Bulk	35kL silo storage area "C"
Filler Barium Sulphate 1	3.6	25kg bag	Warehouse
Filler Silica 1	3.3	25kg bag	Warehouse
Water Based Acrylic/Modified Acrylic Emulsion 3	2.6	IBC	15kL silo area "C" and/or warehouse
Water Based Acrylic/Modified Acrylic Emulsion 4	2.5	Bulk	25kL silo storage area "C"

Water Based Acrylic/Modified Acrylic Emulsion 5	2.0	Bulk	25kL silo storage area "C"
Water Based Acrylic/Modified Acrylic Emulsion 6	1,4	IBC	15kL silo area "C" and/or warehouse
Water Based Acrylic/Modified Acrylic Emulsion 7	1.4	IBC	15kL silo area "C" and/or warehouse
Water Based Polyurethane Emulsion	1.1	IBC	15kL silo area "C" and/or warehouse
Filler Silica 2	0.9	25kg bag	Warehouse
Calcium Carbonate Filler 2	0.9	25kg bag	Warehouse
Water Based Acrylic/Modified Acrylic Emulsion 8	0.9	IBC	Warehouse
Pigment – White	0.6	25kg bag	Warehouse
Epoxy Resin	0.6	200L Drum	Warehouse
Filler Sane 2	0.5	Bulk bag	Warehouse
Thickener – Water Based	0.5	IBC	Warehouse
Water Based Modified Styrene Butadiene Emulsion	0.5	IBC	Warehouse
Filler Rubber Crumb	0.5	25kg bag	Warehouse
Water Based Acrylic/Modified Acrylic Emulsion 9	0.4	IBC	Warehouse
Water Based Acrylic/Modified Acrylic Emulsion 10	0.4	IBC	Warehouse
Filler Barium Sulphate 2	0.4	2kg bag	Warehouse
Water Based Acrylic/Modified Acrylic Emulsion 11	0.4	IBC	Warehouse
Water Based Acrylic/Modified Acrylic Emulsion 12	0.3	IBC	Warehouse
Total (excluding minor additives)	**69**		

TABLE 14: POWDER PRODUCTION RAW MATERIALS DELIVERIES

Raw Materials (usage >100 tonne/annum)	Average Daily Delivery (t)	Pack Size	Storage
Sand 1	31	Bulk tanker delivery	50m^3 silo (Powder Tower)
Sand 2	24	Bulk tanker delivery	50m^3 silo (Powder Tower)
Calcium Carbone 1	24	Bulk tanker delivery	50m^3 silo (Powder Tower)
Cement 1	22	Bulk tanker delivery	50m^3 silo (Powder Tower)
Cement 2	16	Bulk tanker delivery	50m^3 silo (Powder Tower)
Cement 3	7.1	Bulk tanker delivery	50m^3 silo (Powder Tower)
Cement 4	4.3	Bulk tanker delivery	50m^3 silo (Powder Tower)
Calcium Carbonate 2	3.8	Bulk tanker delivery	50m^3 silo (Powder Tower)
Sand 3	2.8	Bulk tanker delivery	50m^3 silo (Powder Tower)

Filler Rubber Crumb	2.1	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Cement 5	1.6	1000kg bulk bag	50m³ silo (Powder Tower)
Plaster 1	1.6	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Cement 6	1.5	1000kg bulk bag	50m³ silo (Powder Tower)
Slag	1.1	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Lime Hydrate	1.1	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Polymer Powder	1.3	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Plaster 2	1.1	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Cement 7	1.0	Bulk tanker delivery	50m³ silo (Powder Tower)
Calcium Carbonate 3	0.7	1000kg bulk bag	6m³ pencil silo (Powder Tower)
Sand 4	0.5	25kg bag	6m³ pencil silo (Powder Tower)
Filler – Non Silica	0.5	25kg bag	Warehouse
Sand 5	0.5	1000kg bulk bag	Warehouse
Chemical Additive	0.5	25kg bag	Warehouse
Total (excluding minor additives)	**151**		

It is anticipated from this facility that 48,000t of Powders Products and 25,000KL of Liquids Products will be manufactured each year.

3.2.13.11 Waste Management

The waste management details are provided in **Table 15** below:

TABLE 15: WASTE MANAGEMENT DETAILS			
Type of Waste Generated	Expected Volume (tonnes) p.a.	Proposed on Site Storage & Treatment Facilities	Destination
Office – paper/cardboard	10	Stored in 15m³ cardboard recycle bin in defined waste storage area	Sent to recycler
Office – food waste	5	Stored in 23m³ general waste bin in defined storage area	Disposed of into landfill
Office – general waste	5	Stored in 23m³ general waste bin in defined storage area	Disposed of into landfill
Process – packaging paper/cardboard	20	Stored in 15m³ general waste bin in defined storage area	Sent to recycler
Process – packaging plastics	20	Baled and stored in defined waste storage area	Sent to recycler
Process – wooden pallets	250	Bulk stored in defined area on hardstand	Recycling timber pallets, 40kg/pallet (broken

			pallets sold to 3rd party which turns into mulch)
Process – timber	15	Stored in 23m³ general waste bin in defined storage area	Disposed of into landfill
Process – powder from dust collectors	470	Liquids waste material is processed on-site to separate solids and water. Liquids solids are stored on-site in used IBC's or similar defined waste storage area	Disposed of into landfill
Process – 200L steel drums	50	Bulk stored in defined area on hardstand	Sent to recycler
Process – Packaging IBC's	100	Bulk stored in defined area on hardstand	Sent to recycler
Process – general waste	280	Stored in 23m³ general waste bin in defined storage area	Disposed of into landfill
Process – wastewater	2,000	Liquids waste material is processed on-site to separate solids and water	Water is treated to prescribed standard then discharged to sewer under license from Sydney Water.
Finished Goods – End of Life (EOL) powder products	150	Stored internally unless sending to landfill, then in 23m³ general waste bin	Reblended on-site or disposed of to landfill
Finished Goods – EOL liquid products	100	Stored internally unless sending to landfill, then in 23m³ general waste bin	Reblended on-site or disposed of to landfill
Finished Goods – EOL other products	50	Stored in 23m³ general waste bin in defined storage area	Disposed of into landfill
Total treated wastewater to sewer	2,000		
Total dry & general waste	**1,675**		
Estimated total – recycle/reuse	**1,170**		
% Recycled	**70%**		
Estimated Total Landfill	**505**		

3.2.13.12 Mechanical and Plant

Waste water Treatment Plant

The waste water treatment plant will be designed to allow for the recycling of water through the manufacturing process and any water discharge to sewer to be cleaned to meet Sydney Water consent to discharge requirements. The plan will be located on the western side of the building (external to the main shed) and in between the liquids silo and the compressor room.

Compressed Air Plant

The compressor room (external to the building) will contain four (4) compressors and dust extractors that manage both the operation of the plant and any excess dust that come out of the manufacturing process. All by products of the process are re-used and not wasted.

Electrical Power Supply

Electrical power will be supplied to the Site by 1 x 22kV incoming line to an Energy Australia substation. The substation is connected to high voltage (HV) main distribution board inside the manufacturing area.

3.2 SUPPORTING PROJECT DOCUMENTATION

Documents provided in support of the proposal are outlined in **Table 16**.

TABLE 16: DOCUMENT SCHEDULE

Appendix No.	Documentation	Consultant
Appendix 1	Secretary's Environmental Assessment Requirements	NSW DPIE
Appendix 2	Survey Plan	Boxell Surveyors
Appendix 3	Architectural Plans	Pace Architects
Appendix 4	Landscape Plans	Habit8
Appendix 5	Civil Engineering Plans	Costin Roe
Appendix 6	Community and Stakeholder Participation Strategy	SLR Consutling
Appendix 7	Acoustic Impact Assessment	Renzo Tonin
Appendix 8	Aeronautical Impact Assessment	Landrum & Brown Worldwide
Appendix 9	Architectural Design Report	Frasers Propery
Appendix 10	BCA Assessment Report	MBC Group
Appendix 11	Biodiversity Assessment Report Waiver	Ecoplanning
Appendix 12	Bushfire Assessment	Peterson Bushfire
Appendix 13	Civil Engineering Report	Costin Roe
Appendix 14	Dangerous Goods Design Report	Riskcon Engineering
Appendix 15	Draft Mamre Road Precinct Development Control Plan Assessment	Willowtree Planning
Appendix 16	Ecologically Sustainable Development Report	Frasers Property
Appendix 17	Environmental Site Assessment	JBS&G
Appendix 18	Fire Safety Strategy Report	Affinity Fire
Appendix 19	Geotechnical Investigation Report	PSM
Appendix 20	Greenhouse Gas and Energy Efficient Assessment	North Star Air Quality
Appendix 21	Heritage Letter of Advice	Biosis
Appendix 22	Noise and Vibration Impact Assessment	Renzo Tonin
Appendix 23	Plan of Operational Management	Ardex
Appendix 24	Quantity Surveyors Cost Report	Northcroft
Appendix 25	Service Infrastructure Assessment	Landpartners
Appendix 26	Social Impact Assessment	SLR Consulting
Appendix 27	Traffic Impact Assessment	Ason Group
Appendix 28	Visual Impact Assessment Report	Geoscapes Landscape Architecture
Appendix 29	Waste Management Plan	LG Consult
Whole document	Environmental Impact Statement	Willowtree Planning

3.3 PROJECT NEED

The proposed development would assist in providing new employment opportunities through the provision of a manufacturing facility and associated warehouse to facilitate employment-generating development and economic growth of the Mamre Road Precinct. The proposal will also contribute to greater productivity and a significant increase in jobs for the Western Sydney Aerotropolis (WSA) in the industrial and logistics sector.

The proposed development, for the purposes of a manufacturing facility is considered consistent with the strategic direction of both the Western City District Plan published by the Greater Sydney Commission and the WSA Plan published by the Western Sydney Planning Partnership and the NSW Government.

It is considered that the proposed development could support the growth of the existing sectors in the Western City District, such as logistics and freight, whilst promoting industry diversification; and would attract investment opportunities, ultimately fostering the growth of the wider Mamre Road area within the WSA as the economic catalyst of the Western Parkland City.

The proposal would provide Australian produced products to support the local construction industry. The proposed new Ardex facility will be an integrated manufacturing and warehouse facility, consolidating three (3) sites (which have outdated and labor intensive plant and equipment) into one (1), utilising the latest technology in production equipment from Europe to produce finished goods in Australia at the lowest and most efficient cost. In particular, the use of the innovative tower elements utilises the force of gravity in the production cycle to improve quality, productivity, process reliability and energy efficiency. There are significant advantages in using the vertical plant as opposed to the horizontal plant, including:

- More energy efficient – the horizontal plant uses more than double the electricity for the same production output when compared to the vertical plant. This results in significant reductions in carbon emissions, and a significantly reduced load on local electrical transmission infrastructure;
- Reduced noise & dust emissions – the improved design of the vertical plant results in reduced noise & dust emissions from the powder plant line;
- The vertical plant also requires less cleaning and less maintenance than the horizontal plant, and overall is considered the superior plant option; and
- Reduced manufacturing footprint.

3.4 CONSIDERATION OF ALTERNATIVES

The purpose of the proposed development is to increase the capacity and efficiency of Ardex's Australian operations on strategically identified industrial land; providing a manufacturing and warehouse facility which encourages employment opportunities and promotes the economic development of the WSEA and WSA. The proposed development seeks to ensure:

- It is compatible with surrounding development and the local context;
- It would provide increased operational efficiencies for manufacturing, storage and distribution of goods;
- It would result in minimal impact on the environment; and
- It would allow for the implementation of suitable mitigation measures, where required.

Overall, the scale of the proposed development is considered suitable, and the built form proposed would enhance and renew an undeveloped land portion into a modernised, state-of-the-art manufacturing facility, which will be consistent with surrounding industrial-related uses in close

proximity to the Subject Site and the wider WSEA. The site design and layout of the built form proposed, seeks to maintain consistency with the zone objectives under WSEA SEPP and enhance the underlying industrial character intended for the identified land portion, which is zoned for such permissible land uses.

The options considered and subsequently dismissed, in arriving to the current proposal with regard to the proposed development included:

(a) 'Do Nothing' Scenario

This option was dismissed as the objectives of the proposal would not be met, including the objective of facilitating an employment-generating development. If the proposed development was not to proceed, Ardex would need to continue to use their existing manufacturing facilities which do not employ contemporary processes and have outdated plant and equipment.

(b) Development on an Alternative Site

Consideration was given to carrying out development on alternate sites; however, these were dismissed as the Site resulted in the most beneficial outcomes for the Proposed development as:

- It is located subject to the provisions of the IN1 General Industrial zone pursuant to the provisions of WSEA SEPP, which seeks to provide employment-generating land uses;
- The Site is suitably located with respect to sensitive land activities, including residential development;
- All potential environmental impacts concerning the proposed development are able to be suitably mitigated within the Site;
- The proximity to the regional road network provides accessibility and linkages to the broader Sydney Metropolitan Region and regional areas of NSW;
- The proposed development demonstrates the capability for continued employment-generating opportunities, during both the construction and operational phases;
- Sufficient separation is maintained towards the interfaces of surrounding industrial zoned land and industrial development in close proximity to the Subject Site; and
- The proposed development could be developed with appropriate visual amenity achieved given its surrounding context.

(c) Different Site Configuration

The configuration of the proposed development was chosen based on the Subject Site's topography; street access; as well as the need to respond to the character of the surrounding IN1 General Industrial zone. It is noted that a different Site configuration would not have been able to respond to the abovementioned Site opportunities and constraints given the specific operational requirements of Ardex and the need to ensure a building envelope that encapsulates all plant and equipment, particularly having regard to the vertical tower elements. This option was therefore not considered appropriate.

The inclusion of the powder and liquids towers are necessary for the contemporary and industry best practice operation of the manufacturing facility. The use of the towers is not due to a lack of floor area, but a need to increase efficiencies and align with other similar manufacturing facilities including a new Ardex site in Brisbane. The two towers are located internal to the Subject Site and away from the public realm. The Subject Site itself is located in a central position within the industrial estate and away from sensitive visual receptors.

It is noted that an alternative configuration was included in the initial request for SEARs which included tower elements of 45m and 25m respectively (refer to **Figure 23** below). Following issue of the SEARs,

the development underwent a redesign to improve design and operational efficiencies, including an overall reduction in the height of the tower elements.

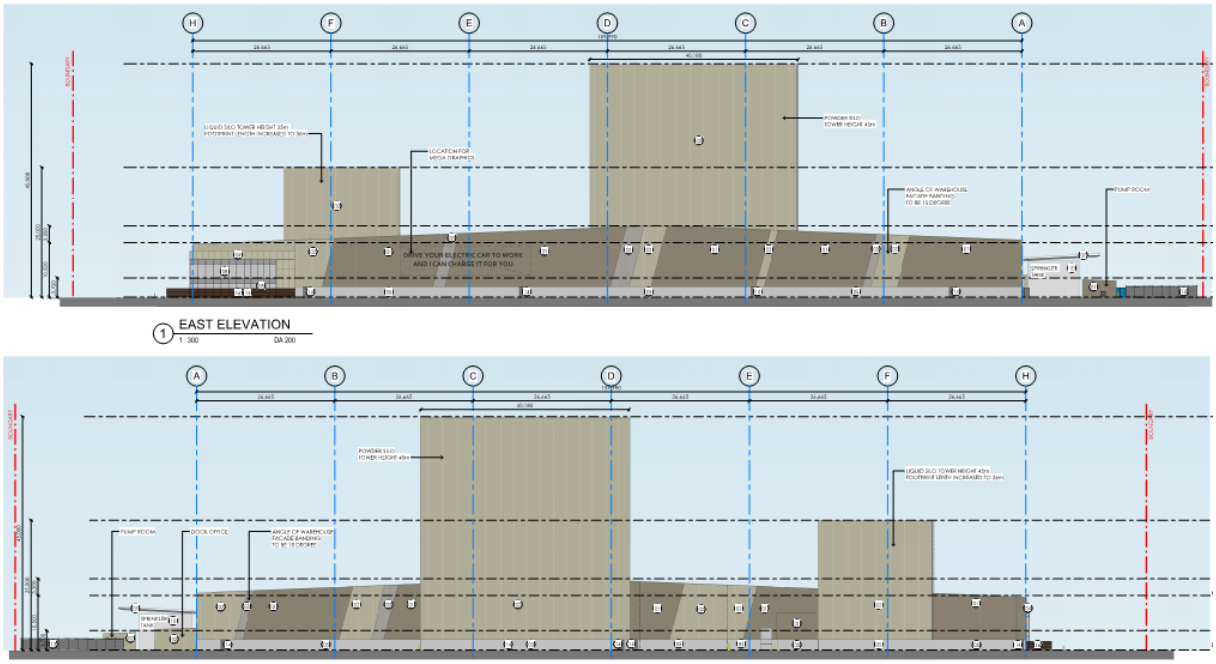


Figure 23 **Concept Elevations** (Source: Pace Architects, 2021)

The resultant development option has been dictated by extensive and ongoing consultation with key stakeholders to ensure the proposal addresses all key matters of consideration and provides an orderly and economic development supporting the ongoing use of the land.

Notwithstanding, the proposed development is justified on the basis that it is compatible with the locality in which it is proposed, resulting in positive social and economic benefits, whilst appropriately managing and mitigating any potential environmental impacts requiring consideration.

From a locational perspective, the Subject Site was chosen as it would be able to accommodate a suitable platform and scale of development proposed. Accordingly, the Site's locality is considered satisfactory from a strategic standpoint, for which the proposal responds to the industrial character intended for the Site and immediate locality; and the limited environmental constraints which make the Site Suitable for development for the purposes of a warehouse and logistics hub.

Additionally, the Subject Site's locality is reinforced by its close proximity to nearby regional road networks, such as Mamre Road and both the M4 and M7 Motorways, which are considered highly beneficial for the overall operations of the proposal.

In light of the above information, the proposal for the purpose of a manufacturing facility at the Subject Site would allow for the delivery of more employment space and promote the supply and competitiveness of the future employment land floorspace within the immediate locality, for which is surrounded by land zoned for future industrial development.

3.5 CONSISTENCY WITH EXISTING CONSENT

Approval was granted in December 2020 to SSD 9522, with works currently being undertaken within the overall estate. The particulars of this application as approved are outlined in **Table 5** (**Part B**) of this EIS.

The issued SEARs require demonstration that the proposal is consistent with the conditions, requirements and development standards of SSD 9522. **Table 17** below demonstrates compliance with the relevant conditions of SSD 9522.

TABLE 17: SSD 9522 COMPLIANCE TABLE

<table>
<tr><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="2">Limits of consent</td></tr>
<tr><td>A6. (a) the maximum GFA for the land uses in the development must not exceed the limits in Table 1;
Table 1 Maximum GFA for Development
<table>
<tr><th>Land Use</th><th>Maximum GFA square metres (m²)</th></tr>
<tr><td>Total Warehousing</td><td>179,332</td></tr>
<tr><td>Total Office</td><td>6,791</td></tr>
<tr><td>Total GFA</td><td>186,123</td></tr>
</table></td><td>The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal.</td></tr>
<tr><td>A6. (b) a minimum 60 metre (m) wide corridor along the northern site boundary, as shown on the Development Layout in Appendix 1, must not be developed and must be maintained and preserved for the future Western Sydney Freight Line corridor, in accordance with the requirements of TfNSW;</td><td>The proposed development will maintain and preserve the future Western Sydney Freight Line corridor.</td></tr>
<tr><td>A6. (c) a minimum 50 m wide corridor, as shown on the Development Layout in Appendix 1, must not be developed and must be maintained and preserved for the future Southern Link Road, in accordance with the requirements of TfNSW; and</td><td>The proposed development will maintain and preserve the future Southern Link Road.</td></tr>
<tr><td>A6. (d) The largest vehicle permitted to access the site is a 30m PBS Level 2 Type B.</td><td>The largest vehicle permitted to access the Site is a 30m PBS Level 2 Type B. The proposal will not exceed this threshold.</td></tr>
<tr><td>A7. The Applicant must ensure the development is consistent with the development controls in Table 2:
Table 2 Development Controls
<table>
<tr><th>Development Aspect</th><th>Control</th></tr>
<tr><td>Minimum building setbacks from:</td><td></td></tr>
<tr><td>• Southern Link Road</td><td>20 m including a 10 m landscaped setback</td></tr>
<tr><td>• Mamre Road</td><td>20 m including a 10 m landscaped setback</td></tr>
<tr><td>• North South Distributor Road</td><td>7.5 m including a 3.75 m landscaped setback</td></tr>
</table>
<table>
<tr><th>Development Aspect</th><th>Control</th></tr>
<tr><td>• Estate Roads</td><td>7.5 m including a 3.75 m landscaped setback</td></tr>
<tr><td>Rear boundary setbacks</td><td>5 m</td></tr>
<tr><td>Side boundary setbacks</td><td>5 m</td></tr>
<tr><td>Maximum building height</td><td>26.37 m from finished ground level</td></tr>
</table></td><td>The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal.</td></tr>
<tr><td>A8. The Applicant shall ensure the development provides car parking in accordance with the following rates:</td><td>The allotment on which the proposal is situated did not</td></tr>
</table>

TABLE 17: SSD 9522 COMPLIANCE TABLE	
Condition	Compliance
(a) 1 space per 300 m^2 of warehouse GFA; (b) 1 space per 40 m^2 of office GFA; (c) 1 space for accessible parking for every 100 car parking spaces; and (d) 1 percent of car parking spaces are to be provided with conduit provision for Electric Vehicle Charging Stations.	contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal.
A9. The Applicant must provide bicycle racks, and amenity and change room facilities for cyclists in accordance with Penrith City Council Development Control Plan C10 Section 10.7, AS 2890.3 Bicycle Facilities and Planning Guidelines for Walking and Cycling (December 2004, NSW Department of Infrastructure, Planning and Natural Resources and the Roads and Traffic Authority)	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal.
Advisory Notes	
AN2. Future development applications will be subject to the Mamre Road Precinct Development Control Plan or its equivalent	The proposed development is subject to and has generally been designed to comply with the draft Mamre Road DCP.
AN3. Future development applications will be subject to the relevant contribution plan applicable at the time	The proposed development is subject to the Penrith City Section 7.12 Development Contributions Plan.
Intersection Works	
B10. Prior to the occupation of any warehouse, the Applicant must complete the construction of the Sequence 1A intersection works to the satisfaction of TfNSW	The proposed Sequence 1A intersection works will be undertaken prior to the occupation of the warehouse.
Operating Conditions	
B20. The Applicant must ensure: (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of AS 2890.1:2004 Parking facilities Off-street car parking (Standards Australia, 2004), AS 2890.2:2018 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2018) and AS 2890.6.2009 Parking facilities Off-street parking for people with disabilities(Standards Australia, 2009). (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines; (c) the development does not result in any vehicles queuing on the public road network; (d) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site; (e) all vehicles are wholly contained on site before being required to stop; (f) all loading and unloading of materials are carried out on-site; (g) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and (h) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.	The proposed development will not alter compliance with the traffic and parking requirements.
Hours of Work	
B45. The Applicant must comply with the hours detailed in Table 4, unless otherwise agreed in writing by the Planning Secretary	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522.

TABLE 17: SSD 9522 COMPLIANCE TABLE

Condition	Compliance
<table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td>Earthworks and construction</td><td>Monday – Friday Saturday</td><td>7 am to 6 pm 8 am to 1 pm</td></tr><tr><td>Operation</td><td>Monday – Sunday</td><td>24 hours</td></tr></table>	The subject condition is therefore not relevant to this proposal.
Operational Noise Limits	
B52. The Applicant must ensure that noise generated by operation of the development does not exceed the noise limits in Table 5 at the receiver locations shown on the plan in Appendix 3 <table><tr><th>Location</th><th>Day $L_{Aeq\ (15\ minute)}$</th><th>Evening $L_{Aeq\ (15\ minute)}$</th><th>Night $L_{Aeq\ (15\ minute)}$</th></tr><tr><td>Receiver 1: residences on Medinah Avenue, Luddenham</td><td>41</td><td>38</td><td>35</td></tr><tr><td>Receiver 2: 654-674 Mamre Road, Kemps Creek</td><td>48</td><td>43</td><td>38</td></tr><tr><td>Receiver 3: 676-702 Mamre Road, Kemps Creek</td><td>48</td><td>43</td><td>38</td></tr><tr><td>Receiver 4: 706-752 Mamre Road, Kemps Creek</td><td>48</td><td>43</td><td>38</td></tr><tr><td>Receiver 5: 754-770 Mamre Road, Kemps Creek</td><td>48</td><td>43</td><td>38</td></tr><tr><td>Receiver 6: 771-781 Mamre Road, Kemps Creek</td><td>48</td><td>43</td><td>38</td></tr><tr><td>Receiver 7: 579-649 Mamre Road, Orchard Hills</td><td>48</td><td>43</td><td>38</td></tr><tr><td>Receiver A: Altis Warehouse and Distribution Hub, 585-649 Mamre Road, Orchard Hills</td><td>70</td><td>70</td><td>70</td></tr></table>	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal. Notwithstanding, the proposed development will not exceed the operational noise limits as detailed in **Appendix 22**.
Bushfire Protection	
B70. The Applicant must 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 Bushfire Assessment Report, Proposed Warehouse, Logistics and Industrial Facilities Hub, Mamre Road, Kemps Creek, prepared by Conacher Consulting Pty Ltd, dated July 2020; and (c) AS2419.1 – 2005 Fire hydrant Installations for firefighting water supply.	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal. Notwithstanding, the proposed development has been designed to comply with PBP2019 where relevant.
Fire and Incident Management	
B71. Each warehouse building must be serviced by required fire systems that are independent of one another	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal. Notwithstanding, the proposed development is

TABLE 17: SSD 9522 COMPLIANCE TABLE	
Condition	Compliance
	serviced by an independent fire system.
Dangerous Goods	
B74. The quantities of dangerous goods stored and handled at the site must be below the threshold quantities listed in the Department of Planning's Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 at all times.	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. Notwithstanding, the proposed development has been designed to comply with SEPP 33.
Bunding	
B75. The Applicant must store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual (Department of Environment and Climate Change, 2007).	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal. Notwithstanding, the proposed development has been designed to provide appropriate bunding.
Lighting	
B89. The Applicant must ensure the lighting associated with the development: (a) complies with the latest version of AS 4282-2019 - Control of the obtrusive effects of outdoor lighting(Standards Australia, 2019); 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.	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal. Notwithstanding, the proposed development has been designed to provide compliant lighting.
Signage and Fencing	
B90. All signage and fencing must be erected in accordance with the development plans included in the RtS	The allotment on which the proposal is situated did not contain any built form as approved under SSD 9522. The subject condition is therefore not relevant to this proposal.

PART D LEGISLATIVE AND POLICY FRAMEWORK

4.1 CONTROLS AND POLICIES

The following current and draft Commonwealth, State, Regional and Local planning controls and policies have been considered in the preparation of this application:

Commonwealth Planning Context

- *Environment Protection and Biodiversity Conservation Act 1999*

State Planning Context

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2000*
- *Protection of the Environment Operations Act 1997*
- *Biodiversity Conservation Act 2016*
- *State Environmental Planning Policy (State and Regional Development) 2011*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy No 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No 55 – Remediation of Land*
- *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020*
- *State Environmental Planning Policy (Western Sydney Employment Area) 2009*
- *State Environmental Planning Policy No 64 – Advertising and Signage*

Strategic Planning Context

- *Greater Sydney Region Plan – A Metropolis of Three Cities*
- *Western City District Plan*
- *Western Sydney Aerotropolis Plan*
- *Western Sydney Employment Area*
- *Future Transport Strategy 2056*

Local Planning Context

- *Penrith Local Environmental Plan 2010*
- *Penrith Development Control Plan 2014*
- *Mamre Road Precinct Structure Plan*
- *Draft Mamre Road Precinct Development Control Plan*
- *Draft Mamre Road Precinct Section 7.11 Contributions Plan*

This proposal has been carefully assessed against the requirement and objectives of all of the above planning statutory and policy documents. A detailed analysis is set out in the following sections:

4.2 COMMONWEALTH PLANNING CONTEXT

4.2.1 Environment Protection and Biodiversity Conservation Act 1999

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), any action (which includes a development, project or activity) that is considered likely to have a significant impact on Matters of National Environmental Significance (MNES) (including nationally threatened ecological communities and species and listed migratory species), must be referred to the Commonwealth Minister for the Environment. The purpose of the referral is to allow a decision to be made about whether an action requires approval on a Commonwealth level. If an action is considered likely to have significant impact on MNES, it is declared a "Controlled Action" for which formal Commonwealth approval is required.

Based on recent investigations carried out, the SSD 9522 has been referred to the Commonwealth Minister for Environment. The initial investigations undertaken for SSD 9522 confirmed that there were no MNES identified on the Subject Site, however a December 2020 updated species list issued resulted in a referral, that is currently being assessed by the Commonwealth.

4.3 STATE PLANNING CONTEXT

4.3.1 Environmental Planning and Assessment Act 1979

Pursuant to Section 4.36(2) of the EP&A Act, a *State environmental planning policy may declare any development, or any class or description of development, to be State significant development*.

The proposed development constitutes SSD as detailed in **Section 4.3.5**.

Further, the proposal is deemed to be entirely consistent with the EP&A Act, particularly Clause 1.3.

The following responses are provided regarding each Object listed in Clause 1.3:

TABLE 18: EP&A ACT OBJECTS

Object	Description
(a)	*to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
	Response: <u>*to promote the social and economic welfare of the community*</u> The proposed development strongly promotes the social and economic welfare of the community, as it has significant employment-generating potential. It is anticipated that the proposal would generate jobs in the order of: • 300 construction jobs • 140 operational full-time jobs The creation of these employment opportunities would have a direct impact on both the local and broader communities. This access to both construction and full-time operational jobs, is highly significant, given the scale, quantum, type and location of this employment, nearer to where people live. The social welfare of the community is also promoted and achieved through the permanent provision of workforce opportunities to individuals and their families in a new area, with increasing employment supplies. The proposal also fulfils the underlying objectives of the Western City District.

TABLE 18: EP&A ACT OBJECTS	
Object	Description
	a better environment by the proper management, development and conservation of the State's natural and other resources In its current form, the Subject Site presents as a vacant industrial lot. The proposed development would afford the Subject Site the industrial operations it is intended for. Through informed architectural design, the proposed development incorporates a number of sustainable design principles and includes initiatives, designed to mitigate environmental impacts.
(b)	*to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
	Response: Ecologically Sustainable Development (ESD) measures relating to the following are proposed for the development: • Transport; • Stormwater; • Materials; • Water; • Indoor Environment Quality; • Noise; • Energy Efficiency; • Waste; and • Land Use and Ecology Impact. Comprehensive details of the ESD measures are provided in **Section 6.1.13** of this EIS.
(c)	*to promote the orderly and economic use and development of land,*
	Response: The siting and location of the proposed development is highly logical, given the locality of recently development zoned industrial lands and the extent of recently approved and under assessment applications for industrial development. Further, the proposed development is consistent with the aims and objectives of the WSEA SEPP, which is given a comprehensive assessment in **Section 4.3.10** of this EIS. The proposed development of the Subject Site is both logical and orderly, based on the following: 1. Its proximity to surrounding industrial land and land uses; 2. It would deliver employment-generating opportunities in both the construction and operational phases in an area already earmarked by both State and Regional Policy for employment; 3. It would provide a new economically and ecologically-sustainable development, delivering new industry-best-practice in industrial construction; 4. It would deliver a facility with enhanced access to the regional road network, including the M4 and M7 Motorway, providing improved worker travel-connectivity to the wider locality; and 5. It would have minimal impact on the environment, with best-practice sustainability measures, to promote ecologically sustainable development. The proposed development is also deemed orderly because the land uses proposed would not pose a risk to any existing commercial, industrial or logistic businesses within the broader area. According to expert assessment, the overall scale of the proposed development and the low-interface-impacts with surrounding properties, demonstrates that the Subject Site can be developed for employment purposes immediately. This represents orderly development of the Subject Site as proposed under this SSD Application.

TABLE 18: EP&A ACT OBJECTS	
Object	Description
(d)	*to promote the delivery and maintenance of affordable housing,*
	Response: This objective is not applicable to the proposed development, as the proposal does not seek consent for housing.
(e)	*to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
	Response: Given that the Subject Site has been approved for extensive works already, the proposed development would not have a significant impact on biodiversity values. A BDAR wavier has been submitted for the proposed development.
(f)	*to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*
	Response: SSD 9522 considered potential Historic (European) Heritage and Aboriginal Cultural Heritage affectations attributed to the Subject Site. Accordingly, the proposed development would not impact any identified Aboriginal Cultural Heritage in close proximity to the Site. Where required, existing recommendations and mitigations measures would be continued to apply to the Site.
(g)	*to promote good design and amenity of the built environment,*
	Response: The intent of the proposed development is to create, through siting, design, landscaping and architecture, a high quality and functioning built form with the amenity of future occupants considered paramount. This is apparent through the Architectural Plans and Landscape Plans and Architectural Design Report (**Appendix 3, 4** and **8**). These plans demonstrate the architectural features proposed for the Subject Site, comprising the following key design elements, including: • A high quality urban design, pursuing an occupant centric approach and operationally, an aim to create a more sustainable footprint; • A palette of coloured, banded, prefinished metal cladding to both warehouse and towers, and painted precast concrete dado wall at ground level; • Integrated landscaping as a design element which promote the built form and functionality of the operation; • Facades are "banded" with alternating diagonal sections of contrasting colour to reduce bulk and scale and is in keeping with similar developments within the estate and locally; and • The silo tower components are positioned to the rear and side of the Subject Site to help mitigate its prominence from Mamre Road and the internal estate roads.
(h)	*to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*
	Response: The proposed development would be implemented through best-industry practice standards and measures. The proposal has been designed in accordance with the BCA, the NCC and the requirements of Fire and Rescue NSW. This incorporates into the design, all statutory and functional requirements of the BCA, regarding access, egress and fire, which are deemed necessary to safeguard the safety of building occupants and the longevity of the development.
(i)	*to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*
	Response: The proposed development is considered to impact positively on other existing (and proposed) developments within the wider locality, which is further reinforced throughout the supporting specialist reports and the body of this EIS. Where possible impacts have been

TABLE 18: EP&A ACT OBJECTS	
Object	Description
	identified, appropriate management and mitigation measures have been applied accordingly. It is noted, that throughout the assessment process, relevant agencies have been consulted and provided opportunity to both assess the proposed development and provide comments. Community consultation has been conducted which has assisted to inform the final submitted design and reinforces compliance with this objective. This has included numerous Government agency meetings and notification letters to both Government agencies and all key stakeholders. Several meetings have been held with stakeholders, which are detailed further in **PART E** of this EIS.
(j)	*to provide increased opportunity for community participation in environmental planning and assessment.*
	Response: Community and stakeholder engagement has been undertaken for the proposed development. This has included meetings and notification letters to both agencies and all potentially impacted residents. A Community and Stakeholder Participation Strategy (located in **Appendix 13**) has been prepared by SLR, in support of this SSD Application, offering a summary and analysis of all community and stakeholder consultation sessions, distilling into themes, and those items identified in the consultation process, as significant.

4.3.2 Environmental Planning and Assessment Regulation 2000

The EP&A Regulation is the EP&A Act's primary subordinate legislation and contains key operational provisions for the NSW planning system, including those relating to EIS.

Schedule 1 – Forms

Pursuant to Schedule 1 of the EP&A Regulation, this EIS includes all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1, as detailed in **Table 19**.

TABLE 19: SCHEDULE 1 OF EP&A REGULATION	
Requirements	Satisfied by
Part 1 Development applications	
2 Documents to accompany development application	
(1) A development application must be accompanied by the following documents—	
(a) a site plan of the land,	Refer to **Appendix 3** of this EIS.
(b) a sketch of the development,	Refer to **Appendix 3** of this EIS.
(c) a statement of environmental effects (in the case of development other than designated development or State significant development),	Not applicable to this SSD Application.
(d) in the case of development that involves the erection of a building, an A4 plan of the building that indicates its height and external configuration, as erected, in relation to its site (as referred to in clause 56 of this Regulation),	Refer to **Appendix 3** of this EIS.
(e) an environmental impact statement (in the case of designated development or State significant development),	Refer to **whole EIS document**.
(f) a species impact statement (in the case of land that is, or is part of, critical habitat or development that is	Not applicable to this SSD Application.

TABLE 19: SCHEDULE 1 OF EP&A REGULATION	
Requirements	Satisfied by
likely to significantly affect threatened species, populations or ecological communities, or their habitats), but not if the development application is for State significant development,	
(g) if the development involves any subdivision work, preliminary engineering drawings of the work to be carried out,	Refer to **Appendix 3** of this EIS.
(h) if an environmental planning instrument requires arrangements for any matter to have been made before development consent may be granted (such as arrangements for the provision of utility services), documentary evidence that such arrangements have been made,	Refer to **Section 6.1.9** of this EIS.
(i) if the development involves a change of use of a building (other than a dwelling-house or a building or structure that is ancillary to a dwelling-house and other than a temporary structure)— *(i) a list of the Category 1 fire safety provisions that currently apply to the existing building, and* *(ii) a list of the Category 1 fire safety provisions that are to apply to the building following its change of use,*	Refer to **Appendix 18** of this EIS.
(j) if the development involves building work to alter, expand or rebuild an existing building, a scaled plan of the existing building,	Not applicable to this SSD Application.
(k) if the land is within a wilderness area and is the subject of a wilderness protection agreement or conservation agreement within the meaning of the Wilderness Act 1987, a copy of the consent of the Minister for the Environment to the carrying out of the development,	Not applicable to this SSD Application.
(k1) in the case of development comprising mining for coal (within the meaning of section 380AA of the Mining Act 1992)—documentary evidence that the applicant holds an authority under the Mining Act 1992 in respect of coal and the land concerned or has the written consent of the holder of such an authority to make the development application,	Not applicable to this SSD Application.
(l) in the case of development to which clause 2A applies, such other documents as any BASIX certificate for the development requires to accompany the application,	Not applicable to this SSD Application.
(m) in the case of BASIX optional development—if the development application is accompanied by a BASIX certificate or BASIX certificates (despite there being no obligation under clause 2A for it to be so accompanied), such other documents as any BASIX certificate for the development requires to accompany the application,	Not applicable to this SSD Application.
(n) if the development involves the erection of a temporary structure, the following documents— *(i) documentation that specifies the live and dead loads the temporary structure is designed to meet,* *(ii) a list of any proposed fire safety measures to be provided in connection with the use of the temporary structure,* *(iii) in the case of a temporary structure proposed to be used as an entertainment venue—a statement as to how the performance requirements of Part B1*	Not applicable to this SSD Application.

TABLE 19: SCHEDULE 1 OF EP&A REGULATION	
Requirements	Satisfied by
and NSW Part H102 of Volume One of the Building Code of Australia are to be complied with (if a performance solution, to meet the performance requirements, is to be used), *(iv) documentation describing any accredited building product or system sought to be relied on for the purposes of section 4.15(4) of the Act,* *(v) copies of any compliance certificates to be relied on,*	

Schedule 2 – Environmental Impact Statements

This EIS has been prepared in accordance with Clauses 6 and 7 of Schedule 2, as detailed in **Table 20**.

TABLE 20: SCHEDULE 2 OF EP&A REGULATION	
Requirements	Satisfied by
General Provisions	
6 Form of environmental impact statement	
An environmental impact statement must contain the following information—	
(a) the name, address and professional qualifications of the person by whom the statement is prepared,	Refer to **page 2i** of this EIS.
(b) the name and address of the responsible person,	Refer to **page 2** of this EIS.
(c) the address of the land— *(i) in respect of which the development application is to be made, or* *(ii) on which the activity or infrastructure to which the statement relates is to be carried out,*	Refer to **Section 2.1** of this EIS.
(d) a description of the development, activity or infrastructure to which the statement relates,	Refer to **Section 3.2** of this EIS.
(e) an assessment by the person by whom the statement is prepared of the environmental impact of the development, activity or infrastructure to which the statement relates, dealing with the matters referred to in this Schedule,	Refer to **PART F** of this EIS.
(f) a declaration by the person by whom the statement is prepared to the effect that— *(i) the statement has been prepared in accordance with this Schedule, and* *(ii) the statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and* *(iii) that the information contained in the statement is neither false nor misleading.*	Refer to **page 2i** and of this EIS.
7 Content of environmental impact statement	
(1) An environmental impact statement must also include each of the following—	
(a) a summary of the environmental impact statement,	Refer to **page 12** of this EIS.
(b) a statement of the objectives of the development, activity or infrastructure,	Refer to **Section 3.1** of this EIS.
(c) an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the	Refer to **Section 3.4** of this EIS.

TABLE 20: SCHEDULE 2 OF EP&A REGULATION	
Requirements	Satisfied by
consequences of not carrying out the development, activity or infrastructure,	
(d) an analysis of the development, activity or infrastructure, including—	
(i) a full description of the development, activity or infrastructure, and	Refer to **Section 3.2** of this EIS.
(ii) a general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and	Refer to **PART B** and **PART F** of this EIS.
(iii) the likely impact on the environment of the development, activity or infrastructure, and	Refer to **PART F** of this EIS.
(iv) a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and	Refer to **PART G** of this EIS.
(v) a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out,	Refer to **PART D** of this EIS.
(e) a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d)(iv),	Refer to **PART G** of this EIS.
(f) the reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development set out in subclause (4).	Refer to **PART H** of this EIS.
(2) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement.	Refer to **Section 1.5** of this EIS.
(3) Subclause (1) does not apply if— *(a) the Planning Secretary has waived (under clause 3(9)) the need for an application for environmental assessment requirements in relation to an environmental impact statement in respect of State significant development, and* *(b) the conditions of that waiver specify that the environmental impact statement must instead comply with requirements set out or referred to in those conditions.*	Not applicable.
(4) The principles of ecologically sustainable development are as follows— *1. the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by—* *(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and* *(ii) an assessment of the risk-weighted consequences of various options,*	Refer to **Section 0** of this EIS.

TABLE 20: SCHEDULE 2 OF EP&A REGULATION	
Requirements	Satisfied by
2. *inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,* 3. *conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,* 4. *improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as—* *(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,* *(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,* *(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*	

Schedule 3 – Designated Development

Section 4(1) of the EP&A Regulation states, that any development described in Part 1 of Schedule 3, would be declared to be Designated Development for the purposes of the EP&A Act.

Proposed developments that are listed in Schedule 3 of the EP&A Regulation are identified as designated development. Clause 7 of Schedule 3 of the EP&A Regulation states:

7 Cement works

Cement works manufacturing portland or other special purpose cement or quicklime—

(a) that burn, sinter or heat (until molten) calcareous, argillaceous or other materials, or
(b) that grind clinker or compound cement with an intended processing capacity of more than 150 tonnes per day or 30,000 tonnes per year, or
(c) that have an intended combined handling capacity of more than 150 tonnes per day, or 30,000 tonnes per year, of bulk cement, fly ash, powdered lime or other such dry cement product,
(d) that are located—
(i) within 100 metres of a natural waterbody or wetland, or
(ii) within 250 metres of a residential zone or a dwelling not associated with the development.

The proposed development involves the production of cement products, however the total processing capacity of cement will not exceed 30,000 tonnes per year and as such, does not trigger the Designated Development thresholds.

4.3.3 Protection of the Environment Operations Act 1997

Schedule 1 of the *Protection of the Environment Operations Act 1979* (POEO Act) contains a core list of activities that require a licence before they may be undertaken or carried out. The definition of an 'activity' for the purposes of the POEO Act is:

"an industrial, agricultural or commercial activity or an activity of any other nature whatever (including the keeping of a substance or an animal)."

Clause 6 of Schedule 1 of the POEO Act states:

> ***6 Cement or lime works***
>
> *(2) Each activity referred to in Column 1 of the Table to this clause is declared to be a scheduled activity if it meets the criteria set out in Column 2 of that Table.*
>
> ***Table***

Column 1	***Column 2***
cement or lime production	*capacity to produce more than 150 tonnes of cement or lime per day or 30,000 tonnes of cement or lime per year*

The proposed development involves the production of concrete products, however the total production capacity for cement products will not exceed 30,000 tonnes per year and as such, does not trigger the POEO Act. An Environment Protection License is not required for the operation.

4.3.4 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) is the key legislation in NSW, relating to the protection and management of biodiversity and threatened species. The purpose of the BC Act is to "maintain a healthy, productive and resilient environment, for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development". The BC Act is supported by a number of regulations, including the *Biodiversity Conservation Regulation 2017* (BC Regulation).

Clearing of vegetation Estate wide was approved under SSD 9522. The Subject Site is clear of vegetation on that basis and a BDAR wavier has been submitted for the proposed development.

4.3.5 State Environmental Planning Policy (State and Regional Development) 2011

The *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) identifies development that is State significant development, State significant infrastructure and critical State significant infrastructure, and regionally significant development.

Proposed developments that are listed in Schedule 1 of SRD SEPP are identified as being SSD. Clause 9 of Schedule 1 of SRD SEPP states:

9 Metal, mineral and extractive material processing

Development that has a capital investment value of more than $30 million for any of the following purposes—

(a) metal or mineral refining or smelting, metal founding, rolling, drawing, extruding, coating, fabricating or manufacturing works or metal or mineral recycling or recovery,
(b) brickworks, ceramic works, silicon or glassworks or tile manufacture,
(c) cement works, concrete or bitumen pre-mix industries or related products,
(d) building or construction materials recycling or recovery.

The proposed development has a CIV of $71,844,673.00 (incl. GST). As the project exceeds the $30 million statutory threshold and meets all other criteria in SRD SEPP, it is deemed and categorised as SSD.

A complete QS Report is included at **Appendix 24** of this EIS.

4.3.6 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 104 – Traffic generating development

The ISEPP repeals the former *State Environmental Planning Policy No. 11 – Traffic Generating Development* and, pursuant to Clause 104, provides for certain proposed developments known as Traffic Generating Development, to be referred to NSW Roads and Maritime Services (NSW RMS, now TfNSW) for concurrence.

Schedule 3 of the ISEPP, lists the types of development that are defined as Traffic Generating Development. The referral thresholds for 'warehouse or distribution centres' development includes sites of:

- *8,000m^2 in site area or (if the site area is less than the gross floor area) gross floor area;*

The Subject Site exceeds 8,000m^2 in area and is therefore considered Traffic Generating Development and will be referred to Transport for NSW..

4.3.7 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

As discussed in **Section 3.2.4.7** of this EIS, the overall Site will hold some dangerous goods (raw materials and finished goods). An assessment of the dangerous goods has been carried out by Riskcon Engineering Pty Ltd (Riskcon) and included in **Appendix 14** of this EIS. The assessment has determined that quantities of dangerous goods will be below the *State Environmental Planning Policy No.33 (Hazardous and Offensive Development)* (SEPP 33) risk screening threshold.

4.3.8 State Environmental Planning Policy No. 55 – Remediation of Land

Under the provisions of *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55), where a development application is made concerning land that is contaminated, the consent authority must not grant consent unless:

(a) it has considered whether the land is contaminated, and
(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or would be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land would be remediated before the land is used for that purpose.

Detailed environmental site investigations have been undertaken as part of SSD 9522 with respect to contamination of the Subject Site and broader industrial estate, confirming the suitability of the land for industrial related land uses. Notwithstanding an addendum to support the previous findings has been prepared by JBS&G in the form of an Environmental Site Assessment (**Appendix 17**) to support the previous findings and confirm the suitability of the Subject Site for the proposed use (or make recommendations to enable such a use to occur).

Based on the findings of their investigations, JBS&G have concluded the following:

- Based on the recent Site condition assessment undertaken, no evidence of gross and/or widespread contamination was identified at the Subject Site. No observations were made of Site conditions which would indicate that the Site suitability had been materially altered since preparation of the Detailed Site Investigation;
- The Subject Site is considered suitable for the proposed development; and
- It is recommended that the unexpected finds protocol (UFP) and imported fill protocol (IFP) are implemented during works to ensure that, upon completion of development works, the Subject Site remains suitable for the proposed development.

JBS&G have recommended that during works that a Construction Environmental Management Plan (CEMP) should be implemented which identifies typical site management controls and makes provisions for unexpected finds. This recommendation has been included within the management and mitigation measures outlined in **PART G** of this EIS.

4.3.9 State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

The Subject Site is not within the land which forms part of the *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (WSA SEPP). Nonetheless, consideration of the relevant clauses regarding Airport Safeguarding has been undertaken in **Section 6.1.18** of this EIS.

4.3.10 State Environmental Planning Policy (Western Sydney Employment Area) 2009

The Subject Site forms part of the *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (WSEA SEPP) and is situated within Precinct 12 – Mamre Road of the WSEA SEPP. The WSEA SEPP was formulated in 2009 specifically to promote employment outcomes in the broader Western Sydney Region in proximity to where people live. The proposed development is highly consistent with the aims of WSEA SEPP, in that it would strongly promote economic development and employment opportunities, exactly as per the aims of the SEPP. Employment and Investment results anticipated for the Subject Site, would be consistent with both short and long-term outcomes for the broader Mamre Road area.

The aims of WSEA SEPP are addressed as follows:

> *"To promote economic development and the creation of employment in the Western Sydney Employment Area by providing for development including major warehousing, distribution, freight transport, industrial, high technology and research facilities."*

Response: The proposal will support future employment generation for the WSEA by creating a new industrial development resulting in approximately 300 construction jobs and 140 ongoing operational jobs.

> *"To provide for the co-ordinated planning and development of land in Western Sydney Employment Area."*

Response: The proposal represents a logical and rational development with respect to the vision for both the WSEA and Aerotropolis to provide industry and employment lands. In this respect, the same scale and form of development is proposed for the Subject Site in a coordinated and orderly manner. This proposal contributes to the provision of employment, in line with the aims of WSEA SEPP. It is an appropriate form of development as the Mamre Road Precinct transitions from rural to industrial and supports the intended objectives of the subject proposal.

The broader Aerotropolis Precinct and Western Sydney Airport would not be adversely affected by the proposal, given its location; and all planning for this broader area could proceed as planned and not impact on the operation proposed under this SSD Application.

> *"To rezone land for employment and environmental conservation purposes."*

Response: The Subject Site is appropriately zoned IN1 General Industrial under the WSEA SEPP.

> *"To improve certainty and regulatory efficiency by providing a consistent planning regime for future development and infrastructure provision in the Western Sydney Employment Area."*

Response: The proposed development would represent a logical development within zoned employment lands within the WSEA.

The scale of development proposed is deemed consistent with the surrounding employment lands, in terms of overall built-form, and intensity of operations.

> *"To ensure that development occurs in a logical, environmentally sensitive and cost-effective manner and only after a development control plan (including specific development controls) has been prepared for the land concerned."*

Response: The Site is subject to the *Draft Mamre Road Precinct Development Control Plan*. The proposal has considered and generally accords with the draft DCP.

> *"To conserve and rehabilitate areas that have a high biodiversity or heritage or cultural value, in particular area of remnant vegetation."*

Response: Areas of biodiversity and heritage value will not be unacceptably impacted by the proposal. Adequate management and mitigation measures will be implemented for the proposal during both construction and operational phases.

4.3.10.1 Permissibility under the WSEA SEPP

The Subject Site is zoned IN1 General Industrial under the provisions of WSEA SEPP (**Figure 24**).

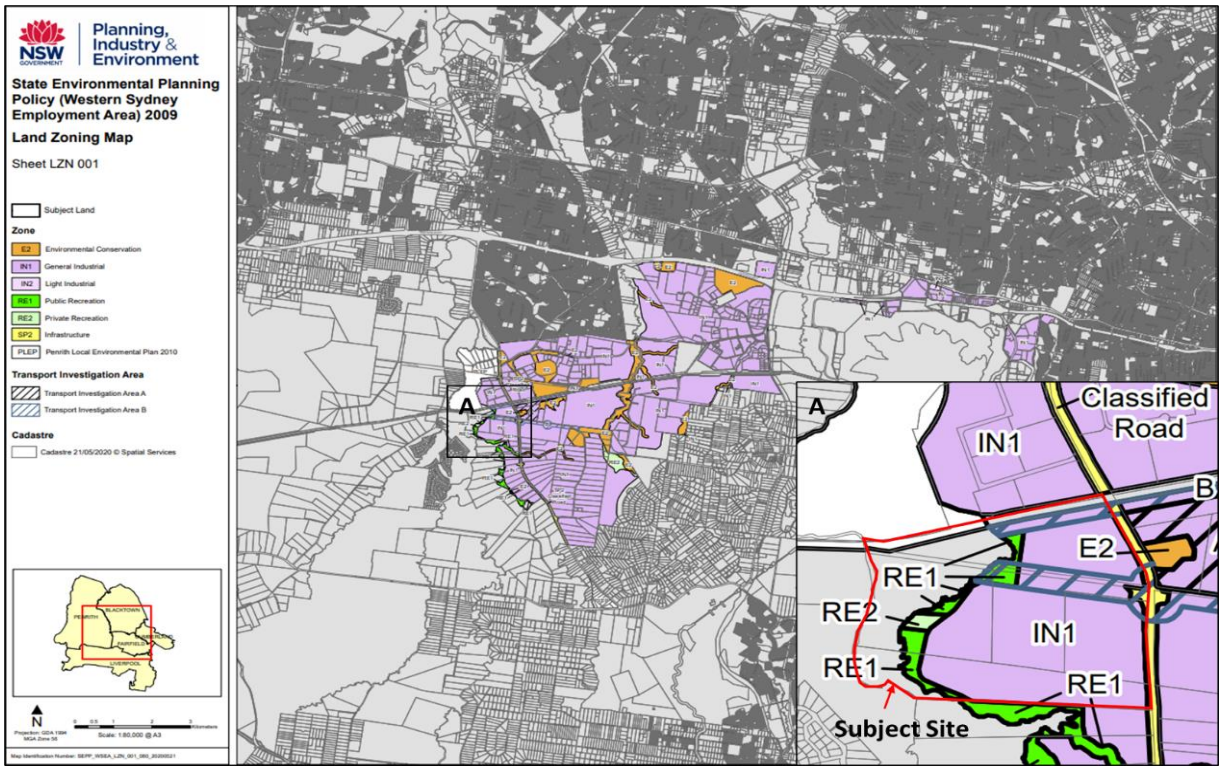


Figure 24 **Land Zoning Map** (Source: NSW Legislation, 2021)

Within the IN1 zone the following are permissible without consent:

Nil.

Within the IN1 zone the following are permissible with consent:

Building identification signs; Business identification signs; Depots; Environmental facilities; Environmental protection works; Food and drink premises; Freight transport facilities; Garden centres; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; ***Industries (other than offensive or hazardous industries)****; Neighbourhood shops; Places of public worship; Recreation areas; Recreation facilities (indoor); Roads; Service stations; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations;* ***Warehouse or distribution centres****.*

Within the IN1 zone the following are prohibited:

Any development not specified in item 2 or 3.

The proposal development comprises a warehouse and industrial facility. Therefore, the uses may be characterised as follows in accordance with the *Standard Instrument – Principal Local Environmental Plan* (Standard Instrument):

- a **warehouse or distribution centre** means:

  a building or place used mainly or exclusively for storing or handling items (whether goods or materials) pending their sale, but from which no retail sales are made, and includes local distribution premises.

- an **industrial activity** means:

  the manufacturing, production, assembling, altering, formulating, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, transforming, processing, recycling, adapting or servicing of, or the research and development of, any goods, substances, food, products or articles for commercial purposes, and includes any storage or transportation associated with any such activity.

The proposed development is permissible with consent within the IN1 zone.

Table 21 outlines the consistency and compliance of the proposal with the relevant development standards and controls under WSEA SEPP.

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
Permitted or prohibited development	
Clause 11 – Zone objectives and land use table	*(2) The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.* ***Zone IN1 General Industrial*** ***1. Objectives of Zone*** • *To facilitate a wide range of employment generating development including industrial manufacturing, warehouse, storage and research uses and ancillary office space.* **Response:** The proposal includes provisions for the construction and operational use of a manufacturing facility and associated warehouse within a zone designated for employment generation. • *To encourage employment opportunities along motorway corridors, including the M7 and M4.* **Response:** The Subject Site is suitably located in close proximity to key infrastructure corridors including the M4 and M7 Motorways, as well as being located alongside Mamre Road, which is due to be upgraded as part of the TfNSW Mamre Road Widening project. Additional infrastructure such as of the Southern Link Road will better service the Subject Site encouraging improved access for employees. • *To minimise any adverse effect of industry on other land uses.* • *To facilitate road network links to the M7 and M4 Motorways.* **Response:** The proposal would minimise adverse effects on other land through mitigation in design and operation. There would be no material change to any planned road networks.

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
	• *To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment.* **Response:** There would be no adverse impacts on adjoining land uses or the environment as a result of the proposed development. The proposal includes provisions for the construction and operational use of a manufacturing facility and associated warehouse is considered commensurate with surrounding industrial development within the estate (SSD 9522) and the wider WSEA. • *To provide for small-scale local services such as commercial, retail and community facilities (including child care facilities) that service or support the needs of employment-generating uses in the zone.* **Response:** The proposal includes provisions for the construction and operational use of a manufacturing facility and associated warehouse within a zone designated for employment generation. The proposal would be appropriately co-located in close proximity to existing industrial developments which generate significant employment outcomes throughout the WSEA.
Development Control Plan	
Clause 18 – Requirements for Development Control Plan	A site-specific Development Control Plan (DCP) has been prepared for this Site under SSD 9522. However, this DCP does not apply to the portion of the Site which is the subject of this proposal Accordingly, the draft Mamre Road DCP has been considered and will apply at the time this SSD Application is determined.
Principal development standards	
Clause 20 – Ecologically sustainable development	The Proposed development incorporates a number of ESD initiatives to reduce the consumption of potable water and greenhouse gas emissions of the future operations. Initiatives relate to: • Transport; • Stormwater; • Building Materials; • Water; • Indoor Environment Quality; • Noise; • Energy Efficiency; • Waste; and • Land Use and Ecology Impact. An Ecologically Sustainable Development prepared by Frasers Property forms **Appendix 16** of this EIS. **Section 6.1.13** of this EIS provides further details of these strategies.

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
Clause 21 – Height of buildings	No maximum building height has been adopted under WSEA SEPP. However, the consent authority must be satisfied that: *(a) building heights will not adversely impact on the amenity of adjacent residential areas, and,* *(b) site topography has been taken into consideration.* Notwithstanding, the maximum building height with respect to the proposed development is 13.7m with the exception of the tower elements which are 22m and 38m respectively. These tower elements represent 4.6% of the overall building footprint. For consistency and completeness, a Visual Impact Assessment prepared by Geoscapes forms **Appendix 28** of this EIS, which concludes that the proposed development will create some visual impacts for receptors in close proximity (approximately 1km) to the Subject Site. However, the significance of these impacts is generally low, due to the fact that the proposal is located against the backdrop of the approved Kemps Creek Industrial Estate or screened by South Creek
Clause 22 – Rainwater harvesting	Under Clause 22 of WSEA SEPP, *"the consent authority must not grant consent to development on land to which this Policy applies unless it is satisfied that adequate arrangements will be made to connect the roof areas of buildings to such rainwater harvesting scheme (if any) as may be approved by the Director-General."* Rainwater harvesting has been provided, with re-use for non-potable applications incorporated into the overall design. Internal uses will include such potable applications as toilet flushing, while external applications would be used for irrigation.
Clause 23 – Development adjoining residential land	This Clause applies to any land that is within 250m of land zoned primarily for residential purposes. No land within 250m of the Subject Site is zoned primarily for residential purposes.
Clause 24 – Development involving subdivision	The consent authority must consider the following for development involving subdivision: *(a) the implications of the fragmentation of large lots of land,* *(b) whether the subdivision will affect the supply of land for employment purposes,* *(c) whether the subdivision will preclude other lots of land to which this Policy applies from having reasonable access to roads and services.* SSD 9522 included provisions for subdivision to create the subject allotment. This application involves a further subdivision to create a lot for the subject facility, being Lot 12 measuring 4.3ha in area. A Subdivision Plan has been prepared which details the proposed subdivision (**Appendix 3**).

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
	The proposed subdivision has been designed to ensure the larger lot can be used to efficiently and effectively provide further employment generating land uses and will not preclude the lot from having reasonable access to the approved road network and future provision of services.
Clause 25 – Public utility infrastructure	The proposal involves the provision of utilities services at the Subject Site. Adequate arrangements for the provision of public utility infrastructure will be provided as part of the proposal and SSD 9522. Refer to **Section 3.2.4** of this EIS.
Clause 26 – Development on or in vicinity of proposed transport infrastructure routes	The Site is within proximity of a proposed transport infrastructure route, being the Southern Link Road. SSD 9522 allows for the Southern Link Road and has based its alignment on the designs prepared for the NSW DPIE by AECOM. The alignment shown, demonstrates sound planning, combining three (3) infrastructure corridors (Southern Link Road, Sydney Water Pipeline, Western Sydney Freight Rail Corridor). This alignment is consistent with the Mamre Road Precinct Structure Plan. The Subject Site is not within close proximity to the future SLR alignment.
Clause 27 – Exceptions to development standards	The proposal does not seek to contravene any development standards.
Miscellaneous provisions	
Clause 28 – Relevant acquisition authority	The Subject Site does not contain any areas reserved for acquisition.
Clause 29 – Industrial Release Area – satisfactory arrangements for the provision of regional transport infrastructure and services	The Site is identified within an Industrial Release Area pursuant to Clause 29 of WSEA SEPP. Satisfactory arrangements were issued under SSD 9522, which relate to the Subject Site.
Clause 30 – Control relating to miscellaneous permissible uses	Not applicable to the proposed development
Clause 31 – Design principles	In consideration of Clause 31 of WSEA SEPP, the design principles of the built form have been considered below: *(a) the development is of a high quality design, and* From the outset, the brief for the facility sets a high standard for design, pursuing an occupant centric approach, and operationally, an aim to create a more sustainable footprint meeting Greenstar requirements for environmentally sustainable design. Overall, the planning of the facility aims to resolve the functional requirements of the Ardex business, resolving spatial relationships that

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
	the business and industrial processes demands. This ensures the efficiency of the operations and longevity of occupancy. Warehouse, manufacturing, and silo towers can be thought of as components of a system for operations at the functional level, however they have been positioned on the Sitein relation to the wider context and amenity. The components are volumes that have been positioned in the estate with reduced impacts to Mamre Road and internal estate roads and the public realm in general. The taller elements of the towers have been pushed to parts of the Site that will reduce their prominence. The Subject Site was selected as it is located in a central position of the industrial estate and not in close proximity to Mamre Road or visual receptors to the west. Office internal spaces are thoughtfully designed with openness, with predominant glazing serving to connect people to place. Conversely, the extensive glazing provides the internal workspaces with abundant natural light, demonstrating a commitment to wellness. *(b) a variety of materials and external finishes for the external facades are incorporated, and* The building presents a palette of coloured, banded, prefinished metal cladding to both warehouse and towers, and painted precast concrete dado wall at ground level. This industrial backdrop is softened with the curtain wall glazing of the office and detailed with concealed mullions and surface fritting to the glass, presenting a refined façade language. Solid aluminium panel cladding further adds to the refinement of the façade with a high-quality metallic finish, providing a sleekness to the design. *(c) high quality landscaping is provided, and* The brief for the landscape design has provided a direction for integration of landscaping in the project as a design element, rather than an appendage to the design strategy, especially in the office design. At the main entry mature forecourt and outdoor areas, trees and green walls feature, on the roof planter beds are positioned along the entire front and side perimeter of the roof, with planting and trees added to the outdoor roof terrace design. At the ground level, tree planting has been maximised where possible in areas such as the car park, with wide canopy trees providing shade cover. Within the boundary setbacks, landform is used to elevate the landscape, and water sensitive plants have been prioritised in mass planting areas at road frontages and peripheral landscape areas. Where hardstands are visible from the road frontage, screen planting, dense shrubs and hedges are used.

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
	(d) the scale and character of the development is compatible with other employment-generating development in the precinct concerned. The warehouse component is predominantly a low height volume at 13.7m at the roof ridge. Facades are "banded" with alternating diagonal sections of contrasting colour to reduce bulk and scale and is in keeping with similar developments within the estate and locally. The silo tower components are positioned to the rear and side of the Subject Site, being tall and prominent structures, this was the best location on the Subject Site for them using the warehouse volume to help mitigate its prominence from Mamre Road and the internal estate roads.
Clause 32 – Preservation of Trees or Vegetation	SSD 9522 included provisions for native vegetation clearing of approximately 9.15ha. No additional vegetation clearing is required as a result of the subject development.
Clause 33A – Development near zone boundaries	Not applicable to the proposed development.
Clause 33B – Development of land within or adjacent to transport investigation area	The Site is identified as being within the "Transport Investigation Areas A and B" pursuant to WSEA SEPP and has a capital investment value of more than $200,000. Concurrence from Transport for NSW is therefore required.
Clause 33C – Development within the Mamre Road Precinct	The Site is identified as being within the Mamre Road Precinct pursuant to WSEA SEPP and has a capital investment value of more than $200,000. Concurrence from Transport for NSW is therefore required.
Clause 33D – Development in areas subject to aircraft noise	The Site is located approximately 6.8km north east of the Aerodrome Reference Point for the Western Sydney International (Nancy-Bird Walton) Airport (the Airport) and is identified to be located on land in Australian Noise Exposure Concept (ANEC) contour of less than 20 as indicated by the Noise modelling tool published by the Department of Infrastructure, Transport, Regional Development and Communications.
Clause 33E – Airspace operations	The proposed development does not penetrate the prescribed airspace. Prescribed airspace is defined as any area above the obstacle limitation surface (OLS). The OLS level for the Subject Site is 210.1m AHD. The proposal development has a maximum building height of 88m AHD.
Clause 33F – Development of land adjacent to Airport	The proposed development will not impact on the safety of flight operations, does not infringe into Prescribed Airspace, is located in an area allowable under the criteria for noise exposure and is outside of the Public Safety areas in accordance with Clause 33F WSEA SEPP.
Clause 33G – Water recycling and conservation	The proposed development does not comprise a water recycling facility, nor are there provisions for a water recycling facility to service the Site requiring further consideration.
Clause 33H – Earthworks	The proposal involves minor earthworks to be undertaken at the Site. The proposed earthworks are considered to comply with the

TABLE 21: DEVELOPMENT STANDARDS - WSEA SEPP	
Clause	Comment
	requirements of Clause 33H. A Geotechnical Investigation Report (**Appendix 19**) report has been prepared which determines that the proposed earthworks will not result in additional unreasonable impacts to those earthworks approved as part of SSD 9522.
Clause 33I – Development on flood prone land	SSD 9522 considered the potential flooding impacts and behaviours as a result of the post-development flows. There would be no further changes to the outcomes in this respect.
Clause 33J – Heritage conservation	The Subject Site is not identified to contain or located in proximity to a heritage item. SSD 9522 considered potential Historic (European) Heritage and Aboriginal Cultural Heritage affectations attributed to the Subject Site. Accordingly, the proposed development would not impact any identified Aboriginal Cultural Heritage in close proximity to the Site. Where required, existing recommendations and mitigation measures would be continued to apply to the Site.
Clause 33K – Consent for clearing native vegetation	The Site does not comprise biodiversity values nor is any vegetation clearing proposed.
Clause 33L – Stormwater, water quality and water sensitive design	Compliance with Clause 33L is demonstrated in **Section 6.1.5** of this EIS.

4.3.11 State Environmental Planning Policy No.64 – Advertising and Signage

The proposed development involves the erection of the signage identified within the Signage Plan contained in **Appendix 3**. As such, the proposal is required to consider *State Environmental Planning Policy No.64 – Advertising and Signage* (SEPP 64). The following signage is proposed:

- One (1) x estate identification sign measuring 2,400mm (wide) by 8,000mm (height);
- One (1) x estate identification sign measuring 1,200mm (wide) by 3,8000mm (height);
- One (1) x estate navigation sign measuring 950mm (wide) by 2,000mm (height);
- One (1) x building identification sign measuring 950mm (wide) by 3,200mm (height);
- One (1) x building navigation sign measuring 950mm (wide) by 2,000mm (height);
- One (1) x customer identification sign measuring 2,400mm (wide) by 2,400mm (height);
- One (1) x customer identification sign measuring 4,800mm (wide) by 4,000mm (height);
- One (1) x customer identification sign measuring 5,400mm (wide) by 3,400mm (height); and
- One Mega Graphic

Pursuant to Clause 8 of SEPP 64, a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

(a) that the signage is consistent with the aims/objectives of the Policy, and
(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1.

Aims and Objectives of SEPP 64

The aims of SEPP 64 are:

(1)(a) to ensure that signage (including advertising):

- *(i) is compatible with desired amenity and visual character of an area, and*
- *(ii) provides effective communication in suitable locations, and*
- *(iii) is of high quality design and finish, and*
- *(b) to regulate signage (but non content) under Part 4 of the Act, and*
- *(c) to provide time-limited consents for the display of certain advertisements, and*
- *(d) to regulate the display of advertisements in transport corridors, and*
- *(e) to ensure that the public benefits may be derived from advertising in and adjacent to transport corridors*

(2) this policy does not regulate the content of signage and does not require consent for a change in the content of signage.

Assessment Criteria

The Assessment criteria under Schedule 1 of SEPP 64 is addressed in **Table 22.**

TABLE 22. SEPP 64 ASSESSMENT CRITERIA	
CRITERIA	COMMENT
1. Character of the area	
Is the proposal compatible with the existing or desired future character of the area or locality in which is to be located?	Yes, the proposed signage is compatible with the existing and desired future character of the Site and other existing and approved industrial development within the surrounding locality.
Is this proposal consistent with the particular theme for outdoor advertising in the area or locality?	Yes, as above.
2. Special areas	
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	No, given the scale and location of the proposed signage, it will not detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservations areas, open space areas, waterways, rural landscapes or residential areas.
3. Views and vistas	
Does the proposal obscure or compromise important views?	No, the proposed signage is of a height and scale that is consistent with the built form of the development and would not disrupt any views or dominate views toward the Site.
Does the proposal dominate the skyline and reduce the quality of vistas?	No, the proposed signage is of a height and scale that is consistent with the built form of the development and would not dominate the skyline.
Does the proposal respect the viewing rights of other advertisers?	Yes, the signage would not obstruct any other signage or advertising.
4. Streetscape, setting or landscape	
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	Yes, the proposed signage has been designed in respect of the form and scale of the proposed development. The proposed signage is compatible with existing and

	approved industrial development in the locality.
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	Yes, the proposed signage would visually define the proposed development and assist in creating a visually coherent built form.
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	Yes, the proposed signage is simple and has been appropriately positioned so as to minimise clutter.
Does the proposal screen unsightliness?	No, the proposed signage is not used as a visual screen or filter.
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	No, the proposed signage does not protrude above the roof line or proposed tree canopy.
Does the proposal require ongoing vegetation management?	No, the proposed signage does not require ongoing vegetation management.
5. Site and building	
Is the proposal compatible with the scale proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	Yes, the proposed signage is of a suitable scale and design for its intended purpose to identify the proposed use and promote the sustainable design of the development.
Does the proposal respect important features of the site or building, or both?	Yes, the proposed signage does not obscure any important architectural features of the building.
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	Yes, the proposed signage has been integrated within the layout of the Site so as to not obstruct any important features and achieve a positive visual outcome.
6. Associated devices and logos with advertisements and advertising structures	
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	Yes, a number of the proposed signs include logos. However, these features are designed to support the signage content only.
7. Illumination	
Would illumination result in unacceptable glare?	No illumination of the signage is proposed.
Would illumination affect safety for pedestrians, vehicles, or aircraft?	No illumination of the signage is proposed.
Would illumination detract from the amenity of any residence or other form of accommodation?	No illumination of the signage is proposed.
Can the intensity of illumination be adjusted, if necessary?	No illumination of the signage is proposed.
Is the illumination subject to a curfew?	No illumination of the signage is proposed.
8. Safety	
Would the proposal reduce the safety for any public road?	No, the proposed signage is generally located adjacent to internal driveway/parking areas to assist in wayfinding.
Would the proposal reduce the safety for pedestrians or bicyclists?	No, the proposed signage would not obstruct any pedestrian or cycle routes or infrastructure.
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	No, the proposed signage would not obscure any sightlines from public areas frequented by pedestrians nor would it obstruct any vehicle sightlines from public roads

4.4 STRATEGIC PLANNING CONTEXT

4.4.1 Greater Sydney Region Plan – A Metropolis of Three Cities

The *Greater Sydney Region Plan – A Metropolis of Three Cities* divides the Sydney Region into three (3) Cities, with a vision of growth until 2056. The Plan aims to anticipate the housing and employment needs of a growing and vastly changing population. The overall vision pursues an objective of transforming 'Greater Sydney' into a Metropolis of Three Cities, including:

- The Western Parkland City;
- The Central River City; and
- The Eastern Harbour City.

The division into three cities puts workers and the wider community closer to an array of characteristics such as, intensive jobs, 'city-scale' infrastructure and services, entertainment and cultural facilities. By managing and retaining industrial land close to city centres and transport, this will ensure critical and essential services are readily available to support local businesses and community members and residents. Once constructed and operational, the Subject Site would achieve economic growth and prosperity, as well as encourage employment-generating opportunities within an area zoned for such permissible purposes, that is considered relatively close in conjunction to residential communities, providing an ease of commute. The proposed development considers the employment-generating outcomes that can be achieved for the immediate and wider localities.

The proposed development also contributes to the four (4) standardised elements communicated across for all three (3) cities, including:

- Infrastructure and collaboration – the proposed development of the Site for the purposes of a warehouse/industrial facility, would facilitate the provision of services to support the warehouse and logistics uses in the surrounding locality;
- Liveability – the proposed development encourages employment-generating opportunities and economic prosperity, which has positive influences on the wider locality;
- Productivity – the proposed development is situated within the *Western City District Plan* (refer to **Section 4.4.2** below); and,
- Sustainability – the proposed development would not exhibit or emit any detrimental impacts to its wider ecological surroundings.

In summary, the Subject Site and proposed development contributes to the objectives set out in the *Greater Sydney Region Plan – A Metropolis of Three Cities* by creating employment-generating opportunities within the wider locality and community, positioned within the Penrith LGA.

4.4.2 Western City District Plan

The Subject Site forms part of the Western City District, as identified in **Figure 25** below and is subject to the provisions of the *Western City District Plan*.

The *Western City District Plan* covers the Western Parkland City area, including the Penrith LGA in which the Subject Site is located. The Plan sets out a twenty-year vision to help achieve the goals contained in *A Metropolis of Three Cities* – the GSC vision for developing Sydney as a world-class future city. The Plan agglomerates City, Regional and Local planning. The Site is situated within the Western City District, which falls within the Western Parkland City.

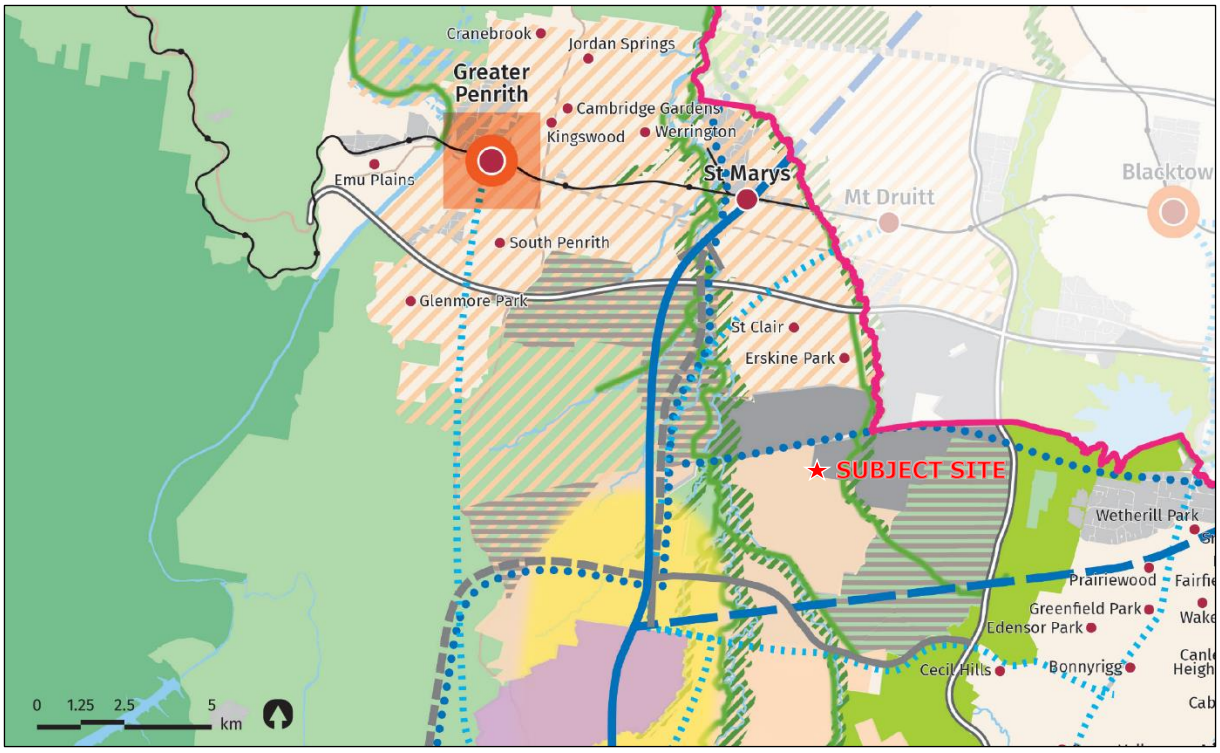


Figure 25 **Structure Plan for the Western City District Plan** (Source: Greater Sydney Commission, 2018)

The *Western City District Plan* reinforces the four (4) planning priorities of the GSC. The Plan establishes a number of priorities and actions to guide growth, development and change. It also emphasises connectivity to infrastructure, collaboration, liveability, productivity and sustainability. The GSC's mission statement further reinforces the Plan's concentrated aims by outlining its main strategies, namely:

- *Creating a once-in-a-generation economic boom with the Western Sydney Airport and Badgerys Creek Aerotropolis bringing together infrastructure, businesses and knowledge intensive jobs;*
- *Building on the Western Sydney City Deal to transform the Western City District over the next 20 to 40 years by building on natural and community assets and developing a more contained Western City District with a greater choice of jobs, transport and services aligned with growth;*
- *Delivering the first stage of the North South Rail Link;*
- *Collaborating and building strong relationships between Liverpool, Greater Penrith and Campbelltown-Macarthur reinforced by the emerging Badgerys Creek Aerotropolis forming a unique metropolitan cluster;*
- *Providing major transport links for people and freight by unprecedented transport investments;*
- *Developing a range of housing, providing access to public transport and infrastructure including schools, hospitals and community facilities;*
- *Linking walking and cycling paths, bushland and a green urban landscape framed by the Greater Blue Mountains World Heritage Area, the Scenic Hills and Western Sydney Parklands;*
- *Enhancing and protecting South Creek, Georges River and Hawkesbury-Nepean river systems;*
- *Mitigating the heat island effect and providing cooler places by extending urban tree canopy and retaining water in the landscape;*
- *Protecting the District's natural landscapes, heritage and tourism assets, unique rural areas and villages; and,*
- *Protecting the environmental, social and economic values of the Metropolitan Rural Area.*

The proposed development, would contribute to the objectives set out in the *Western City District Plan* (of which the Site forms a part), by promoting a greater range of land uses of benefit to the community, including the proposed development and other associated land uses; facilitating the provision of greater and improved infrastructure; and promoting additional employment-generating opportunities, to the wider locality and community closer to home, whilst supporting economically and environmentally-sustainable development. These aims are specifically relevant to the proposed development.

4.4.3 Western Sydney Aerotropolis Plan

The Western Sydney Aerotropolis (WSA) Plan was finalised and released in September 2020 by the Western Sydney Planning Partnership in collaboration with NSW Government and local Councils to establish a vision and the overarching planning principal for the WSA, as well as to identify the intended land use planning outcomes for each of the 10 precincts, the phasing of precincts, and the envisaged transport and infrastructure framework associated with the vision for the new Aerotropolis.

The Subject Site is located within the Mamre Road Precinct which is identified as one of the initial precincts under the Western Sydney Aerotropolis Plan (**Figure 26** and **27**).

In addition, the Mamre Road Precinct (of which the Site is located within) in the north of the Aerotropolis was rezoned in June 2020 under WSEA SEPP to deliver a warehousing and industrial hub and preserve the land for environmental conservation and open space in Western Sydney. Under the WSEA SEPP, the Mamre Road Precinct has been planned to achieve the proposed employment generation outcomes envisaged.

Importantly, the proposal is consistent with the themes and objectives identified in the Western Sydney Aerotropolis Plan. The proposed development will create employment opportunities during both construction and operational phases, which support high-value jobs growth in the industrial sector.

Through interacting with the public and active transport network in the Mamre Road Precinct and wider WSA, the proposed development will deliver job opportunities close to homes, aligning with the 30-minute city concept and improving the amenity and quality of life for the workers and residents in the WSA. The proposed development has also been designed to ensure adequate separation is provided from the surrounding rural-residential development to provide an appropriate interface with the residential communities and preserve the amenity of the neighbourhoods.

As such, the proposed development is consistent with the objectives of the Western Sydney Aerotropolis Plan and will facilitate orderly development in the Mamre Road Precinct as an initial precinct in the WSA.

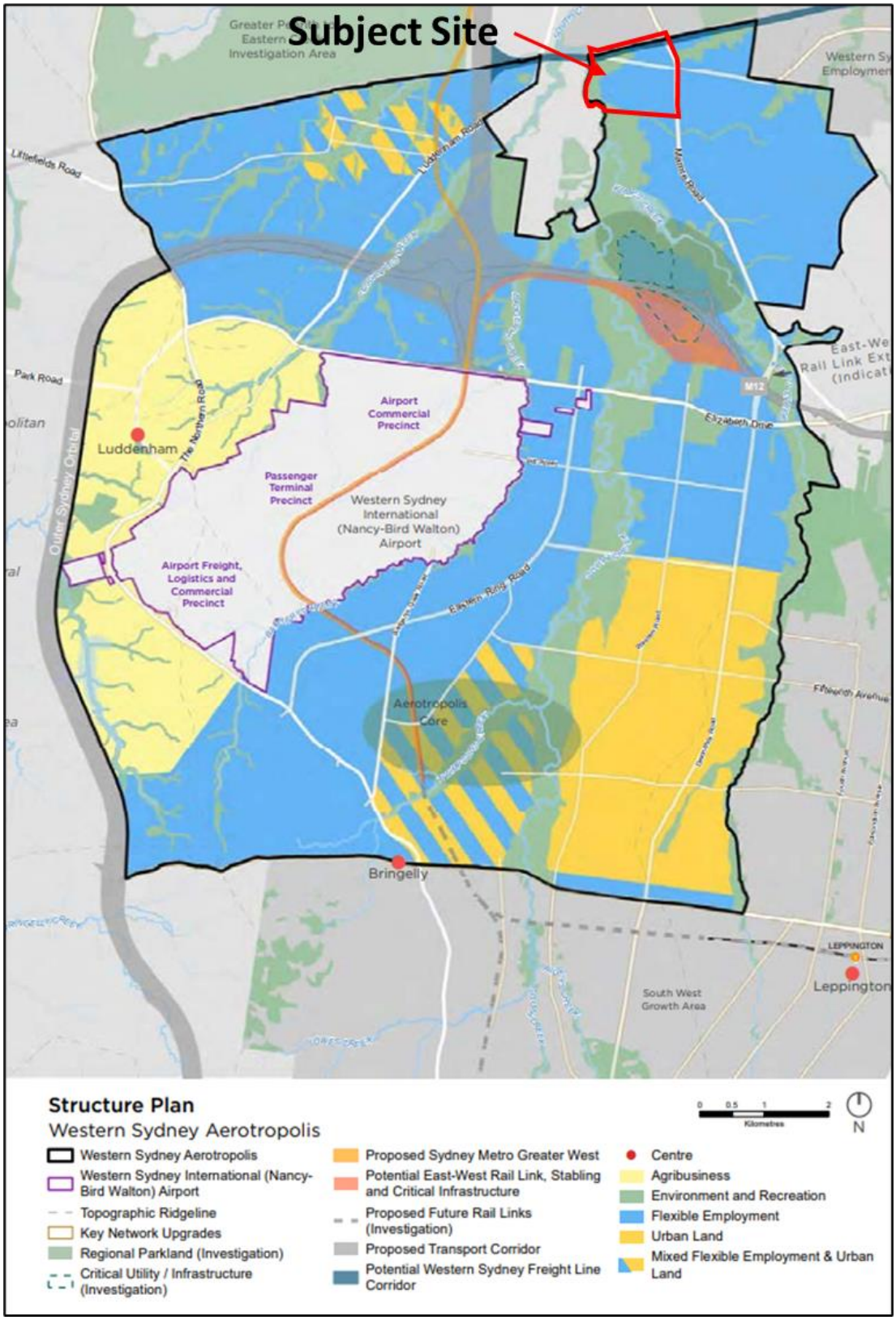


Figure 26 **Western Sydney Aerotropolis: Structure Plan** (Source: Western Sydney Planning Partnership, 2020)

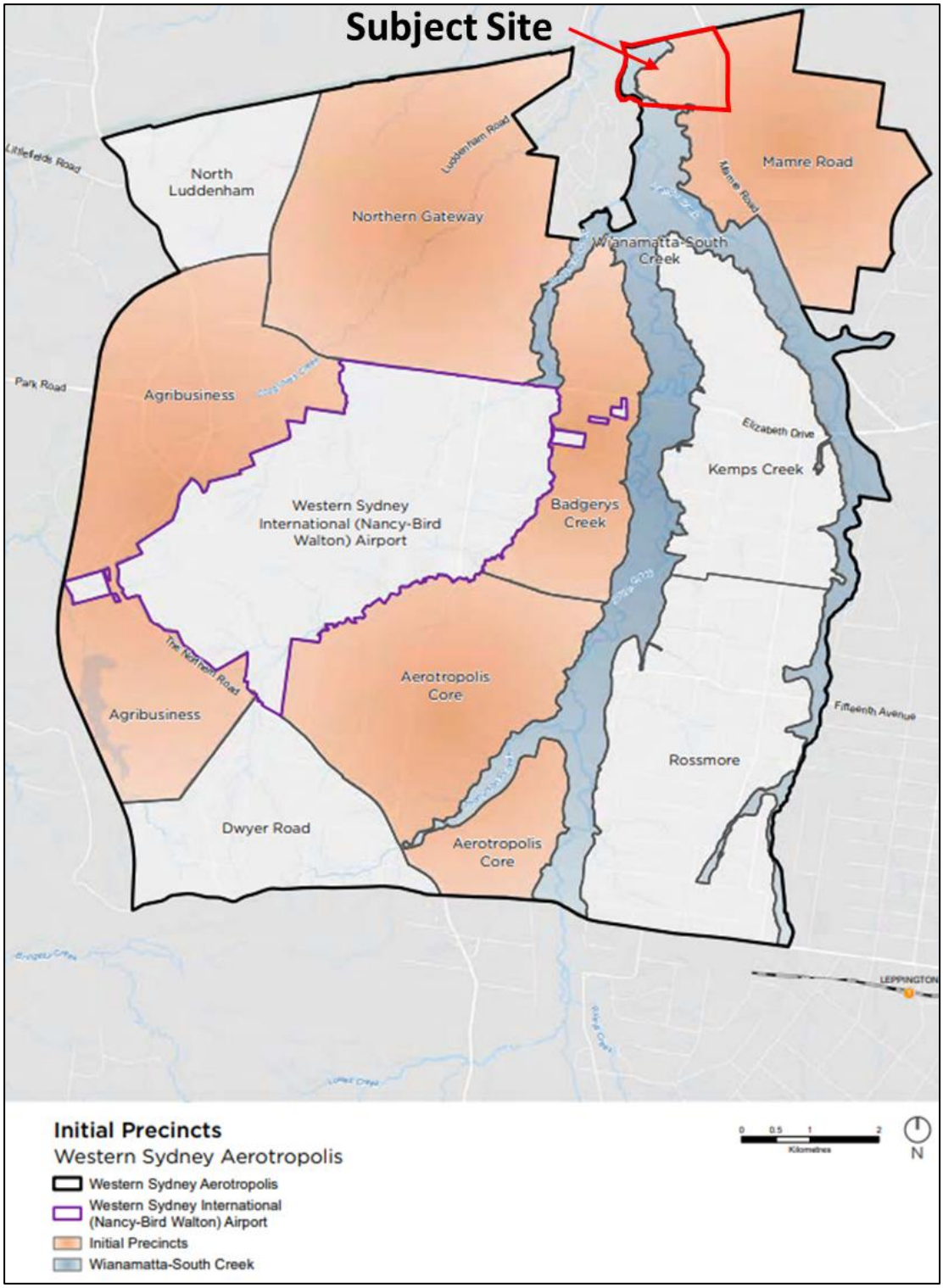


Figure 27 **Western Sydney Aerotropolis: Initial Precincts Plan** (Source: Western Sydney Planning Partnership, 2020)

4.4.4 Western Sydney Employment Area

The Subject Site is located within the south western portion of the WSEA, within 'Precinct 12 (Mamre Road)'. The aims / objectives of the WSEA are summarised below, including:

- Promoting an economically sustainable development and reinforcing the status of an employment-generating development, that positively contributes to the WSEA;
- Encourages assurance for the coordinated planning and development of land within the WSEA;
- Ensures minimal environmental and amenity impacts – **PART F** of this EIS accurately considers potential environmental parameters which will be considered within the ensuing EIS for the proposed development; and
- Ensures development is compatible with surrounding development and the local context.

As outlined in **Section 4.3.910** of this EIS, the proposed development is considered to meet these objectives, as it enables development on land zoned for such permissible industrial-related uses.

4.4.5 Future Transport Strategy 2056

The Future Transport Strategy 2056 is a 40 year strategy, supported by plans for regional NSW and for Greater Sydney. The strategy and plans focus on the role of transport in delivering movement and place outcomes that support the character of the places and communities we want for the future.

The proposed development aligns with the strategies of Future Transport on the following basis:

- The Site has access to regular public transport services;
- The Site is accessible by active transport;
- Parking provision is appropriate;
- Access, servicing and internal layout will be provided in accordance with Australian Standards AS2890.1-2004 and AS2890.2-2018;
- The surrounding road network and intersections will be able to cater for the proposed development traffic.

4.5 LOCAL PLANNING CONTEXT

4.5.1 Penrith Local Environmental Plan 2010

Penrith Local Environmental Plan 2010 (PLEP2010) is not applicable to the land as the provisions of WSEA SEPP apply.

4.5.2 Penrith Development Control Plan 2014

The *Penrith Development Control Plan 2014* (PDCP2014) provides a non-statutory instrument to guide development in the Penrith LGA that is subsequently zoned under both PLEP 2010 and WSEA SEPP. It does not apply to the Subject Site however for the purpose of the proposed development.

As is noted in Part 2, Clause 11 of the SRD SEPP which governs this SSD Application:

"Development control plans (whether made before or after the commencement of this Policy) do not apply to:

(a) State Significant Development."

Notwithstanding, the Draft Mamre Road Precinct DCP has been prepared by the NSW DPIE, which would apply for the proposed development as a guide, which encapsulates key planning controls, such as setbacks, building heights and landscape requirements. Review of the applicability of the Draft Mamre Road Precinct DCP has been considered in **Appendix 15**.

4.5.3 Mamre Road Precinct Structure Plan

The Subject Site (being Lot 10) is located wholly within the Mamre Road Precinct Structure Plan. This Plan clearly seeks to provide the framework to amend WSEA SEPP so as to include an additional 800ha of land for employment and open space development. This is entirely consistent with the intentions for the Subject Site, aiming to deliver some 140 operational jobs in total, once fully constructed. As the Site is zoned IN1 General Industrial under WSEA SEPP (refer to **Figure 28** below), the Site is clearly suited for its proposed development.

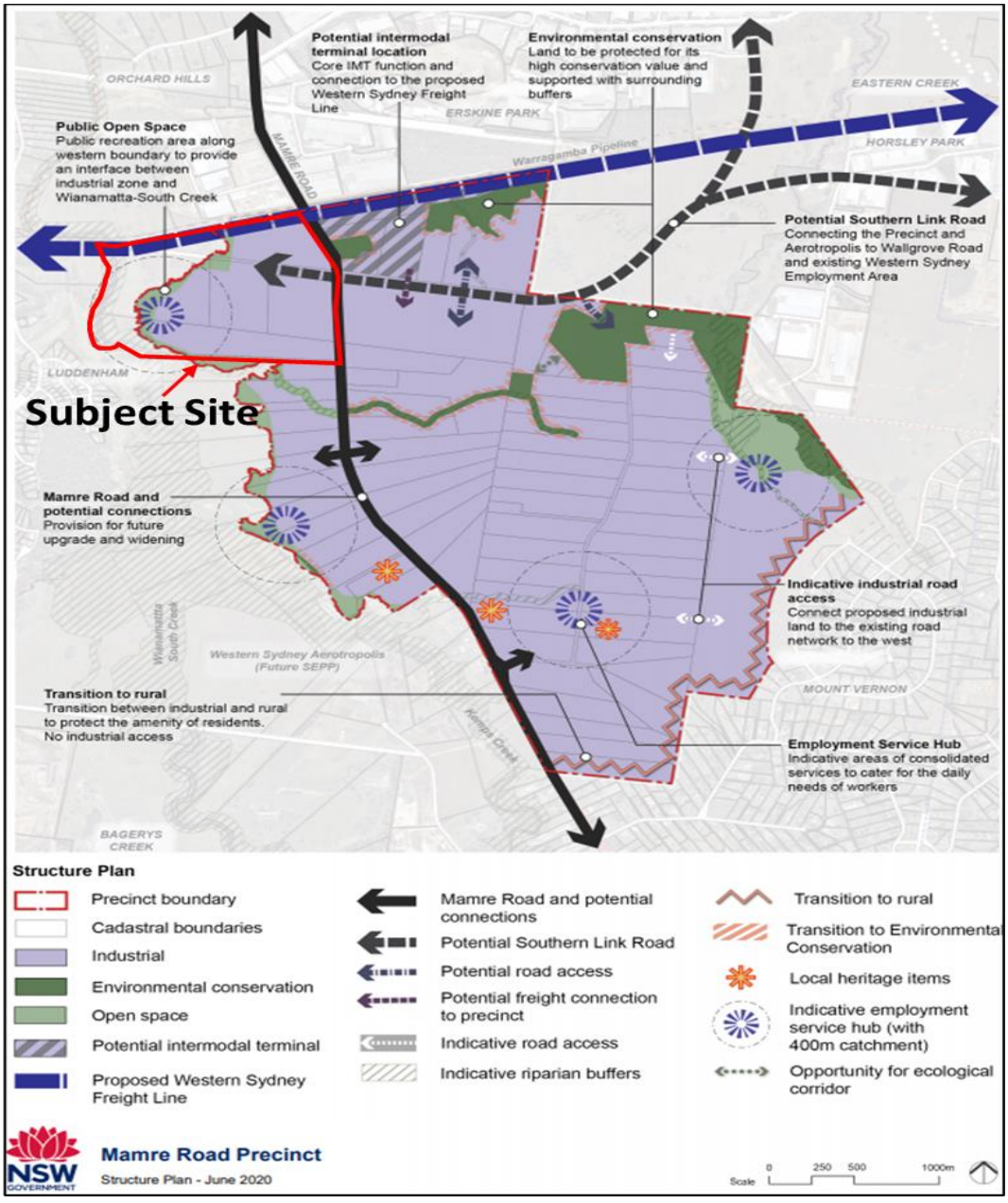


Figure 28 **Mamre Road Precinct Structure Plan** (Source: NSW DPIE, 2020)

As seen above, the proposed development is consistent with both the aims and provisions of the Mamre Road Precinct Structure Plan, which contains areas allocated for both industrial-related uses as well as open-space land uses. The proposed development, in demonstrating clear consistency with the Mamre Road Precinct Structure plan, also caters for all planned State and Federal future infrastructure assets including the widening of Mamre Road and Southern Link, Road. By delivering 140 operational jobs and 300 construction jobs, the proposal for the Site, provides the envisaged outcomes in this respect.

4.5.4 Draft Mamre Road Precinct Development Control Plan

The Draft Mamre Road Precinct DCP was on exhibition between 10 November and 17 December 2020 and is currently being finalised by DPIE. The proposed development has been designed to be generally consistent with the controls specified in the Draft Mamre Road Precinct DCP. A detailed assessment against the Draft Mamre Road Precinct DCP is located within **Appendix 15** of this EIS.

4.5.5 Draft Mamre Road Precinct Section 7.11 Contributions Plan

Penrith City Council is currently preparing the Mamre Road Precinct Contributions Plan which will impose Section 7.11 contribution to development in the Mamre Road Precinct once finalised. The Penrith City Section 7.12 Development Contributions Plan is currently applicable to non-residential development in the Penrith LGA, which will therefore apply to the proposed development in the interim at a rate of 1% of the CIV.

PART E CONSULTATION

5.1 STAKEHOLDER CONSULTATION

In response to the SEARs, the following stakeholder consultation has been undertaken. The following stakeholders were required to be consulted with under this SSD Application:

- Penrith City Council
- Central (Western) Team, Place Design and Public Space Group (Department of Planning, Industry and Environment)
- Environment Protection Authority (Department of Planning Industry and Environment)
- Environment, Energy and Science Group (Department of Planning Industry and Environment)
- Transport for NSW
- NSW Rural Fire Service
- Sydney Water
- WaterNSW
- Western Sydney Airport Corporation
- Civil Aviation Safety Authority
- Western Sydney Planning Partnership
- Surrounding landowners and stakeholders

A comprehensive level of community and stakeholder engagement has been undertaken for the proposed development. This has included meetings and notification letters to both agencies and all potentially impacted residents and community members.

The Community and Stakeholder Participation Strategy (CSPS) provides details with a comprehensive analysis of the overall strategy undertaken to date (refer to **Appendix 13**), offering a summary and analysis of all community and stakeholder consultations, distilling into themes, and those items identified in the consultation process, as significant.

The information provided herein, demonstrates that genuine consultation has already taken place with stakeholders seeking feedback on the proposed development.

5.1.1 Agency Consultation

In preparation of this EIS, relevant agencies were consulted with to inform the proposed development.

Agency consultation undertaken to date includes, but is not limited to, those detailed in **Table 23**.

TABLE 23: AGENCY CONSULTATION RECORDS

Stakeholder	Consultation Notes
Penrith City Council	Pre-lodgement advice was provided by Council on 25 August 2021 to advise of the key matters associated with the proposed development. The matters raised by Council have been taken into consideration and are addressed in **Table 19**.
Central (Western) team, Place Design and Public Spaces Group	A consultation letter was sent to the Central Western Team on 17 August 2021. Following this, a consultation meeting was held on 8 September 2021 which raised the following matters:

TABLE 23: AGENCY CONSULTATION RECORDS	
Stakeholder	Consultation Notes
	• The proposed development exceeds the maximum building height and it is recommended that the EIS be accompanied by a Views and Visual Impact Assessment and photomontages which address the visual impacts on residential properties and view corridors to Wianamatta-South Creek and addresses the objectives of the development controls identified within the draft DCP. • The EIS must be accompanied by an appropriate traffic assessment to ensure the proposal will not adversely impacts the approved road network including site lines, consistent with requirements in previous SSDAs on the larger site. • The EIS must be accompanied by detailed landscaping plans demonstrating compliance with the draft Mamre Road DCP controls. A Visual Impact Assessment (**Appendix 28**) which includes photomontages and addresses the visual impact on the residential properties and view corridors, a Traffic Impact Assessment (**Appendix 27**) which demonstrates the traffic impacts and Landscaping Plans (**Appendix 4**) which demonstrate compliance have been provided
Environment, Energy and Science Group	A consultation letter was sent to the Environment, Energy and Science (EES) Group on 7 September 2021. A response was received on 10 September 2021 in which EES advised that no further comments were to be provided at that stage.
Environment Protection Authority	A consultation letter was sent to the Environment Protection Authority (EPA) on 7 September 2021. A response was received on 15 September 2021 in which EPA advised that no further comments were to be provided at that stage.
Endeavour Energy	A consultation letter was sent to Endeavour Energy on 7 September 2021. No response has been received to date.
Transport for NSW	A consultation letter was sent to Transport for NSW (TfNSW) on 17 August 2021. A response was received on 9 September 2021 in which TfNSW advised that no further comments were to be provided at this stage. It is noted that Altis/Frasers, Willowtree Planning and Ason Group held a meeting with TfNSW on 14 October to discuss Modification 2 and the broad approach to intersection modelling which is relevant to this SSD. The outcomes of that meeting included: • Transport indicated that modelling provided is with modelling team for review and did not have any comments at present - these would be provided in due course. • Transport indicated that LoS C would generally be the lowest accepted - adequate justification required otherwise. • AG indicated that for the 2031 and 2036 scenario that LoS C or D would be achieved similar to the approved 2025 assessment undertaken as part of MOD 1 approval at the intersection of Mamre Road / Bakers Lane (Modified 1A). • AG indicated that there would be no change to the approved Modified 1A (Mamre Road / Bakers Lane) intersection layout and turning lanes under the above scenarios. • AG indicated that SIDRA outputs would be sent to Transport on 14 October. • AF confirmed that swept paths had been provided in the package sent previously and these would be included in the referral when sent from DPIE. TfNSW advised that internal road reviews are being delegated to Council and the Mamre Rd/Bakers Lane intersection

TABLE 23: AGENCY CONSULTATION RECORDS	
Stakeholder	Consultation Notes
	is being dealt with under the WAD process, TfNSW never asked for this condition to be required in the first instance. • AF advised it would appear there is no requirement for it as the condition unnecessarily duplicates the application assessment and the obtaining of post approval signoff resulting in delaying construction commencement.
Rural Fire Service	A consultation letter was sent to the Rural Fire Service (RFS) on 7 September 2021. A response was received on 10 September 2021 in which the RFS advised that no further comments were to be provided at this stage.
Sydney Water	A consultation letter was sent to Sydney Water on 17 August 2021. A response was received on 24 August 2021 which raised the following concerns: • That insufficient data was provided and that splitting or modifying SSD 9522 does not negate the need to look at the Subject Site holistically nor assess the total demand; • The changes to this Site's proposed use may impact the short term options tabled for St Marys and don't meet Sydney Water's understanding of growth demand projections for this precinct; and • The previously endorsed options for this Site appear to be superseded by new information including, at current understanding – Microsoft, Ardex and Austcor Cardboard. It was recommended that the Site servicing be reviewed holistically again, rather than in component parts that detailed demand intel is provided in order for this to progress. In addition, it is acknowledged that Sydney Water provided comments as part of the SEARs process. The matters raised by Sydney Water have been addressed in the Services Infrastructure Assessment at **Appendix 25** and in the Civil Engineering Report at **Appendix 12** and **Section 6.1.20** of this EIS.
WaterNSW	A consultation letter was sent to the WaterNSW on 7 September 2021. A response was received on 16 September in which WaterNSW advised that no further comments were to be provided at this stage.
Western Sydney Airport Corporation	A consultation letter was sent to the Western Sydney Airport Corporation (WSACO) on 7 September 2021. Following this, a consultation meeting was held on 24 September 2021 which raised the following matters: • Consideration be given to the WSA SEPP including building heights, emissions, wildlife attraction, lighting and vehicle movements. An Aeronautical Impact Assessment prepared by Landrum & Brown Worldwide (**Appendix 6**) which has considered the above and is further detailed in **Section 6.1.18** of this EIS.
Civil Aviation Safety Authority	A consultation letter was sent to the Civil Aviation Safety Authority (CASA) on 7 September 2021. A response was received on 21 and 24 September 2021 in which CASA raised the following matters: • Consultation with WSACO and CASA should be included in the EIS;

TABLE 23: AGENCY CONSULTATION RECORDS	
Stakeholder	Consultation Notes
	• A risk assessment of the proposed development on the Western Sydney Airport operations should be provided, addressing the Western Sydney Aerotropolis Plan and WSA SEPP. The assessment is to address the emissions associated with the exhaust stacks on the Obstacle Limitation Surface; and • Consideration be given to the relevant National Airports Safeguarding Framework (NASF). An Aeronautical Impact Assessment prepared by Landrum & Brown Worldwide (**Appendix 6**) which has considered the above and is further detailed in **Section 6.1.18** of this EIS.
Western Sydney Planning Partnership	A consultation letter was sent to the Western Sydney Planning Partnership (WSPP) on 7 September 2021. A response was received on 9 September in which the WSPP advised that no further comments were to be provided at this stage.

Additionally, Altis/Frasers as part of the Land Owners Group (LOG) has regularly consulted with DPIE, TfNSW and Penrith City Council. The LOG has been a party to discussions on development of the local road network that will for part of the final Mamre Road Precicnt DCP and has an in depth understanding of traffic flow and access within the precinct. More recently the LOG has engaged with DPIE on the Draft DCP and the Water Cycle Management Objectives proposed, providing two detailed submissions to DPIE and completing two separate discussions to work through the proposed controls and proposed final solutions for the precinct.

The pre-lodgement advice provided by Council is addressed in **Table 24** below.

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
General Requirements	
N/A	N/A
Key Issues	
Planning and Design Considerations	
It is noted that this development estate was approved prior to the finalisation of the Precinct Wide DCP (which is still yet to be adopted). As such, the applicant should be requested to demonstrate compliance with the conditions and development arrangement of the preceding SSD determination (as recently modified). This also includes demonstrated compliance with the site specific DCP that was approved by the Department in the preceding SSD determination. Any further concessions that are contrary to the draft exhibited Precinct DCP should not be accepted or supported unless the resulting development demonstrates a superior outcome.	In accordance with SSD 9522, future development on the Site is required to consider the Draft Mamre Road Precinct DCP. A detailed assessment against the Draft Mamre Road Precinct DCP is located within **Appendix 15** of this EIS which includes justification for any non-compliances,
The proposed building height exceeds the development form envisaged within the Western Sydney Employment Area, or more specifically the Mamre Road Precinct. The elevation drawing suggests a 45m maximum building	The proposed tower elements have been reduced in height to 38m and 22m respectively. The tower elements only equate to 4.6% of the proposed

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
height with a secondary silo tower at 25m. While the precinct has a site specific DCP approved, the proposed Draft DCP for the entire Mamre Road Precinct establishes maximum building height of 20m where not adjoining rural – residential zoned land. While allowances for taller elements is made in the draft DCP, this is based on specific planning justification and consideration of solar impact and a visual impact analysis. It is also understood that additional height allowance is to acknowledge the different operating requirements of vertical warehousing and allow for a level of flexibility in design to address operational needs however operational needs should not be at the expense of contextual integration. Where suitable and contextual integration cannot be demonstrated, the key consideration under the EP&A Act 1979 concerning suitability of the site for the development cannot be satisfied.	floor area of the development and have been located internal to the Site and broader industrial estate and strategically located away from visual receptors and the public realm. A Visual Impact Assessment prepared by Geoscapes forms **Appendix 28** of this EIS, which provides a comprehensive assessment of the visual impact of the towers. In addition, assessment of the visual impact is provided in **Section 6.1.6** of this EIS. A detailed assessment of the building height against the draft DCP controls has been provided within **Appendix 15** of this EIS.
Any consideration of height beyond 20m must be informed by a detailed visual impact assessment. Due to the potential visual impact that the proposed development will have on the residences of Twin Creeks, as well as the scale and relationship of the proposal to compliant built outcomes in the WSEA Precinct, the proposal is not currently considered appropriate. If pursued, the application will need to clearly outline how the development mitigates the visual impact on Twin Creeks in addition to the surrounding existing and planned landscape.	A Visual Impact Assessment prepared by Geoscapes forms **Appendix 28** of this EIS, which provides a comprehensive assessment of the visual impact of the building height against the WSEA SEPP and details the visual impact on Twins Creek.
While Council does not support 3.75m landscape setbacks between front property boundaries and car parking areas, it is acknowledged that the Department approved this arrangement in the SSD determination. If any exceedance of height is proposed beyond 20m, greater landscape setbacks are required to provide additional tree canopy capability to address the resulting bulk and scale of the built form. This has been adopted within Oakdale West with 6.0m – 7.0m landscape setbacks associated with built form that is in excess of 30m in height.	Landscape setbacks in accordance with the approved SSD have been provided, this is despite the fact that the requirement does not technically apply to the Subject Site as it contained no built form under SSD 9522. Additional canopy cover has been provided on Site, resulting in 4.348m^2 of canopy cover, being 10% of the Site area.
The landscaping provided must be dense, with demonstration of continuous canopy tree planting as a layering of canopy between trees within the verge and that planted within the site. The site / lot for the proposed building form is situated on a prominent corner within the estate with car parking across almost the entire extent of both street frontages. The ability to screen and ameliorate the dominance of hard stand and parking as viewed from the streetscape will be a critical aspect in the assessment of the proposal as the outcomes must satisfy the objectives of the landscape provisions.	Canopy cover has been provided on Site, resulting in 4.348m^2 of canopy cover, being 10% of the Site area. Screening planting has been provided along the southern and eastern boundaries to screen the proposed car parking and hard stand area.

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
Supplementary planting within the site must be provided to break up the mass of hard stand car parking proposed and address Council's Cooling the City Strategy. The plans inserted into the SEAR's statement are not sufficient for adequate review due to the scale and poor quality / resolution. It appears that landscape beds of only 1.0m (or less) are proposed. This is inadequate and landscaping beds must be a minimum of 2m in width. While they have been located at every 10 parking spaces, the locations should be staggered between parking rows to achieve the appearance of continuance canopy spread across the frontages of the development.	Significant planting has been provided along the southern and eastern boundaries which will result in the appearance of a continuance canopy spread when viewed from the street. Plantings within the car park have a minimum width of 1.5m and have been designed and located to retain the efficient use of the parking area and compliance with the Australian standards.
The south eastern corner of the site, adjacent to the intersection has excessive or duplicated hard stand driveways which could be removed via reconfiguration of the car park arrangement. Opportunities to delete the duplicated driveway entirely, or revise to be one – way would allow for a superior landscape outcome at the corner of the site. This should be pursued with the applicant.	The driveway provided in the south-eastern corner has been provided to minimise conflicts with trucks and heavy vehicles using the Site and facilitate an individual entrance/exit for cars. The hardstand area has been designed to accommodate the required car parking rate and compliant landscaping has been provided within the setback to minimize the visual impacts of the parking area.
Then implications of the proposed building height with respect to the planned Western Sydney Airport will also need to be considered and addressed within the application.	The proposed development does not penetrate the prescribed airspace. Prescribed airspace is defined as any area above the obstacle limitation surface (OLS). The OLS level for the Subject Site is 210.1m AHD. The proposal development has a maximum building height of 88m AHD.
Development Engineering and Traffic Considerations	
Stormwater Management	
The application shall demonstrate how the development complies with the over-arching estate-based water quality and water quantity requirements.	The stormwater assessment and management strategy, including surface water runoff, water quality and water quantity has been completed and a response provided within the Civil Engineer Report (**Appendix 12**).
The stormwater concept plan shall demonstrate how the development complies with the Mamre Road precinct Draft DCP water quality and water quantity controls for any interim and ultimate developments.	The stormwater assessment and management strategy, including surface water runoff, water quality and water quantity has been completed and a response provided within the Civil Engineer Report (**Appendix 12**).
A water sensitive urban design strategy prepared by a suitably qualified person is to be provided for the site. The	The stormwater assessment and management strategy, including

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
strategy shall address water conservation, water quality, water quantity, and operation and maintenance.	surface water runoff, water quality and water quantity has been completed and a response provided within the Civil Engineer Report (**Appendix 12**).
The application shall include MUSIC modelling (.sqz file) demonstrating compliance with water quality controls of the Mamre Road precinct Draft DCP.*	The stormwater assessment and management strategy, including surface water runoff, water quality and water quantity has been completed as part of the estate infrastructure SSD9522 & subsequent mods. Additional on-lot treatment measures are not proposed as part of this EIS, and a response provided within the Civil Engineer Report (**Appendix 12**). MUSIC Modelling files be sent separately to Council.
Penrith City Council will not accept the dedication of any estate water quantity or water quality basins. Any estate drainage basins are to be maintained in perpetuity by the estate. It is Council's preference that all water quantity and water quality treatment be provided on the individual lots. Any on-site detention system or water quality system must be within common property and accessible from the street.	Configuration of the proposed measures and stormwater layout concept are shown in the Civil Engineering Plans (**Appendix 5**). It is proposed that all stormwater assets remain in the ownership of Altis/Frasers.
Earthworks	
A site cut / fill plan is to be submitted that includes any retaining walls and batter extents.	Configuration of Site batters, retaining walls and bulk earthworks cut/fill concepts are shown in the Civil Engineering Plans (**Appendix 5**).
No retaining walls or filling is permitted for this development which will impede, divert or concentrate stormwater runoff passing through the site.	The placement of fill and/or retaining walls are noted to not concentrate, impede or divert runoff passing though the Site in an uncontrolled manner. Configuration of Site batters, retaining walls and bulk earthworks cut/fill concepts are shown in the Civil Engineering Plans (**Appendix 5**).
The location and height of any retaining walls are to be included. The potential impact of any retaining walls upon future development of adjoining lands is to be considered.	The Site is located within The Yards Industrial Estate. Due consideration has been given to adjacent developments without restricting flexibility to the developer. Configuration of Site batters, retaining walls and bulk earthworks cut/fill concepts are shown in the Civil Engineering Plans (**Appendix 5**).
Subdivision Works	
The application is to be accompanied by a subdivision concept plan.	A Subdivision Plan has been provided and is included in the Architectural Plans (**Appendix 3**).

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
Traffic Modelling and Further Precinct Wide Considerations	
The development should be supported by a Traffic Impact Assessment of the proposed development, road and footway network, heavy vehicle and light vehicle access, complying number of heavy vehicle parking, loading and manoeuvring areas and complying numbers of light vehicle staff and visitor parking spaces including compliance with Australian Standards, Austroads Guidelines, TfNSW (RMS) Technical Directions / Guidelines and Council's Development Control Plans (DCPs) including DCP C10.	A Traffic Assessment undertaken by Ason Group has been provided (**Appendix 27**) which provides an assessment of the proposed vehicle access, parking, loading and manoeuvring on the Site and demonstrates compliance with the relevant controls.
The Traffic Impact Assessment should include the proposed development driveway accesses for heavy vehicles and visitor / staff car parks, sight distance compliances at driveways, arrangements for waste collection vehicles, emergency / fire service vehicles and other service vehicles, accessible parking and at least 1.8 metre wide accessible pedestrian access from the road frontage the office building, and at least 1.5m wide accessible pedestrian access to the car park to others buildings, car parking and bicycle provision numbers and bicycle facilities, electric vehicle charging station provisions and manoeuvring swept turn paths. This should include compliances with Austroads Guidelines, TfNSW (RMS) Technical Directions / Guidelines, AS 2890 including parts 1, 2 & 6, AS 1158, NSW Government Walking and Cycling Guidelines and Council's Development Control Plans (DCPs) including DCP C10.	A Traffic Assessment undertaken by Ason Group has been provided (**Appendix 27**) which provides an assessment of the proposed vehicle access, parking, loading and manoeuvring on the Site and demonstrates compliance with the relevant controls.
The Traffic Impact Assessment and documentation shall include dimensioned plans of the proposed accessible paths of travel, kerb ramps, driveways, access aisles, loading and vehicle swept path manoeuvring areas, parking spaces, accessible parking, sight distance requirements at intersections and driveways including compliance with Austroads Guidelines, TfNSW (RMS) Technical Directions / Guidelines, AS 2890 including parts 1, 2 & 6, AS 1158, NSW Government Walking and Cycling Guidelines and Council's Development Control Plans.	A Traffic Assessment undertaken by Ason Group has been provided (**Appendix 27**) which includes the relevant dimensioned plans.
The entry and exit for any car parking areas to and from a public road is to be separate from any heavy vehicle access. The car park entry/ exit and any conflict with heavy vehicles include emergency/ fire service vehicles and waste collection vehicles should be removed or justified to be limited and managed.	The entry and exit for the car parking area is separate from any heavy vehicle access.
A minimum of 5% of parking numbers Electric Vehicle Charging Stations (EVCS) should be provided within the car parking areas of the warehouse development. The charging stations are to be designed to accommodate the	Electric Vehicle Charging Stations have been provided.

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
requirement of commercially available public vehicles and their required connector types (currently known as Type 1 and Type 2 connectors). A minimum of 10% additional car parking spaces should be designed to be readily retrofitted as EVCS parking spaces. The installed EVCS car parking spaces are to be signposted and marked as for the use of electric vehicles only and are to be located as close as possible to the building accesses after accessible parking space priority. EVCS are to be free of charge to staff and visitors. *Complying numbers of secure, all weather bicycle parking, end of journey facilities, change rooms, showers, lockers should be provided at convenient locations at each warehouse development in accordance with Council Development Control Plan (DCP) C10 Section 10.7, AS 2890.3 Bicycle Parking Facilities and Planning Guidelines for Walking and Cycling (NSW Government 2004).* *Appropriate signage, visible from the public road and on-site is to be installed to reinforce designated vehicle circulation and to direct staff / delivery vehicle drivers / service vehicle drivers / visitors to on-site parking, delivery and service areas.* *The required sight lines around the driveway entrances and exits are not to be compromised by street trees, landscaping or fencing.* *Sight distance requirements at verges, footpaths and driveways are to be in accordance with AS 2890.2 Figure 3.3 and Figure 3.4.* *All vehicles shall enter and leave to site in a forward direction.*	Bicycle parking has been provided. End of Trip (EoT) facilities have been provided in accordance with the Planning Guidelines for Walking and Cycling. Appropriate signage has been provided to reinforce wayfinding from the public roads. Appropriate sight lines have been provided throughout the Site. The sight distances have been provided in accordance with the relevant Australian Standards. All vehicles will enter and exit the Site in a forward direction.
Environmental Management Considerations	
Noise Impacts	
An acoustic assessment is required to be submitted as a part of an application to demonstrate that the proposed development will not have any impact on nearby sensitive receivers. This report is to be prepared by an appropriately qualified acoustic consultant, and is to consider noise impacts including, but not limited to: • *Construction* • *Operation* • *Mechanical plant* • *Vehicular movements* • *Road traffic noise* • *Noise impacts from airport*	A Noise and Vibration Assessment has been prepared (**Appendix 22**) which assesses the construction and operational phases of the proposed development against the relevant noise emission criteria applicable to the Site, ensuring compliance can be achieved and provides relevant recommendations to mitigate any noise impacts.

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
Should mitigation measures be necessary, recommendations should be included to this effect. Recommendations and mitigation measures must be shown on all architectural plans.	
Air Quality	
An air quality assessment is required to be submitted as a part of an application to demonstrate that the proposed development will not have any impact on the health of nearby sensitive receivers or the environment. This report is to be prepared by an appropriately qualified consultant.	An Air Quality Impact Assessment (**Appendix 7**) has been prepared by Northstar Air Quality which assesses the construction and operational phases of the proposed development against the relevant air quality emission criteria applicable to the Site, ensuring compliance can be achieved.
Contamination (SEPP 55)	
The application is to address all relevant requirements under State Environmental Planning Policy 55 Remediation of Land (SEPP 55). Council cannot consent to any development unless these requirements have been satisfied. The application is to demonstrate that the land is suitable for the proposed purpose either by the submission of a statement in the EIS, a Phase 1 Preliminary Site Investigation or Phase 2 Detailed Site Investigation. Any reports need to be completed by a suitably qualified person(s) or company.	Detailed environmental site investigations have been undertaken within SSD 9522 with respect to contamination of the Site, confirming the suitability of the Site for industrial related land uses. Notwithstanding an addendum to support the previous findings has been prepared by JBS&G (**Appendix 17**) to support the previous findings and confirm the suitability of the Site for the proposed use.
Hazardous and Offensive Development (SEPP 33)	
An application is to consider SEPP 33 and provide an assessment of the proposed development with regard to the SEPP.	An assessment of the dangerous goods has been carried out by Riskcon and included in **Appendix 14** of this EIS. The assessment has determined that quantities of dangerous goods will be below the *State Environmental Planning Policy No.33 (Hazardous and Offensive Development)* (SEPP 33) threshold.
Waste Management	
A Waste Management Plan is to be provided addressing waste produced during the excavation and construction phases of the development. It should address waste quantities, storage locations and removal.	A Waste Management Plan (**Appendix 28**) has been prepared for the Proposal in accordance with the DCP.
General Environmental Health Impacts	
The environmental impacts associated with the excavation and construction phases of the development need to be addressed, such as water quality, noise, dust/air quality and erosion and sediment control. This can be included in the Statement of Environmental Effects and plans	Assessment of the environmental impacts associated with the excavation and construction phases of the development have been undertaken throughout this EIS.
Sewerage Infrastructure and Trade Waste Plant	
Provide confirmation that the proposed development will be connected to Sydney Water's reticulated sewer.	A Service Infrastructure Assessment (**Appendix 25**) has been prepared which confirms that the development

TABLE 24: PENRITH CITY COUNCIL – KEY ISSUES	
Requirements	Satisfied by
	will be connected to Sydney Water's reticulated sewer.
Plans and Documents	
N/A	N/A
Consultation	
N/A	N/A

5.1.2 Community and Consultation Objectives

The objectives for communications and consultation with the community and other stakeholders for the Project are outlined for each stage of the project's lifespan in **Table 25** below.

TABLE 25: COMMUNITY AND CONSULTATION OBJECTIVES	
Project Phase	Objectives for Communication and Consultation
Planning	**Inform** relevant community and agency stakeholders of the nature of the proposed project and provide avenue of contact should they require any further information **Consult** with targeted community and agency stakeholders on matters related to the development with the potential for impact or within their realm of responsibility/jurisdiction
Approval	**Respond** to issues, queries and comments arising through the planning approval process
Construction	**Inform** community and agency stakeholders of information relating to the Project of relevance to the party **Receive feedback and respond** via clearly communicated and established channels of communication
Operation	**Inform** community and agency stakeholders of information relating to the Project of relevance to the party **Receive feedback and respond** via clearly communicated and established channels of communication

5.1.3 Community and Stakeholder Scoping

To inform this CSPS for the Project, SLR Consulting undertook early scoping to obtain a baseline understanding of who the stakeholders to the development were and to identify potential impacts to these parties from the development.

The scoping exercise was undertaken as a desktop study and utilised the scoping worksheet provided to accompany the *Draft Social Impact Assessment Guideline –State significant projects (October 2020)* (DPIE 2020). The scoping worksheet examined potential social impacts of the project and assisted in determining who the potentially impacted stakeholders would be for these impacts. A copy of the Social Impact Assessment (SIA) Worksheet is attached within **Appendix 13**.

From this tool, a list of potentially impacted stakeholders was developed, including:

- Adjacent land occupiers;
- The broader community (for example nearby residents beyond those immediately adjacent to the Site and users of the surrounding road network); and
- Local Aboriginal Groups.

In addition to the stakeholders identified through the scoping tool, a number of land uses located on Bakers Lane (including schools and aged care facilities) were identified as stakeholders given known sensitivities of these operations to industrial development in the area and the identification of these parties as stakeholders by DPI to the original SSD 9522 for the Yards Estate. A map of the identified stakeholder properties is provided in **Figure 29** below.

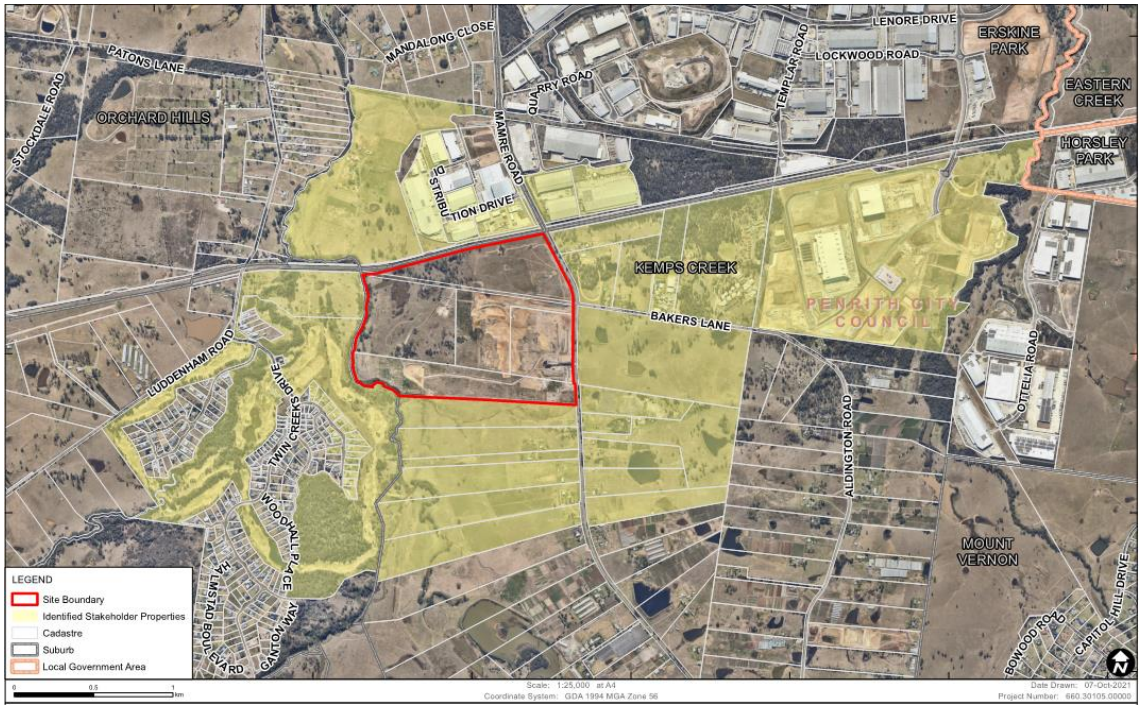


Figure 29 **Stakeholder Identification Plan** (Source: SLR Consulting, 2021)

Relevant local and State government agencies with an interest in the development were identified in through the scoping phase for the development and confirmed through the issued SEARs and are detail within **Table 25** above.

5.1.4 Aboriginal Community Consultation

Local Aboriginal groups were identified as stakeholders to the project generally given their cultural knowledge and connection to the land on which the development is proposed. Consultation with Aboriginal stakeholder parties was undertaken during the planning, approval and construction of the estate within which the project is located. In 2019, as part of SSD9 522 Biosis undertook the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR), which included and documented consultation with relevant Aboriginal stakeholders in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). It is understood that further consultation with these parties is not warranted by the proposed development, where compliance with existing controls in place for the Site, are adhered to. A summary of the outcomes of previous Aboriginal stakeholder consultation for the Site is available within the ACHAR informing SSD 9522 and **Section 6.1.21** of this EIS.

5.1.5 Engagement Strategy

The engagement strategy for the project has been tailored utilising tools appropriate to the stage of the Project's development (including planning, approval, construction and operation) and appropriate to the audience of the engagement, including community and agency stakeholders. Communications an engagement will be undertaken by the proponent and/or their representatives. This will include planning and engagement consultants engaged by the developer and contractors/subcontractors carrying out the construction activities.

To allow for clear and transparent record keeping, a communications and engagement register has been developed for the project. This register will include a record of all community and stakeholder engagement undertaken for the Project over its lifespan, including consultation undertaken to inform this strategy, through to the recording of complaints and enquiries received during the construction phase of the Project. A copy of the register is attached in **Appendix 13**.

An engagement tool kit has been developed to outline all of the potential methods of engagement that may be used to communicate and engage during the life of the Project. The engagement tool kit is outlined in **Section 6.1.3** of this EIS.

5.1.6 Outcomes of Engagement

Given no response was received from community stakeholders, the outcomes of engagement, and the project's ability to demonstrate measures proposed to address potential impacts is difficult to express. In lieu of direct community feedback, SLR have identified potential issues and impacts of the project derived from feedback received for numerous other developments of this nature in the area and the potential impacts identified within the original stakeholder identification scoping tool as indicative of potential unmitigated project impacts. These issues or items for consideration are expressed within **Table 23** below, along with how the proposed development has or will respond to these matters.

TABLE 26: OUTCOMES OF ENGAGEMENT

Issue or Consideration	Project Response
Noise – Construction and ongoing operation of development of this nature has the potential for acoustic impact on nearby receivers.	A Noise and Vibration Impact Assessment for construction and operation of the Project, including vibration, has been prepared by Renzo Tonin (**Appendix 22**). The impact assessment provides analysis of potential impacts of the development and proposes mitigation measures to avoid impact on sensitive receivers, including residents of nearby properties.
Air Quality – Construction of development of this nature has the potential for impact on air quality with respect to dust and operations of industrial facilities have the potential for air quality impacts such as odour.	An Air Quality Impact Assessment Report was prepared by Northstar to assess potential air quality impacts of the overall estate under SSD9522. Northstar have provided additional advice (**Appendix 7**) stating that the proposed development would comply with the original assessment including the detailing of appropriate mitigation measures to be implemented through construction and ongoing operation to prevent impacts to the surrounding area.
Traffic – Construction and operation of developments of this nature have the potential to impact on traffic within the surrounding road network through initial construction related traffic and ongoing operational traffic.	A Traffic Impact Assessment has been prepared by Ason **(Appendix 27**) to consider the potential traffic related impacts as a result of the proposal (at both the construction and operational stages) on the surrounding road network; access and design; car parking; and trip generation (including relevant swept path analysis). The traffic and access intentions for construction related traffic will be formalised through inclusion in the Construction Traffic Management Plan for the development, to ensure compliance.
Visual Amenity – Given proximity to residential land uses to the North and the development's frontage to a public road (Mamre Road), the development once operational has the potential to impact on	A Visual Impact Assessment of the development layout and design has been undertaken by Geoscapes (**Appendix 28**). This assessment includes analysis of staging, site coverage, setbacks, open space, landscaping, height, colour, scale, building materials and finishes, façade design, signage and lighting and the

TABLE 26: OUTCOMES OF ENGAGEMENT	
Issue or Consideration	Project Response
visual amenity and produce light spill impacting residents and road users	developments potential impact (and mitigation of impact) upon nearby public and private receivers and users of the surrounding road network.

Matters raised through agency consultation and requests made through the requirements of the issued SEARs have been addressed within **Table 26** above.

5.1.5 Ongoing and Future Engagement

Ongoing consultation and engagement shall be undertaken through all future stages of the development.

Formal notification of the proposed development will be undertaken by DPIE during the assessment period for the SSD, with Altis/Frasers committed to responding to all relevant issues and queries arising during this period through DPIE's formal response to submissions process.

During construction, consultation and engagement shall be undertaken with relevant parties in accordance and will include notification of the commencement of works and consultation on works with the potential for impact on nearby receivers. Altis/Frasers and their contractors will continue to engage and work with all relevant agencies and authorities to meet all regulatory requirements and ensure compliance with conditions of consent.

As the development progresses, refinement of this document and the tools located within the engagement strategy may be required to ensure the ongoing effectiveness of engagement measures proposed. It is recommended by SLR that this strategy forms the basis of a Community Consultation Strategy (CCS), which would be prepared and implemented throughout the construction and operational phases of the project. The CCS would include engagement and complaints/enquiry protocols, the identification of engagement responsibilities and the maintenance of an engagement register. The CCS would ensure the positive approach to engagement undertaken for the project to date continues through the project lifecycle.

PART F ENVIRONMENTAL RISK ASSESSMENT

6.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The SEARs (reference: SSD 25725029) issued by the NSW DPIE on 3 September 2021 identify the following key issues:

1. Statutory and strategic context
2. Suitability of the Site
3. Community and Stakeholder Engagement
4. Traffic and Transport
5. Soils and Water
6. Urban Design and Visual
7. Air Quality and Odour
8. Noise and Vibration
9. Infrastructure Requirements
10. Aboriginal Cultural Heritage
11. Biodiversity
12. Social Impact
13. Ecologically Sustainable Development
14. Waste Management
15. Bush Fire
16. Hazards and Risk
17. Greenhouse Gas and Energy Efficiency
18. Airport Safeguarding
19. Planning Agreement/Development Contributions

The abovementioned matter(s), and other necessary matters, are addressed in the following section(s).

6.1.1 Statutory and strategic context

This section of the EIS evaluates the statutory and strategic context of the proposed development, in relation to the SEARs and addresses its specific matters.

In response to item 1. Statutory and strategic context of the SEARs, the following table specifies the location of each assessment of the relevant statutory and strategic documents.

TABLE 27: STATUTORY AND STRATEGIC CONTEXT DOCUMENTS

Document	Response / Location of Assessment
Detailed justification for the proposal and the suitability of the site	Refer to **Section 0** of this EIS.
detailed justification that the proposed land use is permissible with consent	Refer to **Section 4.3.910** of this EIS.
details of any proposed subdivision of land	Refer to **Section 4.3.10** of this EIS.
a detailed description of the history of the site, including the relationship between the proposed development and all development consents and	Refer to **PART B** of this EIS.

TABLE 27: STATUTORY AND STRATEGIC CONTEXT DOCUMENTS	
Document	Response / Location of Assessment
approved plans previously and/or currently applicable to the site	
demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. This includes, but is not limited to:	Refer to **PART D** of this EIS.
• *State Environmental Planning Policy (State and Regional Development) 2011*	Refer to **Section 4.3.65** of this EIS.
• *State Environmental Planning Policy (Infrastructure) 2007*	Refer to **Section 4.3.96** of this EIS.
• *State Environmental Planning Policy (Western Sydney Employment Area) 2009 (SEPP WSEA)*	Refer to **Section 4.3.510** of this EIS.
• *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 (SEPP WSA)*	Refer to **Section 4.3.79** of this EIS.
• *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*	Refer to **Section 4.3.87** of this EIS.
• *State Environmental Planning Policy No.55 – Remediation of Land*	Refer to **Section 4.5.18** of this EIS.
• *State Environmental Planning Policy No 64 – Advertising and Signage*	Refer to **Section 4.4.111** of this EIS.
• *Great Sydney Region Plan – A Metropolis of Three Cities*	Refer to **Section 4.4.1** of this EIS.
• *Our Greater Sydney 2056: Western City District Plan*	Refer to **Section 4.4.52** of this EIS.
• *Future Transport Strategy 2056 and supporting plans*	Refer to **Section 4.4.55** of this EIS.
• *Mamre Road Precinct Structure Plan (DPIE, 2020) and Local Road Network Structure Plan*	Refer to **Section 4.4.5.3** of this EIS.
• *Western Sydney Aerotropolis Plan (DPIE, 2020)*	Refer to **Section 4.4.53** of this EIS.
• *Draft/Final Mamre Road Precinct Development Control Plan*	Refer to **Section 4.4.57** of this EIS.

6.1.2 Suitability for the Site

This section of the EIS evaluates the suitability of the Site for the proposed development, in relation to the SEARs and addresses its specific matters:

- ***detailed justification that the site can accommodate the proposed development having regard to its potential environmental impacts, site constraints, permissibility and strategic context.***
- ***An analysis of site constrains***

The Subject Site is located within an undeveloped area and is zoned IN1 General Industrial under the WSEA SEPP. The proposed development will facilitate the use of the Subject Site for manufacturing and warehousing, which is consistent with the zoning and the applications submitted for assessment within the surrounding locality. The Subject Site, within an area zoned for industrial uses and proximity to major arterial roads, serves as being ideal for manufacturing and distribution purposes.

Accordingly, the Subject Site is considered to be suitable for the proposed development and is consistent with the aims and objectives of the IN1 General Industrial zone, in that it seeks to facilitate future employment generating development that responds to the characteristics of the land and is compatible with surrounding land uses.

The Subject Site is suitable for the size and scale of the development proposed and represents a quality outcome for otherwise unutilised industrial land.

In summary, the Subject Site is highly-suited to accommodate the intended new development based on the following factors:

- WSEA SEPP allows for the proposed development as a permissible use;
- The Site is readily accessible via the regional road network;
- The proposed development is compatible with surrounding development and local context;
- The Subject Site can be serviced immediately and at no cost to Government;
- The proposed development causes minimal impact on the environment;
- The Site will complement functions of the wider Mamre Road area; and
- The proposed built form is designed to mitigate any impacts on surrounding properties.

The following key elements of the Site and proposed development are noted:

Visual Impact:

The proposed development is expected to create some visual impacts of varying significance for receptors in close proximity to the Site. However, the significance of these impacts is generally low, due to the fact that the proposal is located against the backdrop of the approved Kemps Creek Industrial Estate or screened by South Creek. Any future development around the Site will effectively screen all elements of the proposed development with the exception of the 38m tower. However, the dimensions of the tower are not considered to be significant when considered cumulatively in conjunction with adjacent, existing, approved or planned industrial development.

Following the recent rezoning of the Mamre Road Precinct from RU1 – Primary Production to industrial (IN1) use, some residential properties will be, and in some cases, have already been acquired to enable industrial development. Therefore, any visual impacts assessed at these locations are likely to only be short to medium term only. Land designated within the Western Sydney Aerotropolis (WSA) and WSA SEPP has also been subject to a recent change in zoning and therefore, could also be subject to purchase for enterprise or infrastructure use. Therefore, visual sensitivity at these locations are likely to be further reduced in the future.

There are locations in the immediate area that are outside of the Mamre Road Precinct or the Western Sydney Aerotropolis zoning, including residential dwellings within Twin Creeks and private and public lands associated with the golf course and reserve. This area is buffered by South Creek which already provides a high degree of screening.

Through analysis conducted within the Visual Impact Assessment, prepared by Geoscapes (**Appendix 28**), of the receptors assessed, the following locations are judged to receive short term moderate/minor visual impacts from the proposed development:

- 127 Aldington Road, Kemps Creek;
- 833A Mamre Road, Kemps Creek; and
- 799 Mamre Road, Kemps Creek.

The visual impacts to the locations listed above have been judged to be short term only. Government precinct plans identify that the residential locations are within land recently rezoned for industrial use. Therefore, these locations are highly likely to be acquired in the short to medium term resulting in the houses being removed, therefore visual impacts will no longer be relevant. In locations that will remain, such as views from Mamre Road itself, visual sensitivity is also likely to reduce over time resulting in lower visual impacts.

The following location is judged to receive moderate/minor visual impacts from the proposed development:

- 22 Medinah Avenue, Luddenham.

The following location is judged to receive moderate/minor or minor visual impacts from the proposed development:

- View West of LOT 17.

The following location is judged to receive minor visual impacts from the proposed development:

- Twin Creeks Reserve / Golf Course, Twin Creeks.

The following location is judged to receive minor negligible visual impacts from the proposed development:

- Mamre Road South, Kemps Creek.

The following locations are judged to receive either negligible or no visual impacts from the proposed development:

- Approach from Bakers Lane, Kemps Creek; and
- Mamre Road, Kemps Creek.

One location has been assessed as having moderate/minor visual impacts created by the development. This is largely based on the close proximity of the residential properties to the Subject Site and the visibility of the Ardex tower above the tree line. However, the visual impact is not considered to be of high significance.

Potential visual impacts upon the Wianamatta-South Creek corridor have been and were found again to not be significant following the maturity of landscaping mitigation to the western boundary of the estate. It has been demonstrated that landscaping can be highly effective in mitigating visual impacts for the entire corridor and RE1 lands.

The highest cumulative visual impacts are judged to be received at:

- 127 Aldington Road, Kemps Creek;
- 833A Mamre Road, Kemps Creek; and
- 22 Medinah Avenue, Luddenham.

Cumulative impacts are generally considered to be low for the majority of locations and for these locations the addition of the Ardex development makes a minor to negligible contribution to the cumulative situation and this equates to effectively a 'no change' situation.

From analysis of aerial photography, it is evident that a number of other residential properties within the immediate area will receive views of the development. However, as previously mentioned, many of these residential properties are located within the Mamre Road Precinct. The precinct has recently been rezoned for industrial use therefore, it is highly likely that these properties will be acquired in the short to medium term and be removed. Any visual impacts received currently at those locations are likely to be short term only and therefore, only a selection have been included for assessment.

The Visual Impact Assessment, prepared by Geoscapes (**Appendix 27**), presents a series of photomontages that demonstrate that the proposed landscape planting at the Site, can be effective in screening to reduce visual impacts for a number of sensitive close-range properties. This will be most effective after 15 years and for those receptors who experience direct views at close to medium range.

Noise and Vibration:

Renzo Tonin has carried out a Noise and Vibration Impact Assessment (**Appendix 22**) to support the proposed development, through which they have quantified operational noise emission from the proposed development and assessed noise at the nearest sensitive receivers. Based on the assumptions and inputs within this EIS, it has been established that operation of the development is capable of complying with relevant EPA and Council noise emission requirements.

Transport and Traffic:

Traffic associated with the proposed Lot 10 has previously been assessed as part of SSD 9522. In this regard, the Traffic Report accompanying the approved SSD included detailed modelling for the surrounding road network. Ason Group has prepared a Traffic Assessment (**Appendix 27**) to support the proposed development which considers the impact of the proposed development in relation to the modelling for the surrounding road network.

It is anticipated that the road network would be more than adequate to cater for the traffic generated by the proposal. Accordingly, it is considered that no further road upgrades are required to support the proposed development. Ason Group have determined that there is sufficient spare capacity within the existing and planned Mamre Road/Bakers Lane intersection designs to accommodate the traffic volumes generated by the proposal without causing any adverse impacts to the road network operations. On-site car parking provisions for the proposed development satisfy the requirements of Condition A8 of SSD 9522. In summary, Ason Group have concluded that the proposal is supportable on traffic and transport planning grounds and is not expected to result in any adverse impacts on the surrounding road network or the availability of on-street parking environment.

Flooding:

The Subject Site is not affected by mainstream flooding, however consideration of flooding is required given the proximity to South Creek. Detailed flood modelling for the entire subdivision was undertaken by Costin Roe Consulting Engineers, which accompanied the application for SSD 9522. The Costin Roe Consulting Engineers Flood Report demonstrates that there would be no adverse flooding impacts.

Further assessment of the flooding impacts has been undertaken in the Civil Engineering Report prepared by Costin Roe (**Appendix 12**) for this SSD which has determined that the built form of the proposed development is clear of and does not impact the 1% AEP event and that all development lots are above the PMF flood water levels. It is noted that there are no changes to the flood impacts of the approved modeling associated with SSD 9522.

The Subject Site's consistency with applicable regional and local strategies is demonstrated in the comprehensive environmental assessment, provided in **PART F** of this EIS, which includes an analysis of all potential impacts, which has been informed by the relevant consultant reports.

Accordingly, the EIS prescribes recommendations and mitigation measures (where necessary), to account for all identified potential impacts, by the proposed development. The suitability of the Subject Site to cater for the proposed development, can be attributed to:

- Its ability to provide employment;
- Its excellent access arrangements;
- Its suitable contextual setting; and
- Its minimal impact on the environment.

Given the above, it is considered that that the Site can accommodate the proposed development having regard to its potential environmental impacts, constraints, permissibility and strategic context.

6.1.3 Community and stakeholder engagement

This section of the EIS evaluates the community and stakeholder engagement for the proposed development, in relation to the SEARs and addresses the following specific matters.

- ***a community and stakeholder participation strategy identifying key community members and other stakeholders including:***
  - ***details and justification for the proposed consultation approach(s)***
  - ***clear evidence of how each stakeholder identified in the community and stakeholder participation strategy has been consulted***
  - ***issues raised by the community and surrounding landowners and occupiers***
  - ***clear details of how issues raised during consultation have been addressed and whether they have resulted in changes to the development***
  - ***details of the proposed approach to future community and stakeholder engagement based on the results of consultation.***

SLR Consulting has prepared a Community and Stakeholder Participation Strategy to address the planning, construction and operational stages of the proposed development, which is included in **Appendix 13** of this EIS. The CSPS contains all consultation letters issued to the below key stakeholders.

6.1.3.1 Key Stakeholders

The following key stakeholders have been consulted with under this SSD Application:

- Penrith City Council
- Central (Western) Team, Place Design and Public Space Group (Department of Planning, Industry and Environment)
- Environment Protection Authority (Department of Planning Industry and Environment)
- Environment, Energy and Science Group (Department of Planning Industry and Environment)
- Transport for NSW
- NSW Rural Fire Service
- Sydney Water

- WaterNSW
- Western Sydney Airport Corporation
- Civil Aviation Safety Authority
- Western Sydney Planning Partnership
- Surrounding landowners and stakeholders

6.1.3.2 Consultation approach(s)

The engagement strategy for the project has been tailored utilising tools appropriate to the stage of the development (including planning, approval, construction and operation) and appropriate to the audience of the engagement, including community and agency stakeholders. Communications an engagement will be undertaken by the proponent and/or their representatives. This will include planning and engagement consultants engaged by the developer and contractors/subcontractors carrying out the construction activities.

To allow for clear and transparent record keeping, a communications and engagement register has been developed for the project. This register will include a record of all community and stakeholder engagement undertaken for the Project over its lifespan, including consultation undertaken to inform this strategy, through to the recording of complaints and enquiries received during the construction phase of the Project. A copy of the register is attached in **Appendix 13**.

An engagement tool kit has been developed to outline all of the potential methods of engagement that may be used to communicate and engage during the life of the proposal. The engagement tool kit is outlined in **Table 28** below.

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TABLE 28: COMMUNICATION AND ENGAGEMENT TOOLKIT				
Tool / Technique	Description	Audience	Project Stage	Specifications
Community consultation meetings, workshops and forums	Informal meetings, providing a project update and opportunity for the community and stakeholders to discuss recent experiences and upcoming construction activities.	The wider community and key stakeholders	Planning, Approval, Construction, Operation	Project updates including a review of any complaints received and remedial actions, followed by informal discussion with stakeholders and the community.
Individual meetings	Meetings with stakeholders as required to discuss a specific item.	The wider community and key stakeholders	Planning, Approval, Construction, Operation	Meetings may be held face to face, over the phone or via an online platform. Details and format subject to the meetings context, with a record of the discussion included in the consultation register and actioned as required.
Agency meetings	Meetings with agencies to discuss matters relevant to their agency.	Relevant agency	Planning, Approval, Construction, Operation	Meetings may be held face to face, over the phone or via an online platform. Meetings will be held as required to address matters relevant to specific agencies including the satisfaction SEARs requirements or of conditions of consent.
Newspaper Advertisement	Newspaper Advertisement(s) to be published in a local newspaper (for example The Western Weekender or Mt Druitt – St Marys Standard) identifying project commencement and details of the contact phone number and web page address.	The wider community and key stakeholders	Construction	An advertisement will be published advising of the commencement date of construction, a brief overview of the project and key contact details for enquires and complaints including the phone number, webpage and email address. Further advertisements will be published as required where intrusive events are scheduled advising of the nature and date(s) and time(s) of the event and key contact details for enquiries and complaints.
Letterbox drop and email notifications	Letters would be provided to specific receivers identified as being potentially	Residents of the immediate area	Planning, Construction	Letters are to contain key information and avenues for contact (phone, email and post) should further

TABLE 28: COMMUNICATION AND ENGAGEMENT TOOLKIT				
Tool / Technique	Description	Audience	Project Stage	Specifications
	affected by the project generally or specific construction related activities. Letters to be distributed by mail or email.			information be required or the receiver wishes to make comment.
On site signage	Project information details.	Visitors to the Site and residents of the immediate area	Construction, Operation	Contain key project contact details including the hotline and web page, along with relevant project and safety information.
Project information and complaints number	Project phone number available for 24 hours recording of project feedback.	The wider community and key stakeholders	Construction	Phone number located on Site signage, the web page and all project information material. Feedback provided to be incorporated into the consultation register and actioned as required.
Text messages and email alerts	Text messages and emails providing prompt updates.	Residents of the immediate area	Planning, Approval, Construction, Operation	Text Messages and email alerts will provide important information at short notice to potentially affected receivers where consent has been granted to utilise contact detail for this purpose.
Website	A project website shall be developed to provide general information on the project and ongoing updates on project progress.	The wider community and key stakeholders	Construction	Website address and phone number located on Site signage and all project information material. Web page to provide contact details including phone number, email address and enquiry form, as well as project updates, along with environmental performance monitoring.

6.1.3.3 Planning phase engagement

This subsection summarises engagement and consultation activities undertaken to date, during the planning stage of the project's development.

Engagement and consultation associated with the proposed development has been conducted with both Community and Agency Stakeholders. Consultation with Aboriginal parties has been undertaken previously for the Site in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) by Biosis in association with SSD 9522.

Community Stakeholders were notified of the development and invited to engage via formal letter, delivered via post to all adjacent and nearby properties identified in **Appendix 13**. The engagement letter included a summary of the proposed development and Site plan and invited the receivers to participate in consultation on the project, offering virtual platform meetings, face to face meetings or phone interviews. A copy of the engagement letter is included Community and Stakeholder Participation Strategy at **Appendix 13** of this EIS.

In response to the invitation to engage, SLR consulting received no return contact via phone nor email. Despite the lack of response, it is not necessarily unexpected given the level of consultation undertaken with landowners and occupiers in the area in recent times on both individual project proposals and overarching strategic planning for the precinct resulting in consultation fatigue.

Engagement to date with Agency Stakeholders, as part of the preparation of the EIS for the project, is documented within **Table 26** (**Part E**) of this EIS.

6.1.3.4 Consultation feedback

Given no response was received from community stakeholders, the outcomes of engagement, and the project's ability to demonstrate measures proposed to address potential impacts is difficult to express. In lieu of direct community feedback, SLR have identified potential issues and impacts of the project derived from feedback received for numerous other developments of this nature in the area and the potential impacts identified within the original stakeholder identification scoping tool as indicative of potential unmitigated project impacts. These issues or items for consideration are expressed within **Table 23** (**Part E**). along with how the proposed development has or will respond to these matters.

6.1.3.5 Ongoing and future engagement

Ongoing consultation and engagement shall be undertaken through all future stages of the development.

Formal notification of the proposed development will be undertaken by DPIE during the assessment period for the SSD Project, with Altis/Frasers committed to responding to all relevant issues and queries arising during this period through DPIE's formal response to submissions process.

During construction, consultation and engagement shall be undertaken with relevant parties in accordance and will include notification of the commencement of works and consultation on works with the potential for impact on nearby receivers. Altis/Frasers and their contractors will continue to engage and work with all relevant agencies and authorities to meet all regulatory requirements and ensure compliance with conditions of consent.

As the development progresses, refinement of this document and the tools located within the engagement strategy may be required to ensure the ongoing effectiveness of engagement measures proposed. It is recommended by SLR that this strategy forms the basis of a Community Consultation Strategy (CCS), which would be prepared and implemented throughout the construction and operational phases of the project. The CCS would include engagement and complaints/enquiry

protocols, the identification of engagement responsibilities and the maintenance of an engagement register. The CCS would ensure the positive approach to engagement undertaken for the project to date continues through the project lifecycle.

SLR considers that the attempt to undertake consultation for this project has been comprehensive and satisfactory. It is also noted that formal exhibition will form part of the SSD process.

6.1.4 Traffic and transport

This section of the EIS evaluates the traffic and transport aspects of the proposed development, in relation to the SEARs and addresses the following specific matters:

- ***details of all daily and peak traffic volumes likely to be generated during construction and operation, including a description of key access / haul routes, vehicle types and potential queuing impacts***
- ***an assessment of the predicted impacts of traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity, including SSD-9522. The assessment needs to consider the impact on Mamre Road at Bakers Lane (Aldington Road) for the duration of the works.***
- ***details of vehicles waiting to unload, unloading / servicing, including predicted haulage routes, including over size over mass vehicles and impacts to the state road network***
- ***detailed plans of all proposed site access points, justification for their location and an assessment of potential traffic impacts from the proposed access points***
- ***detailed plans of the proposed layout of the internal road and pedestrian network and parking on site in accordance with the relevant Australian Standards and Mamre Road Precinct Development Control Plan***
- ***demonstrating compliance with clause 33C of the SEPP WSEA, specifically the integration with the Mamre Road Precinct dedicated freight corridor (DFC) including provision for access from the DFC to the entire estate***
- ***swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site***
- ***details of road upgrades, infrastructure works or new roads or access points required for the development.***

A robust Transport Assessment has been prepared by Ason Group, which includes a full assessment of all traffic and transport related impacts that may arise from the development proposed under this SSD Application. The Transport Impact Assessment forms **Appendix 27** of this EIS. Having regard to the approved internal road network and intersection treatments approved under SSD 9522, it is noted that all works will be completed and operational prior to construction of the proposed development.

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6.1.4.1 Traffic Types and Volumes

Approved Trip Generation Rates

Based on the approved SSD 9522, trip generation rates have been referred to the following three (3) industrial sites for vehicles trips during the adjacent road AM and PM peak periods:

- Site 1: Erskine Park Industrial Estate, Erskine Park,
- Site 2: Wonderland Business Park, Eastern Creek, and
- Site 3: Riverwood Business Park, Riverwood

In order to account for a worst-case assessment, this assessment adopts traffic rates which reflect the average of the three (3) Sydney industrial sites (during adjacent road network AM and PM peak hours). The worst-case assessment trip rates are as follows:

- AM Rate: 0.247 trips per 100 m2 GFA
- PM Rate: 0.182 trips per 100 m2 GFA
- Daily Rate: 2.640 trips per 100 m2 GFA

Traffic Assessment

Application of the traffic generation rates to the proposed Site's yield (excluding the amenities) results in the following AM, PM and daily traffic volumes (**Table 29**).

TABLE 29: TRAFFIC GENERATION (BASED ON THE SSD 9522 RATES)

Development Yield (m^2)	AM Peak (veh/hr)	PM Peak (veh/hr)	Daily (veh/day)
27,468	68	50	725

First Principles Assessment

Table 30 provides a summary of the forecast vehicular trip generation (during the weekday) for the proposed development based on the operational requirements.

TABLE 30: FIRST PRINCIPLES TRAFFIC GENERATION ESTIMATION - OPERATIONAL

Vehicle Types	Peak Hour Trip Generation (trips/hr)[1]		Daily Trip Generation[1] (veh/day)
	AM Peak (veh/hr)	PM Peak (veh/h)	
Light Vehicles	38	0	280
Heavy Vehicles	6	5	70
Total	**44**	**5**	**350**

Note: 1) including both inbound and outbound movements

Having regard for the future operational assessment, the Site will generate 44 trips and 5 trips during the AM and PM peak periods (inbound + outbound movements) respectively and 350 total vehicle trips throughout the day (inbound + outbound movements).

It is indicated that the actual anticipated vehicular trip generation associated with the proposed development is likely to be lower than the theoretical estimation at both daily and peak period level.

Operational Traffic (Vehicle Types)

The operational heavy vehicle types are described as follows:

- 8.8 m MRVs
  - 10 daily incoming trips and 10 daily outgoing trips
  - 1 incoming trip and 1 outgoing trip in AM Peak Hour
  - 1 incoming trip in the PM Peak Hour

- 20.0 m AVs
  - 15 daily incoming trips and 10 daily outgoing trips
  - 1 incoming trip and 1 outgoing trip in AM Peak Hour
  - 1 incoming trip and 1 outgoing trip in the PM Peak Hour

- 26.0 m B-double trucks
  - 10 daily incoming trips and 15 daily outgoing trips
  - 1 incoming trip and 1 outgoing trip in AM Peak Hour
  - 1 incoming trip and 1 outgoing trip in the PM Peak Hour

Construction Traffic

Light vehicle traffic generation would be generally associated with contractor movements to and from the Site. Contractors would be comprised of project managers, various trades and general construction personnel. Over the full construction period, the peak workforce represents the worst-case scenario for vehicle movements during the AM or PM road network peak hour. The workforce arrival and departure periods (6.30 - 7.00 AM and 5.00 - 5.30 PM) represent the peak construction traffic generation periods.

Light vehicle construction trips are expected to arrive in the morning and depart in the evening and the number of trips would be based on the workforce numbers. Parking for this construction related vehicles would be provided onsite.

Heavy vehicle traffic would mainly be generated by activities associated with the delivery of construction equipment and delivery of material for construction works.

Ason Group has been advised that the construction traffic vehicle movements per day for the Site is expected to be around 70% of the operational traffic numbers (from the First Principles assessment) shown in **Table 30**.

The expected construction vehicle movements (inbound and outbound) and their vehicle types are therefore provided as follows:

- Light vehicles: 196 trips
- Heavy vehicles (up to 26.0m B-Doubles): 49 trips
- Total: 245 trips

Furthermore, the likely breakdown for the peak construction traffic volumes are shown below, noting that the AM and PM Peaks are based on 70% of the theoretical operational traffic volumes for the proposed Lot 10.

- AM Peak: 48 trips; and
- PM Peak: 35 trips

Notwithstanding, majority of the deliveries are likely to occur outside of the peak road network traffic periods and would have limited (if any) impact onto surrounding road network. Again, it is emphasised that a detailed CTMP will be provided in response to a suitable Conditions of Consent (CoC) for the Proposal.

Importantly, the construction traffic volumes are lower than the volumes anticipated for SSD 9522 (and this SSD) once it becomes operational. Therefore, recognising that the key intersection is anticipated to perform satisfactorily once the Site is completed, it can be assumed that the intersection would satisfactorily accommodate the lower volumes of construction traffic.

The primary potential haulage route to and from the Site would be via Mamre Road, and in line with the overarching CTMP prepared previously by Ason Group.

6.1.4.2 Traffic Impact

Table 31 provides a comparison between the indicative traffic based on the SSD rates and the operational traffic data.

TABLE 31: TRIP GENERATION COMPARISON			
Period	Approved Traffic Generation Rates	Indicative Operation	Comparison of Trips
AM Peak	68	44	-24
PM Peak	50	5	-45
Daily	725	350	-375

The operational traffic generation assessment predicts fewer trips than what was previously approved as part of the SSD 9522 and MODs approval (which included detailed traffic modelling for the entire Kemps Creek in sequences Modified 1A, 2 and 3). Therefore, the proposed development will not have any additional traffic impact beyond what has been approved as part of the previous approvals. Furthermore, the approved Modified Sequence 1A has also captured the additional traffic impacts for the proposed development. Even with the approved Modified Sequence 1A, the Site will still not have any additional traffic impacts beyond what has been modelled for this assessment.

Additional Option Testing Modelling

As requested by TfNSW, additional SIDRA modelling for this intersection layout (under approved Modified Sequence 1A) has been completed for the years 2026, 2031 and 2036. This additional option testing is therefore assumed to inform the performance of this intersection in case that the SLR wouldn't be delivered by TfNSW in longer term future.

With regards to the input traffic volumes for the respective years (2026, 2031 and 2036), a breakdown is showcased in the figures below. Notably, the traffic generation for the scenarios is based on the potential estate-wide traffic associated with the Mamre South Precinct (MSP) Ultimate Masters Plan (with 421,820 m^2) and the assumed GFAs for the Southern Lots, which includes the potential traffic generation of the proposed development within the Proposed Lot 10.

To begin, the traffic volume distribution for the year 2026 is shown in **Figure 30**.

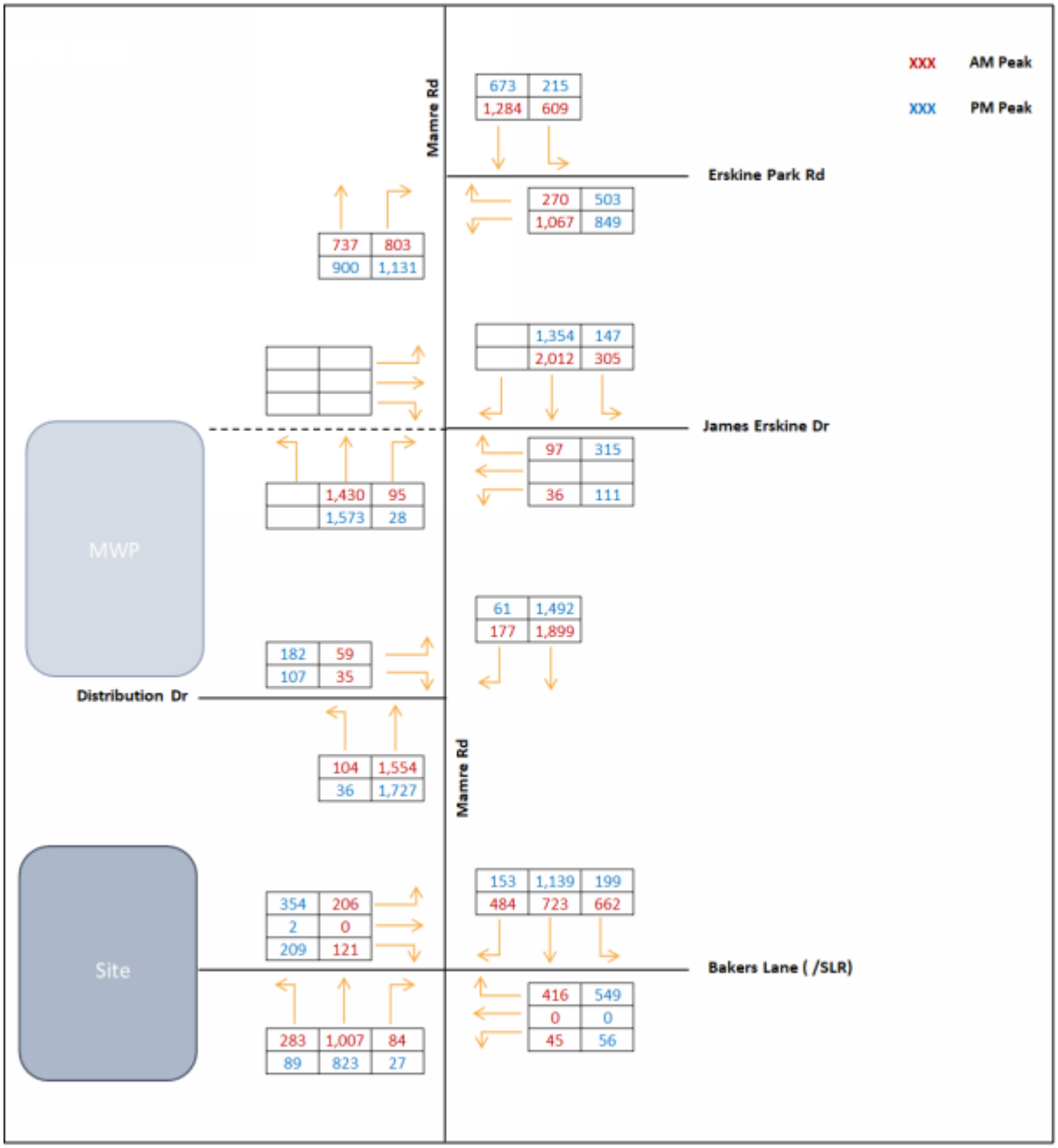

Figure 30 **Traffic Volume Distribution for the MSP Ultimate Plan and Southern Lots GFA for 2026** (Source: Ason Group, 2021)

The traffic volume distribution for the year 2031 is shown in **Figure 31**.

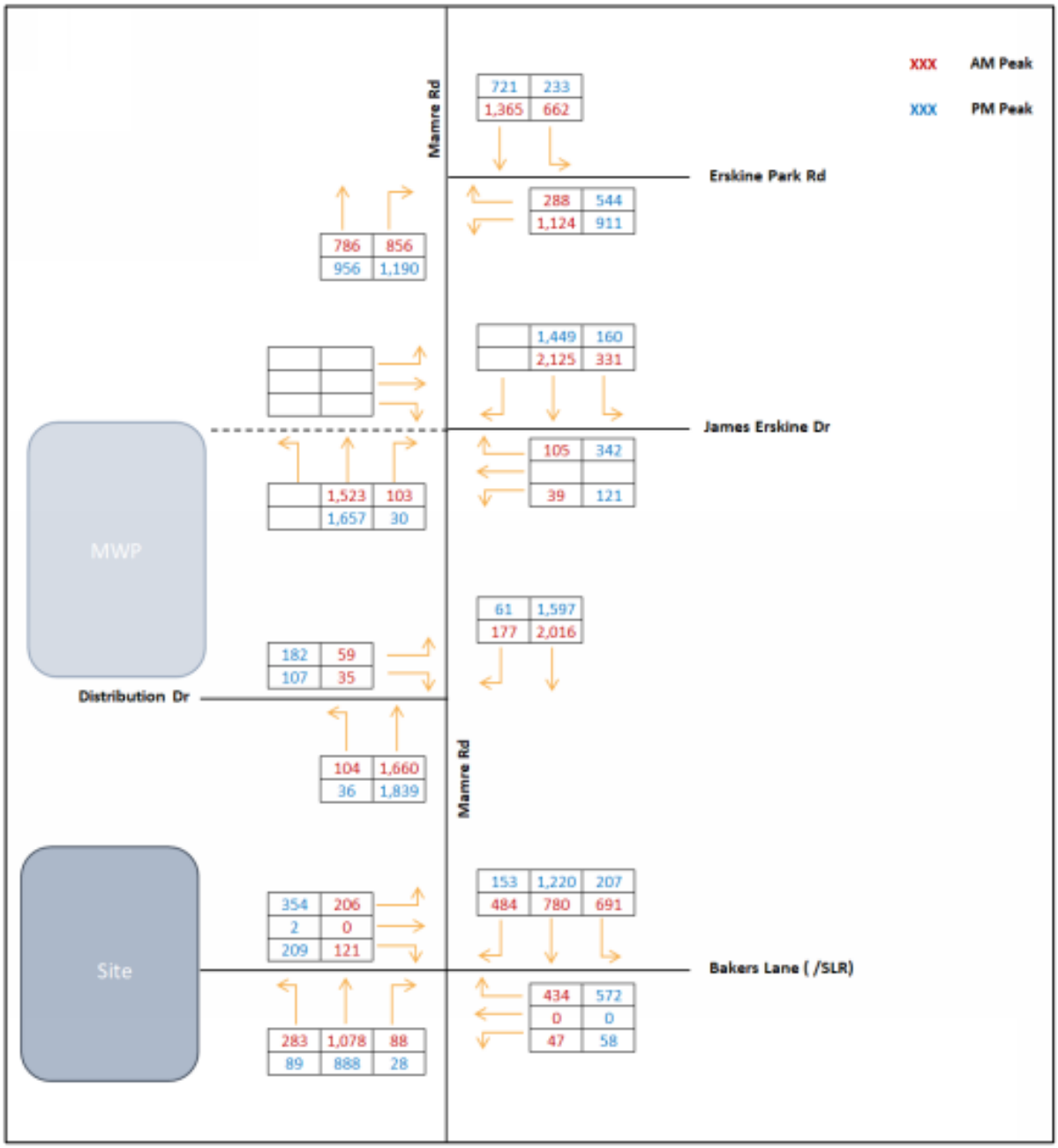

Figure 31 **Traffic Volume Distribution for the MSP Ultimate Plan and Southern Lots GFA for 2031** (Source: Ason Group, 2021)

The traffic volume distribution for the year 2031 is shown in **Figure 32**.

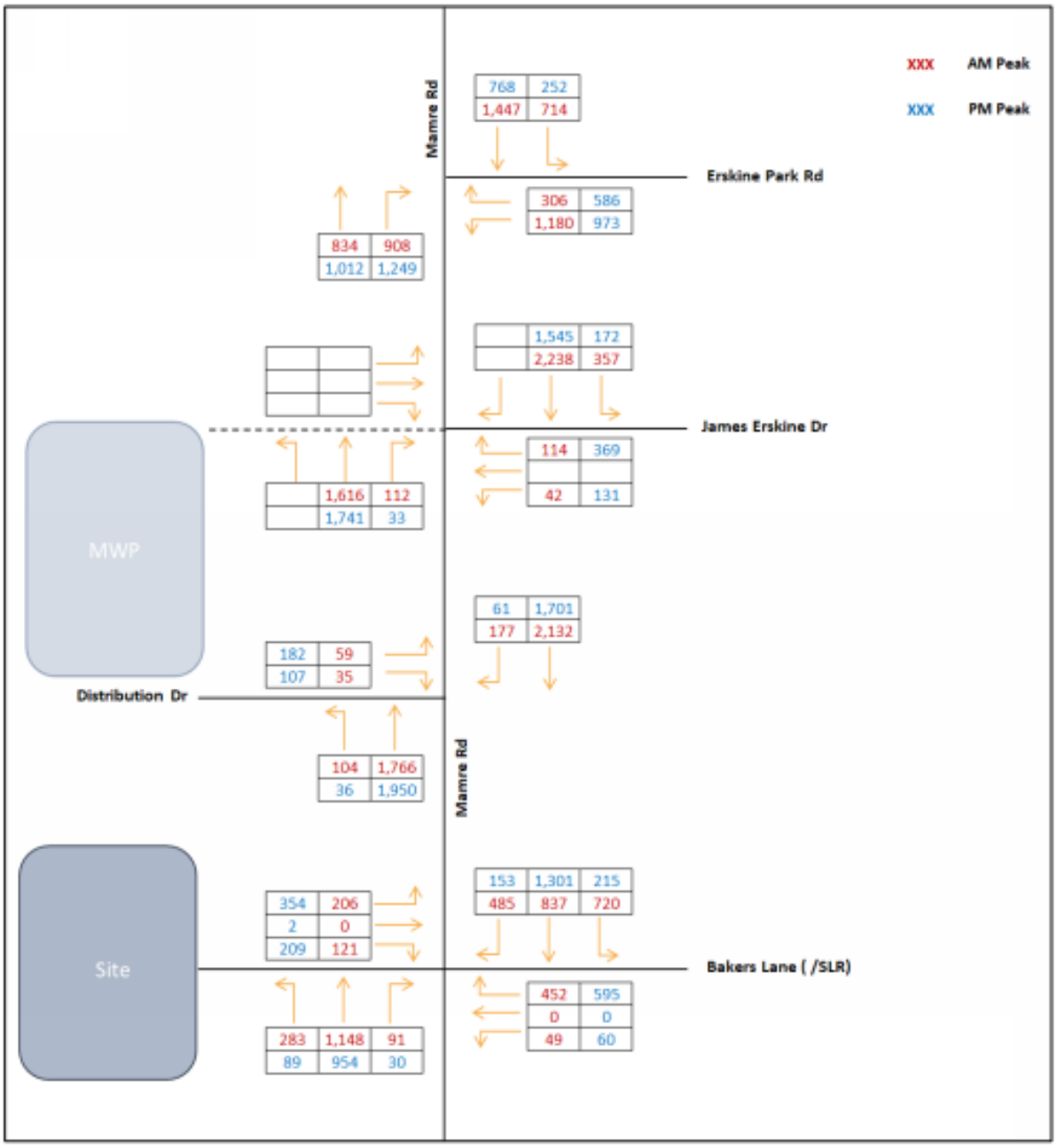

Figure 32 **Traffic Volume Distribution for the MSP Ultimate Plan and Southern Lots GFA for 2036** (Source: Ason Group, 2021)

Accordingly, the network SIDRA modelling analysis (for the three years mentioned above) have been updated for the approved Modified Sequence 1A of the Mamre Road / Bakers Lane intersection with 3 other intersections which include:

- Mamre Road / Erskine Park Road;
- Mamre Road / James Erskine Drive; and
- Mamre Road / Distribution Drive.

The SIDRA network layout for the Site is indicated below in **Figure 33**.

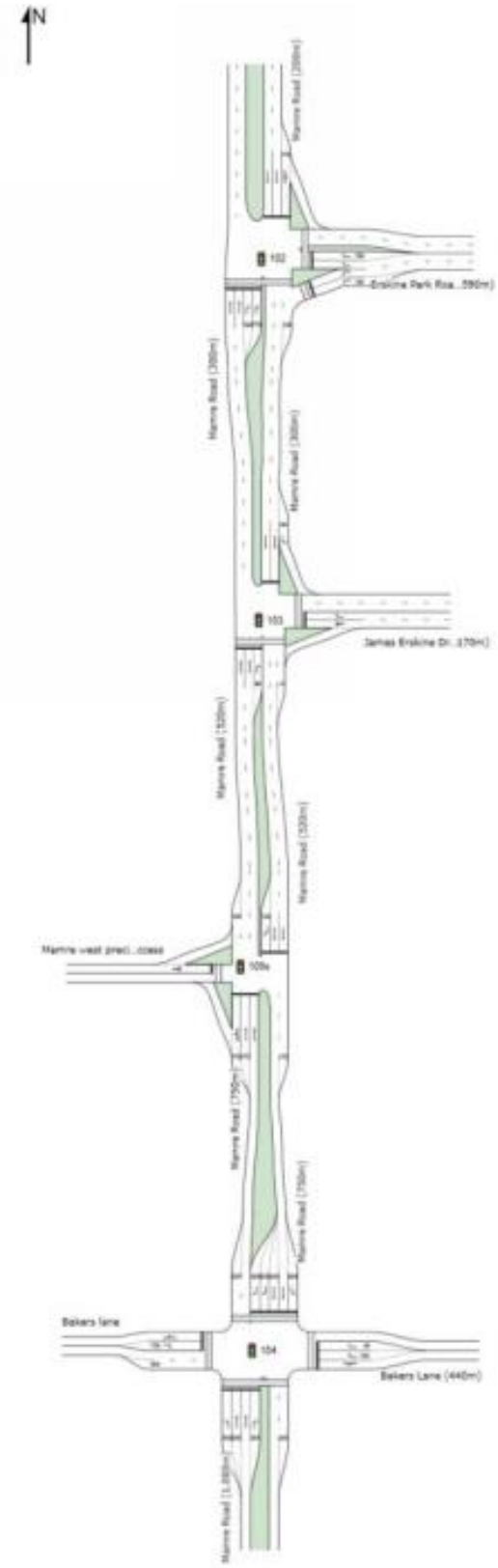

Figure 33 **SIDRA Network Layout for Approved Modified Sequence (2025, 2026, 2031 and 2036)**
(Source: Ason Group, 2021)

The following SIDRA modelling results were found, utilising the SIDRA Intersection 8.0 modelling package.

SIDRA modelling results for the year 2026 are summarised in **Table 32**.

TABLE 32: SIDRA MODELLING RESULTS (APPROVED MODIFIED SEQUENCE 1A – 2026)			
Intersection	Peak Period	Average Delay (Seconds)	Level of Service (LoS)
Mamre Road/Erskine Park Road	AM	41.8	C
	PM	28.2	B
Mamre Road/James Erskine Drive	AM	16.9	B
	PM	11.6	A
Mamre Road/Distribution Drive	AM	10.1	A
	PM	13.8	A
Mamre Road/Bakers Lane	AM	41.1	C
	PM	48.1	D

SIDRA modelling results for the year 2031 are summarised in **Table 33**.

TABLE 33: SIDRA MODELLING RESULTS (APPROVED MODIFIED SEQUENCE 1A – 2031)			
Intersection	Peak Period	Average Delay (Seconds)	Level of Service (LoS)
Mamre Road/ Erskine Park Road	AM	51.1	D
	PM	33.0	C
Mamre Road/James Erskine Drive	AM	12.5	A
	PM	13.1	A
Mamre Road/Distribution Drive	AM	9.5	A
	PM	14.3	A
Mamre Road/Bakers Lane	AM	40.6	C
	PM	51.1	D

It is indicated that all key intersections are expected to operate at an acceptable LoS (LoS D or better) during both AM and PM peak periods and the approved Modified Sequence 1A (for 2026 and 2031) can readily accommodate the potential estate-wide traffic associated with MSP Ultimate Master Plan (with 421,820m^2) and the Southern Lots, which include the potential traffic generation of the proposed Lot 10.

SIDRA modelling results for the year 2036 are summarised in **Table 34**.

TABLE 34: SIDRA MODELLING RESULTS (APPROVED MODIFIED SEQUENCE 1A – 2036)			
Intersection	Peak Period	Average Delay (Seconds)	Level of Service (LoS)
Mamre Road/ Erskine Park Road	AM	72.6	F
	PM	36.3	C
Mamre Road/James Erskine Drive	AM	16.0	B
	PM	19.8	B
Mamre Road/Distribution Drive	AM	9.1	A
	PM	20.5	B
Mamre Road/Bakers Lane	AM	40.2	C
	PM	53.1	D

It is indicated that all key intersections (excluding the Mamre Road / Erskine Park Road during the AM peak) are expected to operate at an acceptable LoS (LoS D or better) during both AM and PM peak periods. However, the Mamre Road / Erskine Park Road intersection operates at a LoS F. It is noted that the LoS F for this AM peak period assessment is related to the background traffic growth of the area in the next 15 years, and it is not directly relevant to the proposed Lot 10 traffic, which is negligible in the scheme of Mamre Road traffic growth.

In summary, the approved Sequence 1A Modified plan can accommodate the ultimate built form of the entire MSP as well as the Southern Lots traffic (for years 2026, 2031 and 2036) satisfactorily.

Mamre Road/Bakers Lane/NS Road 01

Additionally, SIDRA modelling has been undertaken for the potential future SLR / Bakers Lane / North-South 01 Access Road intersection for an assumed year 2036. The intersection layout for this scenario is shown in **Figure 34** which is based on Costin Roe functional layout. It is noted that the traffic estimation at this intersection has been obtained through review of EMME Data as well as the traffic volumes estimated for the entire Master Plan and the Southern Lots.

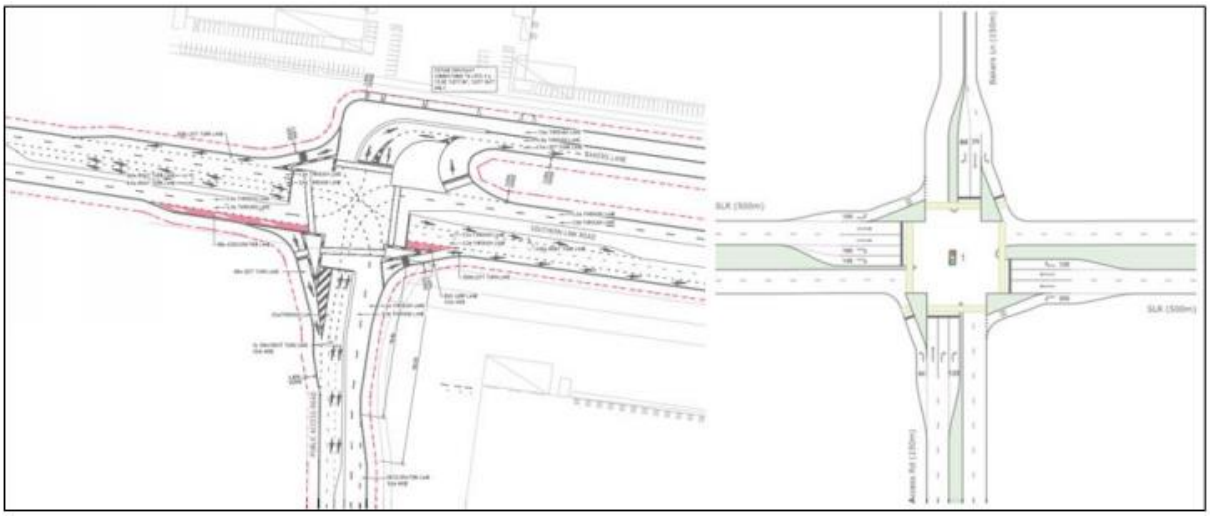

Figure 34 **Potential Intersection Layout (Signalised Intersection) for SLR/Bakers Lane (in 2036)**
(Source: Ason Group, 2021)

The SIDRA modelling results (attached in **Appendix 27**) indicated that the signalised intersection operates at a LoS "C" in both the morning and afternoon peak hours.

With regards to queuing from the southern leg towards the Site's truck exit point, this assessment indicated that the proposed 120 metre right turn bay can sufficiently accommodate the AM and PM peak hour queues (which are approximately 63 and 97 metres).

Furthermore, the Site's truck exit point has been located approximately 150 metres from the stop line of the southern approach for the potential signalised intersection which confirms that the queue back from the signal will not impact the access point.

Finally, TfNSW has previously advised that the separation from new signalised intersections in a green field site should be in the order of 50-100 metres. As such the location of this truck exit point also satisfies this requirement.
In summary, the SIDRA analysis for this signal is supportive and can accommodate the overall MSP and Southern Lots traffic (inclusive of the proposed Site's traffic) with no material issues.

6.1.4.3 Loading/Unloading

The proposed SSD includes provision of 11 roller shutter doors and four (4) recessed docks i.e., a sum of 15 loading and unloading spaces are provided onsite. An uncoupling area has also been provided for the proposal in line with AS2890.2:2018 requirements. Swept path analysis confirm suitability for 30.0m Super B-Double movements at the proposed access points and internal commercial areas. However, it is noted that based on the tenant's operational information, the proposal will only require 26.0m B-Double as the design vehicle. Hence the simulation for 30.0m Super B-Double (based on Mamre Road Precinct Draft DCP) is considered to be conservative.

According to the approved SSD 9522, the approved service bay provision is expected to fall within a range of 1 space per 778m^2 – 2,535m^2 of warehouse GFA.

Having regard to the above, the minimum and maximum service bay requirement have been applied and is shown overleaf in **Table 35**:

TABLE 35: SERVICE BAY REQUIREMENTS

Warehouse GFA (m^2)	Service Bay Requirement (Lower)	Service Bay Requirement (Higher)	Service Bay Provision
15,390	6	20	15

As it is evident from this table, an appropriate number of service bays have been provided for the proposed development.

Section 6.1.4.2 also addresses the traffic impact associated with these vehicles to the state road network which is deemed to be lower than what has already been approved under SSD 9522 and approved MOD 1.

Accordingly, the proposed Site plan has been designed to cater for all anticipated vehicle sizes and the proposed traffic will not have any additional impact onto the estate roads and external road network beyond what has already been approved.

6.1.4.4 Site Access

The Site has three (3) proposed vehicular access points. It has a separate car entry / exit point and truck entry point on the public access road to the south of the Site. It has a truck exit point located on the public access road to the east of the Site (North-South spine road – NS Road 01). Furthermore, it is important to note that all Site accesses are restricted to left-in & left-out movements as a result of road medians.

The proposed access crossover for the car parking facility is located 16.5m to the west of the intersection between North-South Road and East-West Road. Accordingly, this access point is compliant with the requirement of AS2890.1: 2004 Figure 3.1 of the Standard, which requires a minimum of 6.0m from the tangent point of the intersection. The proposed carparking facility accessed via this crossover will accommodate a total of 163 car parking spaces mainly for staff attending the Site. As such, a Category 2 access driveway is applicable to this crossover, which requires a combined driveway between 6.0 to 9.0m. Therefore, the provision of a 6.2m combined access driveway is deemed to be sufficient for a Category 2 access driveway.

The sightline assessment undertaken for this access is deemed satisfactory. The traffic associated with this access crossover is mainly related to the staff and as such, this access serves a low traffic number during network peak hours.

The proposed vehicular access strategy is shown in **Figure 35**.

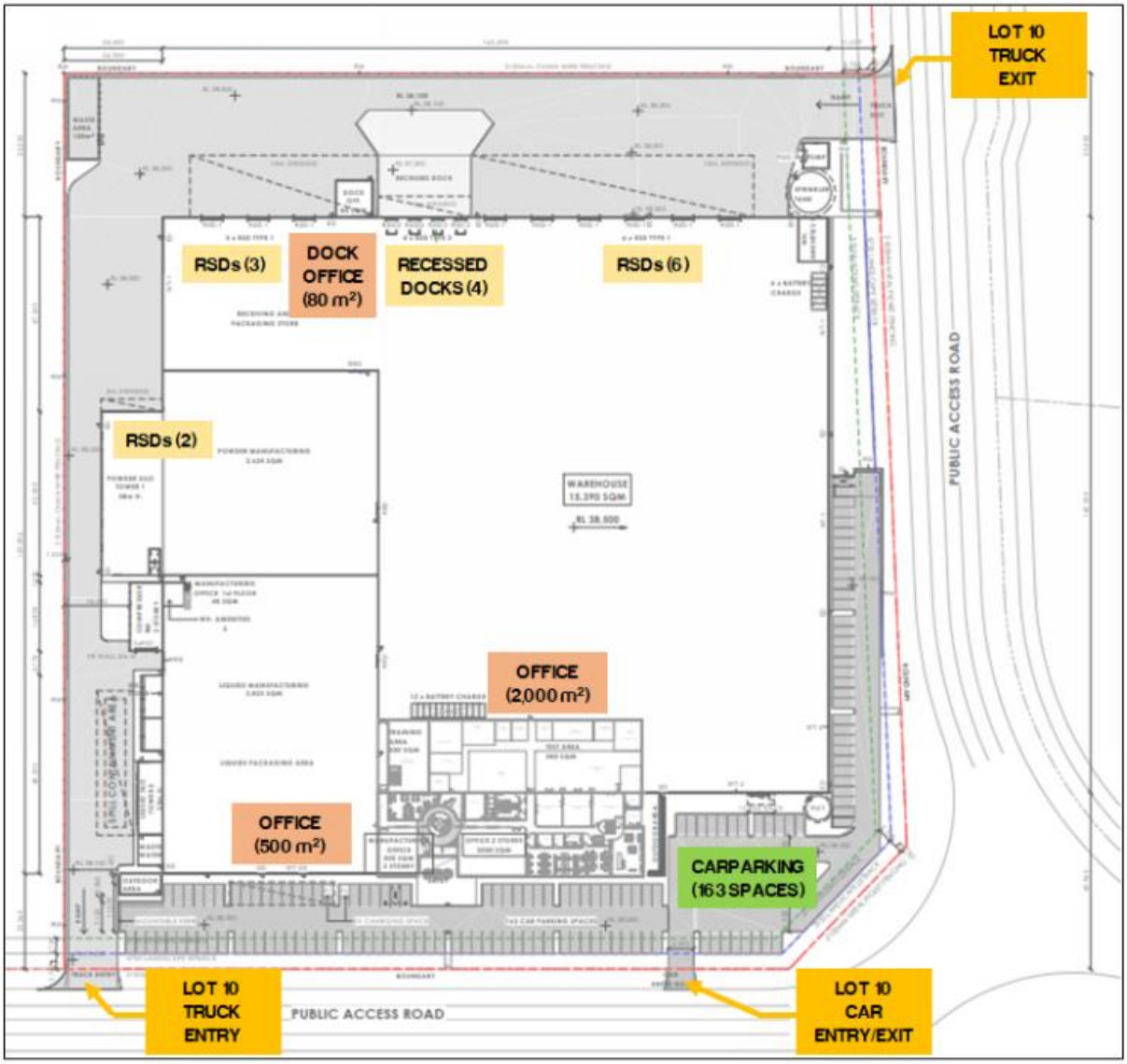

Figure 35 **Proposed Vehicular Access Strategy** (Source: Ason Group, 2021)

The proposed access locations are in line with current estate road approval and that the sight distance has been reviewed and is in line with the requirements set out in the Australian Standards. Furthermore, the exit point is located approximately 150m from the potential future Mamre Road / Bakers Lane / NS Road 01 signalised intersection, which is deemed to be in line with TfNSW requirements for separation of access points to future signals at Green field sites.

Furthermore, SIDRA analysis for this intersection has been completed for 2036 which suggests that the left turn exit crossover would not be impacted by queues from this signal.

6.1.4.5 Internal Road Network and Parking

Section 6.1.4.4 above provides a detailed assessment of the proposed internal layout of the internal roads.

Car Parking

Parking rates for developments within the Kemps Creek Warehouse, Logistics and Industrial Facilities Hub have been provided in Condition A8 of the SSD 9522 approval as shown below in **Table 36**.

TABLE 36: APPROVED CAR PARKING RATES SET OUT IN SSD 9522	
Land Use	Parking Rate
Warehouse	1 space per 300m^2 GFA
Office	1 space per 40m^2 GFA
Accessible Parking	1 space for accessible parking for every 100 car parking spaces
Electric Vehicle Charging Stations	1 percent of car parking spaces provided with conduit provision for Electric Vehicle Charging Stations

Parking rates for the manufacturing component of the Site has been provided in accordance with the rates set out in the Mamre Road Draft DCP 2020 as shown below in **Table 37**.

TABLE 37: MAMRE ROAD DRAFT DCP 2020 PARKING RATES	
Land Use	Parking Rate
Manufacturing	1 space per 200m^2 GFA

Parking Assessment

Application of the above rates to the proposed development results in the following car parking requirements (**Table 38**).

TABLE 38: CAR PARKING REQUIREMENT AND PROVISION FOR THE PROPOSED DEVELOPMENT			
Land Use	Lot 10 Yield (m^2)	Car Parking Required	Parking Provided
Warehouse	15,390	51	163
Manufacturing	9,498	47	
Office	2,580	65	
Total	**27,468**	**163**	**163**

Application of the approved parking rates to the proposed development results in the requirement of 163 spaces. In response, the proposal provides 163 onsite car parking spaces, satisfying these requirements. All parking spaces have been designed to comply with the relevant Australian Standards as demonstrated in **Figure 36** below.

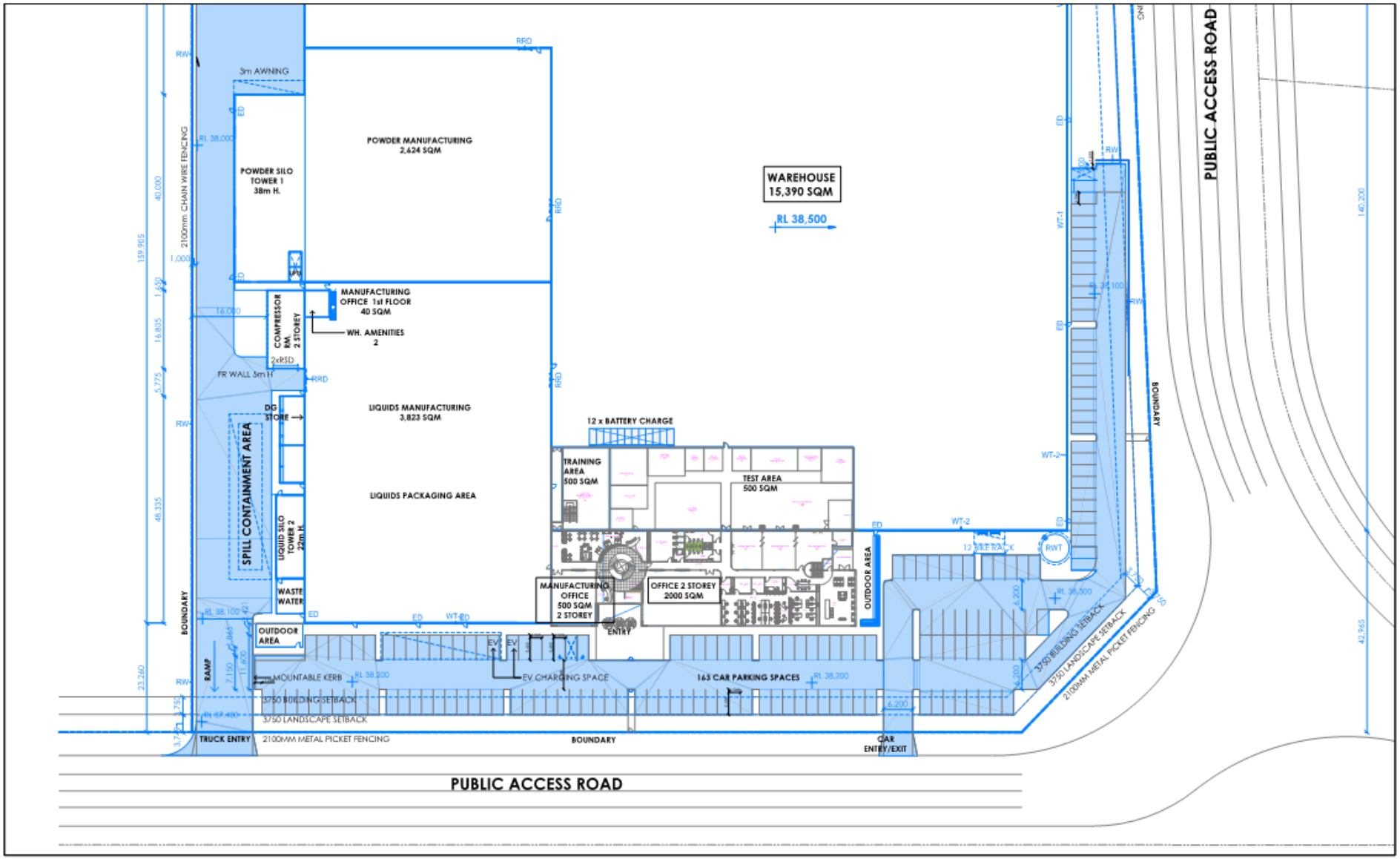

Figure 36 **Car Park Design Review** (Source: Ason Group, 2021)

Accessible Parking

Condition A8(c) of SSD 9522 specifies the following requirements for accessible parking spaces:

- 1 space for people with disabilities for every 100 car parking spaces.

This equates to a required provision of two (2) accessible spaces to be included within the car park. In response, two (2) accessible spaces have been provided.

Electric Vehicle Charging Stations

Condition A8(d) of SSD 9522 specifies the following requirements for accessible parking spaces:

- 1 percent of car parking spaces provided with conduit provision for Electric Vehicle Charging Stations.

This equates to a required provision of two (2) spaces that shall have a conduit provision for Electric Vehicle Charging Stations. Despite the condition not directly applying to this Proposal, two (2) spaces have been provided.

Bicycle Parking

Condition A9 of SSD 9522 refers to the Planning Guidelines for Walking and Cycling, which requires bicycle parking to be provided at a rate of 3-5% of staff numbers (for long-term use) and 5-10% of staff numbers (for short-term use).

A total of 140 staff will be employed and attend the Site in different shifts:

- Office Shift: 8:30 AM to 5:00 PM; approximately 75 staff
- Warehouse Morning Shift: 6:00 AM to 2:30 PM; approximately 45 staff
- Warehouse Afternoon Shift: 2:30 PM to 11:00 PM; approximately 20 staff

Accordingly, bicycle parking requirements are outlined in **Table 36**:

TABLE 39: BICYCLE PARKING REQUIREMENTS	
Estimated Staff Numbers	Bicycle Parking Requirement (Bicycle Spaces)
140	12-21

Additionally, the Planning Guidelines for Walking and Cycling also provides the following minimum requirements (shown in **Table 40**) for End of Trip (EoT) facilities on-site.

TABLE 40: EOT FACILITIES REQUIREMENTS			
Staff Numbers	Lockers	Showers	Change Rooms
50-149	1 per 3 racks	4 (2 male and 2 female)	2 (1 male and 1 female)

In response, the Proposal provides a minimum of 12 bicycle parking spaces near the proposed office with relevant EoT facilities (i.e. lockers, showers and change rooms) provided at the office ground floor.

6.1.4.6 Dedicated Freight Corridor

The Subject Site is located approximately 1.15km from the Mamre Road Precinct Dedicated Freight Corridor and will therefore not be impacted by the proposed development.

6.1.4.7 Vehicle Manoeuvring

Swept path assessment has been undertaken as part of the design review in accordance with AS2890.2:2018 and is provided in **Figures 37** to **43** below. It is noted that the swept path analysis has been undertaken for a 30.0m Super B-Double truck in accordance with the requirements of the Mamre Road Draft DCP. However, the largest size truck entering the Site will be a 26.0m B-Double truck. Hence, the assessments included in the assessment is considered conservative and representing the worst-case scenario.

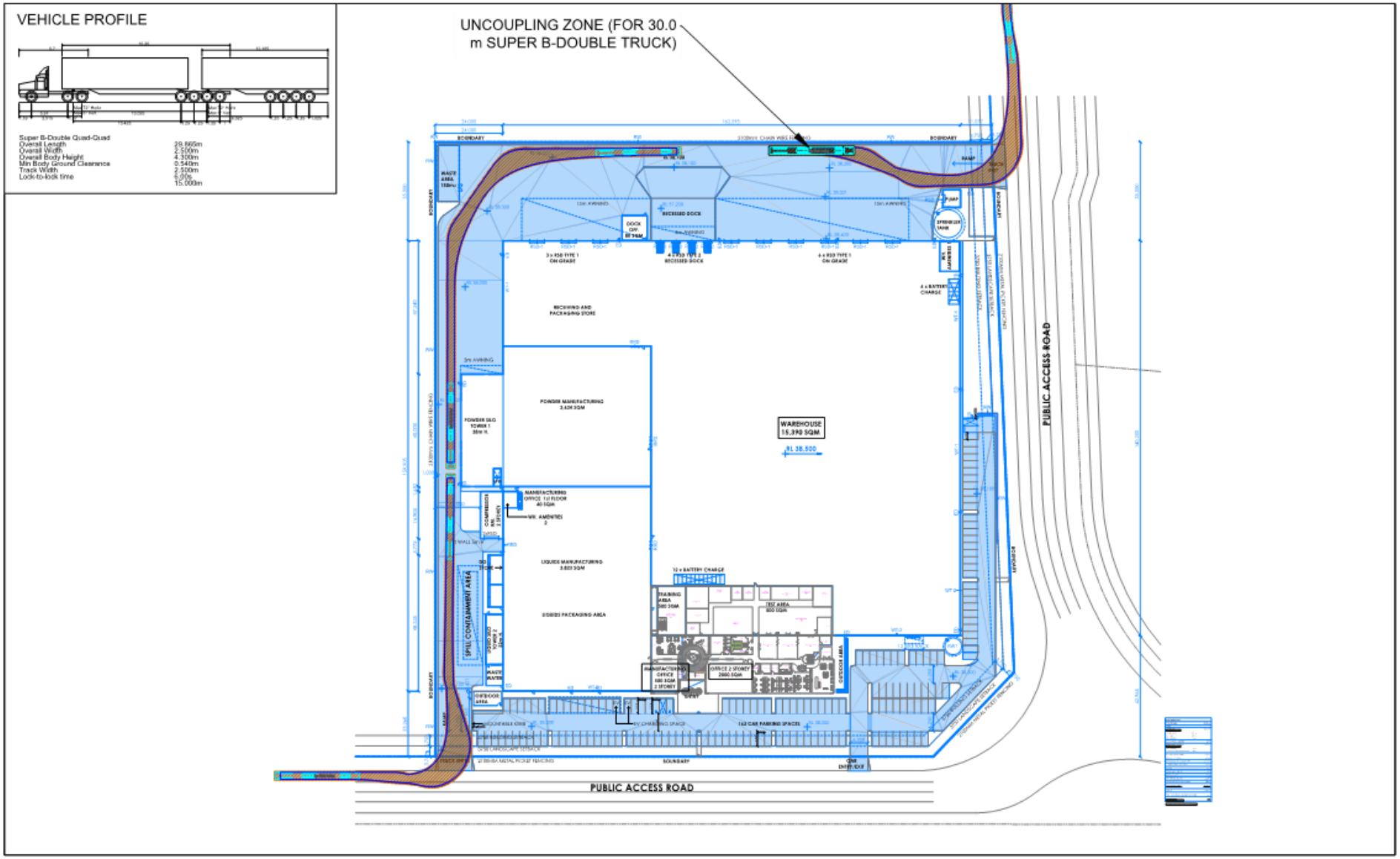

Figure 37 **Swept Path Assessment – 30.0m Super B Double Uncoupling** (Source: Ason Group, 2021)

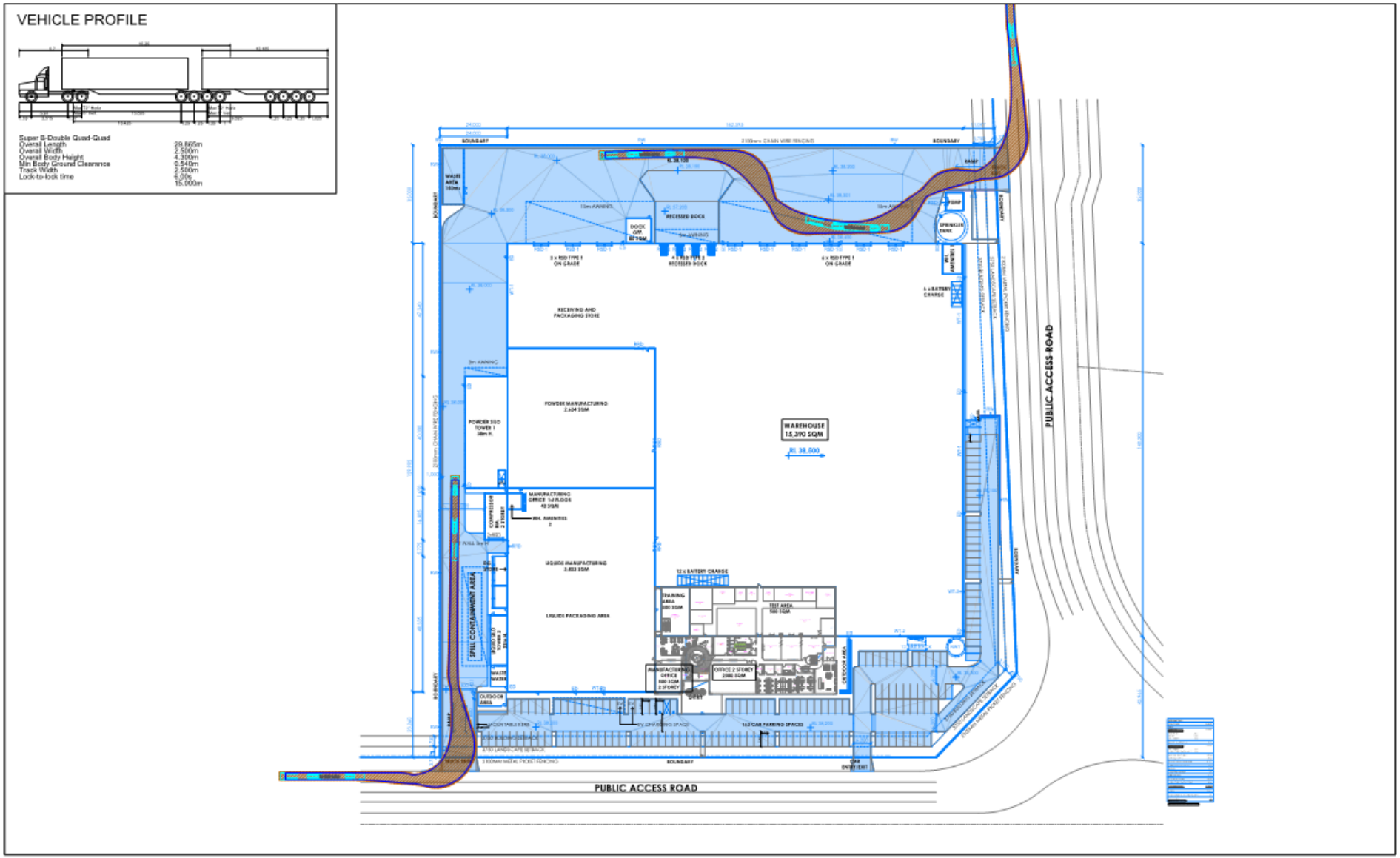

Figure 38 **Swept Path Assessment – 30.0m Super B Double Uncoupling** (Source: Ason Group, 2021)

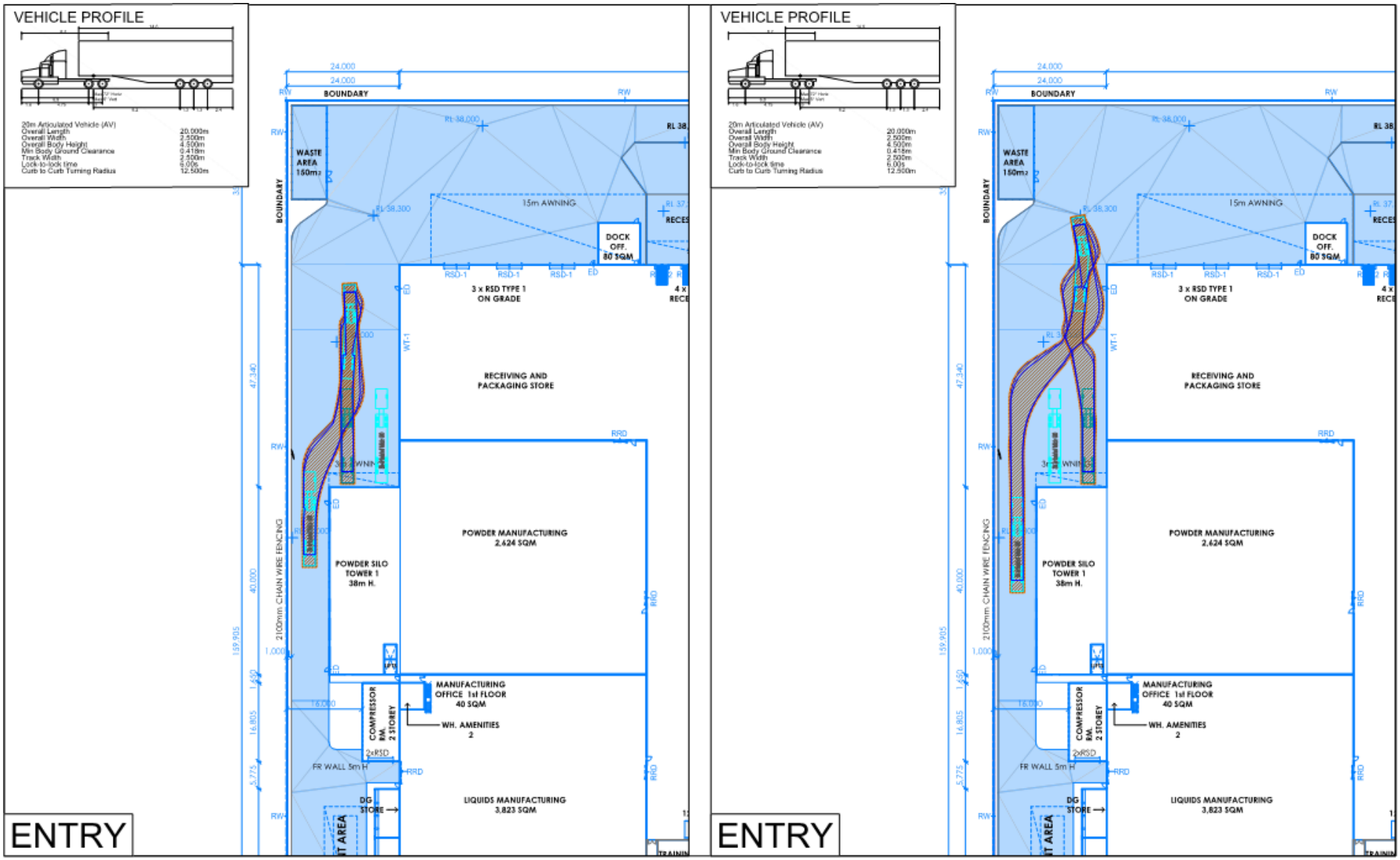

Figure 39 **Swept Path Assessment – 20.0m AV Rear Loading** (Source: Ason Group, 2021)

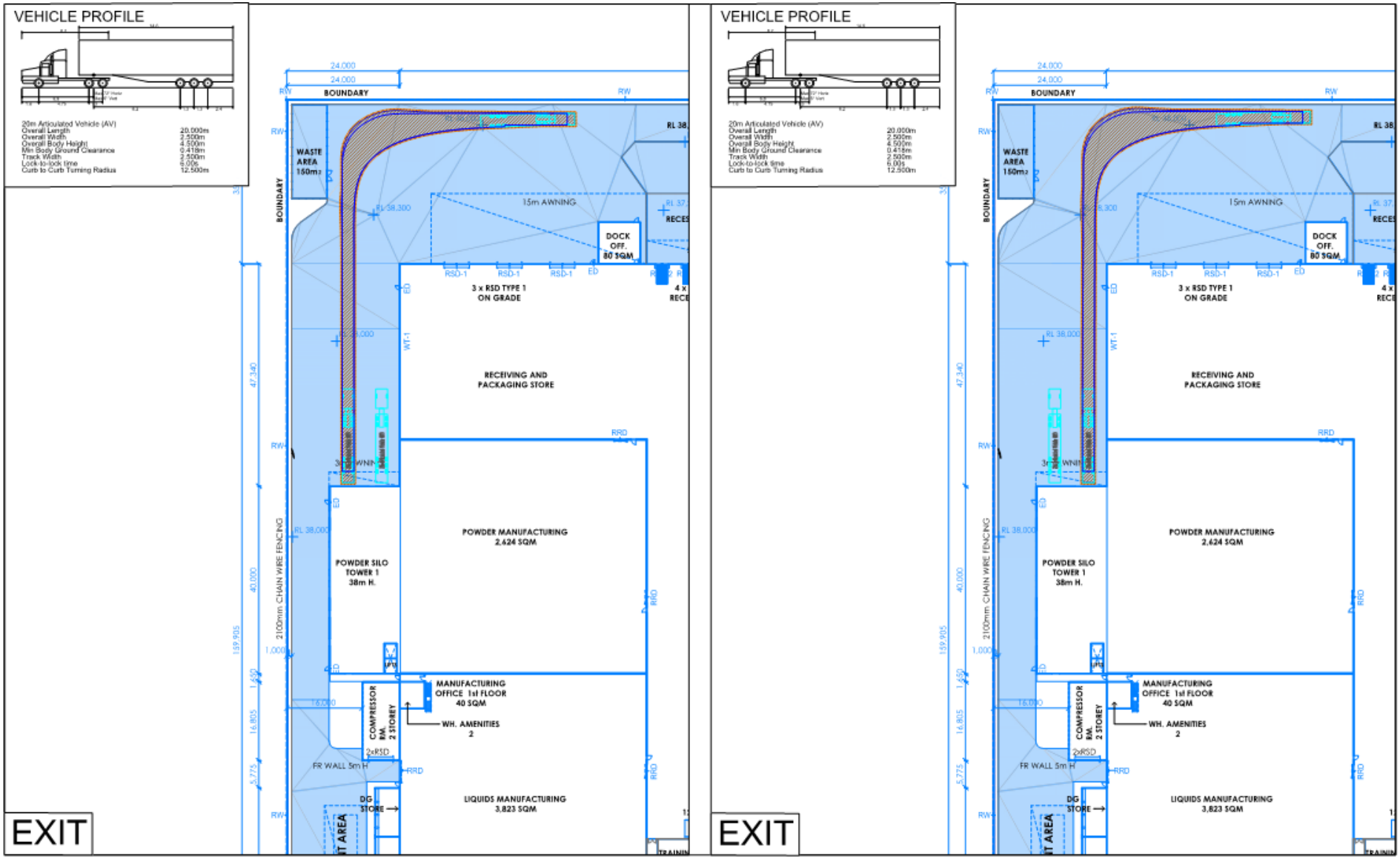

Figure 40 **Swept Path Assessment – 20.0m AV Rear Loading** (Source: Ason Group, 2021)

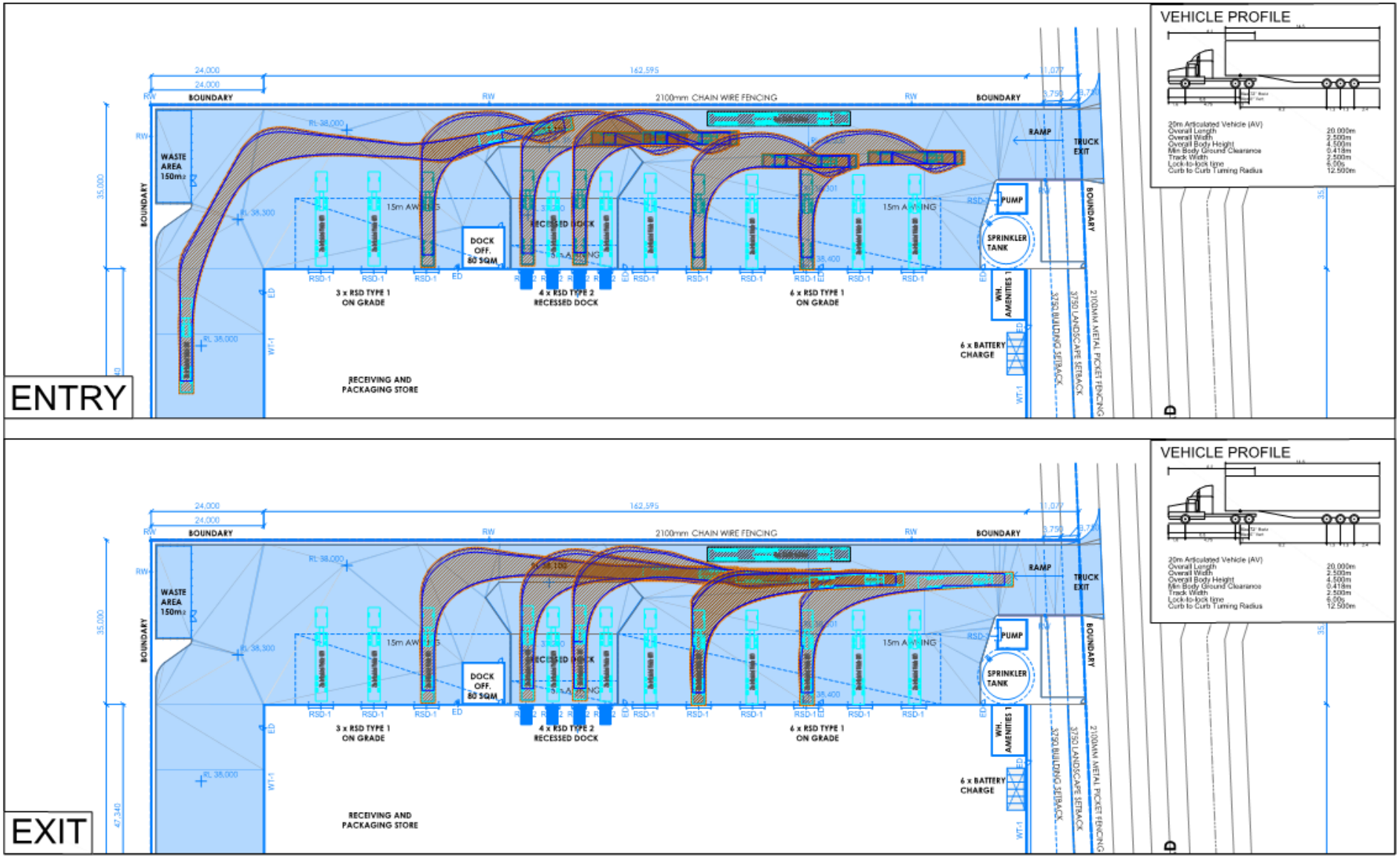

Figure 41 **Swept Path Assessment – 20.0m AV Rear Loading** (Source: Ason Group, 2021)

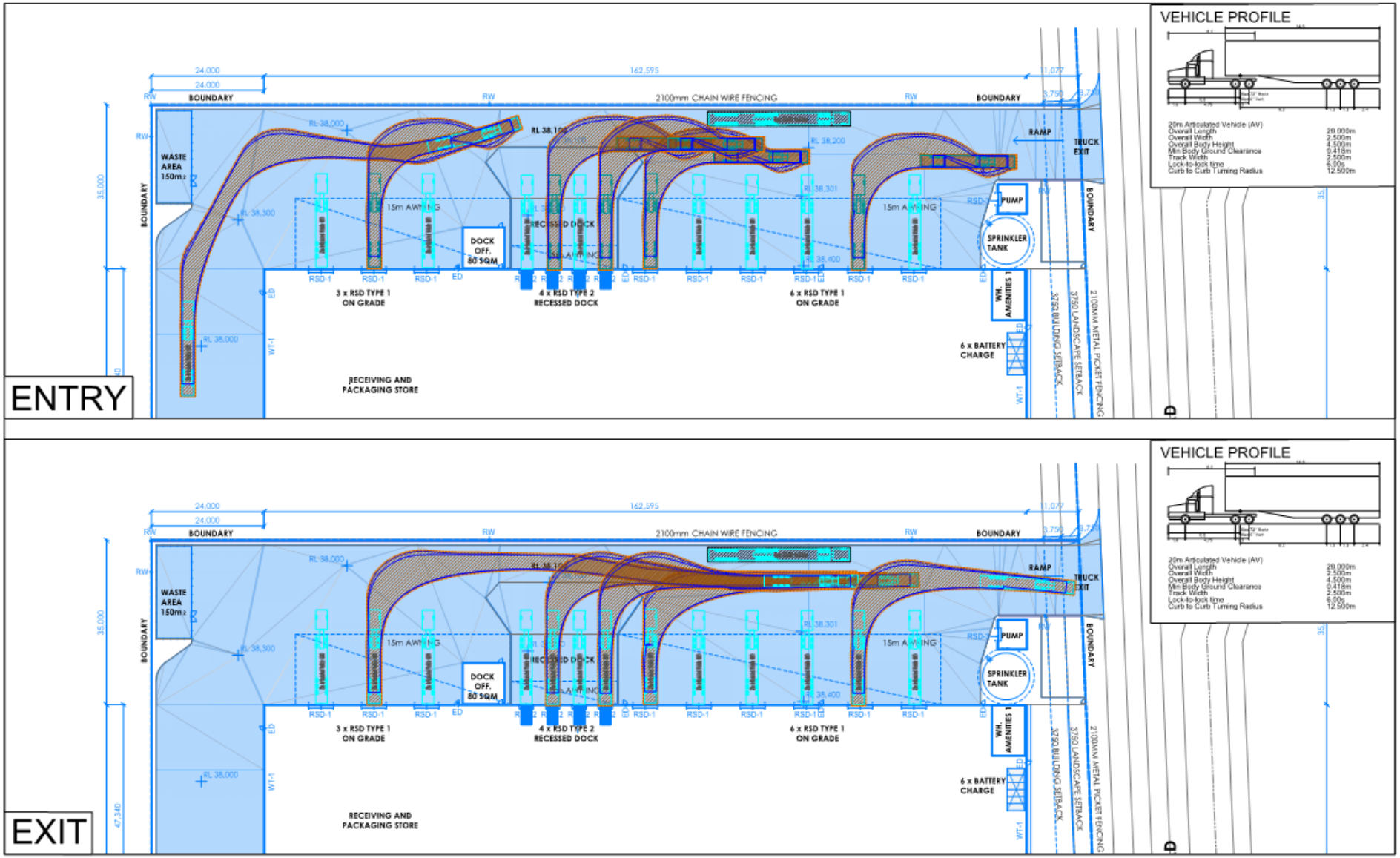

Figure 42 **Swept Path Assessment – 20.0m AV Rear Loading** (Source: Ason Group, 2021)

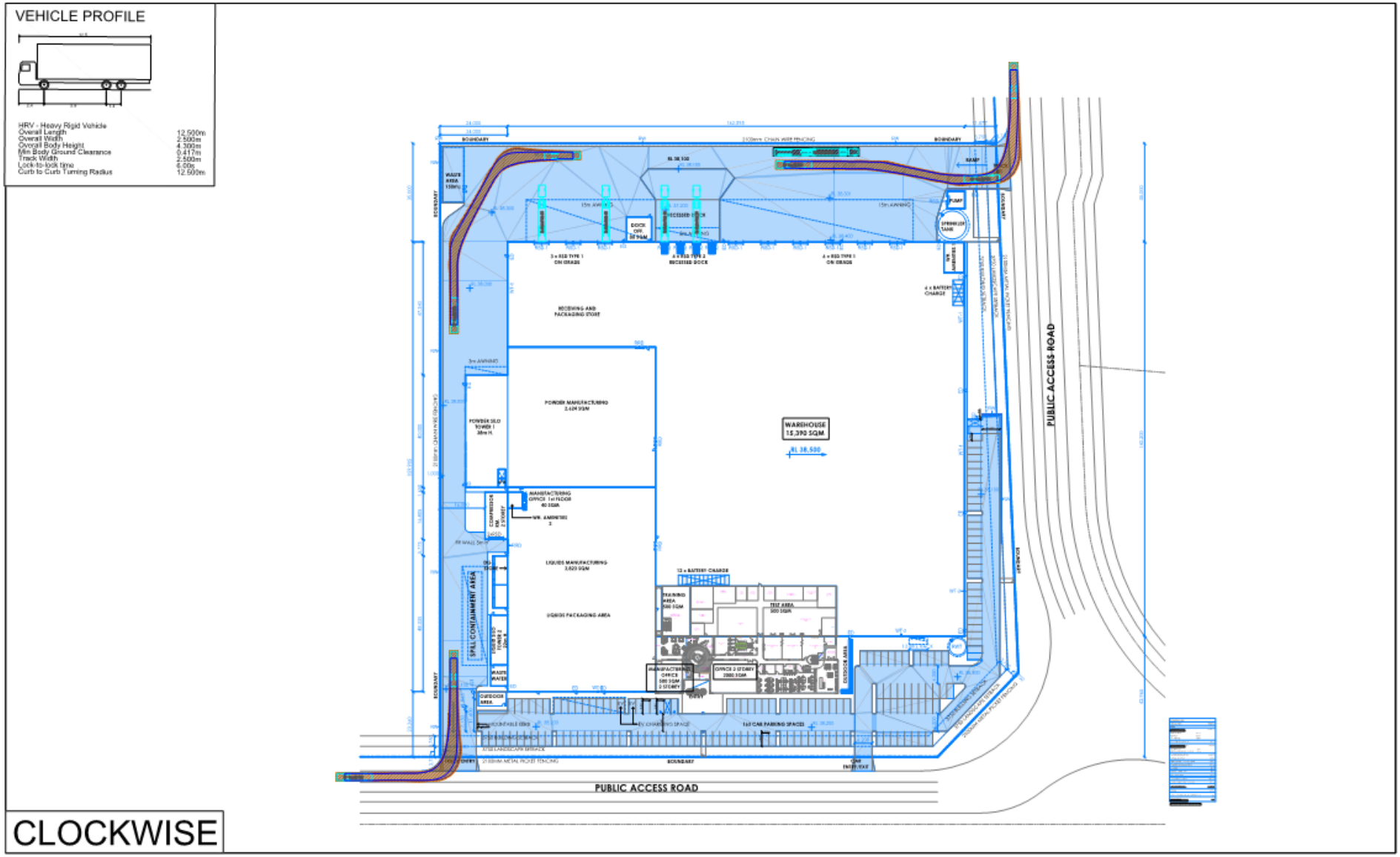

Figure 43 **Swept Path Assessment – Fire Truck Circulation (12.5m HRV)** (Source: Ason Group, 2021)

6.1.4.8 Road Upgrades

Mamre Road Upgrade

It is known that the road network in the general vicinity of the Mamre South Precinct (MSP) is due to receive significant road upgrades in the future as part of the Mamre Road Upgrade strategy.

With reference to the approved SSD 9522, the Altis/Frasers proposes to upgrade Mamre Road to facilitate construction of the Sequence 1A (modified) intersection, which includes localised road widening. It is noted that these upgrade works are separate to that proposed by RMS (now part of TfNSW) as part of other regional projects (Mamre Road Upgrades and Southern Link Road projects). Modelling assumptions for the major proposed road upgrades in the immediate vicinity of the Site are extracted from Mamre Road Upgrade document prepared by RMS in November 2017 and also reference has been made to the TfNSW website.

In February 2019, the NSW Government announced $220M funding for a 3.8-kilometre section of the Mamre Road Upgrade between M4 Motorway and Erskine Park Road (including this signal) to:

"…transform the existing two-lane undivided road into a four-lane divided road, providing a safer, higher-capacity link. The Mamre Road upgrade will also be future proofed, allowing another two lanes to be added down the track,"

This makes it clear that the additional upgrades offered by Altis/Frasers will form a continuation of RMS planned upgrades and provides significant link capacity improvements for this vicinity. Furthermore, based on recent liaison with the Mamre Road Upgrade Team at TfNSW (former RMS), the following timeline has been outlined for this regional upgrade:

- Construction is expected to start by 2023;
- The aim is to complete this upgrade work by 2026 in time for the airport; and
- Late 2025 is TfNSW's expected date for completion for Stage 1 regional upgrade including the intersection of Mamre Road and Erskine Park Road.

Upgrades at the Mamre Road/Bakers Lane Intersection

SSD 9522 and approved MOD 1 includes 3 access Sequence strategies at the intersection of Mamre Road and Bakers Lane, which are briefly discussed as follows:

<u>Approved Modified Sequence 1A:</u>

Approved Modified Sequence 1A is expected to accommodate the potential estate-wide traffic associated with MSP Ultimate Master Plan (with 421,820 m^2) and the assumed GFA for Southern Lots without relying on the previously approved Sequence 1A. The approval for the approved Modified Sequence 1A has been granted under MOD 1 which replaces Sequence 1A.

It is expected that MOD 2 (under assessment) would then remove Sequence 1B in light of this approved Modified Sequence 1A.

Accordingly, the network SIDRA modelling analysis have been updated for the approved Modified Sequence 1A of the Mamre Road / Bakers Lane intersection with 3 other intersections which include:

- Mamre Road / Erskine Park Road;
- Mamre Road / James Erskine Drive; and
- Mamre Road / Distribution Drive.

SIDRA modelling results are summarised in **Table 41**.

TABLE 41: SIDRA MODELLING RESULTS (APPROVED MODIFIED SEQUENCE 1A – 2025)			
Intersection	Peak Period	Average Delay (Seconds)	Level of Service (LoS)
Mamre Road/ Erskine Park Road	AM	24.9	B
	PM	25.9	B
Mamre Road/James Erskine Drive	AM	13.5	A
	PM	11.6	A
Mamre Road/Distribution Drive	AM	9.7	A
	PM	13.6	A
Mamre Road/Bakers Lane	AM	41.3	C
	PM	47.0	D

It is indicated that all key intersections are expected to operate at an acceptable LoS (LoS D or better) during both AM and PM peak periods and the approved Modified Sequence 1A can readily accommodate the potential estate-wide traffic associated with the MSP Ultimate Master Plan (421,820 m^2 GFA), which includes the potential traffic generation of the proposed development within the proposed Lot 10.

In summary, the proposed Sequence 1A Modified plan can accommodate the ultimate built form of the entire MSP as well as the Southern Lot's traffic (assumed as part of the SSD 9522 approval) and as such, it can be considered acceptable to replace the currently approved Sequence 1B from the signal capacity prospective. In any event, it is noted that the proposed Lot 10 traffic assessment is not relying on MOD 2 approval and can be approved through the existing concept plan approval under SSD 9522 and approved MOD 1. Furthermore, to address TfNSW's comment, the traffic modelling has been extended for this sequence plan up to the year of 2036 to review the performance of this intersection in light of regional background growth in case that SLR would not be delivered by 2036.

It is again emphasised that the original approval (SSD 9522) assumes delivery of SLR by 2026, and as such the additional traffic assessments undertaken for 2026, 2031 and 2036 are considered as option testing to show the performance of this intersection should SLR not be delivered by 2036.

Following assessment of the proposed development through the Traffic Impact Assessment, it is considered on balance that the project is worthy of support with respect to traffic and transport.

6.1.5 Soils and water

This section of the EIS evaluates the matters of soil and water associated with the proposed development, as per the SEARs, in particular:

- ***an assessment of potential surface and groundwater impacts on watercourses, riparian areas, groundwater, groundwater-dependent communities nearby, adjacent licensed water users, and measures proposed to reduce and mitigate these impacts***
- ***a detailed site water balance including a description of the water demands and breakdown of water supplies, and any water licensing requirements***
- ***details of stormwater/wastewater management system including the capacity of onsite detention system(s), onsite sewage management and measures to treat, reuse or dispose of water***
- ***description of the measures to minimise water use***
- ***consideration of the NSW Aquifer Interference Policy (2012), the Guidelines for Controlled Activities on Waterfront Land (2018) and relevant Water Sharing Plans***
- ***detailed flooding assessment including the management of flood prone land and potential impacts of the development on flood evacuation. To assess the impacts of the***

proposed development, information for pre and post-development scenarios including modelling of the local overland flows are to be included

- ***characterisation of water quality at the point of discharge to surface and/or groundwater against the relevant water quality criteria***
- ***a Water Cycle Management Strategy that considers on-lot stormwater management measures, adequate disposal of stormwater and avoids negative impacts downstream***
- ***modelling undertaken in accordance with the MUSIC modelling toolkit and stormwater quality and flow targets, a flow duration curve spreadsheet and MUSIC model file***
- ***description of the proposed erosion and sediment controls during construction.***

Costin Roe has prepared Civil Engineer Plans (**Appendix 5**) and a Civil Engineering Report (**Appendix 12**) Costin Roe to address the matters or soil and water.

6.1.5.1 Potential surface and groundwater impacts

Clause 33L of the WSEA SEPP aims to avoid or minimise the adverse impacts of stormwater on the land on which development is to be carried out, adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, requiring the consent authority to take into consideration the following matters.

TABLE 42: STORMWATER, WATER QUALITY AND WATER SENSITIVE DESIGN	
Clause 33L consideration	Response / Location of Assessment
(a) water sensitive design principles are incorporated into the design of the development, and	In addition to existing measures (as part of SSD 9522) the proposed development aims to meet Council's water conservation requirements in the form of an-line tank, which is to be connected for toilet flushing and irrigation reuse.
(b) riparian, stormwater and flooding measures are integrated, and	SSD 9522 considered the potential flooding impacts and behaviours as a result of the post-development flows. There would be no further changes to the outcomes in this respect. The proposed stormwater system for the current proposal is to consist of a major/ minor system which conveys surface water from the proposed development lots to in-ground drainage connection points provided as part of the infrastructure construction works. Site water ultimately drains via the estate infrastructure to the combined water quality/ detention basin in the south-west corner of the site. A summary of the main stormwater management measures is provided as follows: • In-ground drainage system designed to accommodate the 1 in 20 year ARI storm event. • Overland flow paths to convey the 1 in 100-year ARI storm event from the Site to the Estate Basin (located on the east of the development site). • Discharge of stormwater to estate infrastructure and estate stormwater management basin to the east of the Site; and • Rainwater reuse in accordance with the estate development.

TABLE 42: STORMWATER, WATER QUALITY AND WATER SENSITIVE DESIGN	
Clause 33L consideration	Response / Location of Assessment
(c) the stormwater management system includes all reasonable management actions to avoid adverse impacts on the land to which the development is to be carried out, adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, and	Surface water management, including conveyance of surface runoff, management of water quantity (through on-site detention) and water quantity (through on-site and estate wide management systems using WSUD principles and best practice pollution reduction objectives) has been proposed in the design.
(d) if a potential adverse environmental impact cannot be feasibly avoided, the development minimises and mitigates the adverse impacts of stormwater runoff on adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, and	The proposal demonstrates minimal impact on the existing environment.
(e) the development will have an adverse impact on— *(i) the water quality or quantity in a waterway, including the water entering the waterway, and* *(ii) the natural flow regime, including groundwater flows to a waterway, and* *(iii) the aquatic environment and riparian land (including aquatic and riparian species, communities, populations and habitats), and* *(iv) the stability of the bed, banks and shore of a waterway, and*	Subject to the proposed management systems, the development is expected to result in negligible impacts.
(f) the development includes measures to retain, rehabilitate and restore riparian land.	The proposal demonstrates minimal impact on the existing environment.

Given the abovementioned compliance with Clause 33L of the WSEA SEPP, it is considered that the proposed development meets its overall objective to avoid or minimise the adverse impacts of stormwater on the land on which development is to be carried out, adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems.

6.1.5.2 Site Water Balance

Water supply for the development will be provided by Sydney Water. Measures including rainwater reuse are proposed for non-potable water use with the demand on non-potable being reduced by 80% through the use of an in-line tank for the collection and storage of rainwater. At times when the rainwater storage tank is full rainwater can pass through the tank and continue to be discharged via gravity into the stormwater drainage system. Rainwater from the storage tank will be pumped for distribution throughout the development in a dedicated non-potable water reticulation system.

There are no proposed water licenses and adjacent properties are noted to be contemplating similar developments.

6.1.5.3 Stormwater/Wastewater Management

Water discharged from the Site ultimately drains to estate water quality management basins. Characterisation of water quality being discharged from the Yards Estate is described in Section 6, Section 7 & Section 8 of the approved SSD 9522 estate "Water Cycle Management Strategy" by Costin Roe (ref: Co13362.00-07k.rpt) & subsequent modifications. Further, measures incorporating the use of

rainwater for non-potable water demand is proposed for the Site, with a target of reducing non-potable reuse by 80%.

6.1.5.4 Water Use Minimisation

Measures incorporating the use of rainwater for non-potable water demand is proposed for the Site. Use of harvested rainwater is proposed to reduce potable water demand for landscaping irrigation and toilet flushing by 80%,

6.1.5.5 Aquifers

There are no identified aquifers on the site and no proposed water uptake requirements. There is no identified waterfront land on the property and/ or requirements for controlled activities as such.

6.1.5.6 Flood Assessment

A detailed flooding assessment has been completed for The Yards estate, in which this proposal sits.

A flood assessment has been undertaken using the two-dimensional TUFLOW modelling engine. Assessment includes pre and post development modelling of the 5% AEP, 1% AEP, 0.5% AEP, 0.2% AEP and the PMF events. Impact assessments have been included for the 1% AEP, and the 0.5% AEP, 0.2% AEP events assessed as proxies for climate change.

The assessment shows acceptable outcomes which meet the objectives of the NSW Floodplain Development Manual, Penrith City Council DCP and the proposed amendments to the Penrith City Council DCP proposed in the Exhibition Draft South Creek Floodplain Management Plan 2020.

6.1.5.7 Water Quality

Water discharged from the Site ultimately drains to estate water quality management basins. Characterisation of water quality being discharged from the Yards Estate is described in Section 6, Section 7 & Section 8 of the approved SSD 9522 estate "Water Cycle Management Strategy" by Costin Roe (ref: Co13362.00-07k.rpt) & subsequent modifications.

6.1.5.8 Water Cycle Management Strategy

The Site is proposed to discharge to estate level water quality and quantity management basins. The estate water cycle management strategy is described in Section 6 of the approved SSD 9522 "Water Cycle Management Strategy" report by Costin Roe (ref: Co13362.00-07k.rpt) & subsequent modifications.

Further, measures incorporating the use of rainwater for non-potable water demand is proposed for the Site, with a target of reducing non-potable reuse by 80%.

6.1.5.9 MUSIC Modelling

The Site falls within the Yards Industrial Estate which has an approved estate wide Stormwater Management Strategy under SSD 9522 which includes all development lots, including the residual lots. These systems are now currently being constructed based on the approval.

Given the estate stormwater system, which includes the Subject Site, has been approved and is currently being constructed, the new EES targets are not considered applicable to the development. It is noted that the current level of development in the estate achieves the MARV of 2.0ML/Ha/Yr, and this value (based on anticipated development take-up) would not be breached until 4-5yrs in the future. There are no changes required or proposed to the approved estate stormwater management system, or discharge arrangements from the overall project, as a result of the proposed development. The overall

estate development area of 89ha, and associated development coverage for the remains consistent with that approved under SSD 9522 and MOD 1. No change to the assessed management systems and/or discharge arrangements approved under SSD9522 and MOD 1 is required.

The SSD 9522 approved stormwater management system incorporates water quantity and quality management systems consistent with accepted practices for the fully developed catchment, including the proposed development. The approved estate system has been assessed as achieving acceptable stormwater discharge flow rates and water quality outcomes.

EES proposes alternate water quantity and quality measures to those currently approved. Given there are no changes to the estate development areas and impervious surface coverage for the proposed development, or proposed to the assessed and approved management systems, further assessments of the stormwater management systems are not considered warranted.

It is noted that the gap between the requested new waterway targets proposed by EES/DPIE and this estate can be bridged via the precinct wetland solution proposed by Sydney Water and the Waterway Manager for South Creek which is expected to be resolved within the timeframe noted.

6.1.5.10 Erosion and Sediment Controls

An Erosion and Sediment Control Plan has been included within the Civil Engineer Plans (**Appendix 5**). These sections show proposed measures, based on the Landcom document *Managing Urban Stormwater –Soils & Construction Volume 1 ('Blue Book')(Landcom, 2004),* are proposed during the construction of the development. Measures proposed will limit potential for offsite impact associated with water runoff and soils during construction. Consideration of the management of salinity and acid sulphate soils has been made based on the recommendations of the geotechnical investigations (**Appendix 19**) and noted Landcom document.

6.1.5.11 Contamination

Detailed environmental site investigations have been undertaken as part of SSD 9522 with respect to contamination of the Site, confirming the suitability of the Site for industrial and commercial related land uses. Notwithstanding an addendum to support the previous findings has been prepared by JBS&G in the form of an Environmental Site Assessment (**Appendix 17**) to support the previous findings and confirm the suitability of the Site for the proposed use.

Based on the findings of their investigations, JBS&G have concluded the following:

- Based on the recent Site condition assessment undertaken, no evidence of gross and/or widespread contamination was identified at the Site. No observations were made of Site conditions which would indicate that the Site suitability had been materially altered since preparation of the Detailed Site Investigation.
- The Site is considered suitable for the proposed development; and
- It is recommended that the unexpected finds protocol (UFP) and imported fill protocol (IFP) are implemented during works to ensure that, upon completion of development works, the Site remains suitable for the proposed development.

JBS&G recommend that during works, a Construction Environmental Management Plan (CEMP) should be implemented which identifies typical site management controls and makes provisions for unexpected finds. This recommendation has been included within the management and mitigation measures outlined in **PART G** of this EIS.

Following assessment of the proposed development through the Civil Engineering Plans and Report and Environmental Site Assessment, it is considered on balance that the project is worthy of support with respect to soils and water.

6.1.6 Urban design and visual

This section of the EIS evaluates the urban design and visual aspects of the proposed development, in relation to the SEARs and addresses the following specific matters:

- ***a visual impact assessment (including photomontages and perspectives) of the development layout and design, including:***
  - ***a detailed design and options analysis of the development including diagrams, illustrations and drawings with reference to the built form, height, setbacks, bulk and scale in the context of the immediate locality, the wider area, the desired future character of the area and consideration of Clause 31 of SEPP WSEA***
  - ***a visual impact assessment (including photomontages and perspectives) of the development layout and design (buildings and storage areas) including details of staging, site coverage, setbacks, open space, landscaping, height, colour, scale, building materials and finishes, façade design, signage and lighting. The assessment must consider potential impacts on:***
  - ***views, vistas, open space, the Wianamatta-South Creek corridor and significant vantage points in the broader public domain***
  - ***nearby public and private receivers***
  - ***consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks***
  - ***detailed plans showing suitable landscaping which incorporates endemic species and maximises opportunities for green infrastructure.***

6.1.6 Visual impact assessment

Geoscapes have prepared a Visual Impact Assessment in accordance with the Guidelines for Landscape and Visual Impact Assessment (GLVIA) – Third Edition, to assess the principal ways in which the proposed development is considered likely to interact with existing landscape and visual conditions as a result of the permanent introduction of a manufacturing facility with an associated warehouse. The detailed VIA is contained within **Appendix 28** of this EIS.

The nature of landscape and visual assessment requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is based on the best practice guidance listed above, information and data analysis techniques, uses subjective professional judgement and quantifiable factors wherever possible and is based on clearly defined terms (refer to glossary). As stated in paragraph 2.1 of the GLVIA:

> "The guidance concentrates on principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive, in that it does not follow a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances."

The Visual Impact Assessment prepared by Geoscapes is considered to use a methodology and approach that is appropriate to this type of industrial development.

Receptor selections:

The visual impact from receptors has been assessed and the following list of visual receptors are judged to potentially have the highest sensitivity to the development:

- Approach from Bakers Lane, Kemps Creek (VP1);
- Mamre Road, Kemps Creek (VP2);
- 127 Aldington Road, Kemps Creek (VP3);
- Mamre Road South, Kemps Creek (VP4);
- 833A Mamre Road, Kemps Creek (VP5);
- 799 Mamre Road, Kemps Creek (VP6);
- Twin Creeks Reserve/Golf Course, Twins Creek (VP7);
- 22 Medinan Avenue, Luddenham (VP8); and
- View West of LOT 17 (RE2)(VP9).

There are currently a number of other residential properties in the surrounding vicinity that would experience views of the proposed development. A sample of these would include the following:

- 706-752 Mamre Road, Kemps Creek - 900m northeast of the Site boundary;
- 754 Mamre Road, Kemps Creek - 1.2m east of the Site boundary;
- 129 Aldington Road, Kemps Creek - 2.2km east of the Site boundary;
- 141 Aldington Road, Kemps Creek - 2.2km east of the Site boundary;
- 772 Mamre Road, Kemps Creek - 960m east of the Site boundary;
- ·864 Mamre Road, Kemps Creek - 1.5km southeast of the Site boundary;
- 826 Mamre Road, Kemps Creek - 1.2m south of the Site boundary; and
- Residential properties on Comargo Lane, Twin Creeks - 1.25km west of the Site boundary.

(Note: all of the above distances are taken from the residential dwelling at the address to the closest development lot boundary)

Though the locations listed above have not been assessed for individual visual impact assessment, all are located within the Mamre Road Precinct with the exception of the properties on Comargo Lane, Twin Creeks. The Mamre Road Precinct has recently been rezoned to to permit industrial uses following an amendment to the SEPP WSEA.

As a result of the rezoning of the Mamre Road Precinct, most if not all of the potential residential receptors listed above are highly likely to no longer exist at a future point in time. Should the lots within IN1 zoned land be acquired in the short to medium term and the properties removed, any visual impacts would no longer be of any relevance.

In the short term, the properties within the Mamre Road Precinct will experience varying degrees of visual impact generated by the proposed development. Properties identified along Aldington Road are located at a distance of approximately 2.2km and therefore, short term visual impacts may be of less significance than properties still within the IN1 zoning, but in closer proximity to the Ardex development. These would include residential properties to the south along Mamre Road. These may receive a larger visual impact, but the length of time these properties will exist will depend on the progress of acquisitions of land for industrial development. Following the recent rezoning of the Mamre Road Precinct, the rating of future sensitivity for these properties in closer proximity to the development could also be judged to now be much lower than prior to the rezoning.

During the public exhibition of the Mamre Road Draft Structure Plan in November and December 2019, it was clear that local residents were extremely supportive of the rezoning from the many public submissions received by the DPIE post exhibition. It can therefore be assumed that the owners of residential properties within the Mamre Road Precinct will be fully aware of the new industrial development to occur in the immediate future. As a result, the visual amenity, character and pattern of the landscape will shift from a predominately rural one, to one regularly influenced by industrial development. This transition should be kept front of mind when considering the potential visual impact of the development.

Viewpoints were selected along Mamre Road and Bakers Lane as these roads and the established public realm will remain regardless of the rezoning. The development could potentially be visible to passing motorists at the selected locations.

Outside of the Mamre Road Precinct to the immediate west, lies the suburb of Twin Creeks/Luddenham. Viewpoints 7 and 8 were selected to represent the views that might be experienced from the golf course, adjoining public land and residential properties. As a result of the recent Mamre Road Precinct and WSA rezoning, Twin Creeks is now the only collection of residential visual receptors in close proximity to the development and whose zoning remains unaffected. Twin Creeks is zoned E4 Environmental Living and can now be considered to potentially contain the most sensitive visual receivers which could be potentially be impacted by the proposed development. These receptors are expected to remain in the long term.

The SEPP WSEA planning policy has identified a number of RE1 - Public Recreational zoned areas around the Kemps Creek Industrial Estate. The SEARS request that consideration of the visual impacts upon the Wianamatta-South Creek corridor is assessed by the Applicant in the EIS. Therefore, viewpoint 9 was taken to the west of the RE2 zoned land and to the east of South Creek. Consideration of the potential visual impacts on the RE1 zoned lands has been undertaken and mitigation measures proposed.

It should also be noted that the proposed development includes a detailed landscaping strategy intended to populate the Site with landscaping along all four of the Site boundaries. The Approved Estate Landscape Masterplan (under SSD 9522) also details significant landscaping to the west including planting with screening trees (10m-15m in height). Following maturity this will provide some screening and visual relief of the built form, particularly to the sensitive receivers within Twin Creeks. Therefore, it is intended that ultimately the majority of the Ardex building is to be screened with the possible exception of the 38m tower which would be visible, but its impact reduced by the distance from sensitive receptors.

Viewpoints from the north within First Estate were considered to have very low sensitivity to the proposed development and therefore, were not selected for visual impact assessment. However, the quality and presentation of the built form to future receptors within the Approved Estate has been considered. Further north, residential properties along Mandalong Crescent would potentially be able to see the proposed 38m tower, however this would be at a distance of over 1.8km and would only result in a very small change to their present view. The visual impact from the receptors on Mandalong Crescent is assessed to be negligible/none.

Natural topography and rising landforms to the east also create a visual barrier for some lower lying properties behind these areas. As a result, the development would not be visible from this vantage point. To the northwest, the suburb of Luddenham contains potential residential receptors to the development, however, vegetation associated with South Creek is expected to prevent views of the proposal. This is evident from analysis within the SSD 9522 LVIA report (180815_LVIA01).

A view of the development may be possible from areas on the perimeter of the Blue Mountains. However, this is approximately 12km from the development Site. The visual impact from the Blue Mountains is assessed to be negligible/none.

Representation of the Proposed Landscaping

Within each of the proposed photomontages presented in **Figures 45** to **53**, landscaping is incorporated from both the proposed development within Lot 12 and all of the proposed wider estate landscaping as approved under SSD 9522. This is in order to gain a full picture when trying to understand how estate landscaping will contribute to the mitigation and screening of the development from the visual receptor locations.

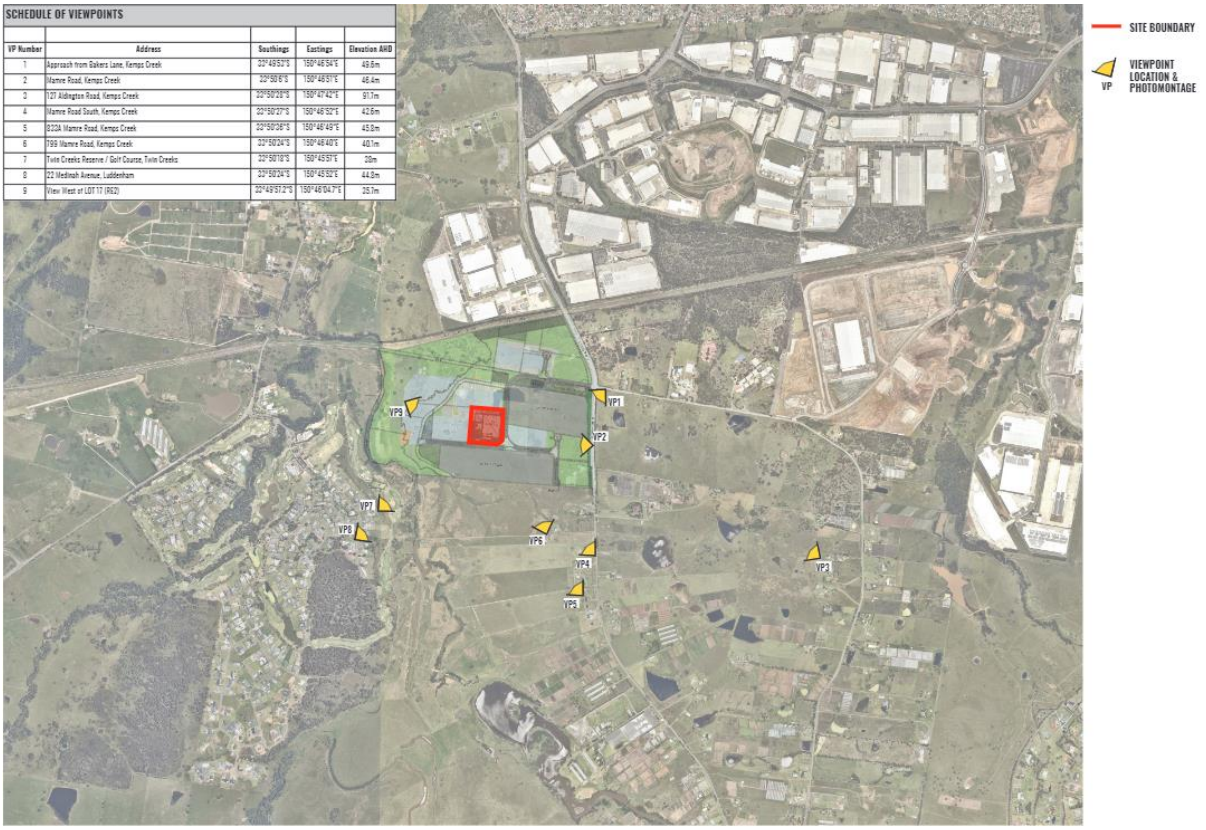

Figure 44 **VIA Viewpoint Locations** (Source: Geoscapes, 2021)

Viewpoints:

Nine (9) viewpoints were captured and assessed by Geoscapes, as depicted in **Figures 45** to **53**. A summary of the viewpoints analysis is provided within **Table 43** below.

Figure 45 **VIA Viewpoint 1 – Photomontage** (Source: Geoscapes, 2021)

VP1 was selected for visual assessment as it represents the type of view that would be experienced by motorists traveling west along Bakers Lane and also turning onto Mamre Road. A similar type of view can also be experienced at higher elevations along Bakers Lane, these are intermittent however, due to existing vegetation which is seen within aerial photography along Mamre Road and Bakers Lane.

The view is fairly typical of those currently experienced along this section of road and within the immediate area. The existing view was taken prior to the recent approved Estate earthworks and cordoning off. In the foreground are agricultural pastoral lands, which lead toward the Site. There is the presence of existing scattered mature vegetation throughout the landscape and along roads. Bakers Lane will ultimately form part of the Southern Link Road (SLR) of the Estate and a new intersection will be present.

Figure 46 **VIA Viewpoint 2 –Photomontage** (Source: Geoscapes, 2021)

VP2 was taken along Mamre Road directly due east of the proposed Ardex facility. Motorists traveling northbound along Mamre Road may experience a similar type of view for a short period of time.

The existing view shown within the photomontage figures has recently been affected following the undertaking of the early works for the approved Estate. Pastoral land and rural properties are now being cleared for development. Views out towards the Blue Mountains are now possible for certain view corridors following the clearing of existing vegetation. The approved Estate will be prominent within the view.

Figure 47 **VIA Viewpoint 3 –Photomontage** (Source: Geoscapes, 2021)

VP3 is taken from a paddock to the rear of this residential property and can be described as having rolling paddocks with scattered trees. In the distance, the Blue Mountains are visible and this elevated view can be described as having scenic qualities. The proposed development is situated centrally within the view.

Figure 48 VIA Viewpoint 4 –Photomontage (Source: Geoscapes, 2021)

Similar to VP2, the VP4 location was selected to represent the type of view experienced while traveling along Mamre Road. The photograph was taken further south allowing a judgement of potential visual impact on approach to the proposed development.

In the foreground Mamre Road is seen adjacent to agricultural lands and rural dwellings. In the background vegetation associated with South Creek is visible and some views out towards the Blue Mountains are possible on a clear day. The approved Estate is expected to be mostly screened behind vegetation to Mamre Road.

Figure 49 **VIA Viewpoint 5 –Photomontage** (Source: Geoscapes, 2021)

VP5 & VP6 have been selected to demonstrate the type of view that would be experienced by rural residential receptors to the south of the development. This view is taken from the north side of a residential dwelling at 833A Mamre Road, it is at medium proximity to the Subject Site. This property contains a significant amount of agricultural farmland which is seen in the view. In the foreground appears to be working farm buildings, garden allotments and pastoral land. To the background the approved Estate will predominately be screened.

Figure 50 VIA Viewpoint 6 –Photomontage (Source: Geoscapes, 2021)

Similar to VP5, VP6 has been selected to demonstrate the type of view that would be experienced by rural residential receptors immediately south of the development. This view is taken from the north side of a residential dwelling at 799 Mamre Road, it is in close proximity to the Subject Site at only 630m to the development boundary. This property contains a significant amount of agricultural farmland which is present in the foreground of the view. In the background Building 8 from the approved Estate would be seen to the right of shot.

Figure 51 VIA Viewpoint 7 –Photomontage (Source: Geoscapes, 2021)

VP7 is located on land zoned R2 Private Recreation. This view is close to Twin Creeks Country Club and Golf Course and it is situated in a public reserve and electrical easement. It would be expected that users of the golf course would, at times, be subject to views of the proposed development. This viewpoint is also close to the back of several properties along Medinah Avenue that have rear gardens facing the reserve. In the foreground of the image fairways, bunkers and greens can be seen from the Twin Creek Golf Course. To the rear of the baseline image is existing vegetation associated with South Creek. Existing industrial development is in the most part screened by vegetation, although some parts of the Golf Course are able to see the Snackbrands high-bay warehouse building. Buildings from the approved Estate are expected to be generally hidden behind existing vegetation as is demonstrated

within the photomontages. The Ardex development would be located centrally within the view behind South Creek.

Figure 52 VIA Viewpoint 8 –Photomontage (Source: Geoscapes, 2021)

VP8 was identified during drone photography as a residential visual receptor with longer distance views of the proposed development at a higher elevation than the Site. The area of Twin Creeks/Luddenham is also within E4 zoned land and therefore properties will remain in the long term. The photograph was taken on a vacant lot of land in the recently constructed estate, it would be assumed that a property will be built here in the near future.

In the foreground of the baseline image are other residential dwellings located along Medinah Avenue and vegetation running along South Creek can be seen behind these properties. In the background of

the view is the Erskine Park landfill facility and warehousing located within Erskine Business Park. The Snackbrands high-bay warehouse building is partially visible to the left of the landfill facility and there are also landscape detractors in the form of electric pylons. The approved Estate would be predominately screened behind existing and proposed vegetation, as shown in the approved Estate Year 15 Photomontage.

Figure 53 VIA Viewpoint 9 –Photomontage (Source: Geoscapes, 2021)

VP9 is located east of the proposed development between South Creek and to the west of land zoned RE2 (private recreation) at the edge of the Approved Estate boundary. This land is shown both in the SSD 9522 MOD 1 Approved Scheme Master Plan and within the Aerotropolis Plan. As the RE2 land is zoned for private use, it is assumed that parks and the like will be constructed to service the approved

Estate only and will be used by workers or visitors. Presently the existing view is of the Site with pastoral grasslands and scattered trees and vegetation. Small view corridors exist to the east and of the rising topography up to Aldington Road.

TABLE 43 summaries the findings of Geoscapes VIA.

TABLE 43: VISUAL IMPACT ASSESSMENT				
Viewpoint	Receptor Sensitivity	Magnitude of Change	Significance of Impact	Significance of Visual Cumulative Impact
VP1 Approach from Bakers Lane, Kemps Creek	Any views will be transient and for a short time period only. The view will also ultimately be significantly altered by the introduction of the Kemps Creek Industrial Estate which will dominate the view as shown in the Year 15 photomontages. Therefore, the sensitivity has been judged to be **low**.	As can be seen in the Year 0 and Year 10 photomontage images, the Ardex tower is expected to be visible above the MOD 1 scheme. However, when comparing this against the baseline image and Year 15 image, landscape mitigation is expected to effectively screen the development. Therefore, the magnitude of change is judged to be **very low**.	The significance of the visual impact at this location is judged to be **negligible**.	The addition of the proposed development will make a negligible contribution to the cumulative situation, and this equates to effectively a 'no change' situation. The significance of cumulative impact is judged to be **negligible**.
VP2 Mamre Road, Kemps Creek	Views will be transient and for a short time period only, similarly to Viewpoint 1, the baseline view will now be permanently changed with the introduction of the approved Kemps Creek Estate. Therefore, the visual sensitivity has been judged to be **low**.	The Ardex development is only expected to be seen in Year 0 following construction. After Year 5 all other buildings within the MOD1 approved estate are expected to have been completed and the Ardex development would not be seen. Therefore, the magnitude of change is judged to be **no change**.	The significance of the visual impact at this location is judged to be **none** when compared to the baseline image.	The significance of cumulative impact is judged to be **none**.
VP3 127 Aldington Road, Kemps Creek	Although the existing photograph suggests that the receptor would have high sensitivity, this must also be considered against any visual impacts generated by the Approved Estate (SSD 9522 MOD 1) development which is shown within the photomontage figures. However, the Approved	The residual effects of the approved MOD1 scheme are expected to be low due to the landscape mitigation proposed for the estate, and this is evident within the new baseline image (SSD 9522 MOD1 Photomontage - All Buildings Year 15). It is expected that the introduction of the Ardex development will result	The significance of the visual impact at this location is judged to be **moderate/minor**.* *NOTE: This visual receptor is located within the Mamre Road Precinct which has recently been rezoned to industrial use following an amendment to the SEPP	When seen together with the future planned Data Centre and the rest of the Approved MOD1 estate, the Ardex development does not significantly contribute to the overall cumulative situation. Therefore, the significance of cumulative impact is judged to be **moderate/minor**.

TABLE 43: VISUAL IMPACT ASSESSMENT				
Viewpoint	Receptor Sensitivity	Magnitude of Change	Significance of Impact	Significance of Visual Cumulative Impact
	Estate is expected to blend into the landscape by the use of proposed landscaping to create a continuation of the surrounding vegetation. Therefore, the view is still likely to be held in high regard by the landowner for its scenic qualities. There are some landscape detractors, but these are either at some distance or of small scale. Therefore, regardless of the introduction of SSD 9522, it is judged that the sensitivity of this visual receptor is still **high**.	in the silo tower being visible above the tree line even after Year 15. However, the tower forms a minor constituent of the view within the skyline and is at a sufficient distance away to form a small component. Therefore, the magnitude of change is judged to be **low**.	WSEA. Therefore, No. 127 and adjoining properties may not exist at a future point in time. Should the land be acquired in the short to medium term and the property removed, any visual impacts experienced from this location would no longer be of any relevance.	
VP4 Mamre Road South, Kemps Creek	This viewpoint is taken at a mid-range distance to the southern Site boundary, the vast majority of people experiencing this view would be motorists and is typical of many locations along this route. Views would be transient and experienced for a short length of time only. There is the presence of some scenic qualities including views of South Creek and the Blue Mountains. The introduction of the Approved Estate scheme does not affect the view predominately at this location. Therefore, it is judged that the sensitivity of	The Ardex development will be more visible in years 0 and 5 while landscape mitigation is still in a juvenile form. However, in years 10 - 15 proposed landscaping becomes more mature so that only the tower element is expected to be visible, and this would form a small component only. Therefore, the magnitude of change is judged to be very **low**.	The significance of the visual impact at this location is judged to be minor **negligible**.	As seen in the cumulative image, the future Data Centre essentially screens the Ardex development with only the very top of the tower visible therefore, the addition of the proposed development will make a negligible contribution to the cumulative situation, and this equates to effectively a 'no change' situation. The significance of cumulative impact is judged to be **negligible**.

TABLE 43: VISUAL IMPACT ASSESSMENT				
Viewpoint	Receptor Sensitivity	Magnitude of Change	Significance of Impact	Significance of Visual Cumulative Impact
	this visual receptor is **medium**.			
VP5 833A Mamre Road, Kemps Creek	Views of the development are expected from within residential living spaces. Due the aspect and the elevation the Blue Mountains are not as prominent, and some existing industrial development can already be seen from First Estate. The view from this receptor has some scenic qualities and these may be held in high regard by the owner, the introduction of the Approved Estate also does not significantly change the character of the view corridor. Therefore, it is judged that the sensitivity of this visual receptor is **high**.	The Ardex development will be more visible in years 0 and 5 while landscape mitigation is still in a juvenile form. However, in years 10 - 15 proposed landscaping becomes more mature so that only the tower element is expected to be visible, and this would form a small component only. Therefore, the magnitude of change is judged to be **low**.	The significance of the visual impact at this location is judged to be **moderate/minor**.* *NOTE : This visual receptor is located within the Mamre Road Precinct which has recently been rezoned to industrial use following an amendment to the SEPP WSEA. Therefore, No. 833A and adjoining properties may not exist at a future point in time. Should the land be acquired in the short to medium term and the property removed, any visual impacts experienced from this location would no longer be of any relevance.	As seen in the cumulative image, the future Data Centre essentially screens the Ardex development with only the tower visible therefore, the addition of the proposed development will make a minor contribution to the overall cumulative situation, and its cumulative addition is only slightly apparent. The significance of cumulative impact is judged to be **moderate/minor**.
VP6 799 Mamre Road, Kemps Creek	Views of the development are expected from within residential living spaces. Due the aspect and the elevation views to the Blue Mountains are not as prominent and some existing industrial development can already be seen from First Estate, although this is predominately screened by vegetation. The introduction of the Approved Estate does	The Ardex development will be more visible in years 0 and 5 while landscape mitigation is still in a juvenile form. However, in years 10 - 15 proposed landscaping becomes more mature so that only the tower element is expected to be visible, and this would form a small component only. Therefore, the magnitude of change is judged to be **low**.	The significance of the visual impact at this location is judged to be **moderate/minor**.* *NOTE: This visual receptor is located within the Mamre Road Precinct which has recently been rezoned to industrial use following an amendment to the SEPP WSEA. Therefore, No. 799 and adjoining properties may not	As seen in the cumulative image, the future Data Centre essentially screens the Ardex development with only the very top of the tower visible therefore, the addition of the proposed development will make a negligible contribution to the cumulative situation, and this equates to effectively a 'no change' situation. The significance of cumulative

TABLE 43: VISUAL IMPACT ASSESSMENT				
Viewpoint	Receptor Sensitivity	Magnitude of Change	Significance of Impact	Significance of Visual Cumulative Impact
	also slightly affect the character of the view corridor, but views from this receptor retain some scenic qualities and these may be held in high regard by the owner. Therefore, it is judged that the sensitivity of this visual receptor is **high**.		exist at a future point in time. Should the land be acquired in the short to medium term and the property removed, any visual impacts experienced from this location would no longer be of any relevance.	impact is judged to be **negligible**.*
VP7 Twins Creek Reserve/Golf Club, Twin Creeks	This receptor is in close proximity to the development. Even with the presence of landscape detractors such as the electrical easement and pylons, the view from this location is likely to be held in high regard by local residents and users of the golf facilities. Buildings from the Approved Estate are also expected to be screened by existing vegetation to South Creek. Therefore, it is judged that the sensitivity for this receptor to the proposed development would be **high**.	South Creek provides an existing vegetative screen of the proposed development, with views expected to be filtered at years 0 to 5. Upper parts of the Ardex development will be more visible while landscape mitigation is in a juvenile form. However, in years 10 - 15 proposed landscaping becomes more mature so that the tower element is further screened, views of the tower may be experienced from certain view corridors, but these should be only partial at year 15. Therefore, the magnitude of change is judged to be **very low**.	The significance of the visual impact at this location is judged to be **minor**.	The combination of South Creek and proposed landscape planting result in the Ardex development being effectively screened. Partial views of the future Data Centre maybe possible through the tree line therefore, the addition of the proposed Ardex development will make a negligible contribution to the cumulative situation and this equates to effectively a 'no change' situation. The significance of cumulative impact is judged to be **negligible**.
VP8 22 Medinah Avenue, Luddenham	Views of the proposed development may be possible from primary or secondary living spaces from within some of the dwellings situated close to this viewpoint. The view does	Due to the higher elevation when compared to Viewpoint 7 (also within Twin Creeks), the proposed development is visible behind the existing vegetation of South Creek and this is more apparent at years 0	The significance of the visual impact at this location is judged to be **moderate/minor**.	Partial views of the Data Centre are visible at year 15, the addition of the proposed development will mean that the Tower element is seen in conjunction with the Data Centre. However, this is

TABLE 43: VISUAL IMPACT ASSESSMENT				
Viewpoint	Receptor Sensitivity	Magnitude of Change	Significance of Impact	Significance of Visual Cumulative Impact
	have some scenic qualities; however, these have been modified to some degree by development within First Estate, Erskine Business Park and now the Approved Estate. The transfer and landfill station is also visible on the horizon, but there is a large amount of vegetation which helps to soften those visual impacts. Even with the introduction of the Approved Estate into the view, it is judged that the sensitivity of this visual receptor remains high. Residential receptors are often more critical of their view. Therefore, it is judged that the sensitivity of the receptor to the proposed Ardex development is **high**.	to 5. However, following the maturity of landscape planting to the west of the estate only the tower element is expected to be seen. This appears slightly higher than both the Snackbrands highbay and the waste recovery mound in Erskine Park at Year 15. Therefore, the magnitude of change is judged to be **low**.		expected to make a minor contribution to the overall cumulative situation, and its cumulative addition is only slightly apparent. The significance of cumulative impact is judged to be **moderate/minor**.
VP9 View West of LOT 17	Judgements of sensitivity are more difficult with viewpoints when the receptor is likely to undergo change within the future. However, as the land immediately to the east of this location is zoned for RE2, is it highly likely that the RE2 will contain parks and open space will to service the estate. The Approved Estate will create a new baseline as seen in the SSD-9522 photomontages, however	The development will be readily apparent in years 0 to 5 while proposed landscaping for the estate is still in juvenile form however, at years 10 to 15 it is expected that following maturity of landscaping the proposed development would form a minor constituent of the baseline view, being only partially visible. Therefore, it is judged that the residual magnitude of change is very **low**.	The significance of the visual impact at this location is judged to potentially be **moderate/minor** or **minor**.	Extensive landscape mitigation planting to the west of the Approved MOD1 scheme will result at a highly screened overall development at Year 15, the addition of the proposed development will make a negligible contribution to the cumulative situation, and this equates to effectively a 'no change' situation. The significance of cumulative impact is judged to be **negligible**.

TABLE 43: VISUAL IMPACT ASSESSMENT				
Viewpoint	Receptor Sensitivity	Magnitude of Change	Significance of Impact	Significance of Visual Cumulative Impact
	landscape mitigation proposed within the masterplan is designed to provide a buffer between industrial development at this location and therefore should effectively screen views from the west. As this viewpoint is located within the South Creek ENZ land and it's intended use could vary, it is judged that the sensitivity of the receptor to the proposed Ardex development is **high** to **medium**.			

The proposed development is expected to create some visual impacts of varying significance for receptors in close proximity to the Site. However, the significance of these impacts is generally low, due to the fact that the proposal is located against the backdrop of the approved Estate or screened by South Creek. Any future development around the Site will effectively screen all elements of the proposed development with the exception of the 38m tower. However, the dimensions of the tower are not considered to be significant when considered cumulatively in conjunction with adjacent, existing, approved or planned industrial development. It is noted that these tower elements represent 4.6% of the overall building footprint.

Following the recent rezoning of the Mamre Road Precinct from rural RU1 to IN1, some residential properties will or have been acquired to facilitate industrial development. Therefore, any visual impacts assessed at these locations are likely to only be short to medium term only. Land designated within the WSAand the SEPP WSA has also been subject to a recent change in zoning and therefore, could also be subject to purchase for enterprise or infrastructure use. Therefore, visual sensitivity at these locations are likely to be significantly reduced in the future.

There are locations in the immediate area that are outside of the Mamre Road Precinct or the Western Sydney Aerotropolis zoning, these would include residential dwellings within Twin Creeks and private and public lands associated with the golf course and reserve. This area is buffered by South Creek which already provides a high degree of screening.

The Visual Impact Assessment, concluded that the following locations would receive short term moderate/minor visual impacts from the proposed development

- 127 Aldington Road, Kemps Creek (VP3);
- 833A Mamre Road, Kemps Creek (VP5); and
- 799 Mamre Road, Kemps Creek (VP6).

The visual impacts to the locations listed above have been judged to be short term only. The Mamre Road Precinct Plan identifies that the residential locations are within land recently rezoned for industrial use. Therefore, these locations are highly likely to be acquired in the short to medium term resulting in the dwellings/receptors being demolished, therefore visual impacts will no longer be relevant. In locations that will remain such as views from Mamre Road itself, visual sensitivity is also likely to reduce over time resulting in lower visual impacts.

The following location is judged to receive moderate/minor visual impacts from the proposed development:

- 22 Medinah Avenue, Luddenham (VP8).

The following location is judged to receive moderate/minor or minor visual impacts from the proposed development:

- View West of LOT 17 (VP9).

The following location is judged to receive minor visual impacts from the proposed development:

- Twin Creeks Reserve / Golf Course, Twin Creeks (VP7).

The following location is judged to receive minor negligible visual impacts from the proposed development:

- Mamre Road South, Kemps Creek (VP4).

The following locations are judged to receive either negligible or no visual impacts from the proposed development:

- Approach from Bakers Lane, Kemps Creek (VP1); and
- Mamre Road, Kemps Creek (VP2).

One location has been assessed as having moderate/minor visual impacts created by the development. This is largely based on the close proximity of the residential properties to the Site and the visibility of the Ardex tower above the tree line. However, based on the methodology used within this report the visual impact is not considered to be of high significance.

Potential visual impacts upon the Wianamatta-South Creek corridor have been and were found again to not be significant following the maturity of landscaping mitigation to the western boundary of the estate. It has been demonstrated that landscaping can be highly effective in mitigating visual impacts for the entire corridor and RE1 lands.

The highest cumulative visual impacts are judged to be received at:

- 127 Aldington Road, Kemps Creek (VP3);
- 833A Mamre Road, Kemps Creek (VP5); and
- 22 Medinah Avenue, Luddenham (VP8).

Cumulative impacts are generally considered to be low and for the majority of locations, for these locations the addition of the Ardex development makes a minor to negligible contribution to the cumulative situation and this equates to effectively a 'no change' situation.

From analysis of aerial photography, it is evident that a number of other residential properties within the immediate area will receive views of the development. However, as previously mentioned, many of these residential properties are located within the Mamre Road Precinct. The precinct has recently been rezoned for industrial use and therefore, it is highly likely that these properties will be acquired in the short to medium term and be removed. Any visual impacts received currently at those locations are likely to be short term only and therefore, only a selection have been included for assessment.

The report photomontages demonstrate that the proposed landscape plantings at the development Site will be extremely important in helping to reduce visual impacts for a number of sensitive close range properties. This will be most effective after 15 years and for those receptors who experience direct views at close to medium range. In addition, the distance from the receptors and impending widespread development of the surrounding industrial precinct will mitigate any long term visual impacts, which are deemed to be acceptable.

6.1.7 Air quality and odour

This section of the EIS evaluates the air quality aspects of the proposed development, in relation to the SEARs and addresses the following specific matters:

- ***a quantitative assessment of the potential air quality, dust and odour impacts of the development (construction and operation) on sensitive receivers, in accordance with the relevant Environment Protection Authority guidelines and details of proposed mitigation, management and monitoring measures.***

In response to the SEARs items relating to air quality, an Air Quality Impact Assessment (AQIA) has been prepared by Northstar Air Quality which forms part of **Appendix 7** of this EIS.

6.1.7.1 Identification of Sensitive Receivers

Given that the exact location of adjacent sensitive receptors is currently unknown, including future adjacent industrial buildings, a conservative approach has been adopted within the AQIA which provides predicted impacts at off-site locations on a uniform grid within an approximately 2km radius of the Site. A nested grid of receivers has been generated which is centred on the Site, with the innermost grid covering a 1km x 1km area, with a grid spacing of 25m, the middle grid covering a 2km x 2km area, with a grid spacing of 50m, and the outermost grid covering a 4km x 4km area, with a grid spacing of 100m, refer to **Figure 54** below.

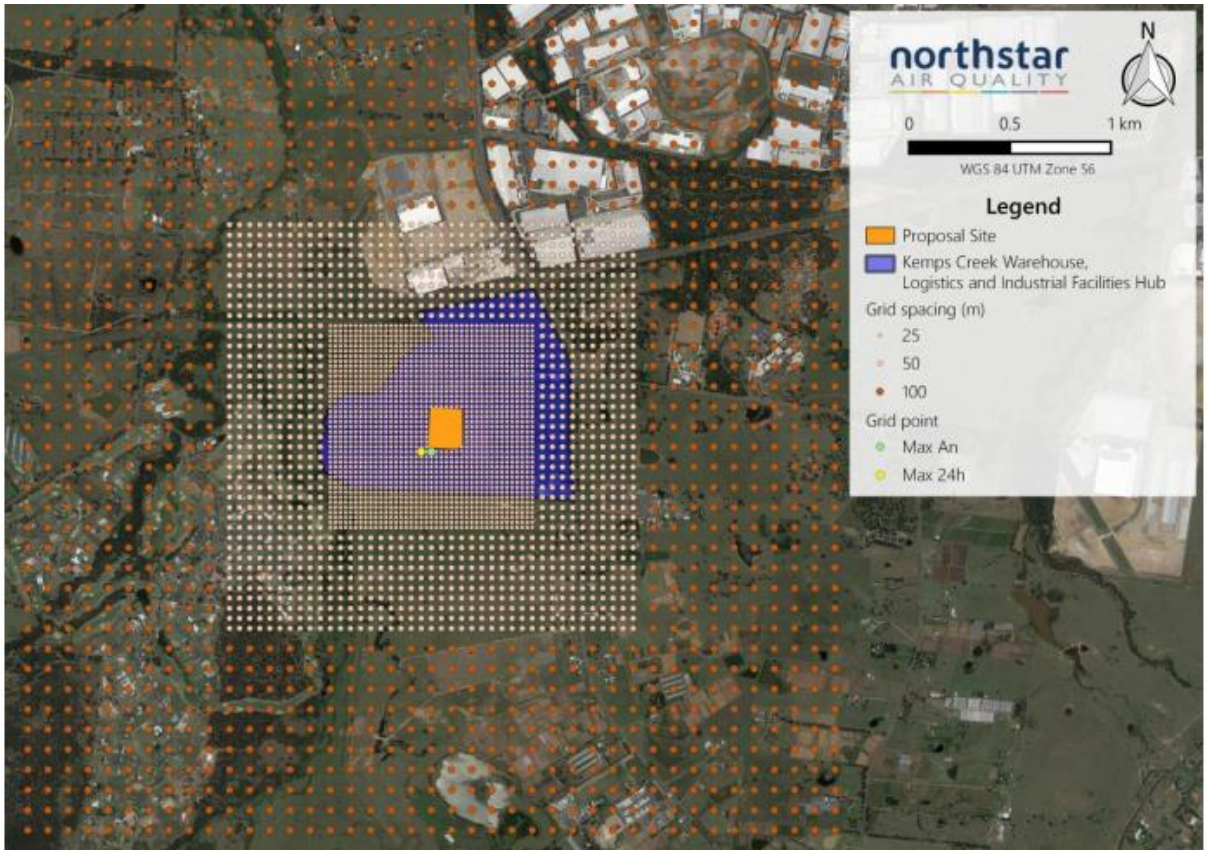

Figure 54 **Receptors Included in Dispersion Modelling** (Source: Northstar Air Quality, 2021)

6.1.7.2 Identification of Potential Emissions

Construction phase:

Construction of all roads and has previously been approved as part of SSD 9522. In the AQIA that supported that SSD 9522, a construction dust risk assessment was performed which identified that, without any mitigation measures applied, the Site would represent a low risk to offsite dust impacts. A range of management and mitigation measures were identified within that AQIA which were appropriate for a low-risk site, with the detail of those measures to be included within a Construction Air Quality Management Plan (CAQMP).

The proposal includes earthworks activities including 6,900m^3 of cut, and 16,570m^3 of fill. The AQIA provided to support SSD 9522 adopted a risk assessment approach to construction activities, adapting a methodology presented in *the IAQM Guidance on the Assessment of Dust from Demolition and Construction* developed in the United Kingdom by the Institute of Air Quality Management (IAQM).

That approach assessed the potential magnitude of earthworks activities, which was categorised as 'large' (the highest category available). The sensitivity of the area to dust impacts and health impacts was classified as 'low' (taking into account those receptors within a specified screening distance). Given that a number of industrial receptors would potentially be in closer proximity during construction of the proposal, these sensitivities would change, in line with the IAQM method, to be 'medium' for both dust impacts and health impacts (assuming a high sensitivity industrial receptor location within the screening distances of 350m from the Subject Site boundary, 50m from the construction route, and 500m from the Subject Site entrance). Earthworks (and construction and track-out) would therefore be categorised as 'high' risk activities, associated with the proposal.

To take into account those risks, A CAQMP for proposed development will be prepared which includes:

- Air quality standards;
- Key performance indicators;
- A description of air quality monitoring;
- Emission control measures;
- A contingency plan;
- A training plan;
- A non-compliance, corrective and preventive action plan;
- A complaints handling procedure; and
- Detail of records to be kept regarding air quality.

That CAQMP would be implemented and adhered to during the construction of the subject development.

Operational phase:

During the operation of the proposed development, the following activities are anticipated to result in potential emissions to air:

- Movement of vehicles around the internal roadways of the Site on paved road surfaces;
- Diesel combustion emissions from the consumption of diesel fuel, in the truck movements importing and exporting materials. The potential emissions would include particulate matter (as PM_{10} and $PM_{2.5}$) and oxides of nitrogen (NO_x), including nitrogen dioxide (NO_2). There would additionally be some less significant emissions of carbon monoxide (CO), sulphur dioxide (SO_2) and air toxics (including benzene and 1,3-butadiene) but for the purposes of this assessment, it is comfortably assumed that the principal gaseous pollutant would be NO_x.
- Emissions of particulate matter from the powder and liquid manufacturing components of the facility including:
    - Receipt of powdered materials via tanker, and transfer to storage silos.
    - Dosing, weighing, mixing, and bagging of products.

  Note that these emissions and processed are located internally and are controlled as described in **Appendix 7** and **Section 6.1.7.2** below.

- Emissions of gaseous pollutants/odour from the liquid manufacturing component of the facility including:
    - Receipt of liquid materials by silo or trucks and storage in tanks.
    - Dosing and mixing, and filling of bottles, pails and canisters.

  Note that these emissions are controlled as described in **Appendix 7** and **Section 6.1.7.2** below.

In relation to vehicle traffic a total of 350 vehicles (280 light vehicles, 70 heavy vehicles) would access the Site each day. This represents approximately half of the traffic volumes assumed for SSD 9522 for a development of this size within the broader development. Given the volumes of heavy vehicles visiting the Site, the nature of the trafficked routes (bitumen/hardstand), the lack of vehicle idling (enacted through a zero-idling policy), the regular sweeping of any external hardstand areas, and cleaning of offsite areas which experience the unlikely event of material spillage, it is considered that the potential for air quality impacts associated with wheel-generated dust or fuel combustion emissions on any offsite location is low.

6.1.7.3 Emission Controls

The powder manufacturing process uses sand, cement, calcium carbonate and other powdered raw materials in products. The liquids manufacturing process uses sand, calcium carbonate and other powdered raw materials in its products, which are purchased from external suppliers. These bulk materials will be unloaded on the western side of the facility and transported directly into the Powder Tower silos (50t to 100t capacity). These materials will be transferred from supply tankers directly into the storage silos via pressurised and sealed pipework resulting in negligible air emissions.

Powdered raw materials that are supplied in 1,000kg bags will be transferred by hoist into smaller silos (2t–6t). Minor quantities of other powdered raw material (20kg–25kg bags) will be manually added using a purpose-built loading station, equipped with dust extraction to ensure internal dust levels are maintained below occupational health limits. Ardex has an occupational hygiene monitoring programme to ensure worker safety.

Four (4) dust collectors are also located on key processes including dosing, mixing, weighing and bagging. Emissions from the dust collectors are emitted via a filter externally to the building. The emission concentration of total particulate matter through each filter would be <5mg·$^{Nm-3}$, with an emission flow of 21,000Nm^3·hr^{-1} through a 600mm exhaust at 13m above ground level (AGL), and 1m above roof level (ARL).

Emissions associated with the filling of the silo tower are controlled through the use of SILOTOP® dust collectors. The system is based on a pulse jet poly-pleat filter assembly with differential pressure monitoring before and after the filters which is used to determine when filters need to be maintained.

The emission concentration of total particulate matter through each SILOTOP® filter would be <10mg·Nm^{-3}. Airflow through each filter is associated with the volume of silo filling. Conservatively, it has been assumed that the silos would be filled each year with 48,000 tpa of materials associated with powder manufacturing, and 25,000KL per annum of materials associated with liquids manufacturing. Assuming a material density of 1.51t·m^3 (similar to Portland cement), and silo filling one hour per day, the exhaust flow through all silo filters would be 132m^3·h^{-1}. Note that the calculated emission rate for all emission points has been assumed to occur on each and every hour of the year.

6.1.7.4 Impact Assessment

Air quality is not monitored at the Subject Site and therefore air quality monitoring data measured at a representative location has been adopted for the purposes of this assessment. Based on the sources of Air Quality Monitoring Station (AQMS) data available and their proximity to the Subject Site, St Marys was selected as the candidate source of AQMS data for use in this assessment.

Particulate Matter

Results are presented in this section for the predictions of particulate matter (TSP, PM_{10}, $PM_{2.5}$ and dust deposition). The averaging periods associated with the criteria for these pollutants is 24-hour and annual averages. Results are presented for the off-site location at which the maximum impact is predicted.

The predicted annual average particulate matter concentrations (as TSP, PM_{10} and $PM_{2.5}$) results indicate that predicted incremental concentrations of TSP, PM_{10} and $PM_{2.5}$ at all off-site locations are low estimated as less than (<) 3.1% of the annual average TSP criterion, <3.9 % of the annual average PM_{10} criterion and <0.4% of the $PM_{2.5}$ criterion).

The addition of existing background concentrations results in predicted cumulative concentrations of annual average TSP being <41.3% and annual average PM_{10} being <70.7% of the relevant criteria, at the most affected receptor locations.

The existing adopted annual average $PM_{2.5}$ background concentration, is shown to be in exceedance of the relevant criterion, even without the operation of the proposal added as a result of a significant amount of bushfire, dust storm and general activity surrounding the monitoring location. Examination of the predicted $PM_{2.5}$ impacts which would result from the operation of the proposal, indicates that these concentrations are predicted to be ≤0.1µg·m^{-3} at all surrounding off-site locations and no additional exceedances of the annual average criteria are predicted.

The performance of the proposed development does not in itself result in any exceedances of the annual average particulate matter impact assessment criteria.

Dust Deposition

The annual average assumed background dust deposition is 2g·m^{-2}·month^{-1}, although comparison of the incremental concentration with the incremental criterion of 2g·m^{-2}·month^{-1} is also valid. In either case, the resulting conclusions drawn are identical. Annual average dust deposition is predicted to meet the criteria at all off-site receptors surrounding the Subject Site where the predicted impacts are ≤13.3% of the incremental criterion at receptor locations.

No contour plot of annual average dust deposition is presented, given the minor contribution from the proposed development at the nearest sensitive receptors.

The performance of the proposed development does not result in any exceedances of the annual average dust deposition impact assessment criteria.

Maximum 24-Hour PM_{10} and $PM_{2.5}$

The predicted incremental concentration of PM_{10} and $PM_{2.5}$, are demonstrated to be minor with the operation of the proposed development contributing 18.6% to the 24-hour PM_{10} criterion and 3.7% of the 24-hour $PM_{2.5}$ criterion.

Addition of the maximum 24-hour PM_{10} and $PM2_{2.5}$ background values as results in the achievement of the relevant short-term particulate criteria, even assuming that the maximum incremental off-site impacts would be coincidental with the maximum background concentrations, which is unlikely to occur.

The performance of the proposed development does not result in any exceedances of the maximum 24-hour average particulate matter impact assessment criteria.

6.1.7.5 Mitigation and Monitoring

Mitigation

Based on the findings of the AQIA, it is considered that the level of activity being performed at the Site, would result in minor incremental impacts at all surrounding off-site receptors.

The mitigation measures proposed in **Section 6.1.7.2** above represent best practices in the manufacturing sector and are in use at other facilities operated by the Applicant.

The mitigation measures included within this assessment (namely dust collectors and filters) should be regularly inspected and reviewed to ensure their efficacy is maintained, including a daily check of the filter differential pressure readings. The performance of the system could also be checked through the performance of emissions testing which would also allow validation of the assumptions adopted in this AQIA.

Monitoring

Given the discussion presented above and taking into consideration the minor incremental contribution of the development to air quality impacts in the surrounding area, no air quality monitoring is required or proposed, for either the construction phase or the operational phase.

6.1.7.6 Odours

SEPP33 contains a requirement for review of operations that may cause offense in the form of odour, environmental impact, nuisance (noise), etc. An indication of whether "offensiveness" may occur at the facility is whether an Environmental Protection Authority (EPA) licence is required for specific operations at the Site. A review of the warehouse and manufacturing operations indicates that there are no processes that would result in the manufacture, production, or transfer of materials in a form that may result in the release of bulk materials at the Site or that could result in odour generation or excessive noise. An EPA licence would not be required for this Site.

The total quantity of chemicals stored at the Ardex facility is approximately 537 tonnes (<550kL). The Protection of Environmental Operations Act 1997 and Regulations 2009 indicates that chemical storage facilities that exceed 5,000kL of storage would trigger an administrative fee unit. As there is less than 550kL of chemicals stored, an administrative fee unit is not triggered, and a licence is not required for the Site.

Further, there would be no unusual operations that would cause potential odours, or noise closest residential area is located over 1.5kms from the Site and noise from normal warehouse operations would not impact this area.

In summary, there is no potential for "offensive" operations at the Site and therefore SEPP33 does not apply in this case.

In conclusion, a dispersion modelling exercise has been performed to assess the potential impacts of the development at all off-site locations. Emissions of particulate matter associated with the storage of powdered materials, and emitted during the powder and liquid manufacturing process, were subject to modelling. Even with the inclusion of conservative background air quality concentrations, the impacts of the development are shown to not result in any exceedances of the relevant air quality criteria.

Following assessment of the proposed development through the Air Quality Impact Assessment, it is considered on balance that the project is worthy of support with respect to air quality and odour.

6.1.8 Noise and vibration

This section of the EIS evaluates the noise and vibration aspects of the proposed development, in relation to the SEARs and addresses the following specific matters:

- ***a quantitative noise and vibration impact assessment undertaken by a suitably qualified acoustic consultant in accordance with the relevant Environment Protection Authority guidelines and Australian Standards which includes:***
  - ***the identification of impacts associated with construction, site emission and traffic generation at noise affected sensitive receivers, including the provision of operational noise contours and a detailed sleep disturbance assessment***
  - ***details of noise monitoring survey, background noise levels, noise source inventory and 'worst case' noise emission scenarios***
  - ***consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area***
  - ***a cumulative impact assessment inclusive of impacts from other developments***
  - ***details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise and vibration following application of mitigation these measures and details of any proposed compliance monitoring programs.***

In response to the SEARs, items relating to noise and vibration, we note the following information presented by Renzo Tonin in their Noise and Vibration Impact Assessment, which forms part of **Appendix 22** of this EIS.

6.1.8.1 Nearby noise sensitive receivers

TABLE 44: NOISE ASSESSMENT LOCATIONS

Receiver Number	Address / Location	Receiver Type	Residential Noise Catchment Area (NCA)	SSD 9522 Consent Condition Receiver Location	Approximate Distance to the Site (m)
R1	31 Medinah Avenue, Luddenham	Residential	1	Receiver 1	1,000
R2	15 Medinah Avenue, Luddenham	Residential	1	Receiver 1	770
R3	7 Medinah Avenue, Luddenham	Residential	1	Receiver 1	810
R4	3 Medinah Avenue, Luddenham	Residential	1	Receiver 1	870
R5	2 Comargo Lane, Luddenham	Residential	1	-	1,200
R6	320-326 Luddenham Road, Orchard Hills	Residential	1	-	1,300
R7	262-266 Luddenham Road, Orchard Hills	Residential	1	-	1,400
R8	579a Mamre Road, Orchard Hills	Residential	2	Receiver 7	1,100
R9	7-9 Distribution Drive, Orchard Hills	Industrial	-	Receiver A	540

TABLE 44: NOISE ASSESSMENT LOCATIONS

Receiver Number	Address / Location	Receiver Type	Residential Noise Catchment Area (NCA)	SSD 9522 Consent Condition Receiver Location	Approximate Distance to the Site (m)
R10	654-674 Mamre Road, Kemps Creek	Residential[1]	3	Receiver 2	760
R11	676-702 Mamre Road, Kemps Creek	Residential[1]	3	Receiver 3	680
R12	676-702 Mamre Road, Kemps Creek	Residential[1]	3	-	740
R13	706-752 Mamre Road, Kemps Creek	Residential[1]	3	Receiver 4	870
R14	Catholic Healthcare Emmaus Retirement Village (85 Bakers Lane, Kemps Creek)	Residential[1]	3	-	1,600
R15	772-782 Mamre Road, Kemps Creek	Residential[1]	3	Receiver 5	920
R16	771-781 Mamre Road, Kemps Creek	Residential[1]	3	Receiver 6	640
R17	783-797 Mamre Road, Kemps Creek	Residential[1]	3	-	630
R18	Mamre Anglican School (45-59 Bakers Lane, Kemps Creek)	Educational	3	-	1,000
R19	Trinity Primary School (61-83 Bakers Lane, Kemps Creek)	Educational	3	-	1,200
R20	Emmaus Catholic College (87-109 Bakers Lane, Kemps Creek)	Educational	3	-	1,400
R21	40-46 Capitol Hill Drive, Mount Vernon	Residential	4	-	4,200
R22	53-59 Bowood Road, Mount Vernon	Residential	4	-	3,800
R23	52 Mount Vernon Road, Mount Vernon	Residential	4	-	3,900
R24	44 Kerrs Road, Mount Vernon	Residential	5	-	4,000
R25	949-965 Mamre Road, Kemps Creek	Residential	5	-	2,200
R26	MRP Public Open Space	Passive recreation	-	-	320
R27	SSD 9522 adjacent warehouse (north)	Industrial	-	-	Adjacent

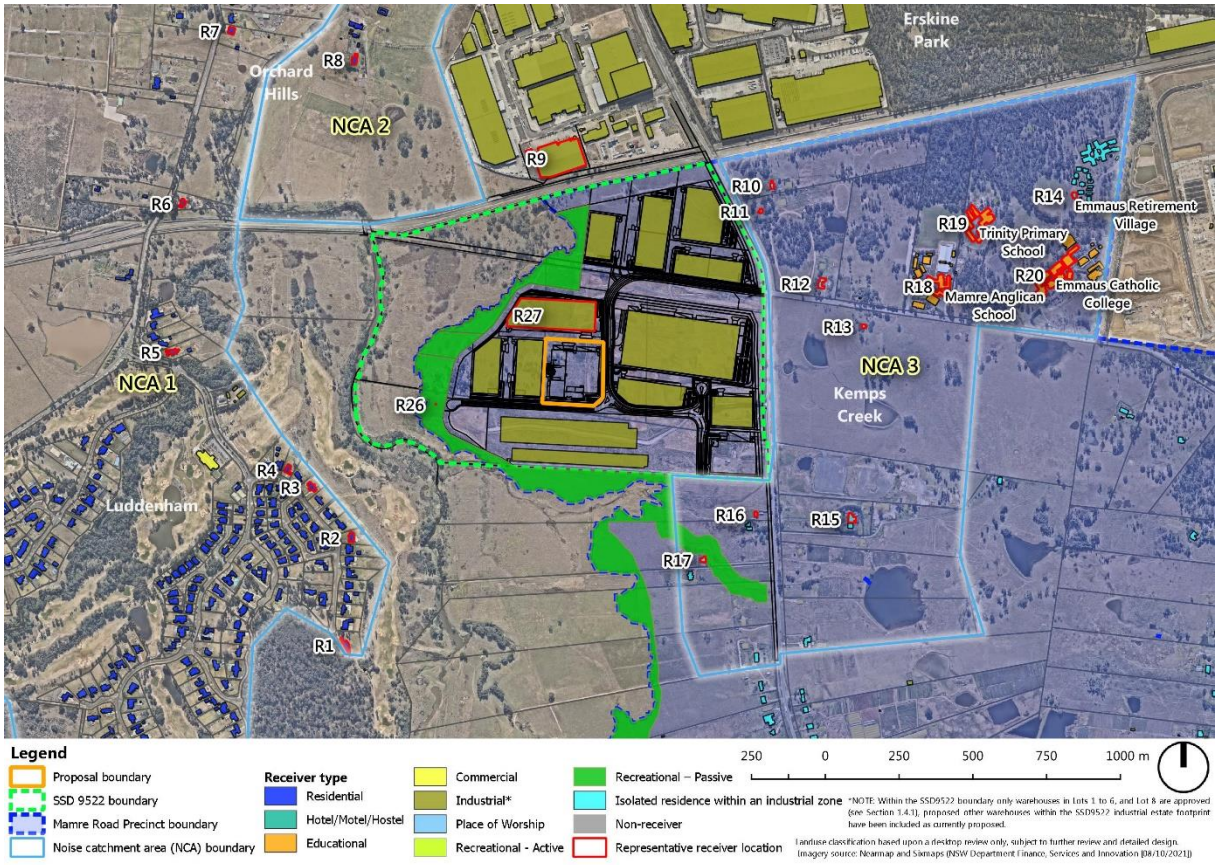

Figure 55 **Receiver locations** (Source: Renzo Tonin, 2021)

6.1.8.2 Identification of impacts

'Worst Case' Noise Emission Scenarios

To assess noise impacts from the proposal, 'reasonable' worst-case scenarios (15-minute period) have been developed based upon the above described operational assumptions, the observations of activities at a similar warehouse / manufacturing facility and the operational inputs from the project team with adjustments for the variation in specific future throughput for the facility.

The operational noise source levels, assumptions and reasonable worst-case operational assessment scenarios have been gleaned largely from the existing manufacturing facility at Seven Hills, which undertakes similar operations to that proposed.

The main noise generating activities externally that could vary and influence the Site noise emissions are the two types of raw material deliveries to the silos. Noise emissions would vary depending upon if either of these operations occur:

- Raw material deliveries – Liquids
- Raw material deliveries – Powders

As such, the assessments have looked at the two potential 'reasonable' worst-case scenarios (15-minute period) for these delivery activities, separating them into two scenarios:

- Scenario A = Reasonable worst case concurrent liquids + powder deliveries
- Scenario B = Reasonable worst case concurrent powder deliveries (noting powder deliveries are more noise intensive than liquids deliveries).

Not all scenarios have then been carried forward to the noise assessment modelling stage. To simplify the assessment outcomes, the four worst case operational assessment scenarios have been assessed.

As the evening period has reduced activities compared to the day and early morning / night periods, this assessment period has not been further assessed, as compliance during the other assessment periods will result in compliance during the evening assessment period as well. Similarly, this approach was followed during the periods at night when no deliveries are to occur.

Construction

Noise levels at any receiver locations resulting from construction works would depend on the location of the receiver with respect to the area of construction, shielding from intervening topography and structures, and the type and duration of construction being undertaken. Furthermore, noise levels at receivers would vary significantly over the total construction program due to the transient nature and large range of plant and equipment that could be used. Noise emissions were determined by modelling the noise sources, receiver locations, and operating activities.

For the construction assessments, it has been conservatively assumed that none of the surrounding warehouses in SSD 9522 have been constructed at the time of the construction works. However, it is likely that during building construction of a number of these developments will be occurring concurrently, and as such, there may be additional intervening structures to assist with reducing construction noise emissions.

The predicted noise levels indicate that the building construction and building fit-out stages of the proposal and concurrent works completed under SSD 9522 are likely to achieve the noise management levels at all nearby sensitive receivers. No residential receivers are predicted to be highly noise affected (i.e., exposed to noise levels greater than 75 dB(A)) as demonstrated below in **Table 45**.

TABLE 45: PREDICTED $L_{Aeq(15min)}$ NOISE LEVELS FOR TYPICAL CONSTRUCTION PLANT, dB(A)														
Item	**Plant description**	**Predicted $L_{Aeq(15min)}$ construction noise levels**												
		Type	**Residential**										**Education**	**Industrial**
		Receiver	**R1**	**R2**	**R3**	**R5**	**R8**	**R10**	**R11**	**R13**	**R14**	**R15**	**R16**	**R18**	**R9**
Noise management level (external) Standard construction hours Mon-Fri – 7:00am to 5:00pm Sat – 8:00am to 1:00pm			46	46	46	46	48	54	54	54	54	54	54	55[1]	75
Cut and Fill Works, Site Preparation Works														
1	Dozer (CAT D9)		39	43	43	38	34	41	43	44	25	41	43	33	43
2	Grader		33	37	37	32	28	35	37	38	<20	35	37	27	37
3	Vibratory roller		32	36	36	31	27	34	36	37	<20	34	36	26	36
4	Compactor		31	35	35	30	26	33	35	36	<20	33	35	25	35
5	Powered Hand tools		30	34	34	29	25	32	34	35	<20	32	34	24	34
6	Double Bogey Tippers		28	32	32	27	23	30	32	33	<20	30	32	22	32
7	Water cart		28	32	32	27	23	30	32	33	<20	30	32	22	32
8	20-tonne excavator with claw/bucket		28	32	32	27	23	30	32	33	<20	30	32	22	32
9	Bobcat		25	29	29	24	<20	27	29	30	<20	27	29	<20	29
10	Non-powered hand tools		21	25	25	20	<20	23	25	26	<20	23	25	<20	25
	Up to 3 (noisiest) plant operating concurrently		41	45	44	40	35	43	45	45	26	43	45	35	45
Utility Augmentation Works														
11	Delivery trucks		31	35	35	30	26	33	35	36	<20	33	35	25	35
12	Plate compactor		31	35	35	30	26	33	35	36	<20	33	35	25	35
13	Hand tools		30	34	34	29	25	32	34	35	<20	32	34	24	34
14	Excavator with bucket		28	32	32	27	23	30	32	33	<20	30	32	22	32

15	Generator (enclosed)	26	30	30	25	21	28	30	31	<20	28	30	20	30
16	Bobcat	25	29	29	24	<20	27	29	30	<20	27	29	<20	29
17	Franna crane	21	25	25	20	<20	23	25	26	<20	23	25	<20	25
	Up to 3 (noisiest) plant operating concurrently	36	40	39	35	30	38	40	40	<20	38	40	30	40
Building Construction														
18	Concrete trucks	31	35	35	30	26	33	35	36	<20	33	35	25	35
19	Delivery trucks	31	35	35	30	26	33	35	36	<20	33	35	25	35
20	Hand tools	30	34	34	29	25	32	34	35	<20	32	34	24	34
21	Mobile/Tower crane	33	37	37	32	28	35	37	38	<20	35	37	27	37
22	Concrete pump	25	29	29	24	<20	27	29	30	<20	27	29	<20	29
23	Bobcat	25	29	29	24	<20	27	29	30	<20	27	29	<20	29
24	Concrete vibrator	22	26	26	21	<20	24	26	27	<20	24	26	<20	26
25	Non-powered hand tools	21	25	25	20	<20	23	25	26	<20	23	25	<20	25
	Up to 3 (noisiest) plant operating concurrently	37	41	40	36	31	39	40	41	23	39	41	31	41
Building Fit-Out														
26	Delivery trucks	31	35	35	30	26	33	35	36	<20	33	35	25	35
27	Hand tools	30	34	34	29	25	32	34	35	<20	32	34	24	34
28	Bobcat	25	29	29	24	<20	27	29	30	<20	27	29	<20	29
29	Scissor lift	22	26	26	21	<20	24	26	27	<20	24	26	<20	26
30	Non-powered hand tools	21	25	25	20	<20	23	25	26	<20	23	25	<20	25
	Up to 3 (noisiest) plant operating concurrently	34	38	38	33	29	36	38	39	21	36	38	28	38

Notes: 1. 55 dB(A) for classroom spaces (external), and 65 dB(A) for playground areas. By achieving the classroom NML, the playground level will be achieved.

Site Emission

To assess operational noise emissions from the proposal, the operational assessment scenarios described above have been undertaken. As the evening period has reduced noise emissions compared to the day and early morning night periods, this assessment period has not been further assessed, as compliance during the other assessment periods, will result in compliance during the evening assessment period. The highest predicted noise levels for the different scenarios have been reported for the day period.

As operations take place during the night period, there is also the potential for sleep disturbance noise impacts to occur from activities within the facility with high noise potential (ie. airbrake releases or movement or trucks at low speeds), and so these have also been assessed. Each of these scenarios represent the reasonable worst-case operating scenarios that would take place. However, where all the assumed activities do not occur simultaneously during the same 15-minute period, then noise levels are likely to be lower than those predicted. The predicted noise levels include all feasible and reasonable mitigation and management measures.

The predicted operational noise levels indicate compliance with the project noise trigger levels at all nearby assessment receivers for all assessment periods.

Traffic Generation

Noise impacts from the potential increases in traffic on the surrounding road network due to construction and operational activities from the proposal is assessed in accordance with the *NSW Road Noise Policy* (DECCW, 2011) (RNP). The RNP sets out criteria to be applied to particular types of road and land uses. These noise criteria are to be applied when assessing noise impacts and determining mitigation measures for sensitive receivers that are potentially affected by road traffic noise associated with the construction and operation of the Subject Site, with the aim of preserving the amenity appropriate to the land use.

The proposal will be using sub-arterial/arterial roads and not local roads. Therefore, for existing residences affected by additional traffic on existing sub-arterial/arterial roads generated by land use developments, the following RNP road traffic noise criteria would apply. The portion of traffic generated by the proposal makes up an insignificant amount of traffic compared to the potential future traffic volumes along the Mamre Road and Elizabeth Drive. Additionally, these levels of traffic have already been factored into other proposed major projects along the traffic routes, and traffic generation is likely to be lower than the approved traffic generation as part of the approved SSD 9522. As such, potential impacts from the road traffic generated by the proposal on public roads does not require further consideration.

Sleep Disturbance

In regard to the World Health Organization (WHO) 2018 sleep disturbance project assessment noise level of 48 dB(A) $L_{Aeq15\ minute}$ [equivalent to 45 dB(A) $L_{night\ (outside)}$, the highest predicted night period noise level is 32 dB(A) $L_{Aeq15\ minute}$ under noise enhancing meteorological conditions at a residential receiver, and as such clearly achieves the WHO 2018 recommended level.

6.1.8.3 Noise Monitoring

Noise measurements are ideally carried out at the nearest or most potentially affected locations surrounding a development in absence of noise from the subject site. Furthermore, representative locations may be established in the case of multiple receivers as it is usually impractical to carry out. As such, noise catchment areas have been established to group assessment receivers based on areas with similar acoustic characteristics.

At the time of writing, the current COVID-19 situation and the associated lockdowns within Greater Sydney were both impacting the existing noise environment and were restricting the possibility of undertaking noise monitoring for the purposes of establishing true and representative background noise levels. As the existing noise environment is often controlled by road traffic noise (ie. Mamre Road) or urban activities, these noise levels would not be representative of a typical situation and so not suitable for the purposes of establishing true background noise levels in accordance with the *NSW Environment Protection Authority (EPA) Noise Policy for Industry* (NPfI).

Additionally, as SSD 9522 is approved and currently under construction, which means that the noise generating construction works would potentially also influence the existing noise environment when these works are taking place. By adopting the background noise monitoring data established for the SSD 9522, it also ensures consistency with the SSD 9522 approval as required by the SEARs.

As such, recently approved State Significant Developments in the area have been reviewed to determine suitable noise monitoring locations and survey results that would be applicable to the project and representative of nearby residential receivers. The assessment has relied on the following noise measurement data presented in noise impact assessments obtained via the DPIE Planning Portal for the residential receivers in proximity to the Proposal, to establish background noise levels in accordance with the NPfI.

- *Acoustic Works, 657 – 769 Mamre Road, Kemps Creek (SSD 9622), report reference 1018022 R01AF Mamre Road Kemps Creek ENV (Acoustic Works, dated 6 August 2020)*
- *Acoustic Logic Consultancy, 585-649 Mamre Road, Orchard Hills (SSD 7173), report reference 20151211.4/0924A/R7/TT, dated 5/4/2016*
- *White Noise Acoustics, FKC Estate, 200 Aldington Road, Kemps Creek (SSD 9138102), report reference 20141_200819_Noise Impact Assessment_BW_R4.docx, dated 11/2/2021*
- *SLR, Aspect Industrial Estate (SSD 10448), report reference 610.19127-R02-v1.0, dated 15/05/2021*

Noise Source Inventory

A Noise Source Inventory has been included within Appendix D of the Noise and Vibration Impact Assessment, which forms part of **Appendix 22** of this EIS.

6.1.8.4 Meteorological Factors

In accordance with the NPfI, the noise assessment is required to consider the effects of adverse meteorological conditions such as wind and temperature inversions. The NPfI recommends that project noise criteria are to apply under weather conditions characteristic of an area. These may include standard meteorological conditions (ie. calm) and noise-enhancing meteorological conditions (ie. winds and temperature inversions). In this regard, the increase in noise that results from atmospheric temperature inversions and winds may need to be assessed. The noise levels predicted under characteristic meteorological conditions for each receiver are then compared with the criteria, to establish whether the meteorological effects will cause a significant impact.

The NPfI permits two approaches for assessing these effects, either use of default parameters or use of site-specific parameters. For the purpose of the noise assessment for the proposal, default parameters have been used for a conservative assessment. By using default parameters, general meteorological values are used to predict noise levels, foregoing detailed analyses of site-specific meteorological data. This approach assumes that meteorological effects are conservative, in that it is likely to predict the upper range of increases in noise levels. Actual noise levels may be less than predicted.

Noise modelling has considered prevailing temperature inversions and prevailing winds using the CONCAWE noise modelling algorithm implementing both the standard and the noise-enhancing meteorological conditions presented in NPfI Fact Sheet D. In accordance with Table D1 of the NPfI, default parameters have been used when modelling under meteorological conditions.

6.1.8.5 Annoying Characteristics

Where the character of the industrial noise is assessed as particularly annoying at a receiver location (ie. if the resulting noise level at a receiver location is tonal, low frequency or is intermittent at night), then an adjustment would be added to penalise the predicted noise for its potential increase in annoyance. The Fact Sheet C of the NPfI provides definitive procedures for determining whether a modifying factor should be applied which will be assessed as part of the proposal. The corrections are to be added to the predicted noise levels at the receiver before comparison with the project noise trigger levels.

Measurements of the noise source levels from the key noise generating plant/equipment were undertaken at a similar facility with a sufficient duration to capture the total activity noise level (ie. departure manoeuvre, idle etc), and all relevant statistical measurement parameters (L_{Amax}, $L_{A1,T}$, $L_{A10,T}$, $L_{A90,T}$, L_{Amin}) were recorded in accordance with AS1055:2018 and has determined that development is unlikely to require any intermittent penalty as identified in the NPfI.

6.1.8.6 Cumulative Impact Assessment

As the Site is located within the recently rezoned Mamre Road Precinct (MRP), which rezoned approximately 850ha of existing rural and rural residential into industrial land, the potential for cumulative industrial noise was an important aspect of determining acceptable noise levels from the Proposal. In absence of any clear guidance in the draft Draft Mamre Road Precinct Development Control Plan (DCP), a reasonable approach as adopted consistent with guidance and concepts for controlling cumulative industrial noise in the NPfI. The derivation of the project amenity noise levels was done in a manner based upon delivering a reasonable outcome for the intended proposed landuse and precinct vision for the MRP and taking into consideration a range of factors that are part of cumulative industrial noise for a very large greenfield industrial area.

This approach assumes that up to 10 industrial operations would be impacting the same receiver at the same time as when the proposed development operates under reasonable worst case conditions with similar levels of noise contribution. This would allow for other developments, such as the Kemps Creek Data Centre (SSD 10101987) immediately south of the Subject Site, to be provided with a suitable allowance of the overall cumulative noise emissions from the MRP so that cumulative noise impacts can be appropriately managed.

The assessment then undertook a review of the potential noise generating activities that will likely take place as part of operations of the facility, including noise measurements of a range of the noise generating activities as part of the proposal at a similar existing manufacturing facility to provide additional confidence for the assessment inputs.Based upon an initial assessment, it was determined that noise emissions from Site operations may exceed the noise limits without further review of noise inputs assumptions and reasonable mitigation and management measures applied across the facility. Key noise sources that were contributing to the overall cumulative noise emission level at nearby receivers were:

- Liquids delivery pumping operations
- Powders delivery pumping operations
- Liquids silo louvre breakout
- Powders silo façade breakout
- Dust collector and compressor plant room noise emissions

Predicted noise levels have been assessed to the nearby representative receivers, and a summary of these results are presented in **Tables 46** and **47** below. The predicted noise levels presented in this section include all feasible and reasonable mitigation and management measures provided in **Section 6.1.8.7** below. These tables demonstrate that the predicted operational noise levels indicate compliance with the project noise trigger levels at all nearby assessment receivers for all assessment periods.

TABLE 46: PREDICTED OPERATIONAL NOISE LEVELS – STANDARD METEOROLOGICAL CONDITIONS; $L_{AEQ,15MINUTE}$, DB(A)										
Assessment scenario		**Daytime (Scenario A & B)[4] (7:00am to 6:00pm)**			**Night (Scenario A) (10:00pm to 7:00am)**			**Night (Scenario B) (10:00pm to 7:00am)**		
Representative period:		**10:00am-11:00am**			**6:00am-7:00am**			**6:00am-7:00am**		
Rec No.	**Receiver Type**	**PNTL**	**Predicted noise level, LAeq, 15min, dB(A)**	**Exceedance**	**PNTL**	**Predicted noise level, LAeq, 15min,**	**Exceedance**	**PNTL**	**Predicted noise level, LAeq, 15min,**	**Exceedance**
R1	Residential	43	25	-	33	25	-	33	25	-
R2	Residential	43	31	-	33	31	-	33	31	-
R3	Residential	43	32	-	33	31	-	33	32	-
R4	Residential	43	31	-	33	31	-	33	31	-
R5	Residential	43	26	-	33	25	-	33	25	-
R6	Residential	43	24	-	33	24	-	33	24	-
R7	Residential	43	22	-	33	22	-	33	22	-
R8	Residential	43	26	-	33	25	-	33	26	-
R9	Industrial	68	36	-	68	36	-	68	36	-
R10	Residential[3]	63	29	-	63	29	-	63	29	-
R11	Residential[3]	63	30	-	63	29	-	63	29	-
R12	Residential[3]	63	37	-	63	37	-	63	37	-
R13	Residential[3]	63	34	-	63	34	-	63	34	-
R14	Residential[3]	63	<20	-	63	<20	-	63	<20	-
R15	Residential[3]	63	31	-	63	31	-	63	31	-
R16	Residential[3]	63	35	-	63	35	-	63	35	-
R17	Residential[3]	63	32	-	63	32	-	63	32	-
R18	Educational	43	27	-	-[1]	27	-	-[1]	27	-
R19	Educational	43	23	-	-[1]	23	-	-[1]	23	-
R20	Educational	43	<20	-	-[1]	<20	-	-[1]	<20	-
R21	Residential	43	<20	-	33	<20	-	33	<20	-
R22	Residential	43	<20	-	33	<20	-	33	<20	-
R23	Residential	43	<20	-	33	<20	-	33	<20	-
R24	Residential	43	<20	-	33	<20	-	33	<20	-
R25	Residential	43	<20	-	33	<20	-	33	<20	-
R26	Passive recreation	43	39	-	-[1]	38	-	-[1]	39	-
R27	Industrial	68	68	-	68	67	-	68	68	-

Notes:
1. Project specific noise limits only applicable when in use
2. Receiver locations shown in Appendix B.1.
3. See Section 3.3.3.1.2 for further explanation
4. The presented value is the maximum out of both Scenario A & B

TABLE 47: PREDICTED OPERATIONAL NOISE LEVELS – NOISE ENHANCING METEOROLOGICAL CONDITIONS; $L_{AEQ,15MINUTE}$, DB(A)										
Assessment scenario		**Daytime (Scenario A & B)[4] (7:00am to 6:00pm)**			**Night (Scenario A) (10:00pm to 7:00am)**			**Night (Scenario B) (10:00pm to 7:00am)**		
Representative period:		**3:00pm-4:00pm**			**6:00am-7:00am**			**6:00am-7:00am**		
Rec No.	**Receiver Type**	**PNTL**	**Predicted noise level, LAeq, 15min, dB(A)**	**Exceedance**	**PNTL**	**Predicted noise level, LAeq, 15min,**	**Exceedance**	**PNTL**	**Predicted noise level, LAeq, 15min,**	**Exceedance**
R1	Residential	43	26	-	33	26	-	33	26	-
R2	Residential	43	32	-	33	32	-	33	32	-
R3	Residential	43	33	-	33	32	-	33	33	-
R4	Residential	43	32	-	33	31	-	33	32	-
R5	Residential	43	26	-	33	26	-	33	26	-
R6	Residential	43	25	-	33	25	-	33	25	-
R7	Residential	43	23	-	33	23	-	33	23	-
R8	Residential	43	26	-	33	26	-	33	26	-
R9	Industrial	68	37	-	68	37	-	68	37	-
R10	Residential[3]	63	30	-	63	30	-	63	30	-
R11	Residential[3]	63	31	-	63	30	-	63	30	-
R12	Residential[3]	63	38	-	63	38	-	63	38	-
R13	Residential[3]	63	35	-	63	35	-	63	35	-
R14	Residential[3]	63	<20	-	63	<20	-	63	<20	-
R15	Residential[3]	63	32	-	63	32	-	63	32	-
R16	Residential[3]	63	36	-	63	36	-	63	36	-
R17	Residential[3]	63	33	-	63	33	-	63	33	-
R18	Educational	43	28	-	-[1]	28	-	-[1]	28	-
R19	Educational	43	23	-	-[1]	23	-	-[1]	23	-
R20	Educational	43	<20	-	-[1]	<20	-	-[1]	<20	-
R21	Residential	43	<20	-	33	<20	-	33	<20	-
R22	Residential	43	<20	-	33	<20	-	33	<20	-
R23	Residential	43	<20	-	33	<20	-	33	<20	-
R24	Residential	43	<20	-	33	<20	-	33	<20	-
R25	Residential	43	<20	-	33	<20	-	33	<20	-
R26	Passive recreation	43	40	-	-[1]	39	-	-[1]	40	-
R27	Industrial	68	68	-	68	68	-	68	68	-

Notes:
1. Project specific noise limits only applicable when in use
2. Receiver locations shown in Appendix B.1.
3. See Section 3.3.3.1.2 for further explanation
4. The presented value is the maximum out of both Scenario A & B

As such, a detailed review of input assumptions across all contributing noise sources was undertaken, and feasible and reasonable mitigation and management measures that could be implemented have been identified and recommended which is discussed further below.

Following the implementation of the minor mitigation and management measures, the assessment demonstrated that the predicted noise emissions from the facility will comply with the requirements of the NPfI and DCP at all potentially impacted receivers that surround the Site in the worst case scenario.

Operational Nosie Contours

All predicted operational noise contours have been shown in **Figures 56 – 65** below and are included within Appendix E of the Noise and Vibration Impact Assessment, which forms part of **Appendix 22** of this EIS.

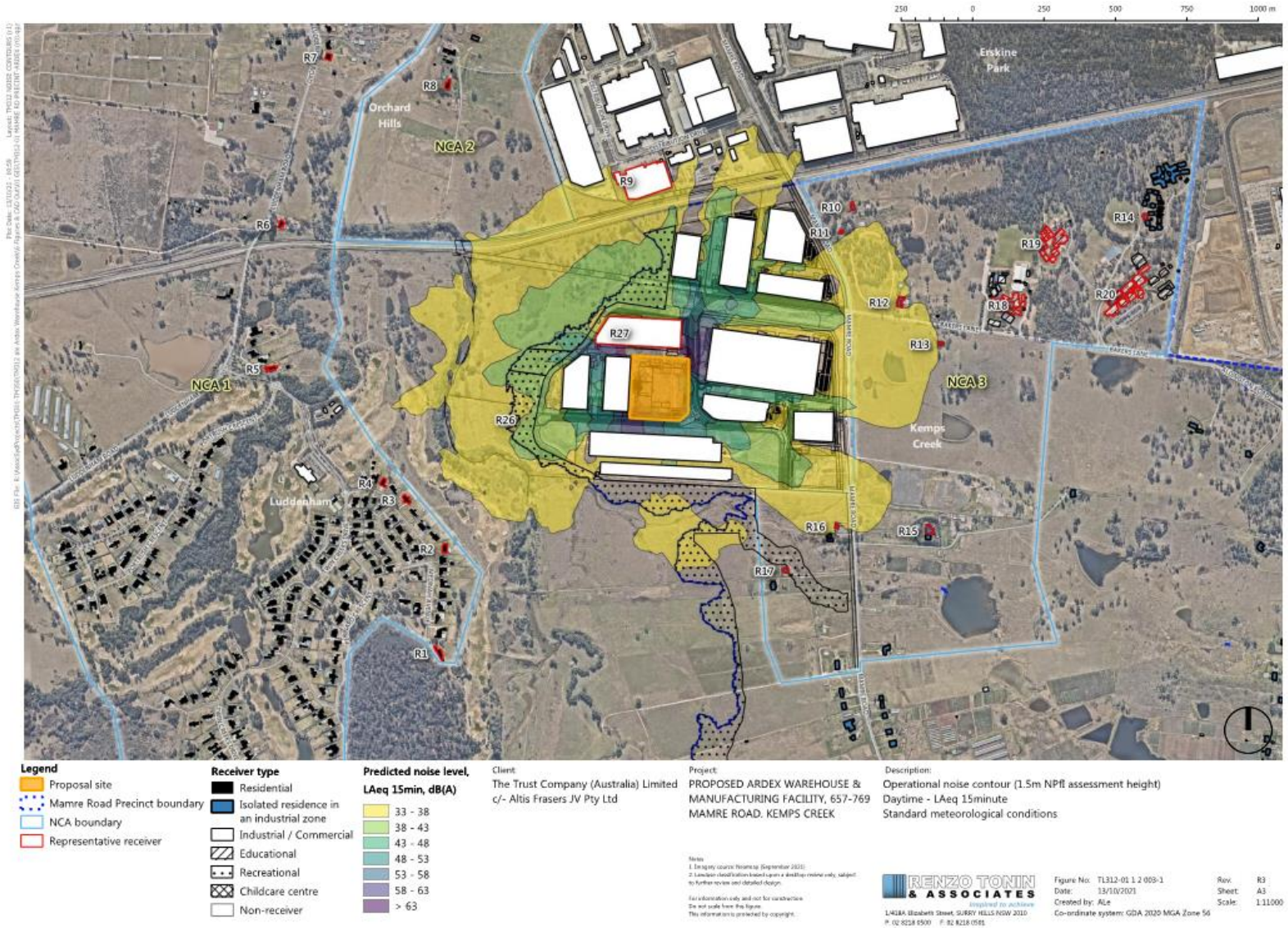

Figure 56 **Operational Noise Contour (1.5m NPfI assessment height) – Daytime – LAeq 15 minute – Standard Meteorological Conditions**
(Source: Renzo Tonin, 2021)

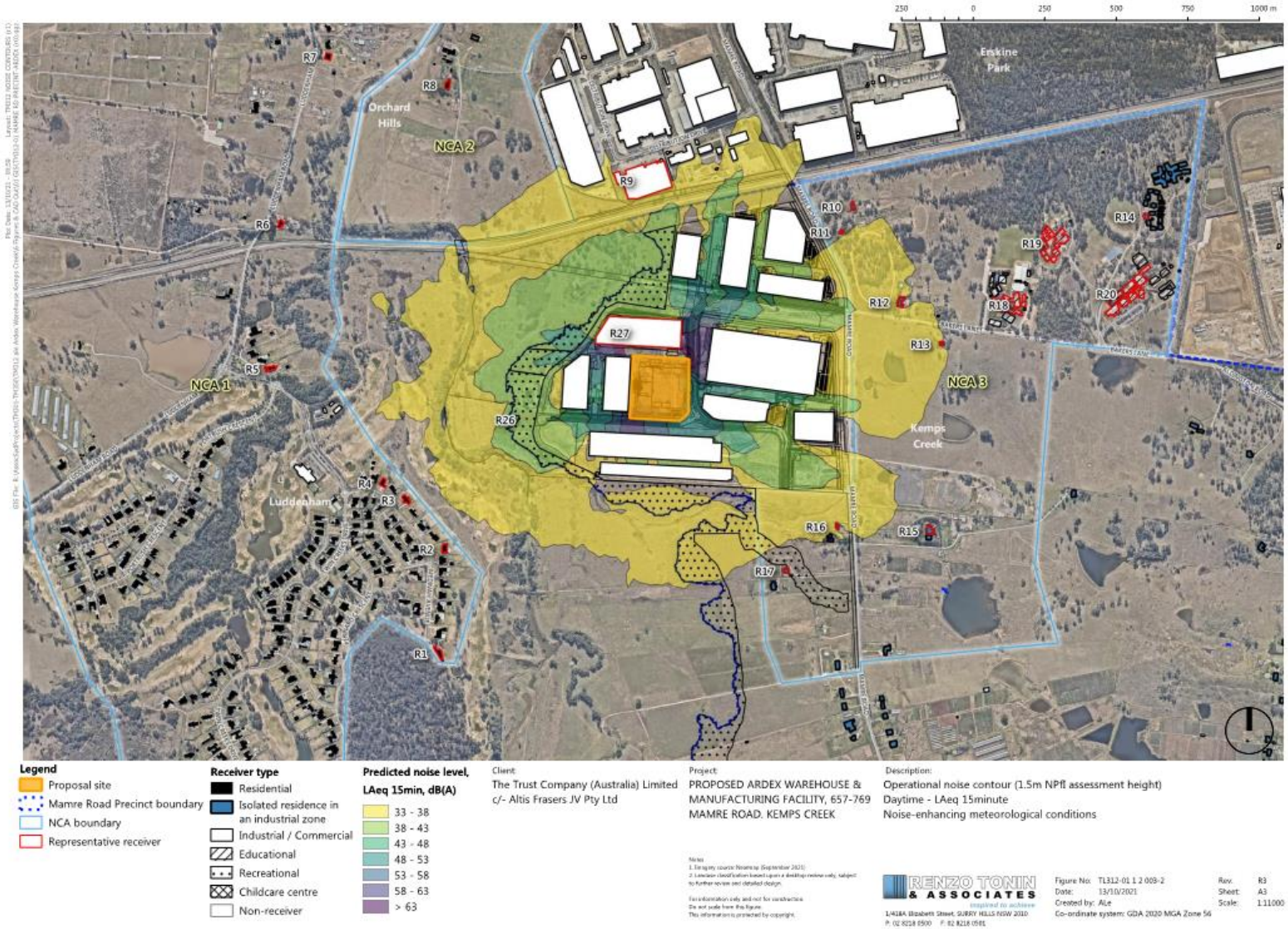

Figure 57 **Operational Noise Contour (1.5m NPfI assessment height) – Daytime – LAeq 15 minute – Noise-Enhancing Meteorological Conditions**
(Source: Renzo Tonin, 2021)

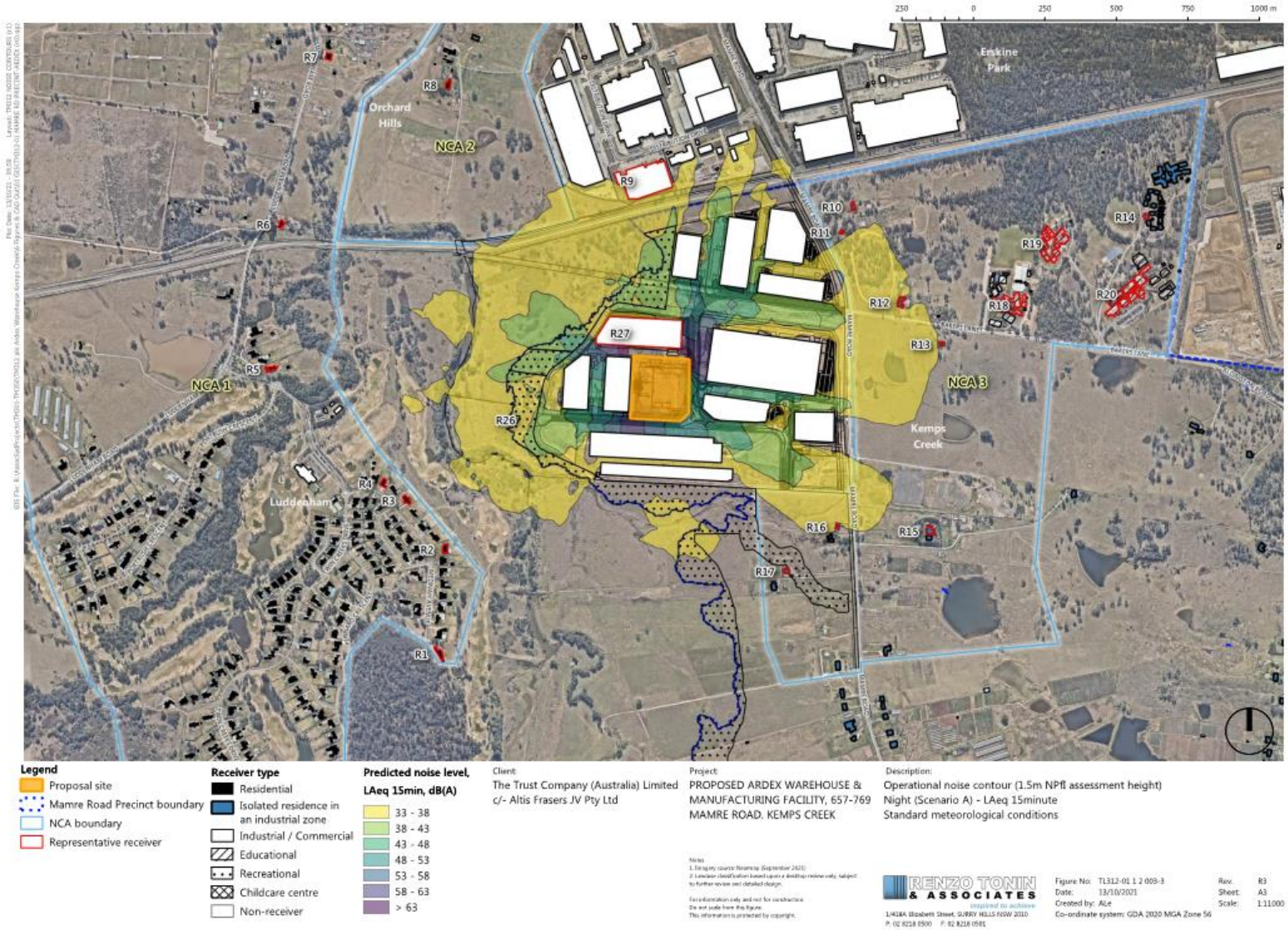

Figure 58 **Operational Noise Contour (1.5m NPfI assessment height) – Night (Scenario A) – LAeq 15 minute – Standard Meteorological Conditions**
(Source: Renzo Tonin, 2021)

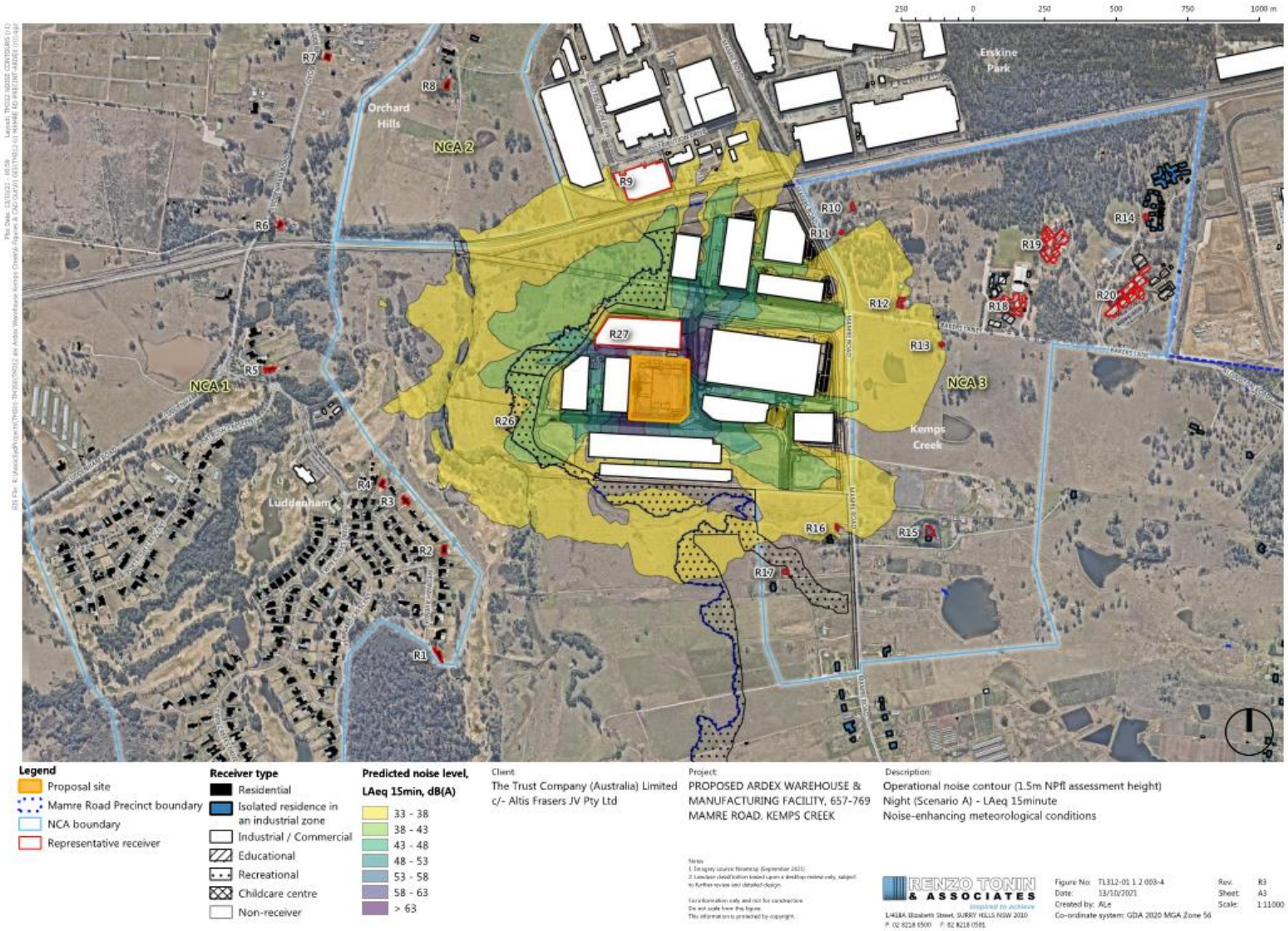

Figure 59 **Operational Noise Contour (1.5m NPfl assessment height) – Night (Scenario A) – LAeq 15 minute – Noise-Enhancing Meteorological Conditions**
(Source: Renzo Tonin, 2021)

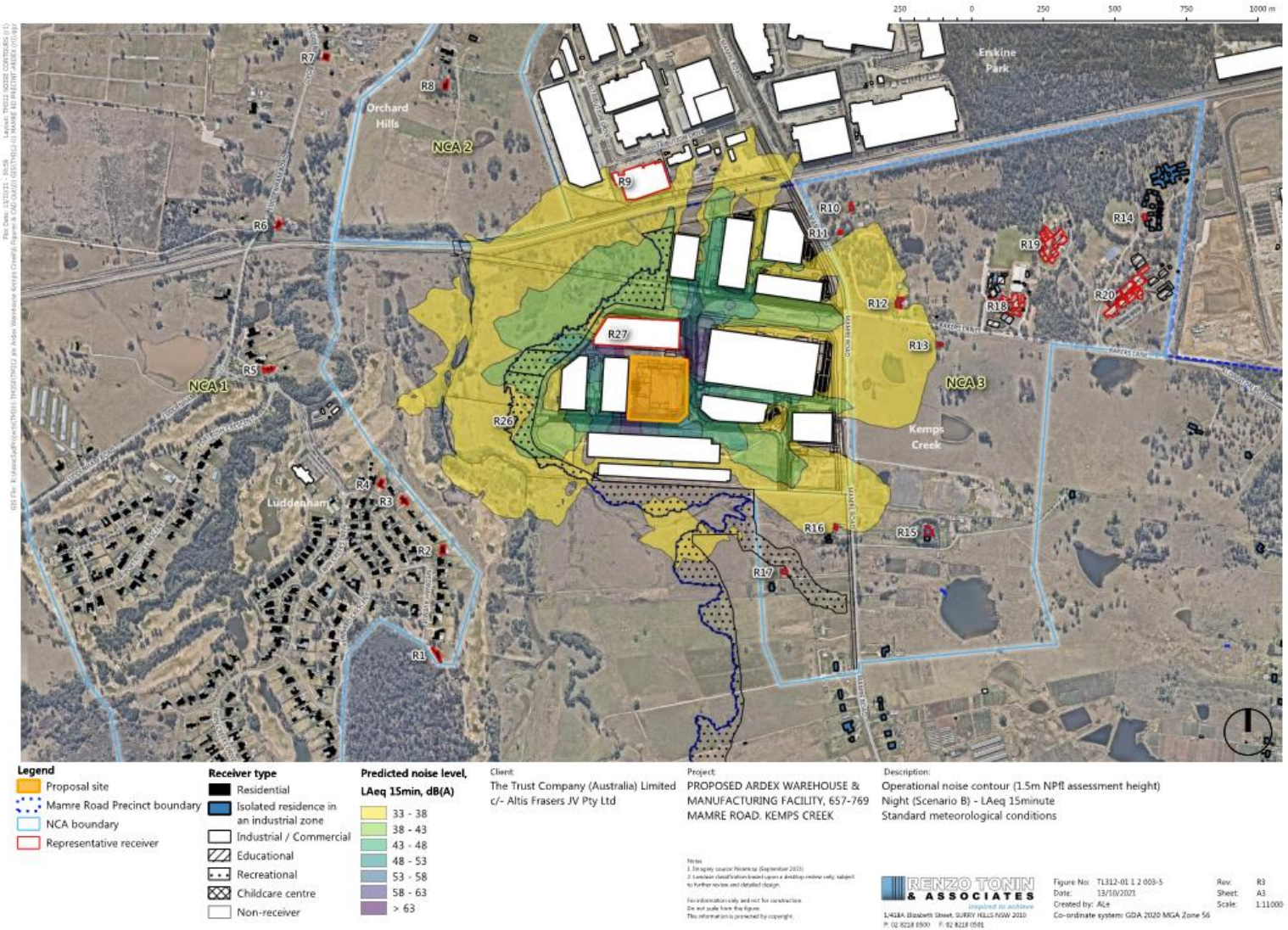

Figure 60 **Operational Noise Contour (1.5m NPfl assessment height) – Night (Scenario B) – LAeq 15 minute – Standard Meteorological Conditions**
(Source: Renzo Tonin, 2021)

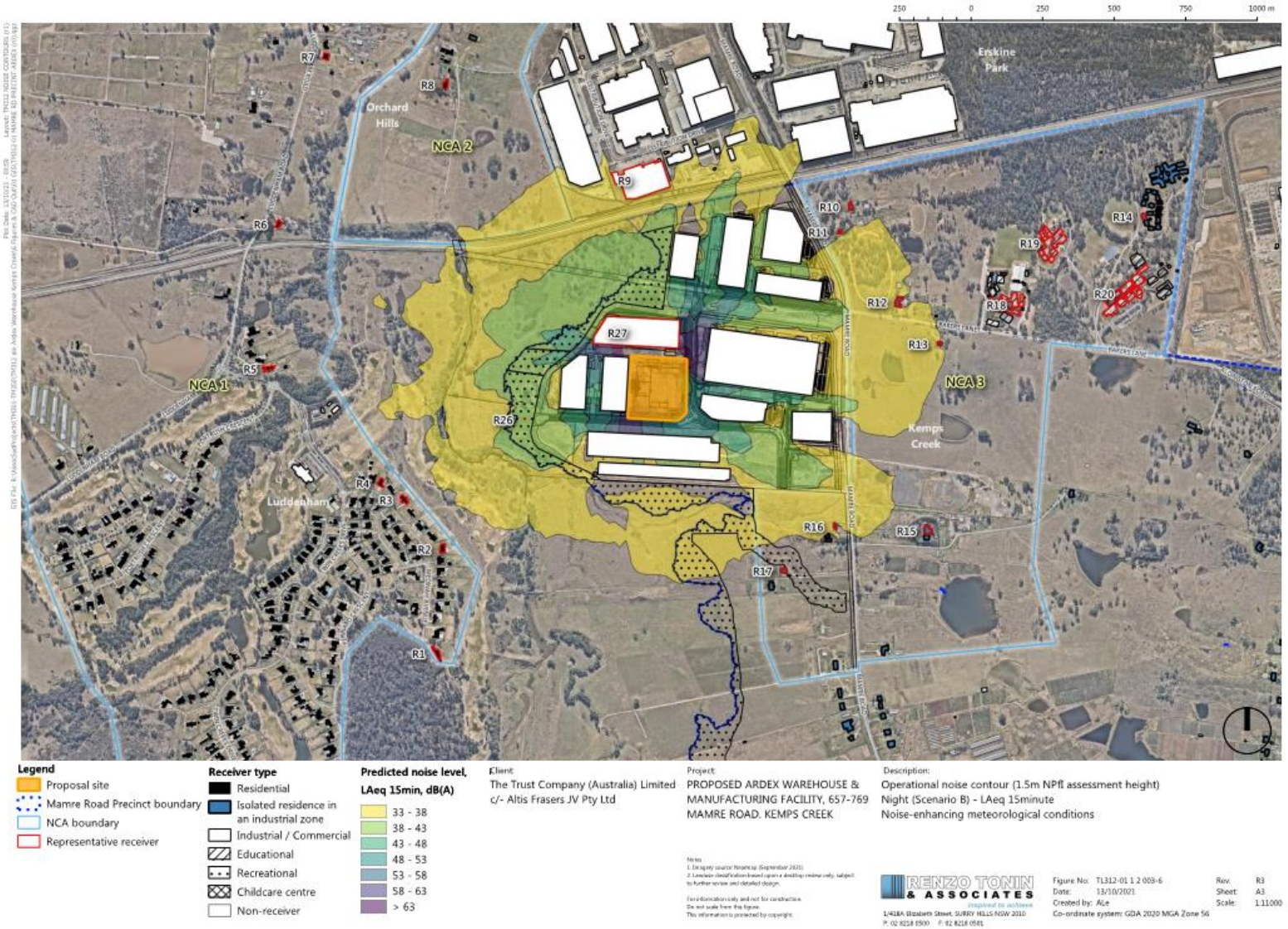

Figure 61 **Operational Noise Contour (1.5m NPfl assessment height) – Night (Scenario B) – LAeq 15 minute – Noise-Enhancing Meteorological Conditions**
(Source: Renzo Tonin, 2021)

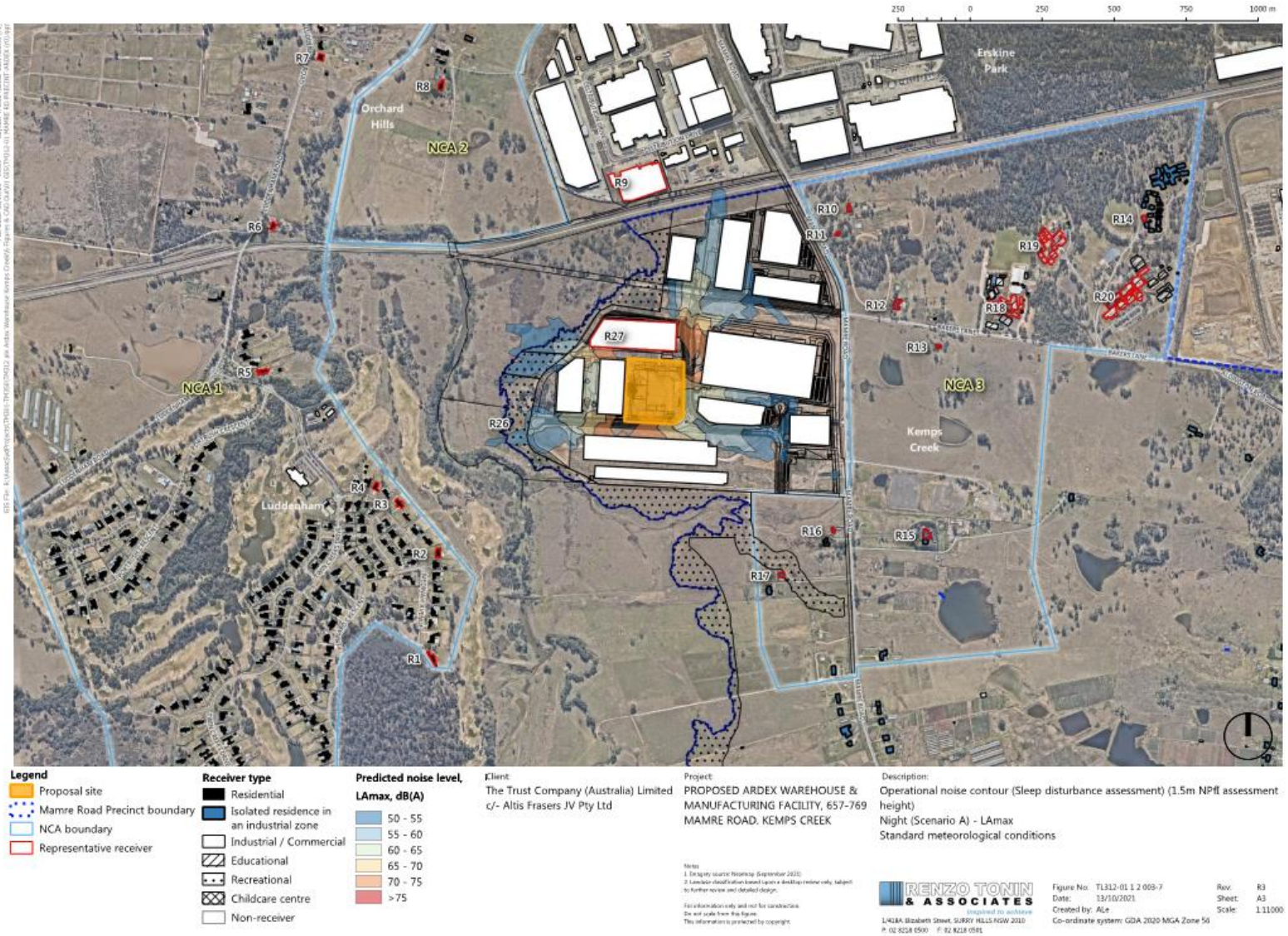

Figure 62 **Operational Noise Contour (Sleep Disturbance Assessment) (1.5m NPfI assessment height) – Night (Scenario A) – LAmax – Standard Meteorological Conditions** (Source: Renzo Tonin, 2021)

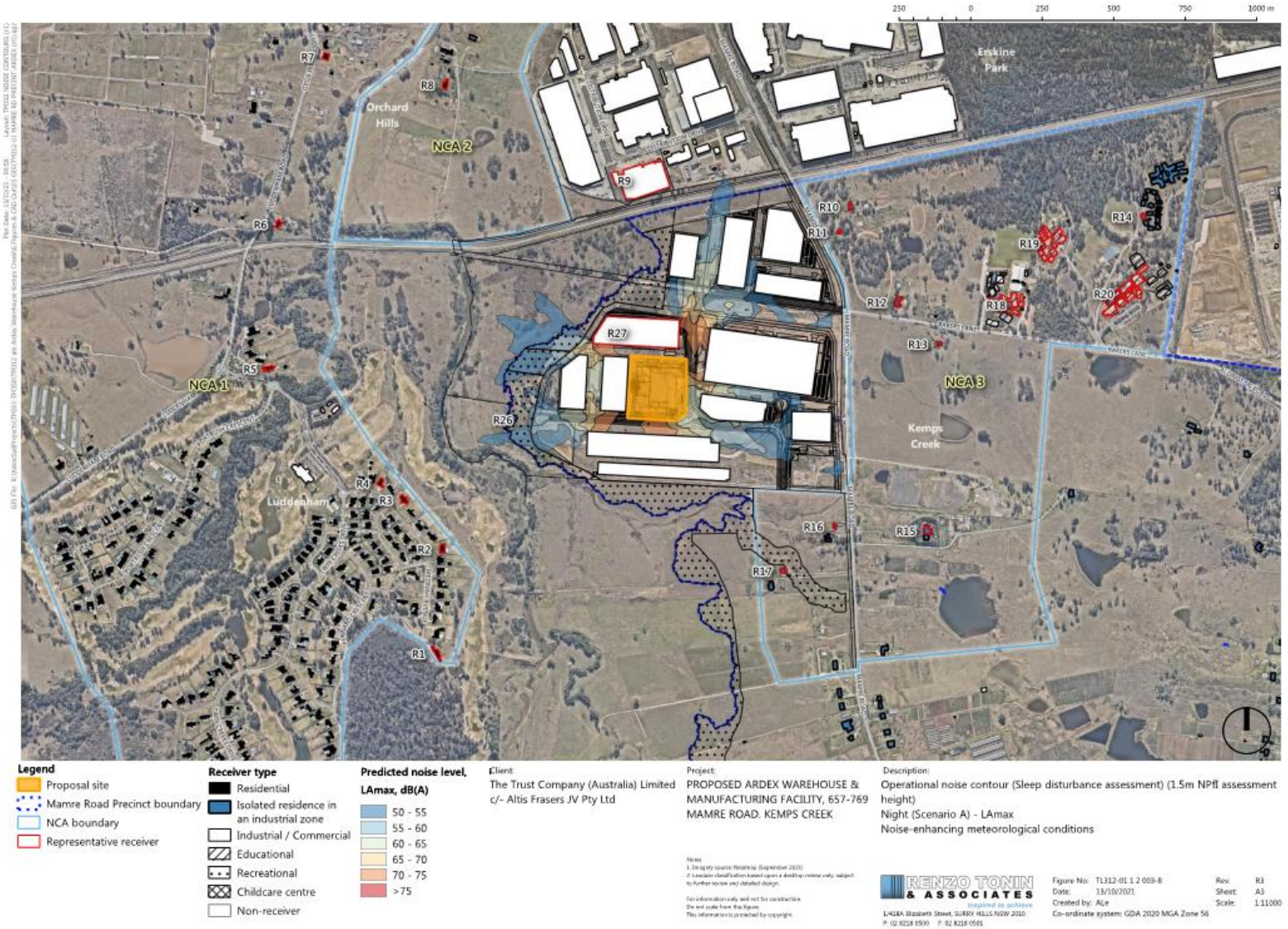

Figure 63 **Operational Noise Contour (Sleep Disturbance Assessment) (1.5m NPfI assessment height) – Night (Scenario A) – LAmax – Noise-Enhancing Meteorological Conditions**(Source: Renzo Tonin, 2021)

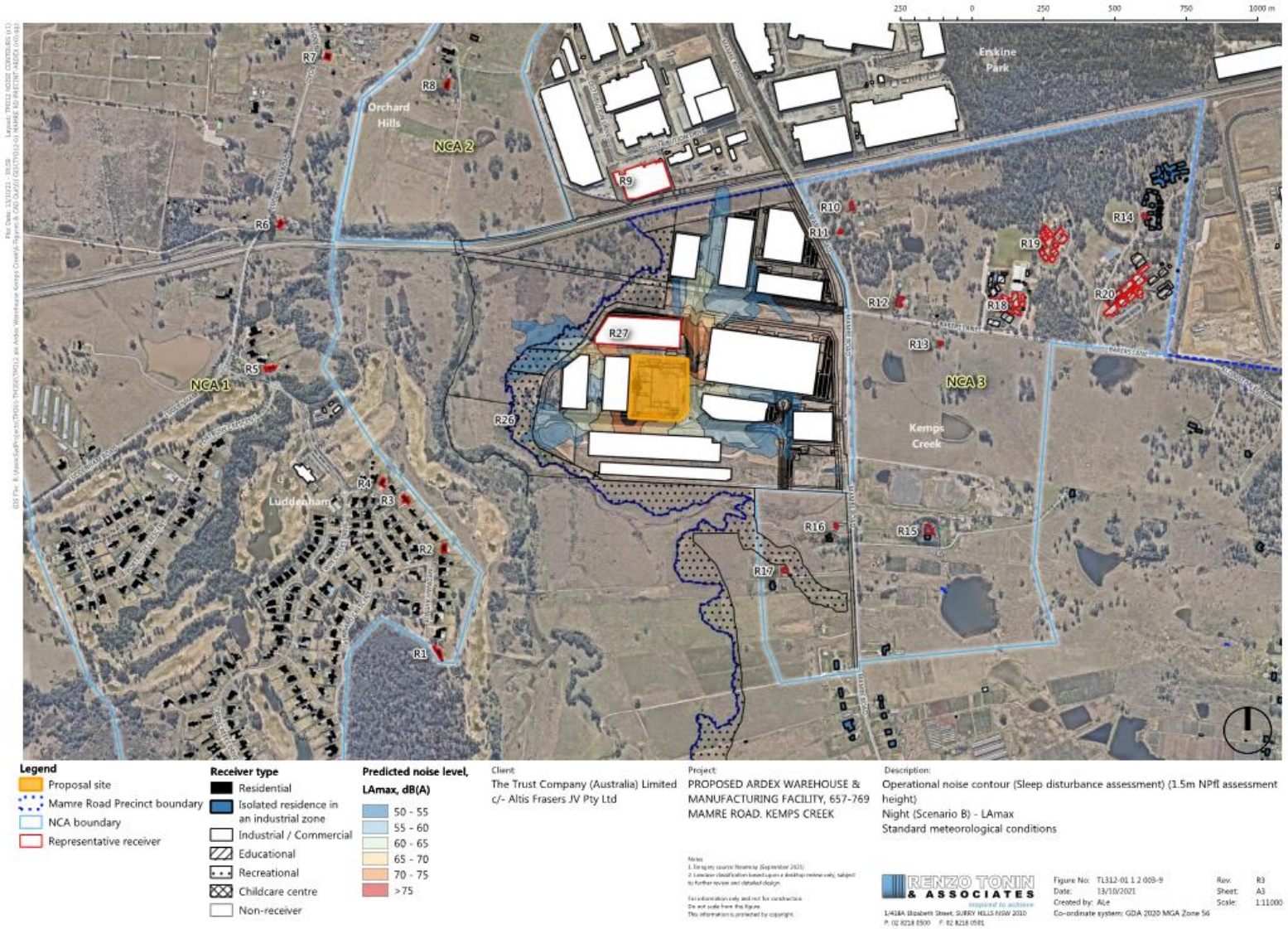

Figure 64 **Operational Noise Contour (Sleep Disturbance Assessment) (1.5m NPfl assessment height) – Night (Scenario B) – LAmax – Standard Meteorological Conditions** (Source: Renzo Tonin, 2021)

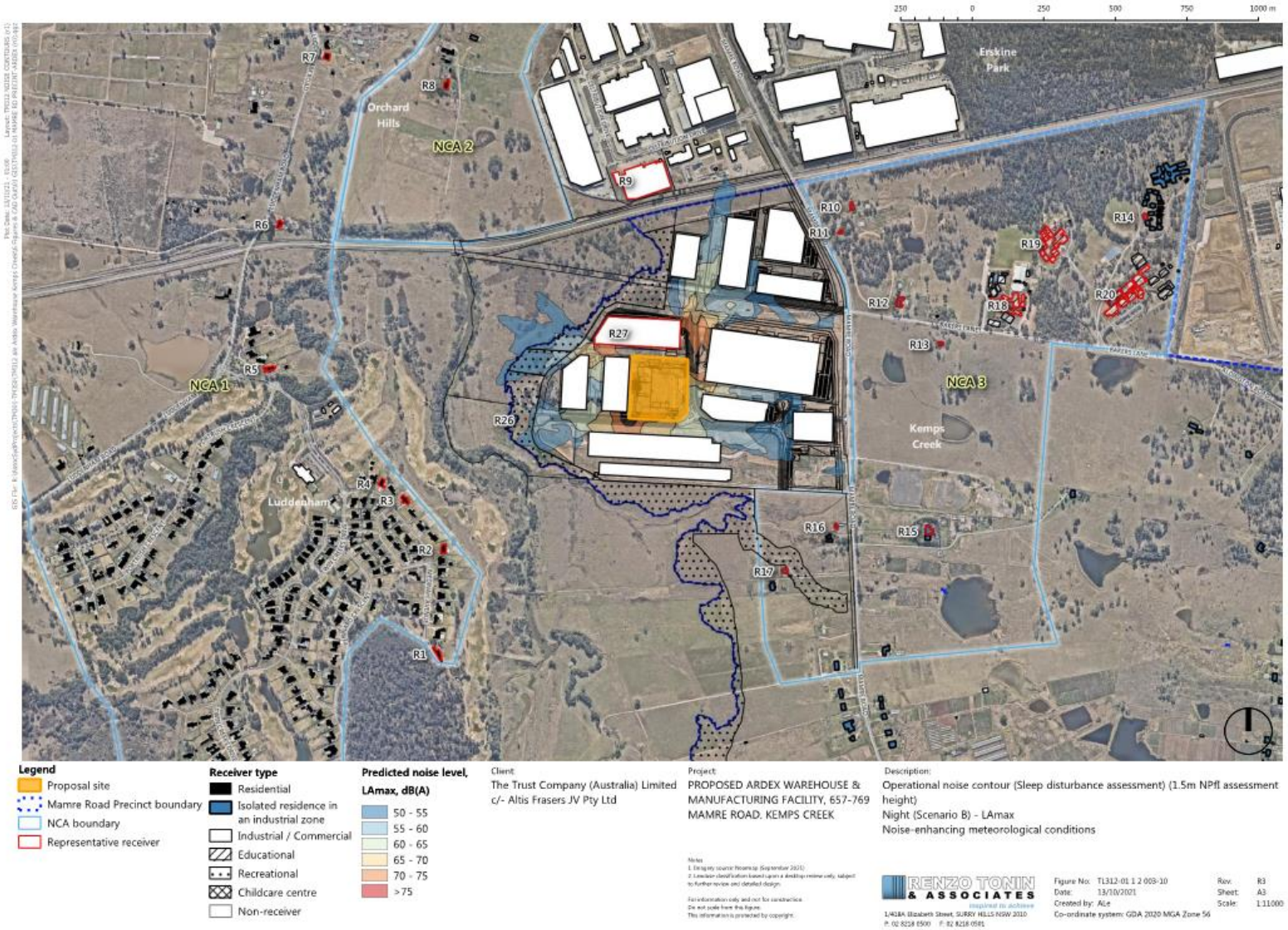

Figure 65 **Operational Noise Contour (Sleep Disturbance Assessment) (1.5m NPfI assessment height) – Night (Scenario B) – LAmax – Noise-Enhancing Meteorological Conditions** (Source: Renzo Tonin, 2021)

6.1.8.7 Management and Mitigation Measures

Following assessment of the noise emissions, a range of feasible and reasonable mitigation and management measures were identified in order to determine a design that would achieve the required NPfI project trigger levels detailed and minimise noise emissions from the Site in the worst case scenario.

The predicted noise levels incorporate the following operational noise mitigation and management measures presented in **Table 48** below. The predicted operational noise levels indicate compliance with the project noise trigger levels at all nearby assessment receivers for all assessment periods. In order for the proposed development to achieve the requirements of the NPfI and the draft MRP DCP, these mitigation or management measures are required to be implemented or further investigated during further design development.

TABLE 48: RECOMMENDED NOISE MITIGATION AND MANAGEMENT MEASURES

Item	Activity / Noise Source
M1.1	Materials of the manufacturing facility and warehouse facade would be selected during detailed design, so that any noise break-out from internal activities would result in a negligible increase in overall noise emissions from the facility to achieve the proposal project trigger noise levels. The following areas should be reviewed in detail: i. Powder tower ii. Liquids tower iii. Powder and liquids manufacturing areas. The required constructions would be subject to the final internal noise levels, which would be subject to the final selection of plant and equipment within these spaces, and any noise mitigation applied to these items. Items identified in this review that should be reviewed during later design stages are: iv. Western facade louvre of the liquids tower v. Facade constructions of the Powders tower
M1.2	The liquid pump should be selected or designed with either local enclosure or barrier, with acoustic absorptive lining. to provide a maximum sound power level of 93 dB(A), this is 10 dB(A) of reduction from current source noise levels. Located the liquids pump to maximise acoustic shielding from adjacent buildings (ie. warehouse) and structures to minimise noise emissions, noting the source is intermittent at source and the liquids silo has line-of-sight to some residences to the west. Review during detailed design where feasible and reasonable the requirement for any acoustic enclosure or barriers in proximity to the pump to minimise noise emissions.
M1.3	When note in use, external roller doors are to be kept closed during the night periods (10:00pm to 7:00am) except as required for ingress/egress.
M1.4	Ensure that for all non-enclosed areas of the facility with line-of-sight (or near line-of-sight) to the western residences (NCA1), the following design elements are incorporated - - All pavement is smooth (ie. no speed bumps) - Transitions from the external public road to the site are smooth, as to not result in jolting, or unnecessary accelerating of the truck the truck is required. - Drainage grates are designed to not result in noise events. - Ensure that trucks do not have to stop/brake and then accelerate (ie. pedestrian crossing points, security gates). These areas that this applies to in particular are: - Southern heavy vehicle access driveway area - Liquids tower delivery area

TABLE 48: RECOMMENDED NOISE MITIGATION AND MANAGEMENT MEASURES	
Item	Activity / Noise Source
M1.5	Building services, mechanical plant and plantroom spaces are to be designed to not increase total site noise emissions. This will likely include selection of quiet plant/equipment, acoustic absorption, noise barriers, and the use of acoustic louvres and attenuators as part of the design. This in particular the following areas and items would require a detailed review: - Dust collector – Recommended maximum source level of 101 dB(A) (5 dB(A) less than measured at the existing facility) - Compressor plantroom
M1.6	Alternate methods and practices to the use of horns as a safety warning for onsite moving forklifts should be reviewed and incorporated into Site operations and safety practices.
M1.7	Any PA systems required as part of normal operation that emit sound outside of the facility, are to be designed so that they would result in a negligible increase in overall noise emissions from the facility. PA announcements as part of normal operations would be restricted to within the enclosed areas of the facility during the night period.

It is noted that no acoustic barriers are required to be installed to achieve compliance.

Operational Noise Management

Operational noise management measures can be considered to further reduce noise at the source where feasible and reasonable. The NPfI presents the implementation of 'best management practice' (BMP) which is the adoption of operational procedures that minimise noise while retaining productive efficiency. Application of BMP can include the following types of practice where feasible and reasonable:

- Reducing peak 15-minute heavy vehicles movements across the Site by staggering delivery/pickup times;
- Minimising concurrent use of mobile plant outside warehouses and/or limiting their use to the less sensitive daytime and evening periods;
- Minimising use of reversing alarms by providing forward manoeuvring where practicable.
- Switching vehicles and plant off when not in use;
- Keeping equipment well-maintained and operating it in a proper and efficient manner; and
- Training staff and drivers on the effects of noise and the use of quiet work practices (eg. informing drivers of the noise impacts from sudden braking or accelerating, bangs and clangs, etc).

In conjunction with BMP, the NPfI refers to 'best available technology economically achievable' (BATEA) with which equipment and plant incorporate the most advanced and affordable technology to minimise noise output. Examples of uses of BATEA include:

- The use of quieter mobile plant, such as electric forklifts instead of gas-powered forklifts.
- Using equipment with efficient muffler design;
- Fitting and maintaining noise reduction packages on plant and equipment; and
- Ensure hardstand surfaces, roadways and vehicular access points are smooth as to not result in jolting of the truck (ie. at entrance to site).

As part of the Site's Operational Noise Management Plan, there should also be regular reviews of on-site noise mitigation and management practices to incorporate and capture opportunities for reductions of Site noise emissions, with considerations of the following:

- Review of noise reduction opportunities during changes or refinements of Site noise generating activities;

- Reviewing noise levels of plant, equipment and activities, during both ongoing compliance checks and in response to complaints;
- Improvements in Best Management Practice (BMP); and
- Improvements in Best Available Technology Economically Achievable (BATEA).

In conclusion, it is determined that, subject to the implementation of a number of minor mitigation and management measures, that the predicted noise emission from the construction and operation of the proposed development can comply with the requirements of the NPfI and DCP at all potentially impacted receivers that surround the Site in the worst case scenario.

6.1.9 Infrastructure Requirements

This section of the EIS evaluates the infrastructure requirements of the proposed development, as per the SEARs, and addresses the following specific matters:

- ***a detailed written and/or graphical description of infrastructure required on site***
- ***details of the existing capacity of the site to service the proposed development and any extension or augmentation, property tenure or staging requirements for the provision of utilities, including arrangements for electrical network requirements, drinking water, wastewater and recycled water***
- ***a description of how any upgrades will be co-ordinated, funded and delivered on time and be maintained to facilitate the development***
- ***identify the existing infrastructure on the site or within the network which may be impacted by the construction and operation of the proposal and the measures to be implemented to address any impacts on this infrastructure.***

A Service Infrastructure Assessment has been prepared by Landpartners and is contained within **Appendix 25** of this EIS.

6.1.9.1 Infrastructure Requirements

The key public utility assets that are required to support the proposed development are:

- Potable water reticulation;
- Waste Water reticulation;
- Electrical reticulation; and
- Telecommunications infrastructure.

These assets will be delivered through the standard asset creation processes of Sydney Water (potable and waste water reticulation via the Section 73 asset creation path), Endeavour Energy (electrical reticulation via Notification of Arrangement asset creation path) and NBN Co (telecommunications via the provisioning certificate asset creation paths). Further details of these assets are provided below:

Potable Water Reticulation

A developer funded water main is being constructed from the existing Sydney Water reticulation system within the Erskine Park industrial precinct. This main is currently programmed for delivery by end 2021-beginning. Sydney Water have outlined in their correspondence (refer to Appendix A of the Service Infrastructure Assessment provided **Appendix 25**) that the extension of the water main will provide adequate capacity to service the estate which includes the proposed development.

The proposed development will create a demand for potable water which is recognised in Sydney Waters' response (**Appendix 25**) to DPIE referrals to service agencies.

The daily water use of the proposed development is approximately 2.5kl/day-3kl/day, based on the development producing 95kl/annum of liquid solids, 100kl/annum of End of Life (EOL) liquid products and 515kl/annum of waste water.

Waste Water Reticulation

Sydney Water have advanced their planning for the waste water infrastructure to be installed to service the estate, with waste water being processed at the proposed Upper South Creek Advanced Water Treatment Plant which will be operational by end 2025-early 2026.

The Mamre Road precinct is divided into 3 sewer catchments of which the Hub development falls within the northern sewer catchment. Current planning by Sydney Water indicates that the Sewer Pumping Station (SPS) which will collect waste water from developments within the northern sewer catchment will be operational by mid-2024.

An Interim Operating Plan (IOP) has been established between Sydney Water and the developers of the estate which will operate to collect waste water from the initial development area of the estate to be pumped to a vehicle tanker which will then discharge the waste water to an approved Sydney Water disposal point.

The IOP will operate under a commercial agreement between Sydney Water and the developers of the estate. The proposed development will discharge waste water at a rate of 6.5kl/day which can be adequately catered for by the Sydney Water reticulation system.

Electrical Reticulation

Endeavour Energy have advanced their planning to service the estate. Endeavour Energy have planned and will construct the South Erskine Park Zone Substation which is a 90MVa asset and will be operational by mid to late 2022. This zone substation will service the Oakdale West and Mamre Road precincts. Developer constructed feeder network will be constructed from the new Zone Substation along Bakers Lane to service the estate.

Endeavour Energy noted in their referral response to DPIE (**Appendix 25**) that the "After Diversity Maximum Demand (ADMD)" which calculates a demand over a larger "holistic" area by estimating an aggregated demand over what in this instance would be the northern areas of the estate.

The proposed development will produce an estimated demand of 11.2Mva. Capacity will exist within the proposed utility service infrastructure to be delivered by Endeavour Energy to service the proposed development.

Telecommunications Infrastructure

The Site falls within the NBN Co servicing footprint. Delivery of standard "pit and pipe" infrastructure will be required to service the estate, including the proposed development.

Development of required infrastructure will be undertaken to satisfy the standard provisioning requirements outlined in NBN Co supply procedures for new developments.

6.1.9.2 Infrastructure Upgrades

No offsite infrastructure will be required to be upgraded, extended or augmented to service the proposed development.

A lead-in potable water reticulation main is being delivered along Mamre Road from the existing potable water reticulation at the corner of Distribution Drive and Mamre Road.

Sydney Water will establish an interim waste water tankering point adjacent or within the south western corner of the Subject Site through an Interim Operating Plan (IOP).

A new underground electrical feeder will be required to be installed from Mamre Zone Substation (located at John Morphett Place Erskine Park) to the Site if development precedes the commissioning of Endeavour Energy's South Erskine Park Zone Substation.

NBN Co will provide telecommunications infrastructure to the Site from their recently installed infrastructure at the corner of Distribution Drive and Mamre Road. This lead-in infrastructure will be provided along the Mamre Road corridor.

6.1.9.3 Infrastructure Delivery/Staging

All delivery of the required infrastructure is to be provided by the relevant service authorities. Staging of the installation of the utility service infrastructure has been discussed with the service authorities with Sydney Water entering an IOP commercial agreement with the developers of the estate. Endeavour Energy have previously advised that should development precede the operation of the South Erskine Park Zone Substation that initial supply can be obtained from the Mamre Zone Substation within the Erskine Park industrial precinct.

6.1.9.4 Expected Impacts

Due to the planning by the utility service authorities with a holistic view of the estate, adequate utility service infrastructure is to be established to service the estate.

It is considered that the proposed development will be adequately serviced by the infrastructure to be provided by the utility service providers and that no upgrades or augmentation to this infrastructure will be required. As such, it is considered that the proposed development will not impact the infrastructure.

Following assessment of the proposed development through the Service Infrastructure Assessment, it is considered on balance that the project is worthy of support with respect to infrastructure requirements.

6.1.10 Aboriginal Cultural Heritage

This section of the EIS evaluates the impacts of the proposed development on Aboriginal Cultural Heritage, as per the SEARs, and addresses the following specific matters:

- ***an addendum to the existing Aboriginal Cultural Heritage Assessment Report (ACHAR) Mamre South Precinct State Significant Development – Proposed Warehouse, Logistics and Industrial Facilities Hub: ACHAR prepared by Biosis and dated 31 July 2020. The addendum must summarise the test and salvage excavations undertaken to date and detail whether the test and salvage excavation results require a refinement of the predictive model. If the predictive model has substantially changed, then a new ACHAR and additional Aboriginal consultation with the existing Registered Aboriginal Parties (RAPs) must be undertaken.***

An addendum to the Mamre Road South Precinct State Significant Development – Proposed Warehouse, Logistics and Industrial Facilities Hub Aboriginal Cultural Heritage Assessment Report (ACHAR) and is included in **Appendix 21** of this EIS.

6.1.10.1 Test and Salvage Excavations

Following the recommendations of the survey undertaken in 2018 (Biosis 2018), a program of test excavations were carried out within the wider study area. It should be noted that the proposed development falls outside of the areas of test and salvage excavations described in this section.

Three (3) open areas (OA) were identified for test excavation:

- OA1, incorporating MSP-09 (AHIMS# 45-5-5344) and MSP-10 (AHIMS# 45-5-5345).
- OA2, incorporating MSP-05 (AHIMS# 45-5-5340) and MSP-06 (AHIMS# 45-5-5341).
- OA3, incorporating MSP-02 (AHIMS# 45-5-5188), MSP-03 (AHIMS# 45-5-5189) and MSP-11 (AHIMS# 45-5-5346).

A total of 691 artefacts were recorded following subsurface excavation at OA1, OA2 and OA3, across 274 excavated test pits in total. OA1 had a lower density of artefacts, containing 16 artefacts across 37 test pits and accounting for 2.3% of the total assemblage, while OA2 contained nine (9) artefacts from 79 test pits which amounted to 1.3% of the total subsurface assemblage. The highest density of artefacts were recorded at OA3, which contained 666 artefacts out of 158 excavated test pits and accounted for 96.4% of the total subsurface assemblage.

Within the north and western section of OA3, test excavations undertaken in site MSP-11 (AHIMS# site 45-5-5346), resulted in the recovery of 58 artefacts from 59 test pits. The overall estate under SSD 9522 was classified as a low-density subsurface artefact scatter on a gentle slope landform. MSP-11 (AHIMS# site 45-5-5346) was subsequently assessed as possessing low scientific significance.

In contrast, test excavations in the southern portion of OA3 indicated that MSP-02 (AHIMS# 45-5-5188) and MSP-03 (AHIMS# 45-5-5189) were part of the same site. As a result, MSP-02 (AHIMS# 45-5-5188) and MSP-03 (AHIMS# 45-5-5189) were combined into one site, MSP-02 (AHIMS# 45-5-5188), with the AHIMS record being updated. A total of 603 subsurface artefacts were identified across AHIMS 45-5-5188/MSP-02 and it was found that artefact densities decreased closer to South Creek, with dispersed, low-density deposits present along the alluvial flats. The assemblage at OA3 contained a varied artefact deposit including a number of backed artefacts which placed it within the Middle Bondaian phase of occupation, approximately 4,000 to 1,000 years before present. Consequently, MSP-02 (AHIMS# 45-5-5188) was assessed as having high cultural and scientific significance.

Distance to water appeared to be a determining factor in the density of subsurface deposits within the study area. OA1 and OA2 were located the furthest from water and both contained low density artefact deposits, while a high-density artefact deposit was identified in the southern portion of OA3, located on a raised area adjacent to South Creek and the confluence of a smaller, unnamed watercourse. A low-density deposit was identified within the northern portion of OA3 on a gentle slope landform.

Following the test excavation program, the ACHA recommended salvage of MSP-02 (AHIMS# 45-5-5188), prior to the commencement of construction works on the Site.

The salvage program commenced in February 2021. Within the southern portion of MSP-02 (AHIMS# 45-5-5188), manual excavations were undertaken in 1m-by-1m units, expanding to an area of 127m^2. Due to the high density of artefacts being recovered from the site, and time constraints within the project, RAPs requested that a number of mechanical scrapes be undertaken. These recommendations were discussed with Heritage NSW in April 2021. Consequently, mechanical excavations were also undertaken across three (3) x 8m-by-4m areas within the site. The salvage program was completed in May 2021, with approximately 35,000 artefacts were recovered from MSP-02 (AHIMS# 45-5-5188). Analysis of the artefacts is not yet complete and will be discussed within a full salvage excavation report.

6.1.10.2 Predictive Model

Based upon previous archaeological studies and the initial field survey described in Biosis (2018), the predictive model comprises the following parameters:

- Surface artefact assemblages and PADs had a high likelihood of being present in portions of the study area located in the South Creek soil landscape.
- The potential for surface artefact assemblages and PAD to occur within the South Creek soil landscape was particularly high when in close proximity to the confluence of watercourses, especially those comprising permanent supplies of fresh water.
- Whilst silcrete was predicted to be the most common raw material found within the study area, where sites were located closer to fresh water, there was the potential for very high density deposits to occur along with a wider range of raw materials. 10
- Modified trees also have the potential to occur within the study area where remnant vegetation is present (though limited), particularly in association with Blacktown soils (JMCHM 1997a, DSCA 2003, Navin Officer Heritage Consultants Pty Ltd 2005, Biosis Research 2010, Biosis Pty Ltd 2016).

Table 49 below summarises the predictive model:

TABLE 49: PREDICTIVE MODEL SUMMARY		
Site Type	Site Description	Potential
Flaked stone artefact scatters and isolated artefacts	Artefact scatter sites can range from high density concentrations of flaked stone and ground stone artefacts to sparse, low density 'background' scatters and isolated finds.	**High:** This site type has been recorded in all locally identified soil landscapes, landforms and landform elements, as well as being the most common site type in relation to both geological formations underlying the study area. Three previously identified AHIMS sites are located within the study area and there is high potential for more to be identified.
Potential archaeological deposits (PADs)	Potential sub surface deposits of cultural Material.	**High:** This site type has been recorded locally within the Blacktown soil landscape, which covers a portion of the study area. PAD sites also have the potential to occur within alluvial landforms though they may not be in situ. This site type represents the second most commonly recorded site type within the vicinity of the study area and has high potential to occur within the study area.
Modified trees	Trees with cultural modifications	**Moderate:** Although there has been extensive clearing within the study area, there is still the potential for this site type to be identified in relation to the riparian corridor along South

TABLE 49: PREDICTIVE MODEL SUMMARY		
Site Type	Site Description	Potential
		Creek and in areas where remnant vegetation is present. Modified trees therefore have moderate potential to occur within the study area.
Shell middens	Deposits of shells accumulated over either singular large resource gathering events or over longer periods of time.	**Low:** Shell middens have not previously been recorded locally. Although there is a higher order South Creek is a permanent source of fresh water and may have provided suitable resources for shell middens to occur, this site type has low potential to occur.
Quarries	Raw stone material procurement sites.	**Low:** There is no record of any quarries being within the study area, though silcrete cobbles have been previously located within the region.
Burials	Aboriginal burial sites.	**Low:** Aboriginal burial sites are generally situated within deep, soft sediments, caves or hollow trees. Areas of deep sandy deposits will have the potential for Aboriginal burials. The soil profiles associated with the study area may have deep sandy deposits present, though this site type has not been previously recorded within the vicinity of the study area.
Aboriginal ceremony and Dreaming Sites	Such sites are often intangible places and features and are identified through oral histories, ethnohistoric data, or Aboriginal informants.	**Low:** There are currently no recorded mythological stories for the study area.
Post-contact sites	These are sites relating to the shared history of Aboriginal and non-Aboriginal people of an area and may include places such as missions, massacre sites, post contact camp sites and buildings associated with post-contact Aboriginal use.	**Low:** There are no post-contact sites previously recorded in the study area and historical sources do not identify one.
Aboriginal places	Aboriginal places may not contain any 'archaeological' indicators of a site but are nonetheless important to Aboriginal people. They may be places of cultural, spiritual or historic significance. Often they	**Low:** There are currently no recorded Aboriginal historical associations for the study area.

TABLE 49: PREDICTIVE MODEL SUMMARY		
Site Type	Site Description	Potential
	are places tied to community history and may include natural features (such as swimming and fishing holes), places where Aboriginal political events commenced or particular buildings.	
Axe grinding grooves	Grooves created in stone platforms through ground stone tool manufacture.	**Nil:** The geology of the study area lacks suitable horizontal sandstone rock outcrops for axe grinding grooves. Therefore there is low potential for axe grinding grooves to occur in the study area.
Rock shelters with art and / or deposit	Rock shelter sites include rock overhangs, shelters or caves, and generally occur on, or next to, moderate to steeply sloping ground characterised by cliff lines and escarpments. These naturally formed features may contain rock art, stone artefacts or midden deposits and may also be associated with grinding grooves.	**Nil:** This site type will only occur where suitable sandstone exposures or overhangs possessing sufficient sheltered space exist, which are not present in the study area or supported by the underlying geology or soil landscapes within the study area.

The results of the test excavations undertaken at OA1, OA2 and OA3 correspond with the predictive model. Both OA1 and OA2 were located further away from permanent water sources and lower numbers of artefacts (OA1, n=16; OA2, n=9) were recovered.

The test excavations conducted at OA3 identified a high density, relatively intact subsurface deposit within the south-western section of the area, where MSP-02 (AHIMS 45-5-5188) and the former MSP-03 (AHIMS 45-5-5189) were previously recorded. Topographically, MSP-02 (AHIMS 45-5-5188) is located on a slightly elevated flat near the confluence of South Creek and a smaller, unnamed watercourse. A total of 603 artefacts were recovered from the test excavations in this section of OA3. A much lower density of artefacts (n=58) were recovered from MSP-11 (AHIMS 45-5-5346) (also located within OA3), located on a gentle slope landform.

A total of 666 artefacts, comprising eight (8) raw material types and 23 discrete tool types were recovered from OA3. The dominant raw material type in OA3 comprised silcrete (n=552, 82.9%), with indurated mudstone tuff (IMT) making up 7.1% (n=47), and chert (4.5%, n=30). Less common raw material types in the assemblage include quartz (n=18, 2.7%), siltstone (n=13, 2%), quartzite (n=3, 0.5%), petrified wood (n=2, 0.3%) and tuff (n=1, 0.2%). Backed artefacts were the most common tool type found in the assemblage making up 78.3% of all tools. Backed artefacts were further broken up into Bondi points (39.1%, n=9), geometric microliths (13%, n=3), eloura (n=1, 4.3%) and backed artefact fragments (21.7%, n=5). The assemblage at OA3 also included two steep edged scrapers (8.7%, n=2), two dihedral burins (8.7%) and one notched tool (4.3%).

The salvage excavation program focused on MSP-02 (AHIMS 45-5-5188). Approximately 35,000 lithics were recovered from MSP-02 (AHIMS 45-5-5188). Full analysis of this assemblage is not yet complete, so information about raw materials and tool types is currently unavailable.

Whilst the density of lithics recovered from MSP-02 (AHIMS# 45-5-5188) is extremely high, the results of both the salvage and test excavations concur with the predictive model and previous subsurface archaeological investigations undertaken within the immediate local area. The predictive model stated that high density sites consisting of a range of raw materials and tool types were likely to occur within the South Creek soil landscape, and that higher densities of artefacts would be found on raised flats adjacent to permanent fresh water supplies. The results of the test and salvage excavations fall within these parameters.

In regard to the extremely high number of artefacts recovered from the salvage excavations, test excavations conducted by JMCHM (2008) on Mamre Road, approximately 1km from the current study area recovered a total of 8,867 lithics from 298m^2, indicating a density of 29.8 artefacts per square metre. The area assessed in JMCHM's report contains a number of similarities to the study area, including its relatively low relief (around 10m) JMCHM 2008, p.7). JMCHM concluded that artefact density was relational to the number of landscape and resource features in the area, with artefact density decreasing in association with lower order stream lines, and the use of silcrete as a raw material decreasing with increasing distance from silcrete sources. As a whole, the site displayed a higher than average artefact density, likely due to the presence of nearby sources of silcrete (JMCHM 2008, p.i).

The current salvage program recovered an estimated 938 lithics per square metre from within MSP-02 (AHIMS 45-5-5188). This is exponentially higher than that the lithics recovered by JMCHM (2008). The site's elevated location immediately adjacent to South Creek, along with the relatively undisturbed nature of the soils in this portion of the study area again suggest that very high densities of artefacts were to be expected

As the AR (Biosis 2020b) notes, the area would have provided an ideal campsite for Aboriginal people given its proximity to food, water and other resources.

Lastly, the predictive model within the AR (Biosis 2020b) is arguably broad, combining a review of previous archaeological studies with an analysis of soils, landforms, and hydrology to produce generalised quantitative statements about site presence and density within the study area. No specific quantitative indicators of lithic densities were proposed by the predictive model. However, the possibility of high-density deposits occurring within the study area were noted within the discussion at the beginning of Section 3 of the AR (Biosis 2020b). In particular, the potential for high density deposits to occur was informed by the results of JMCHM's (2008) investigation located only 1km away on similar landforms within similar soil types. Consequently, the results of the test and salvage excavations can be said to concur with the predictive model's qualitative parameters and with the general results of previous studies carried out in the immediate area.

Given the above the ACHAR recommends that no further archaeological assessment is required, and that the study area be managed in accordance with the strategies and protocols set out in the CHMP (Biosis 2020c). Should any suspected heritage items be identified during works, then the protocols set out in the CHMP should be followed.

6.1.11 Biodiversity

This section of the EIS evaluates biodiversity impacts of the proposed development, as per the SEARs, and addresses the following specific matters:

- ***an assessment of the proposal's biodiversity impacts in accordance with the Biodiversity Conservation Act 2016, including the preparation of a Biodiversity Development Assessment Report (BDAR) where required under the Act, except where a waiver for preparation of a BDAR has been granted.***

A Biodiversity Assessment Report Waiver request has been prepared and submitted by Ecoplanning for the purpose of seeking a BDAR wavier under section 7.9 of the BC Act – refer to **Appendix 10** of this EIS.

6.1.12 Social Impact

This section of the EIS evaluates the social impacts of the proposed development, as per the SEARs, and addresses the following specific matters:

- ***a social impact assessment in accordance with the Department's Draft Social Impact Assessment Guideline – State significant projects (October 2020)***
- ***an analysis of any potential economic impacts of the development, including a discussion of any potential economic benefits to the local and broader community.***

A Social Impact Assessment (SIA) has been prepared by SLR Consulting – refer to **Appendix 26** of this EIS.

The SIA has been prepared under the guidance of the *Draft Social Impact Assessment Guideline* (DPIE 2020) (The Draft Guideline). The Draft Guidelines will come into force in October 2021 and form part of the suite of guidelines introduced under the Rapid Assessment Framework for State significant projects to be introduced at the same time as the SIA Guidelines.

The methodology for the SIA has been derived utilising concepts and tools provided and process and formats recommended under the Draft Guidelines. The Draft Guideline recommends the timing of the Phase 1 SIA occur prior to seeking SEARs for the project. As this cannot be facilitated retrospectively, the considerations of both Phase 1 and 2 have been included in the undertaking of the SIA and the preparation of this EIS.

As per the recommendations of the Draft Guidelines and the accompanying technical supplement, the following general process for the undertaking of the SIA for the project (including Phase 1 and Phase 2 SIA) has been applied and is reflected within the information contained within this report:

- Step 1: Stakeholder and Impact Scoping
- Step 2: Social Locality and Baseline Study
- Step 3: Stakeholder Engagement and Consultation
- Step 4: Identification of Expected and Perceived Impacts
- Step 5: Evaluation of Likelihood and Magnitude of Social Impact
- Step 6: Social Impact Enhancement, Mitigation and Residual Impacts

The details of each step are provided within the Social Impact Assessment (**Appendix 26**).

6.1.12.1 Economic Impact Analysis

The issued SEARs require that the SIA for the development include "an analysis of any potential economic impacts of the development, including a discussion of any potential economic benefits to the local and broader community". It is the strategic intent of the NSW Government to transition the Mamre Road Precinct from predominantly agricultural and rural land uses to an industrial precinct, facilitated by State and local strategic planning and Policy. This transition is expected to provide broad economic benefit through the provision of employment opportunities for residents of Western Sydney closer to people's homes and its general contribution to the NSW economy.

As demonstrated through the EIS, the proposalhas been designed to be consistent with the strategic intent for the precinct and proposes the development of this Site for industry and warehousing. The outcome of the development will include the provision of employment opportunities to Western Sydney residents and a contribution to the economic and rational development of the Site in line with the desired future for the Mamre Road Precinct.

6.1.12.2 Expected and Perceived Impacts

Following the initial impact scoping exercise, social locality and baseline study and stakeholder consultation, expected or perceived impacts have been identified for the development. These impacts have been considered utilising the Draft Guideline Technical Supplement's Social Impact Tables to evaluate the likely significance of the impact.

Details of the potential impact, potentially impacted parties and the significance level of potential impact are provided in **Table 50**, noting that these outcomes are based on a scenario without mitigation.

TABLE 50: POTENTIAL SOCIAL IMPACY SUMMARY		
Potential Social Impact (without mitigation)	Potentially Impacted Parties	Likely Significance of Impact
Acoustic and Vibration Construction associated noise (heavy machinery and works)	Ancillary and Adjacent Occupiers	High
Odour and Air Quality Potential air quality impacts (dust) associated with construction	Ancillary and Adjacent Occupiers	High
Access to property and utilities Potential temporary interruptions to access to neighbouring properties and interruption to services during works	Ancillary and Adjacent Occupiers	Low
Road network Additional on road construction traffic and ongoing site user traffic	Ancillary and Adjacent Occupiers Use of the broader road network	High
Public infrastructure Development will access services (water, electricity etc) - potential for impact to shared infrastructure	Ancillary and Adjacent Occupiers	Low
Aboriginal cultural heritage Potential impact to items or places of Aboriginal cultural heritage	Local Aboriginal Groups	High
Livelihood and Business Opportunity Positive impact expected due to employment and commercial opportunity	The broader Western Sydney Community	Very High

6.1.12.3 Social Impact Enhancement, Mitigation and Residual Impacts

Where potential social impacts have been identified as having a significance level of medium or higher, mitigation (negative impacts) or enhancement (positive impacts), measures will be implemented through the life of the development to minimise or maximise the impact. Details of these measures, as well as the level of significance of residual social impacts is outlined in **Table 51** below

TABLE 51: POTENTIAL SOCIAL IMPACTS – MITIGATION AND ENHANCEMENT MEASURES		
Potential Social Impact	Mitigation or Enhancement Measures	Significance of Residual Impact
Acoustic and Vibration	Pursuant to the issued SEARs for the Project, a quantitative noise and vibration impact assessment for construction and operation of the development, including traffic noise, has been undertaken by Renzo Tonin (**Appendix 22**). The assessment includes the identification of impacts associated with construction, Site emission and traffic generation at noise affected sensitive receivers and details and analysis of the effectiveness of proposed and	Low

TABLE 51: POTENTIAL SOCIAL IMPACTS – MITIGATION AND ENHANCEMENT MEASURES		
Potential Social Impact	Mitigation or Enhancement Measures	Significance of Residual Impact
	recommended management and mitigation measures to adequately manage identified impacts. It is considered that through the approval and subsequent implementation of the noise and vibration impact assessment, that the project will manage and mitigate it's potential acoustic and vibration impacts to nearby receivers. The impact assessment also details compliance monitoring program to ensure ongoing adherence to the management and mitigation of noise impacts and to allow for remedial action if and when an exceedance occurs.	
Odour and Air Quality	Pursuant to the issued SEARs, Northstar (**Appendix 7**) have prepared an assessment of air quality impacts at sensitive receivers during construction and operation in accordance with NSW Environment Protection Authority guidelines and details of mitigation, management and monitoring measures. It is considered through adherence to these measures that the impact on odour and air quality (eg dust) arising from the project will be managed and mitigated to an acceptable level.	Low
Road network	Pursuant to the issued SEARs, a Traffic Impact Assessment has been prepared by Ason (**Appendix 27**) detailing all traffic types and volumes likely to be generated during construction and operation of the Project, including an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network. The assessment concluded that the proposed warehouse and manufacturing development was deemed supportable on traffic and transport planning grounds and will not result in any adverse impacts on the surrounding road network.	Low
Aboriginal Cultural Heritage	The ACHA for the parent site prepared by Biosis included a number of recommendations regarding further investigation, how the discovery of unanticipated finds should be handled and ongoing consultation with registered Aboriginal parties. It is considered through the implementation of these recommendations that the risk to Aboriginal cultural heritage could be mitigated to a low residual impact level. The Addendum to the ACHA (**Appendix 21**) prepared to satisfy the SEARs for the proposed development did not result in a requirement for refinement of the predicative model and therefore did not trigger the requirement for a new ACHA or additional consultation with the RAPs.	Low
Livelihood and Business Opportunity	The Site has been previously utilised for agricultural and low-density residential purposes, with a transition to industrial land use proposed under the SSD for the broader estate and the Project. The execution of the Project will provide local employment and business opportunities to residents of Western Sydney, in line with the strategic intent for the Site and precinct.	High

TABLE 51: POTENTIAL SOCIAL IMPACTS – MITIGATION AND ENHANCEMENT MEASURES		
Potential Social Impact	Mitigation or Enhancement Measures	Significance of Residual Impact
	Construction will provide initial employment opportunities with ongoing employment and business opportunities provided through the operation of the Site in perpetuity. The enhancement of this positive impact will be facilitated through the success of the proposed operation and increase in employee numbers associated with growth in the business.	

To manage and mitigate negative impacts, it is recommended that measures proposed within the prepared impact assessments for the development be implemented and monitored for ongoing compliance.

It should also be recognised that there is a long term, positive social and economic impacts resulting from the project, through the provision of employment and business opportunity in the immediate and broader Western Sydney community.

Following assessment of the proposed development through the Social Impact Assessment, it is considered on balance that the project is worthy of support with respect to social and economic impacts.

6.1.13 Ecologically Sustainable Development

This section of the EIS evaluates the Ecologically Sustainable Development (ES)aspects of the proposed development, in relation to the SEARs and addresses the following specific matters:

- ***a description of how the proposal will incorporate the principles of ecologically sustainable development in the design, construction and ongoing operation of the development***
- ***consideration of the use of green walls, green roofs and/or cool roofs in the design of the development***
- ***a description of the measures to be implemented to minimise consumption of resources, especially energy and water.***

Stantec have prepared an ESD Report to provide an overview of the ESD initiatives adopted for the proposed development – refer to **Appendix 16** of this EIS. The report is intended to provide an overview of the potential key energy uses on Site, and review methods to reduce the overall energy consumption. This is a design response to the SEARs for the proposal. The report further addresses ecologically sustainable aspects included in the development.

The proposed development has chosen to implement the sustainable design strategies and principles outlined in **Table 52** below:

TABLE 52: SUSTAINABLE DESIGN STRATEGIES	
Emission	Strategy
Transport	To reduce the reliance on private vehicles and relieve any traffic pressures on nearby roads and local communities, the following approaches should be investigated: • Secure bicycle parking facilities. • Extension of existing bus routes or the provision of a regular bus service from the Project to nearby public transport facilities.

	• Promote car-pooling/car-sharing initiatives.
Stormwater	Develop a stormwater management plan that incorporates water sensitive urban design (WSUD) such as: • Infiltration trenches and bio retention basins. • Bioswales. • Rain gardens. • Gross pollutant traps. • Rainwater tanks. These initiatives reduce the quantity and quality of stormwater runoff, protect waterways and ecosystems, minimise drainage infrastructure costs and enhance liveability
Materials	• Endeavour to use material with minimal carbon dioxide equivalent (CO2e) emissions and embodied energy during the construction and operation of the Project. • All timber products used at the Site should be procured from certified sustainably harvested resources. No timber should be specified from rainforest or old growth forest. • Use insulation and refrigerants with zero ozone depleting potential. • Use of all paints, carpets, adhesives and sealants that have low volatile organic compounds (VOCs) during the construction and operation phase. • Use low emission Formaldehyde composite wood products during the development of the Project. • Promote the use of regional or local manufacturers.
Water	• Implement rainwater harvesting techniques to minimise potable water use by using rainwater collected from warehouse and/or office roofs for non-potable uses such as toilet flushing and irrigation. If implemented during the construction stage, rainwater harvesting could be used to mitigate dust generation. • Adopt a landscaping plan that promotes the use of plants that are drought resistant and have low water requirements. • Use water efficient fixtures with high WELS rating. • Timely maintenance of fixtures and fittings.
Indoor Environment Quality	Consider a design to optimise occupant satisfaction in accessibility, usability, air quality and public space utility by adopting a high level of indoor environmental quality. This can be achieved by: • Optimising natural light in work environment through clear roof sheeting in the warehouse. • Optimising fresh air ventilation by increase outdoor air into conditioned spaces • Optimising thermal comfort through passive solar design such as insulation, air conditioning, lazing, curtains, external louvers/eves, high performance glass and a reflective roof or 'cool roof'. • Minimising internal noise transference between warehouse tenants by: • Using noise absorbent fillers to reduce any reverberation. • Installing walls with a high acoustic transmission loss value. • Using door seals.

	• Installing eco-certified workstations within the office space.
Noise	Consider a warehouse wall and roofing design that limits internal noise transmission to nearby neighbourhood residences. This can be accomplished by using: • Concrete walls. • Zincalume roofing with insulation. • Door seals.
Energy Efficiency	Investigate the possible viability of the following energy sources to reduce bought electricity: • Solar panels (photovoltaics) or future proofing building for future installation. • Adopt the use of the air conditioning design features to minimise the associated bought electricity. • Adopt the use of energy efficient appliances and equipment used within the office and warehouse space.
Waste	• Ensure the bulk earthworks on-site balance cut and fill where possible. • Construction contractor develops and implements a Waste Management Plan.
Land Use and Ecology Impact	• Use indigenous planting appropriate to the area. • Design external lighting to avoid releasing light into the night sky or beyond the Site boundary. • Adopt the use of water sensitive urban design (WSUD) described above. • Employ specialist advice to develop an independent ecological report to identify any protected local flora and fauna.

Green Star Certification

Altis/Frasers is committed to delivering 'Australian Excellence' in sustainable buildings, as defined by the Green Building Council of Australia. Every proposed warehouse, logistics and industrial facility within this estate will aim achieve as 6-star Green Star 'Design & As-Built' certification (Australian Excellence).

Urban Heat Island

The proposed development aims to reduce the urban heat island impact through implementation of external green wall for all entrance foyers, light coloured roofing material (zincalume roofing), provision of solar panels on the roof to absorb solar radiation and convert it into electrical energy and translucent roof sheeting as shown on the Architectural Plans (**Appendix 3**).

6.1.13.1 Energy Efficiency

In order to improve energy efficiency, initiatives such as efficient lighting, air conditioning and on-site renewable energy need to be effectively implemented. The energy efficiency measures outlined in **Table 53** below are proposed as part of the development:

TABLE 53: ENERGY EFFICIENCY MEASURES	
Source	Measure
Ventilation	Use natural ventilation in warehouse and mezzanine storage level to reduce mechanical ventilation costs.
Solar Design	Incorporate passive solar design principles that reduce the air conditioning of office space and mechanical ventilation of warehouse space. This can be accomplished by using: • Limited glass on east and west facing office walls. • Enhanced glazing, such as high solar performance tinted glass. • Block-out curtains on the interior of office windows. • External louvers/eves on east and west facing office windows. • Plant deciduous trees on east and west facing office walls to disperse direct sunlight during summer and promote sunlight in winter. • Use a highly reflective roof or 'cool roof' to decrease internal thermal fluctuations. • Wall insulation for office space.
Energy Sources	Investigate the viability of the following energy sources to reduce bought electricity: • Solar water heating or high efficiency electric heat pump • Solar panels (photovoltaics) or future proofing building for future
Air Conditioning Design	Adopt the use of the following air conditioning design features to minimise the associated bought electricity. This can be achieved through implementing: • Energy efficient air conditioning equipment. • Energy sub metering that is linked to tracking and monitoring systems to allow for self- assessment, problem solving and ongoing improvements during operations. • Independent units being installed in board rooms and server rooms to deal with differing loads and operating hours within the office building. • Separate operating systems for separate areas with different occupancy periods. • Ensure temperature sensors are located in areas that avoid direct solar gain or heat transfer through walls. • Adequately insulated pipework and ductwork to avoid further loads on air conditioning. • Regular tuning and maintenance of the system to allow the system to function as per its original energy efficient intent.
Lighting	• Use LED lighting strategies with advanced controls systems to dim or turn off lights when not in use. • Optimise natural light in warehouse by using clear roof sheeting to reduce lighting costs.
Appliances and Equipment	Adopt the use of energy efficient appliances and equipment used within the office and warehouse space.

6.1.13.2 Greenhouse Gas Emissions

The Greenhouse Gas Protocol (WRI & WBCSD, 2004) establishes an international standard for accounting and reporting of greenhouse gas emissions. The Greenhouse Gas Protocol has been adopted by the International Organization for Standardization, endorsed by greenhouse gas initiatives (such as the Carbon Disclosure Project) and is compatible with existing greenhouse gas trading schemes.

Under this protocol, three "scopes" of emissions (scope 1, scope 2 and scope 3) are defined for greenhouse gas accounting and reporting purposes. This terminology has been adopted in Australian greenhouse gas reporting and measurement methods and has been employed in this assessment.

To reduce Greenhouse Gas Emissions, the following approach will be applied to the Proposed Development:

1. Design for reduced emissions which includes the selection of lower greenhouse gas intensive building materials;
2. Design for improved energy efficiency (refer to Section 3) to minimise greenhouse gas emissions through operations; and
3. Purchase certified carbon offsets.

Table 54 outlines the measures, based on scope of emission, which will be considered for the proposed development to reduce Greenhouse Gas Emissions:

TABLE 54: GREENHOUSE GAS MITGATION MEASURES	
Emission	Measure
Scope 1: Direct Emissions	• Support the education of contractor owned vehicle drivers in techniques to conserve fuel during the construction phase e.g. implement a no-idling policy. • Support alternatively fuelled and 'modernised' tenant owned equipment and vehicles used during the operational phase – including compressed natural gas, hydrogen, electric, compressed air and hybrid vehicles. • Support tenant management procedures that consider the reduction of fuel use as far as practical during the operation phase. • Make use of renewable energy sources where practical for the generation, use or purchase of electricity, heating and cooling. • Install tenant energy sub-metering systems
Scope 2: Indirect Emissions	• Design energy efficient buildings to meet national / international benchmarking schemes (e.g. 6-star Green Star ratings).
Scope 3: Other Indirect Emissions	• Consider the use of high capacity public transport to and from the proposed Project. • Support the use of the low emission vehicles to and from the proposed Project, including the provision of recharging stations priority queuing and parking. • Develop an integrated solid waste management plan to implement waste saving initiatives such as composting and recycling.

6.1.13.3 Water

As presented in the sustainable design strategies rainwater harvesting techniques will be implemented to minimise potable water use by using rainwater collected from warehouse and/or office roofs for non-potable uses such as toilet flushing and irrigation.

Table 55 outlines the proposed measures to reduce potable water demand:

TABLE 55: POTABLE WATER MEASURES	
Emission	Measure
Indoor/Domestic Water	• Install high-efficiency dishwashing equipment and run only when full; and • Fit restrooms with water-saving fixtures. Water efficient urinals, dual-flush toilets, and motion-detecting faucets can all reduce water usage. Motion detectors on restroom lights, and high-efficiency hand dryers, also contribute toward savings. As a minimum the WELS star ratings for the fittings would be: - 4 Star WC; - 6 Star urinals; - 6 Star tapware; and - 3 Star showers
Outdoor Water Use	• Use a weather-based irrigation control or soil moisture sensor for automatic irrigation system control; • Choose native, drought-resistant plants for landscaping; and • Audit and optimize irrigation systems to achieve maximum distribution uniformity of water.

Following assessment of the proposed development through the Ecologically Sustainable Development Report, it is considered on balance that the project is worthy of support with respect to ecologically sustainable development.

6.1.14 Waste

This section of the EIS evaluates the matters of waste associated with the proposed development, as per the SEARs, in particular:

- ***including details of the quantities and classification of waste streams generated during construction and operation and proposed storage, handling and disposal requirements.***

A Waste Management Plan has been prepared by LG Consult, to identify potential wastes to be generated by the proposed development during Site preparation, construction and operation. This includes a description of how waste will be handled, processed and reused, recycled or managed in accordance with both the SEARs and Council requirements.

A copy of the Waste Management Plan is included in **Appendix 29** of this EIS.

6.1.14.1 Construction Waste

Demolition

The estimated demolition waste quantities are summarised in **Table 56.**

TABLE 56: ESTIMATED DEMOLITION WASTE				
Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	
Excavation Material	0	0	0	N/A
Timber	0	0	0	Waste Management Centre
Concrete	0	0	0	Recycling Management Centre
Bricks/Pavers	0	0	0	Recycling Management Centre

TABLE 56: ESTIMATED DEMOLITION WASTE				
Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	
Tiles	0	0	0	Waste Management Centre
Metal	0	0	0	Recycling Management Centre
Glass	0	0	0	Waste Management Centre
Furniture	0	0	0	Waste Management Centre
Fixtures and Fittings	0	0	0	Waste Management Centre
Floor Coverings	0	0	0	Waste Management Centre
Packaging (used pallets, pallet wrap)	0	0	0	N/A
Garden Organics	0	965m^3	0	Recycling Management Centre
Containers (cans, plastic, glass)	0	0	0	N/A
Paper/Cardboard	0	0	0	N/A
Residual Waste	0	0	<5m^3	Recycling Management Centre
Hazardous/Special Waste	0	0	0	N/A
Other	0	0	0	N/A
Total	**0**	**965m^3**	**<5m^3**	

Construction

The estimated monthly construction waste quantities are summarised in **Table 57**.

TABLE 57: ESTIMATED MONTHLY CONSTRUCTION WASTE				
Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	
Excavated Materials (soil spoil)	60,350m^3	0	0	N/A
Green Waste	0	0	0	N/A
Bricks/Pavers	0	0	<5m^3 (offcuts)	Waste Management Centre
Tiles	0	0	<5m^3 (offcuts)	Waste Management Centre
Concrete	0	0	<5m^3	Waste Management Centre
Plasterboard	0	0	<5m^3	Waste Management Centre
Asbestos	0	0	0	N/A
Metal – specify	0	<5m^3 (steel studs)	0	Recycling Outlet
Timber – specify	0	0	0	N/A
Other Waste – specify (eg. paints, PVC tubing)	0	0	<5m^3 (offcuts)	Waste Management Centre
Packing (used pallets, pallet wrap)	0	<5m^3	0	Recycling Outlet

TABLE 57: ESTIMATED MONTHLY CONSTRUCTION WASTE				
Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	
Containers (cans, plastic, glass)	0	<5m^3	0	Recycling Outlet
Paper/Cardboard	0	<5m^3	0	Recycling Outlet
Total	**60,350m^3**	**<20m^3**	**<25m^3**	

Waste Reduction Measures

Waste-type-specific reduction measures will be employed during demolition and construction stages, with the following specific procedures:

- Applying practical building designs and construction techniques;
- Appropriate sorting and segregation of demolition and construction wastes to ensure efficient recycling of wastes;
- Selecting construction materials taking into consideration to their long lifespan and potential for reuse;
- Ordering materials to size and ordering pre-cut and prefabricated materials;
- Reuse of formwork (where possible);
- Planned work staging;
- Reducing packaging waste onsite by returning packaging to suppliers where possible, 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;
- Careful on-site storage and source separation;
- Subcontractors informed of site waste management procedures; and
- Coordination and sequencing of various trades.

Beneficial Reuses

The anticipated beneficial reuses of demolition and construction waste are summarised as follows:

- All solid waste timber, concrete, tiles and rock that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner;
- All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with SafeWork Authority and EPA requirements;
- Portable, self-contained toilet and washroom facilities will be provided at the Site and will be regularly emptied and serviced by a suitably qualified contractor;
- Provision for the collection of batteries, fluorescent tubes and other recyclable resources will be provided onsite to enable offsite recycling;
- Drink container recycling should be provided onsite, or these items sorted offsite for recycling at an appropriately licensed facility;
- All garbage will be disposed of via a council approved system; and
- Opportunities for materials exportation and reuse with other local construction operations will be investigated.

Waste Storage Locations

Waste storage locations will be accessible and allow sufficient space for storage and servicing requirements. These locations will also be flexible in order to cater for change of use throughout the demolition and construction stages.

Where space is restricted (during construction), 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 onsite 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/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.

Waste/recycling storage locations will be assigned during the demolition and construction works and will provide adequate space to accommodate all waste and recycling bins associated with the demolition (tree clearing) and construction (up to approximately 4x 1,000L bins). Recycling bins must be accessible to all demolition and construction employees and must be clearly sign posted and colour code to ensure segregation of waste and recycling is effective. Waste containers are to be kept clean and in a good state of repair.

6.1.14.2 Operational Waste

The estimated yearly operational waste quantities are summarised in **Table 58**.

TABLE 58: ESTIMATED YEARLY OPERATIONAL WASTE

Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	
Office – Paper/Cardboard		$8m^3$	0	Recycling Outlet
Office – Food Waste		0	$5m^3$	Waste Management Centre
Office – General Waste		0	$5m^3$	Waste Management Centre
Process – Packaging Paper/Cardboard		$20m^3$	0	Recycling Outlet
Process – Packaging Plastics		$20m^3$	0	Recycling Outlet
Process – Wooden Pallets		$250m^3$	0	Recycling Outlet
Process – Timber		0	$15m^3$	Waste Management Centre
Process – Powder Dust		$450m^3$	0	Recycling Outlet
Process – Liquid Solids		0	$85m^3$	Waste Management Centre
Process – Waste Water	$515m^3$	0	0	Licensed Sewer Discharge
Process – Steel Drums		$50m^3$	0	Recycling Outlet
Process – Packaging IBC's		$100m^3$	0	Recycling Outlet
Process – General Waste		0	$250m^3$	Waste Management Centre
FG – EOL Powder Products	0	$150m^3$	0	Recycling Outlet
FG – EOL Liquids Products	0	$100m^3$	0	Recycling Outlet

TABLE 58: ESTIMATED YEARLY OPERATIONAL WASTE				
Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	Estimated volume (m^3) or Weight (t)	
FG – EOL Other Products	0	0	50m^3	Waste Management Centre
Total	**515m^3**	**1,148m^3**	**410m^3**	

Waste Reduction Measures

Waste-type-specific reduction measures will be employed during development operation, with the following specific procedures:

- Provision of take back services to clients to reduce waste further along the supply chain;
- Re-work/re-packaging of products prior to local distribution to reduce waste arising;
- Review of packaging design to reduce waste but maintain 'fit for purpose';
- Investigating leased office equipment and machinery rather than purchase and disposal;
- Establish systems with in-house and with supply chain stakeholders to transport products in re-useable packaging where possible;
- Development of 'buy recycled' purchasing policy;
- Flatten or bale cardboard to reduce number of bin lifts required; and
- Providing recycling collections within each of the offices and tearooms (e.g. plastics, cans and glass).

Beneficial Reuses

The anticipated beneficial reuses of operational waste are summarised as follows:

- Cardboard, paper, plastic, glass, cans and pallets and containers will be reused/recycled offsite;
- Provision for the collection of batteries, fluorescent tubes and other recyclable resources will be provided onsite to enable offsite recycling;
- All waste materials that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner;
- Waste oil (if any) used in equipment maintenance will be recycled or disposed of in an appropriate manner; and
- Opportunities for materials exportation and reuse with other local industrial operations will be investigated. This will have two benefits: minimising energy through reduction of material reprocessing, encouraging material reuse.

Waste Storage Locations

A designated waste storage area will be provided within the northern corner of the Site where the recycling bins, garbage skips ,plastic and cardboard compactors will be stored prior to collection. Sufficient clearance will be necessary to enable collection vehicles to access the locations of bin storage. Where possible collection times should not coincide with peak operational delivery schedules however the designated area identified will not interfere with operational truck movements.

The construction of locations for garbage storage are to comply with the BCA) requirements and Australian Standards, including CoC requirements for screening and fencing.

The waste/recycling storage area will be constructed of an adequate size to accommodate all waste and recycling bins and bales associated with the development. Recycling bins must be accessible to all

employees and must be clearly sign posted and colour coded to ensure segregation of waste and recycling is effective.

Sufficient space will be provided for the segregation and storage of varying waste types including provision for the collection of fluorescent tubes, smoke detectors, e-wastes and other recyclable resources.

Sufficient space will also be provided for reuse items such as crates and pallets for occupational safety purposes.

Doors/gates to the waste storage locations will be able to be opened from the outside and wide enough to allow for easy passage of waste/recycling containers.

Following assessment of the proposed development through the Waste Management Plan, it is considered on balance that the project is worthy of support with respect to waste management.

6.1.15 Bushfire

This section of the EIS evaluates matters of bushfire and incident management associated with the proposed development, as per the SEARs, and addresses the following specific matters:

- ***a bush fire assessment report that addresses the aims and objectives of Planning for Bushfire Protection 2019***

A Bushfire Assessment has been undertaken by Peterson Bushfire, in accordance with the NCC and *Planning for Bush Fire Protection 2019* (PBP), and forms part of **Appendix 11** of this EIS. PBP requires the assessment of a suite of bushfire protection measures that in total provide an adequate level of protection for development proposals on bushfire prone land. The proposed measures include to ensure compliance with PBP are detailed below.

6.1.15.1 Access

Public Road Access

The existing public road access currently consists of Mamre Road to the east and Bakers Lane to the north. Mamre Road is the primary collector road in the locale and provide access in the north and south directions. Mamre Road will be widened and improved to service the Mamre Road Precinct and Bakers Lane will become the Southern Link Road providing an additional access option to the east.

The construction of public roads is not included as part of the proposal. Public roads approved under SSD 9522 for the surrounding estate will be constructed to provide access to the warehouse from Mamre Road via Bakers Lane. The length of road from Mamre Road to the entry of the proposed warehouse via Bakers Lane will be approximately 350m.

Public road design and construction will comply with Table 5.3b of PBP. An exception is that the length of the approved public road exceeds the PBP threshold of 200m for no-through roads. Such a breach is considered acceptable due to the low risk presented by the adjacent paddocks and the temporary nature of the adjacent hazard. The bulk earthworks of the surrounding estate will have occurred prior to commencement of construction of the proposed warehouse, effectively removing the adjoining hazard.

Internal Property Roads

The proposed warehouse will have internal property access roads linked to the approved public roads creating a loop around the warehouse with a separate truck entry and exit. A minimum 6m wide fire access road is proposed and all sides of the warehouse will have additional access, parking and hardstand areas creating ample turning opportunities. The internal property roads are deemed to be adequate for the proposal. Additional provisions for bushfire protection are not required.

Defendable Space

For habitable development types such as dwellings, the application of a bushfire hazard building setback (i.e. Asset Protection Zone) is related to the vulnerability of an asset typically in terms of combustibility of external materials or the nature of the occupants. The resulting Asset Protection Zone (APZ) dimension would stipulate a building construction standard (i.e. Bushfire Attack Level – BAL) under Australian Standard AS 3959-2018 Construction of buildings in bushfire-prone areas.

As the land use does not include a dwelling or habitable building, PBP does not prescribe an APZ dimension. The general fire safety requirements of the National Construction Code (NCC) are accepted as adequate bushfire protection for the developments involving Class 5 to 8 buildings.

However, PBP does require the consideration of a managed hazard-separation area for fire-fighting purposes referred to as 'defendable space'. A defendable space is an area between the building and the bushfire hazard that provides an environment in which fire-fighters can undertake property protection after the passage of a bushfire with some level of safety. The defendable space dimension is defined by the ability to gain access around an asset and conduct defensive fire -fighting operations. Relying on a defendable space in lieu of an APZ is deemed acceptable whereby construction satisfies NCC building and structural fire requirements.

The proposed warehouse will be separated from the identified hazards by the internal property access road and hardstand areas. An adequate defendable space is therefore provided. Additional provisions for bushfire protection are not required.

The proposed development is to be maintained to achieve the performance requirement of an Inner Protection Area (IPA) a described by Appendix A4.1.1 of PBP. The following landscaping specifications have been designed to achieve the IPA at this Site:
Trees

- Trees at maturity should not touch or overhang the building; and
- Tree crowns should not provide a connected canopy between the identified hazard and the building when at maturity.

Shrubs

- Ensure gaps in the vegetation, such as between garden beds, to prevent the spread of fire towards the building;
- Clumps of shrubs should be separated from glazing and doors by a distance of at least twice the height of the vegetation.

Groundcovers

- Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height);
- Leaves and vegetation debris should be regularly removed;
- Organic mulch is not to be used within 1 m of a building.

6.1.15.2 Emergency and Evacuation

A 'Bushfire Emergency Management and Evacuation Plan' is typically prepared for facilities within bushfire prone areas depending on the level of bushfire risk. A plan is prepared in accordance with the NSW Rural Fire Service document 'A Guide to Developing a Bushfire Emergency Management and Evacuation Plan' (RFS 2014).

Due to the low level of bushfire risk presented by the surrounding lands, the preparation of a 'Bushfire Emergency Management and Evacuation Plan' for the warehouse development is not considered to be warranted in this case.

6.1.15.3 Water Supply and Other Utilities

Water Supply

The proposed warehouse will require fire hydrants to be installed to comply with AS 2419.1 –2005 Fire Hydrant Installations - System Design, Installation and Commissioning(AS 2419).

Electricity Supply

The supply of electricity will be provided underground. Compliance is therefore achieved.

Gas Supply

Any gas services are to be installed and maintained in accordance with Australian Standard AS/NZS 1596-2014 The storage and handling of LP gas.

6.1.15.4 Water Supply and Other Utilities

The proposed warehouse will not involve the storage of hazardous or combustible materials external to the building.

Following assessment of the proposed development through the Bushfire Assessment, it is considered on balance that the project is worthy of support with respect to bushfire.

6.1.16 Hazards and risk

This section of the EIS evaluates the matters of hazard and risk associated with the proposed development, as per the SEARs, including:

- **a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011) with a clear indication of class, storage and handling quantities and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).**

An assessment of the dangerous goods has been carried out by Riskcon Engineering Pty Ltd (Riskcon) and is included in **Appendix 14** of this EIS.

6.1.16.1 Storage

The overall Site will hold some dangerous goods (raw materials and finished goods). The assessment has determined that quantities of dangerous goods will be below the *State Environmental Planning Policy No.33 (Hazardous and Offensive Development)* (SEPP 33) threshold. The quantities stored are identified in **Table 59** below.

TABLE 59: QUANTATIES STORED AND SEPP 33 THRESHOLD

Class	Description	PG	Quantity (kg)	SEPP Threshold (kg)	Threshold Exceed (Y/N)
2.1	LPG	n/a	900	10,000	N
3	Flammable Liquid	II	111,675	200,000	N
		III	71,973	200,000	N
4.1	Flammable Solids	II	484	5,000	N
5.1	Oxidising Substances	III	153	5,000	N
(6.1)	(sub-risk Toxic Substances)			2,500	N
6.1	Toxic Substances	II	2,000	25,000	N
8	Corrosive Substances	II	13,302	25,000	N
		III	21,297	50,000	N

6.1.16.2 Transport

The warehouse storage would not exceed the cumulative annual transport limits based solely on the total quantity which is stored in the warehouse. Therefore, SEPP 33 does not apply to the transport operations at this Site.

6.1.16.3 Odours

SEPP33 contains a requirement for review of operations that may cause offense in the form of odour, environmental impact, nuisance (noise), etc. An indication of whether "offensiveness" may occur at the facility is whether an Environmental Protection Authority (EPA) licence is required for specific operations at the Site. A review of the warehouse and manufacturing operations indicates that there are no processes that would result in the manufacture, production, or transfer of materials in a form that may result in the release of bulk materials at the Site or that could result in odour generation or excessive noise. An EPA licence would not be required for this Site.

The total quantity of chemicals stored at the Ardex facility is approximately 537 tonnes (<550kL). The Protection of Environmental Operations Act 1997 and Regulations 2009 indicates that chemical storage facilities that exceed 5,000kL of storage would trigger an administrative fee unit. As there is less than 550kL of chemicals stored, an administrative fee unit is not triggered, and a licence is not required for the Site.

Further, there would be no unusual operations that would cause potential odours, or noise closest residential area is located over 1.5kms from the Site and noise from normal warehouse operations would not impact this area.

In summary, there is no potential for "offensive" operations at the Site and therefore SEPP33 does not apply in this case.

Following assessment of the proposed development through the Dangerous Goods Reports, it is considered on balance that the project is worthy of support with respect to hazards and risk.

6.1.17 Greenhouse Gas and Energy Efficiency

This section of the EIS evaluates matters of greenhouse gas and energy efficiency associated with the proposed development, as per the SEARs, and addresses the following specific matters:

- ***including an assessment of the energy use of the proposal and all reasonable and feasible measures that would be implemented on site to minimise the proposal's greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050).***

A Greenhouse Gas (GHG) and Energy Efficiency Assessment has been prepared by North Star Air Quality and forms part of **Appendix 20** of this EIS.

6.1.17.1 Emission Source Identification

The geographical boundary set for this GHG assessment covers the proposal and does not include the transport of materials to and from the Site. Emissions associated with proposal construction and all associated mobile plant and equipment, are not included in this assessment. This is because their usage is not quantifiable at the current time. The ongoing energy efficiency of the Proposal's operation has been considered the main focus of this assessment.

The GHG emission sources associated with the operation of the Proposal have been identified through the review of the proposed broad activities as described in The Australian Government Department of the Environment (DoE) document, "National Greenhouse Accounts Factors" Workbook (NGA Factors)(DISER, 2021).

The activities/operations being performed, as part of the proposal, which have the potential to result in emissions of GHG, are presented in **Table 60** below.

TABLE 60: GREENHOUSE GAS EMISSION SOURCES

Proposal Component	Scope	Emission Source Description
Consumption of purchased electricity	2	Emissions associated with the generation of electricity from fossil fuel combustion
Consumption of liquified petroleum gas (LPG)	1,3	Emissions from combustion of fuel (scope 1). Emissions associated with extraction and processing of fuel (scope 3).

6.1.17.2 Emission Estimation

Emissions of GHG from the source identified in **Table** 4 have been calculated using activity data for the source per annum (i.e. per kilowatt-hour (kWh)of electricity) and the relevant emission factor for each source. The assumptions used in the calculation of activity data for the emission source and emission factors, are presented below.

Activity Data

Information relating to the quantities of electricity and LPG fuel used as part of the proposal have been provided. These data are outlined in **Table 61**. No diesel or unleaded fuel is anticipated to be used.

TABLE 61: CALCULATED ACTIVITY DATA			
Project Component	Assumptions	Activity	Units
Consumption of LPG in processing operations	Information provided by the Proponent indicates the LPG use to be 19.6kL (10000kg)per annum	19.6	kL annum^{-1}
Consumption of electricity	Information provided by the Proponent indicates the electricity consumption to be 3500MWh per annum	3,500	MWh annum^{-1}

Emissions factors used for the assessment of GHG emissions associated with existing operations and the operation of the project have been sourced from the NGA Factors (DISER, 2021).

6.1.17.3 Quantification of Greenhouse Gas Emissions

Based on the activity data for the operation of the Proposal and the emission factors outlined in Section4.4, annual GHG emissions have been calculated and are presented in **Table 62**. Direct (Scope 1) emissions associated with the Proposal are anticipated to be 25.6tCO2-e per annum, with indirect (Scope 2) emissions anticipated to be 2730tCO2-e per annum. Indirect (Scope 3) emissions are calculated to be 246.8tCO2-e per annum.

TABLE 62: CALCULATED PROPOSED GHG EMISSIONS						
Scope		Activity Rate	Units	Emission Factor		CO_2(t-yr^{-1})
1	LPG in operational activities	19.6	kL year^{-1}	1,303.7	$kgCO_2$-e•kL^{-1}	25.6
					Scope 1 (subtotal	**25.6**
2	Electricity consumption	3,500,000	kWh year^{-1}	0.78	$kgCO_2$-e•kWh^{-1}	2,730.0
					Scope 2 (subtotal)	**2,730.0**
3	LPG in operational activities	19.6	kL year^{-1}	91.1	$kgCO_2$-e•kL^{-1}	1.8
	Electricity consumption	3,500,000	kWh year^{-}	0.07	$kgCO_2$-e•kWh^{-1}	245.0
					Scope 3 (subtotal)	**246.8**
					Total	**3,002.3**

A comparison of the calculated direct (Scope 1) GHG emissions associated with the Proposal against Australian (DISER, 2020a) and NSW (DISER, 2020b) indicate that's the operation of the proposal, in its entirety, would contribute <0.001% of NSW and Australian total GHG emissions.

6.1.17.4 Management of Greenhouse Gas Emissions

The above assessment indicates that direct GHG emissions resulting from the operation of the proposal are anticipated to be minimal. However, the applicant proposes to implement a number of measures to ensure that the consumption of fuels and electricity are minimised to reflect the Government's goal of net zero emissions by 2050. These measures include:

- Installation of a 200kW solar photovoltaic (PV)system at the Site. This system would be expected to produce in Sydney, on average, approximately 720kWh per day, or 262.8MWh per annum. This represents approximately 7.5% of the annual electricity consumption of the Site and would result in GHG emissions reductions of 205t CO_2-e per annum (Scope 2) and 18.4t CO_2-e per annum (Scope 3).

- Measures have been implemented in the design of the facility to increase energy efficiency during the manufacturing process. These measures include the use of a vertical powder plant, which uses half of the electricity of the older less efficient horizontal powder, or 'split tower' plants.
- Emissions generated during the operation of the proposal will be further minimised by the introduction of a number of energy efficiency measures. The Trust Company (Australia) Limited are implementing a Six-Star Green Star Design and an As-Built V1.1 rating, as defined by the Green Building Council of Australia, for the proposal. The key initiatives that relate to the sustainability performance of the Site are outlined in **Table 63**. ·
- All vehicles/plant and machinery at the Site would be turned off when not in use and would be regularly serviced to ensure efficient operation.
- A 'no-idling' policy would be implemented at the Site, to reduce fuel consumption in site and delivery vehicles, and reduce emissions of air pollutants.

TABLE 63: KEY INIATIVES FOR SIX-STAR GREEN STAR PROPOSAL

Component	Initiative
Energy	
Building fabric	10% improvement on BCA –double glazing, increased façade and roof insulation
Translucent sheeting	10% of warehouse roof
Hot water system	Heat pump (air source or geothermal)
Office heating and cooling	Geothermal –reverse cycle ducted
Office outside air	Min 50% increase on OA
Lighting – office	LED with individual control
Lighting – warehouse	LED with daylight control
Lighting – external	LED with time clock control
Renewable Energy	Solar PV system (200kW)
Energy storage	Customer dependent
Electric vehicle charging	Included
Water	
Water fixtures	5-& 6-star WELS rated
Recycled water	Rainwater for 80%+ irrigation and toilet flushing
Fire test water recycling	80%+ of fire test water recycled
Sub-metering	Electricity and water with web-based monitoring system
Commissioning	Commissioning manager and plan

Following assessment of the proposed development through the Greenhouse Gas and Energy Efficiency Assessment, it is considered on balance that the project is worthy of support with respect to greenhouse gas and energy efficiency.

6.1.18 Airport Safeguarding

This section of the EIS evaluates matters of airport safeguarding and provides a risk assessment of the proposed development, as per the SEARs, and addresses the following specific matters:

- ***including a risk assessment of the proposed development on Western Sydney Airport operations, addressing the Western Sydney Aerotropolis Plan and the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020. The assessment is to address the emissions associated with the exhaust stacks on the Obstacle Limitation Surface.***

An Aeronautical Impact Assessment has been undertaken by Landrum and Brown, including an assessment of the National Airports Safeguarding Framework (NASF) Principles and Guidelines, and forms part of **Appendix 6** of this EIS. As demonstrated through the AIA assessment and below, the proposed development will not result in any adverse impacts to the Western Sydney Airport Operations.

6.1.18.1 Western Sydney Aerotropolis Plan

The Western Sydney Aerotropolis (WSA) Plan was finalised and released in September 2020 by the Western Sydney Planning Partnership in collaboration with NSW Government and local Councils to establish a vision and the overarching planning principal for the WSA, as well as to identify the intended land use planning outcomes for each of the 10 precincts, the phasing of precincts, and the envisaged transport and infrastructure framework associated with the vision for the new Aerotropolis.

The Site is located within the Mamre Road Precinct which is identified as one of the initial precincts under the Western Sydney Aerotropolis Plan. The Western Sydney Aerotropolis Plan identifies the National Airports Safeguarding Framework (NASF) and WSA SEPP as key to safeguarding the aviation operations of Western Sydney Airport. Assessment of the proposed development against NASF and WSA SEPP is undertaken below.

6.1.18.2 National Airports Safeguarding Framework (NASF)

NASF Guideline A – Measures for Managing Impacts of Aircraft Noise

Guideline A provides guidance to Commonwealth, State, Territory and Local Government decision makers to manage the impacts of noise around airports including assessing the suitability of developments. Noise sensitive uses include residential, education establishments, offices, hospitals, aged care, churches, religious activities, theatres, cinemas, recording studios, court houses, libraries and galleries.

The Site is located outside the ANEC Zones and will therefore not be impacted by Aircraft Noise.

NASF Guideline B – Managing the Risk of Building Generated Windshear and Turbulence at Airports

Guideline B provides guidance to Commonwealth, state/territory and local government decision makers and airport operators to manage the risk of building generated windshear (i.e. changes in wind speed and/or direction between two points) and building generated turbulence (i.e. rapid irregular changes in wind speed and/or direction at a fixed point) at airports.

The Site is located outside of the Windshear Assessment Trigger Area and will not have any impact on turbulence at Western Sydney Airport.

NASF Guideline C – Managing the Risk of Wildlife Strikes in the Vicinity of Airports

Guideline C provides guidance to State/Territory and local government decision makers to manage the risk of collisions between wildlife and aircraft at or near airports where that risk may be increased by the presence of wildlife-attracting land uses.

The Site lies within the 8km radius wildlife buffer zone. Within the 8km zone there are no “incompatible” uses that would normally align with the proposed use.

The nature of the proposed use does not include large dams, large waterbodies, wastewater treatment plants, parks or biodiversity conservation sites. Any stormwater evaporation ponds required under the Stormwater Strategy will be covered with netting in accordance with Stormwater requirements.

The existing Site is currently farm allotments and open vegetation paddocks. The industrial estate will consume a significant amount of this grassland and farming activity, effectively reducing the amount of wildlife present in the area that could cause a hazard to overflying aircraft. Assessment of the appropriate types of flora has been undertaken that will enhance the visual features of the estate without being an attractant for birds or bats and not encouraging fauna such as rats and mice, being recognised as food, that would attract birds to the Site.

NASF Guideline D – Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation

Guideline D provides guidance to State/Territory and local government decision makers, airport operators and developers of wind farms to jointly address the risk to civil aviation arising from the development, presence and use of wind farms and wind monitoring towers.

No wind turbines are proposed.

NASF Guideline E – Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports

The objective of this clause is to safeguard airport operations from the risk of lighting and reflectivity distractions for pilots. Pilots are reliant on specific patterns of aeronautical ground lights during inclement weather and outside daylight hours. The aeronautical ground lights, such as runway light and approach light, play a vital role in enabling pilots to align aircraft with the runway and land aircraft appropriately.

Therefore, certain types of lighting in close proximity to the Airport can cause glare, distraction or confusion to pilots which can result in significant safety risk. The area in which lighting is considered likely to impact on the safe operations of aircraft is defined in four Lighting Intensity Zones in immediate proximity to the runways and a 6km radius of the Airport for certain other development. The Lighting Intensity Zones are referred to as Zones A-D and there are restrictions on lighting intensity/light spill in the Zones.

Any land mapped in the Lighting Intensity Map of the SEPP, as being within the lighting intensity area and which incorporates significant new lighting and/or coloured lights (whether temporary such as part of construction or permanent) is required to be referred to WSA, for consultation. Examples of such lighting include but are not limited to, stadium flood lighting and construction lighting. Additionally, buildings should be designed having regard to reducing distraction to pilots as a result of reflected sunlight.

There are many existing potential sources of sun reflections in the area surrounding the proposed development including large sheds and dams. The location of the proposed development is not in the immediate vicinity of any of the proposed runways at Western Sydney Airport and therefore any reflections from the estate are unlikely to cause a hazard greater than what already exists today. The Site is located outside of the Lighting Intensity Zones and will not have any impact on the Airport operations from the risk of lighting and reflectivity distractions for pilots at Western Sydney Airport.

NASF Guideline F – Managing the Risk of Intrusions into the Protected Airspace of Airports

Guideline F provides guidance to State/Territory and local government decision makers as well as airport operators to jointly address the issue of intrusions into the operational airspace of airports by tall structures, such as buildings and cranes, as well as trees in the vicinity of airports. The guidelines are also designed to address the following risks:

- Activities that could cause air turbulence, where the turbulence could affect the normal flight of aircraft operating in the prescribed airspace; and

- Activities that could cause the emission of steam, other gas, smoke, dust or other particulate matter, where the smoke, dust or particulate matter could affect the ability of aircraft to operate in the prescribed airspace in accordance with Visual Flight Rules (VFR).

The proposed development will not produce any exhaust plumes and the development is of a height that will not intrude into the protected airspace.

NASF Guideline G – Protecting Aviation Facilities – Communication, Navigation and Surveillance (CNS)

The purpose of Guideline G is to:

- Provide land use planning guidance to better protect CNS facilities which support the systems and processes in place by Airservices Australia (Airservices), the Department of Defence (Defence) or other agencies under contract with the Australian Government, to safely manage the flow of aircraft into, out of and across Australian airspace;
- Provide a consistent approach to land use planning protection of CNS facilities, as applied through State, Territory or Local planning systems;
- Inform procedures which ensure development and associated activities within Building Restricted Areas (BRA) of CNS facilities do not adversely affect the facility or cause interference for air traffic controllers or aircraft in transit;
- Provide Commonwealth, State, Territory and Local Government land use planning decision makers with guidance for assessing development proposals in a BRA, and for working with Airservices and Defence in assessing those proposals; and
- Formalise the protection of CNS facilities in land use planning decisions.

Reliable ATC communications require a clear line-of-sight path between the base station and aircraft and vehicles using the facilities. The Area of Interest for the ATC Communication facilities includes all developments between 100m and 2000m that exceed a height of 10m above ground level at the base of the VHF/UHF antenna.

The proposed development is located approximately 6km from the likely location of ATC communication facilities on the airport.

Instrument Landing System (ILS), Distance Measuring Equipment (DME) and a Ground Based Augmentation System (GBAS) are planned at Western Sydney Airport. It is unlikely that any other ground-based navigation system will be installed at the airport due to the modern developments of GPS based navigation systems.

Airservices Australia operates these ground-based navigation systems and protects their signal integrity by applying Building Restricted Area (BRA) criteria to the critical areas around the navigation aid antenna. The ILS BRA extend to 1000m from the facility, part of which is located close to the runway end. The GBAS BRA extend to 3km from the facility which is planned to be based in the middle of the airport but may move to the north side of the airport as the second runway is developed. The DME BRA extend to 1500m from the facility which is planned in the middle of the airport.

The proposed development is located approximately 6km from the nearest of the navigation systems at the airport and is therefore beyond the BRA associated with all of them.

The nearest ATC Surveillance equipment (Terminal Area Radar - TAR) is located at Cecil Park, approximately 6.9km to the south east of the Site.

The Site will be located well beyond the airport boundary and will not impact the operation of such a surveillance system. The building and the cranes will not have an impact upon ATC Surveillance systems.

NASF Guideline H – Protecting Strategically Important Helicopter Landing Sites (HLS)

Guideline H provides guidance to State/Territory and local government decision makers as well as the owners/operators of identified strategically important HLS (SHLS) to ensure:

- The ongoing operation of those SHLS;
- The use of those SHLS are not compromised by any proposed development encroaching into flight paths;
- New development (and associated activities) do not present a hazard to helicopters arriving or departing from those SHLS; and
- Any new SHLS are appropriately located.

This guideline is also designed to address the following matters:

- Lighting that either distracts or causes interference with night operations;
- Mitigating noise relating to helicopter operations;
- Wildlife/bird strikes;
- Remotely Piloted Aircraft Systems (RPAS) "drones" operation/strikes; and
- Building induced windshear or air turbulence, where this could affect the normal flight of helicopters operating from these SHLS.

The Site is located well beyond the airport boundary and will not impact any helicopter landing sites.

NASF Guideline I – Public Safety Areas (PSAs)

Guideline I provides guidance to Australian Government, state, territory and local government decision makers on the assessment and treatment of potential increases in risk to public safety which could result from an aircraft incident or development proposal in areas near the end of an airport runway.

This Guideline is intended to inform a more consistent approach to the application of Public Safety Areas (PSAs) at and near Australian airports. The guideline notes that "implementation of PSAs varies internationally and is not uniform. Some overseas jurisdictions have taken a specialised approach to the assessment and treatment of land use conflicts near airport runway ends and different models have been applied in the United Kingdom (UK), the Netherlands and the United States of America."

The objective of this clause is to regulate development on land on which there is an appreciable risk to public safety from the operation of the Airport. Public Safety Areas (PSA) can reduce the already low risk of an air transport accident affecting people who live, work or travel in close proximity to airports.
A PSA is a designated area of land at the end of an airport runway within which development may be restricted in order to control the number of people on the ground at risk of injury or death in the event of an aircraft accident on take-off or landing. These risks are also considered for developments and emergency management in the vicinity of a range of existing or proposed industrial sites that can give rise to adverse public safety outcomes.

The Kemps Creek Industrial Community is located outside of the designated PSAs associated with the runways at WSA.

6.1.18.3 State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

Table 64 outlines the consistency and compliance of the proposal with the relevant development standards and controls under WSA SEPP.

TABLE 64: DEVELOPMENT STANDARDS - WSA SEPP	
Clause	Comment
Clause 19 – Aircraft Nosie	The Site is located outside the ANEF and ANEC zones.
Clause 20 – Building Generated Wind Shear and Turbulence	The Site is located outside of the Windshear Assessment Trigger Area and will not have any impact on turbulence at Western Sydney Airport.
Clause 21 – Wildlife Hazards	The Site lies within the 8km radius wildlife buffer zone (Area B). The use is not an "incompatible" use.
Clause 22 – Wind Turbines	No wind turbines are proposed.
Clause 23 – Lighting	The Site is located outside of the Lighting Intensity Zones and will not have any impact on the Airport operations from the risk of lighting and reflectivity distractions for pilots at Western Sydney Airport.
Clause 24 – Airspace Operations	The estate is located beneath the Conical Surface with a height of 220.0m AHD to 230.5.0m AHD and Outer Horizontal Surface with a height of 230.5 m AHD. The lowest Basic ILS surface above the industrial estate is related to the Runway 23R ILS and is at a height of 210.1 m AHD. The maximum building heights are beneath 145 m AHD there will not be any infringements of the OLS for Western Sydney Airport. There is also adequate clearance for typical construction cranes to be used on the Site.
Clause 25 – Public Safety Area	The Site is located outside of the designated PSAs associated with the runways at WSA.

6.1.18.4 Emissions

Part 139 of the Civil Aviation Safety Regulations 1988 (CASR 1988) provides that CASA may determine that a gaseous efflux having a velocity in excess of 4.3m/s is, or will be, a hazard to aircraft operations because of the velocity of the efflux. In this case, any exhaust plume with a velocity in excess of 4.3m/s from any vent on top of the building is unlikely to reach the height of the lowest PANS OPS or OLS.

The proposed development will not result in any exhaust plumes and will therefore not impact on the lowest PANS OPS or OLS.

Following assessment of the proposed development through the Aeronautical Impact Assessment, it is considered on balance that the project is worthy of support with respect to airport safeguarding.

6.1.19 Planning Agreement/Development Contributions

This section of the EIS evaluates the relevant planning agreement/development contributions associated with the proposed development, as required by the SEARs and addresses the following specific matters:

- ***including consideration of any applicable State and local development contributions and/or details of any Voluntary Planning Agreement and demonstration that satisfactory arrangements have been made or will be made to provide or contribute to the provision of the necessary local and regional infrastructure required by SEPP WSEA or any other policy or plan.***

6.1.19.1 Voluntary Planning Agreement

As per condition A23 of SSD 9522, a voluntary planning agreement (VPA) has been entered into on Lot 10 for infrastructure upgrades to service the development, including road and intersection works. This VPA applies to the Site and will not be altered as a result of the proposed development.

6.1.19.2 Draft Mamre Road Precinct Section 7.11 Contributions Plan

Penrith City Council is currently preparing the Mamre Road Precinct Contributions Plan which will impose Section 7.11 contribution to development in the Mamre Road Precinct once finalised. The Penrith City Section 7.12 Development Contributions Plan is currently applicable to non-residential development in the Penrith LGA, which will therefore apply to the proposed development in the interim.

6.1.19.3 Infrastructure

Satisfactory arrangements have been made to the provision of regional infrastructure as part of SSD 9522 and will be made to the necessary local infrastructure where required as part of the proposed development.

PART G PLANNED MANAGEMENT AND MITIGATION MEASURES FOR THE PROPOSED DEVELOPMENT

By:	Altis Frasers JV Pty Ltd
In relation to:	State Significant Development Application (SSD-25725029) For proposed Manufacturing/Industrial Facility
Site:	657-769 Mamre Road, Kemps Creek Proposed Lot 10, Approved Under SSD 9522

Altis/Frasers plan to undertake the construction and operation of the proposed warehouse/industrial facility, in accordance with the following subsections.

Below prescribes some of the terms and abbreviations used in this statement, including:

Altis	Altis Frasers JV Pty Ltd
Approval	The Minister's approval of the project
BCA	Building Code of Australia
Council	Penrith City Council
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
NCC	National Construction Code
Project	The proposed development as described in **PART C** of the EIS
Secretary	Secretary-General of the Department (or delegate)
Subject site	Land to which the project application applies
WorkCover	NSW WorkCover

7.1 ADMINISTRATIVE COMMITMENTS

7.1.1 Commitment to Minimise Harm to the Environment

1. Altis will commit to implement all reasonable and feasible measures, to prevent and/or minimise any harm to the environment, that may result from the construction or operation of the proposed development.

7.1.2 Terms of Approval

2. Altis would carry out the project generally in accordance with the:

   (a) Environmental Impact Statement;
   (b) Drawings;
   (c) Management and Mitigation Measures;
   (d) Any Conditions of Approval; amd
   (e) Any relevant Conditions of Approval of SSD 9522.

7.1.3 Occupation Certificate

3. Altis would ensure that Occupation Certificates are obtained prior to the occupation of the facilities.

4. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.

5. Altis would ensure compliance with any reasonable requirement(s) of the Secretary of the DPIE arising from the assessment of:

   (a) Any reports, plans, programs, strategies or correspondence that are submitted in relation to this Approval; and
   (b) The implementation of any recommended actions or measures contained in reports, plans, programs, strategies or correspondence submitted by the Project Team as part of the application for Approval.

7.1.4 Structural Adequacy

6. Altis would ensure that all new buildings and structures on the Site are constructed in accordance with the relevant requirements of the NCC.

7.1.5 Operation of Plant and Equipment

7. Altis would ensure that all plant and equipment used on-site, is maintained and operated in proper and efficient manner, and in accordance with relevant Australian Standards.

7.1.6 Construction Environmental Management Plan

8. Prior to the commencement of construction, Altis would prepare a Construction Environmental Management Plan (CEMP) that addresses the following:

   (a) Air Quality;
   (b) Noise and Vibration;
   (c) Waste Classification;
   (d) Erosion and Sediment Control;
   (e) Construction Traffic;
   (f) Materials Management Plan; and
   (g) Community Consultation and Complaints Handling.

7.1.7 Monitoring of State of Roadways

9. Altis would monitor the state of roadways leading to and from the Subject Site, during construction, and will take all necessary steps to clean up any adversely impacted road pavements as directed by Council.

7.1.8 Waste Receipts

10. Altis would ensure that a permanent record of receipts, for the removal of both liquid and solid waste from the Subject Site, be kept and maintained up to date at all times. Such records would be made available to authorised person upon request.

7.1.9 Complaints Handling

11. Altis would prepare an Operational Complaints Handling Protocol for the development, prior to the commencement of operations.

7.2 SPECIFIC ENVIRONMENTAL COMMITMENTS

7.2.1 Air

12. Prior to the commencement of construction, Altis would prepare a CEMP that addresses a range of management and mitigation measures relating to air quality and emissions.

7.2.2 Noise

13. During the construction phase, Altis would ensure that all recommendations of the Construction Noise and Vibration Management Plan are adopted and implemented.

7.2.3 Traffic and Transport

13. Altis would ensure that a Construction Traffic Management Plan is prepared and submitted to DPIE. This plan would:

    (a) be submitted to the Secretary for approval prior to the commencement of construction;
    (b) describe the traffic volumes and movements to occur during construction;
    (c) detail proposed measures to minimise the impact of construction traffic on the surrounding network, including driver behaviour and vehicle maintenance; and,
    (d) detail the procedures to be implemented in the event of a complaint from the public regarding construction traffic.

14. The Construction Traffic Management Plan would be implemented throughout the construction cycle.

7.2.4 Waste Management

16. During construction, Altis would implement the measures contained within the prepared Waste Management Plan (**Appendix 28** of the EIS). These are to be incorporated into the CEMP to be issued prior to commencement of construction.

17. Altis would ensure that all waste generated on-site during construction and operation is classified in accordance with the *Waste Classification Guidelines: Part 1 Classifying Waste* and disposed of at facility that may lawfully accept the waste.

7.2.5 Dangerous Goods

18. Altis would ensure the following documentation is prepared in accordance with the WHS Regulation 2017:

    - A DGs Register, indicating the type of chemical, any notations that may be required from the risk assessment and the Safety Data Sheet for the chemical.
    - A Placard Schedule.
    - A Manifest.
    - A DG Risk Assessment of the storage and handling areas.
    - An Emergency Response Plan (ERP) and Emergency Services Information Package (ESIP).
    - A Hazardous Area Classification (HAC) and Hazardous Area Verification Dossier (HAVD).

7.2.6 Bushfire

19. Altis would ensure that the Proposed Lot 12 is to be maintained to achieve the performance requirement of an Inner Protection Area (IPA) as described by Appendix A4.1.1 of PBP. The following landscaping specifications have been designed to achieve the IPA at this Site:

    (a) Trees:
    i. Trees at maturity should not touch or overhang the building; and
    ii. Tree crowns should not provide a connected canopy between the identified hazard and the building when at maturity.

    (b) Shrubs:
    i. Ensure gaps in the vegetation, such as between garden beds, to prevent the spread of fire towards the building; and
    ii. Clumps of shrubs should be separated from glazing and doors by a distance of at least twice the height of the vegetation.

    (c) Groundcover
    i. Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height);
    ii. Leaves and vegetation debris should be regularly removed; and
    iii. Organic mulch is not to be used within 1 m of a building.

20. Fire hydrants will be installed to comply with AS 2419.1 – 2005 Fire Hydrant Installations - System Design, Installation and Commissioning (AS 2419).

21. Gas services will be installed and maintained in accordance with AS/NZS 1596- 2014 The storage and handling of LP gas.

22. Hazardous or combustible materials are not to be stored externally

7.2.7 Ecologically Sustainable Development

23. Altis would implement the measures contained within the prepared Ecologically Sustainable Development Report (**Appendix 16** of the EIS).

PART H PROPOSED DEVELOPMENT JUSTIFICATION

8.1 JUSTIFICATION

The proposed development is justified on environmental, social and economic grounds and is compatible with the locality in which it is proposed. The proposed development would enhance the Subject Site from an otherwise vacant suitably zoned landholding to a productive employment generating facility.

This EIS is submitted on the following basis:

8.1.1 Supports State, Regional and Local Planning Objectives

The proposed development is consistent with the objectives, provisions and vision contained within *A Metropolis of Three Cities – Greater Sydney Region Plan*; the *Western City District Plan*; and *State Environmental Planning Policy (Western Sydney Employment Area) 2009*. The proposal would contribute to employment generation in an area already earmarked for employment through both State and Regional planning policies whilst vastly improving the operational efficiencies of Ardex facilities and increasing the production in Australia.

8.1.2 Demonstrates an Appropriate Use of a Permissible Development

The proposed development would retain and contribute to the growth of new industry for the immediate locale and the wider region. The proposed development would be a highly appropriate and compatible (given its contiguousness to other existing industrial and logistics hubs) response to the strategic goals and objectives of the whole region as set out in *A Metropolis of Three Cities – Greater Sydney Region Plan* and the *Western City District Plan*. These documents all envisage employment-generating land uses at this location.

8.1.3 Minimises Environmental Impacts

Specialist consultants (as identified in **TABLE 1**) have assessed the potential impacts of the proposed development, determining that it could be undertaken with minimal environmental impacts. The commissioned reports (as listed in **TABLE 3**) have collectively concluded that no significant risk to the locality would result from the proposed development. Where impacts have been identified, these fully-developed strategies are set out in detail for mitigation. These measures are described in **PART F** of this EIS.

8.1.4 Creates Compatibility with Surrounding Development

The proposed development is compatible with existing and future land uses on adjacent lands, all of which provide very similar employment-generating functions. All are within the immediate vicinity of the proposed development. Detailed investigations undertaken, as part of this application, conclude that no significant environmental cumulative impacts, would occur from the proposed facility.

8.1.5 Delivers Ecologically Sustainable Development

The principles of ESD as outlined in Clause 7(4) of the EP&A Regulation have been carefully considered in the formulation of this proposal and are addressed as follows:

Precautionary Principle

After careful assessment by both the project team and expert consultants, it is concluded that no unmanageable threat or irreversible damage to the environment, would result from the proposed development.

Inter-generational Equity

The project team and expert consultants have examined the overall effects of the proposed development, on both the natural environment and the existing built environment within the vicinity of the Subject Site.

This detailed assessment has concluded that no unreasonable use of resources, affectation of environmental processes or prevention of the use of land for future generations would occur from the proposed development. The proposed development would improve the status of the Subject Site and contribute to the economies of the region through both substantial investment and new employment, thereby improving the inter-generational equity.

Improved Valuation, Pricing and Incentive Mechanisms

The proposed development would enable new cost efficiencies, through the provision of the vertical towers. The proposal also offers a total investment (including infrastructure and land) value of $71,844,673.00 (incl. GST)

Environmental Management

The proposed development implements significant and elaborate measures that avoid, contain and address any possible air-quality, noise, waste and pollution impacts, through avoidance, better design and management.

PART I CONCLUSION

The proposed development is considered to be entirely consistent with the Objects of the EP&A Act under Section 1.3, particularly the notion of promoting the orderly and economic development of the land. The proposed development is considered a quality outcome for an otherwise vacant industrial Site, which forms part of the Western City District. Additionally, in the promotion of employment-generating opportunities throughout the construction and operational phases, the proposed development further delivers on the rationale of full economic utilisation and proper and orderly development of the land for its intended purpose namely industrial and employment uses.

Based on the specialist studies and extensive investigations carried out for the proposed development, the following conclusions are made:

1. **Strategic and Statutory Context** – The proposal aligns with the strategic planning framework, namely *A Metropolis of Three Cities* and the *Western City District Plan*. Consistency is achieved through the provision of employment, activation of stagnant industrial land and implementation of sustainable development measures that contribute to create a new and leading-edge form of development.

   In terms of the statutory context, the proposal is entirely consistent with the Objects of the EP&A Act. The appropriateness of the proposed development is also demonstrated through compliance with the WSEA SEPP in that it achieves the employment generating outcomes envisaged for the Subject Site with minimal impact on surrounding land uses.

2. **Suitability of the Site** – The Subject Site is highly suitable for the proposed development, being within a newly zoned industrial precinct. It also presents a suitable platform for development in that it is flat, is located within close proximity of key road infrastructure and has limited environmental constraints.

3. **Community and Stakeholder Engagement** – This EIS and supporting reports have been prepared in accordance with the matters prescribed by the SEARs. A comprehensive level of community and stakeholder engagement has been undertaken for the proposed development.

4. **Traffic and Transport** – Sufficient access and parking arrangements are provided as part of the proposed development, ensuring that there would be no undue impact on the surrounding road network.

5. **Soils and Water** – Water reuse and rainwater harvesting has been considered for the proposed development. The stormwater design of the proposed manufacturing facility is in accordance with Council's detention, water quality and flooding requirements as well as engineering best practice principles, hence it can be ensured that there will be minimal impact on the existing environment as a result of the proposed development.

6. **Urban Design and Visual** – As clearly demonstrated in the submitted Architectural Plans and Visual Impact Analysis the proposed development provides a suitable urban design outcome that reflects the existing locality.

7. **Air Quality and Odour** – Based upon the assumptions presented in the Air Quality and Odour Risk Assessment and the implementation of the recommended mitigation methods, the Site is assessed as being capable to not give rise to significant air quality and odour impacts during the construction and operational phases associated with the proposal.

8. **Noise and Vibration** – The acoustic assessment carried out by Renzo Tonin has quantified construction and operational noise emissions from the proposed development and has assessed noise at the nearest sensitive receivers. Based on the assumptions and inputs the

assessment, it has been established that operation of the site is capable of complying with relevant EPA and Council noise emission requirements.

9. **Infrastructure Requirements** – The proposed development seeks to ensure that future planned infrastructure can be accommodated to support the growth of the area and beyond.

10. **Aboriginal Cultural Heritage** – The proposed development will not result in any additional impacts to Aboriginal Cultural Heritage.

11. **Biodiversity** – A BDAR wavier has been sought.

12. **Social Impact** - There are long term, positive social and economic impacts resulting from the project, through the provision of employment and business opportunity in the immediate and broader Western Sydney community. It is considered on balance that the project is worthy of support with respect to social and economic impacts.

13. **Ecologically Sustainable Development** – The proposed development will aim to achieve a 6-star Green Star Rating by applying ESD principles.

14. **Waste Management** – A Waste Management Plan has been provided, which considers construction and operational waste measures to be undertaken for the proposed development. All buildings have considered the provision for waste management areas to ensure the effective management and disposal of waste can occur.

15. **Bush Fire**– Bush fire risk is considered low. In addition, the new warehouse/industrial facility will provide compliance with the relevant PBP 2019 requirements.

16. **Hazards and Risk** – The storage of DGs has been analysed, and it is concluded that the risks at the Site boundary are not considered to exceed the acceptable risk criteria; hence, the facility would only be classified as potentially hazardous and would be permitted within the current land zoning for the Site.

17. **Greenhouse Gas and Energy Efficiency** – Appropriate measures have been adopted which will minimise energy use and maximise energy efficiency for the proposed development.

18. **Airport Safeguarding** – The proposed development will not result in any impacts to the ongoing and future operations of the Western Sydney Airport.

19. **Planning agreement / Development contributions** – Satisfactory arrangements have been made to the provision of regional infrastructure and will be made to the necessary local infrastructure where required.

Based on the findings of this EIS, it is concluded that the proposed development would support the continued and targeted employment generation in the Western Sydney Region. The proposal would contribute to the retention and growth of industries, across both NSW and Australia. The proposed development is therefore considered suitable from both a local and regional context and is considered orderly and appropriate, based on social, cultural, economic and environmental matters.

Given the above reasons and the satisfaction of both of the Objects of the EP&A Act and the aims of WSEA SEPP, it is recommended that the proposed development, for the purposes of a warehouse/industrial facility, be supported subject to relevant and reasonable conditions.