# Environmental Impact Statement

## Proposed Data Centre

**707-769 Mamre Road, Kemps Creek**
(Lots X & Y DP 421633 and Lot 22 DP 258414)

Prepared by Willowtree Planning on behalf of ARUP

**September 2021**

A national town planning consultancy
www.willowtreeplanning.com.au

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## 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 | Travis Lythall |
| Qualifications | Bachelor of Science, UoN |
| Address | Suite 4, Level 7<br>100 Walker Street<br>North Sydney, NSW 2060 |
| **In Respect Of** | Proposed Data Centre |
| **Development Application** | |
| Applicant Name | ARUP |
| Address | Barrack Place, 151 Clarence Street, Sydney, NSW, 2000 |
| **Land to be Developed** | 707-769 Mamre Road, Kemps Creek including the following allotments:<br><br>Lots X & Y DP 421633<br>Lot 22 DP 258414 |
| **EIS** | An Environmental Impact Statement (EIS) is enclosed. |
| **Certificate** | I certify that I have prepared the contents of this EIS to the best of my knowledge:<br><br>▪ it is in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*,<br>▪ contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and<br>▪ that the information contained in the statement is neither false nor misleading. |
| **Signature** |  |
| Name | Travis Lythall |
| Qualification | BSc, UoN |
| Date | 6 September 2021 |

**Signature**

| | |
|---|---|
| Name | Andrew Cowan |
| Qualification | BURP, UNE<br>MPD, UTS |
| Date | 6 September 2021 |

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## GLOSSARY OF KEY TERMS

| ***TERM*** | ***MEANING*** |
|---|---|
| ***ACHAR*** | Aboriginal Cultural Heritage Assessment Report |
| ***ADDA*** | Aboriginal Cultural Heritage Due Diligence Assessment |
| ***ARUP*** | ARUP (the Proponent) |
| ***AUD*** | Australian Dollars |
| ***BAM*** | Biodiversity Assessment Methodology |
| ***BDAR*** | Biodiversity Development Assessment Report |
| ***BC Act 2016*** | *Biodiversity Conservation Act 2016* |
| ***BC Regulation 2017*** | *Biodiversity Conservation Regulation 2017* |
| ***CEEC*** | Critically Endangered Ecological Community |
| ***CEMP*** | Construction Environmental Management Plan |
| ***CPTED*** | Crime Prevention Through Environmental Design |
| ***CEMP*** | Construction Environmental Management Plan |
| ***CNVMP*** | Construction Noise and Vibration Management Plan |
| ***CTMP*** | Construction Traffic Management Plan |
| ***DGs*** | Dangerous Goods |
| ***NSW DPIE*** | NSW Department of Planning, Industry and Environment |
| ***EES*** | Environment, Energy & Science Group (former OEH) |
| ***ESD*** | Ecologically Sustainable Development |
| ***EIS*** | Environmental Impact Statement |
| ***EP&A Act 1979*** | *Environmental Planning and Assessment Act 1979* (as amended) |
| ***EP&A Regulation*** | *Environmental Planning and Assessment Regulation 2000* |
| ***EPA*** | Environment Protection Authority |
| ***EPBC Act 1999*** | *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* |
| ***GFA*** | Gross Floor Area |
| ***GHG*** | Greenhouse Gas |
| ***GME*** | Groundwater Monitoring Event |
| ***GSC*** | Greater Sydney Commission |
| ***MNES*** | Matter of National Environmental Significance |
| ***OEH*** | NSW Office of Environment and Heritage |
| ***PMF*** | Probable Maximum Flood |
| ***NPW Act*** | *National Parks and Wildlife Act 1974* |

| | |
|---|---|
| ***NSW RMS*** | NSW Roads and Maritime Services |
| ***RAPs*** | Registered Aboriginal Parties |
| ***SEARs*** | Secretary's Environmental Assessment Requirements issued 12 November 2020 |
| ***SEPP*** | State Environmental Planning Policy |
| ***SEPP (WSEA) 2009*** | *State Environmental Planning Policy (Western Sydney Employment Area) 2009* |
| ***SEPP (SRD) 2011*** | *State Environmental Planning Policy (State and Regional Development) 2011* |
| ***Sqm or m²*** | Square metres |
| ***SREP*** | Sydney Regional Environmental Plan |
| ***SSD*** | State Significant Development |
| ***The Site / Study Area / Subject Site*** | 707-769 Mamre Road, Kemps Creek |
| ***TfNSW*** | Transport for NSW |
| ***WSEA*** ` | Western Sydney Employment Area |
| ***WSUD*** | Water Sensitive Urban Design |
| ***Willowtree Planning*** | Willowtree Planning Pty Ltd |

# EXECUTIVE SUMMARY

This Environmental Impact Statement (EIS) has been prepared by Willowtree Planning, on behalf of ARUP. This EIS is submitted to the NSW Department of Planning, Industry and Environment (DPIE), in support of a State Significant Development (SSD) Application, for the proposed construction and operational use of a Data Centre, at 707-769 Mamre Road, Kemps Creek (Lots X & Y DP 421633 and Lot 22 DP 258414).

Development Consent under this Proposal is sought for the construction and operational use of a Data Centre pertaining to the following scope of works:

- Construction and operation (24/7 basis) of a Data Centre building. The Data Centre would comprise two (2) two-storey buildings (21.31 m), comprising a total of 60,943 $m^2$ Gross Floor Area (GFA).
- Utility and backup provisions include one (1) electrical substation, provisions for 63 diesel fuel storage tanks, 62 emergency backup generators and additional plant and equipment (on the roof level).
- Ancillary office space comprising 6,255 $m^2$ of GFA.
- 24,186.34 $m^2$ of landscaping across the Site.
- 120 car parking spaces (including six (6) accessible spaces).
- Associated internal access roads, hardstand and driveways.

The Site is subject to the provisions pertaining to *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (SEPP (WSEA) 2009) – Precinct 12 (Mamre Road), which aims to create employment, by providing development in the form of major warehousing, distribution, freight transport, industrial and manufacturing facilities.

This Proposal is deemed to be SSD under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act, 1979). For *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP (SRD) 2011 to apply, the Proposed Development exceeds 10 megawatts (MW) and its use is identified for the purposes of Data Storage pursuant to Schedule 1, Part 25 of SEPP (SRD) 2011.

The Proposed Development is estimated to consume and produce approximately 190 MW (with a 144 MW IT load). Therefore, it satisfies the requirements under SEPP (SRD) 2011, Schedule 1, Part 25. The Proposed Development, therefore qualifies as SSD in accordance with the provisions and must be assessed accordingly.

Under the EP&A Act, 1979, it is required that a request for the Secretary's Environmental Assessment Requirements (SEARs) must be made prior to the lodgement of any SSD Application. Accordingly, the SEARs were requested for the Proposed Development (Reference: **SSD 10101987**) and later issued by the NSW DPIE on 12 November 2020 (refer to **Appendix 1**).

In addition to the general requirements, the SEARs for the Proposed Development, highlight a number of Key Issues. These have all been fully addressed as part of this EIS and are set out as follows, in the 20 categories below:

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

9. Hazards and Risk
10. Soils and Water
11. Waste
12. Ecologically Sustainable Development
13. Cultural Heritage and Aboriginal Cultural Heritage
14. Biodiversity
15. Greenhouse Gas and Energy Efficiency
16. Airport Safeguarding
17. Bushfire
18. Planning Agreement / Development Contributions.

Other considerations evaluated throughout this EIS, include the following:

19. Economic Impact
20. Social Impact

The findings of this EIS, are that the Proposed Development is supportable. 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 Data Centre, is consistent with the objectives of SEPP (WSEA) 2009; SEPP (SRD) 2011; *A Metropolis of Three Cities*; the *Western City District Plan* and the Draft *Mamre Road Precinct Development Control Plan 2021*.

The Proposed Development will be a low impact addition to the wider Western Sydney Employment Area (WSEA) – Mamre Road Precinct due to its minimal height; low intensity land use; minimal traffic generation; would not create any visual amenity impacts on adjoining receivers; and, will align with the development controls established for the Mamre Road Precinct. The Proposal will provide positive social and economic benefits to the area and deliver an increasingly important cloud and data storage service to the broader community. With its industrial character and setting, it will complement the industrial existing and future industrial character envisaged for the Site and surrounding industrial land uses. The topography of the Site, as well as the separation offered by major road infrastructure routes, such as Mamre Road and the wider M4 & M7 Motorways promote the Site's suitability, by being sufficiently located away from sensitive receiver locations.

The Data Centre's State-of-the-Art design, equipment and technologies will provide industry-leading energy efficient performance solutions; and the inherent building fabric performance will ensure an Ecologically Sustainable Development can be achieved, in line with best-practice and global industry standards pertaining to Data Centre's.

The Subject Site is zoned IN1 General Industrial pursuant to SEPP (WSEA) 2009. Permissibility for the purposes of a Data Centre is satisfied pursuant to Part 3, Division 3, Clause 27(2) of *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP). The Proposed Development is consistent with surrounding land uses that SEPP (WSEA) 2009 applies to; and would contribute to the efficient use of employment lands for Data Storage purposes, i.e. the proposed Data Centre under the subject SSD Application.

The Proposed Development is deemed suitable for its regional and local context and would not result in any significant environmental impacts, for which it satisfactorily addresses the SEARs (issued 12 November 2020). As such, it is recommended that the Proposed Development be supported by the NSW DPIE.

# PART A PRELIMINARY

## 1.1 INTRODUCTION

This EIS has been prepared by Willowtree Planning on behalf of the Proponent, ARUP, and is submitted to the NSW DPIE in support of the Proposed Development on the land portion described as 707-769 Mamre Road, Kemps Creek (Lots X & Y DP 421633 and Lot 22 DP 258414), for the purposes of a Data Centre.

This SSD Application seeks Development Consent for the construction and operational use of a proposed Data Centre that would play a vital role in providing an advanced facility to support the growth and development of IT infrastructure across the Sydney Metropolitan Region and would contribute to the enhanced promotion and creation of employment-generating opportunities.

Development Consent under this Proposal is sought for the construction and operational use of a Data Centre pertaining to the following scope of works:

- Construction and operation (24/7 basis) of a Data Centre building. The Data Centre would comprise two (2) two-storey buildings (21.31 m), comprising a total of 60,943 $m^2$ Gross Floor Area (GFA).
- Utility and backup provisions include one (1) electrical substation, provisions for 63 diesel fuel storage tanks, 62 emergency backup generators and additional plant and equipment (on the roof level).
- Ancillary office space comprising 6,255 $m^2$ of GFA.
- 24,186.34 $m^2$ of landscaping across the Site.
- 120 car parking spaces (including six (6) accessible spaces).
- Associated internal access roads, hardstand and driveways.

It is noted, that the installation of equipment and associated technology within the proposed data halls would be undertaken as part of a separate Development Consent pertaining to the internal fitout, based on demand. This would be undertaken by virtue of a Complying Development Certificate (CDC) under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* (Codes SEPP).

The Proposed Development seeks to invest over $1.29 Billion (excluding GST) in a new operation, that would seek to support new and existing businesses and provision of jobs in an area already earmarked for employment. Accordingly, the Proposal seeks to establish an innovative operation that would benefit the end user on a National; State; Regional; and Local scale as well as benefitting the immediate community and wider locale through the enhanced promotion of employment opportunities during both the construction and operational phases of development.

This EIS describes the Subject Site and Proposed Development, including future land-use outcomes for the Site, for the purposes of Data Storage, with an employment-generation focus. It also responds to the SEARs and assesses the Proposed Development in terms of all relevant matters set out in legislation, Environmental Planning Instruments (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** **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 SSD Application includes:

- ARUP (Proponent)
- Greenbox Architecture (Architect)
- Habit8 (Landscaping and Visual Impact Assessment)
- Linesight (Quantity Surveyor)
- Willowtree Planning (Town Planning and Community and Stakeholder Engagement)
- ARUP (Acoustics)
- ARUP (Air Quality)
- Australian Bushfire Protection Planners (Bushfire)
- ARUP (Ecological)
- ARUP (Civil Engineering & Flooding)
- Artefact (Aboriginal Cultural Heritage & Historic (European) Heritage)
- ARUP (Dangerous Goods and Waste)
- ARUP (Energy Efficiency and ESD)
- ARUP (Geotechnical, Salinity and Contamination)
- Blackett Maguire + Goldsmith (BCA)
- ARUP (Traffic Engineering)
- Geoscapes (Visual Impact)

All consultant expert reports are appended in **Appendices 2** to **29** of this EIS.

## 1.3 THE PROPONENT

The Proponent is ARUP. Refer to **Table 1** outlined below for contact details.

| **Table 1: Proponent Contact Details** | |
|---|---|
| **Contact Name** | Michael Rosenberg |
| **Company Details** | ARUP |
| **Email Address** | Michael.Rosenberg@arup.com |

## 1.4 CAPITAL INVESTMENT VALUE

The CIV of the Proposed Development in accordance with the CIV definition under the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation, 2000), is estimated to be approximately $1.29 Billion (excluding GST) as shown in **Appendix 2**, containing QS Costings with respect to the Proposed Development.

## 1.5 EXISTING ZONING PROVISIONS

The Site is currently zoned IN1 General Industrial pursuant to the provisions of SEPP (WSEA) 2009.

## 1.6 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Prior to obtaining the SEARs, a Pre-Scoping Meeting was held with the NSW DPIE on 28 September 2020 to discuss the Proposed Development and confirm the SEARs could be issued accordingly. An application requesting SEARs was then submitted on 12 November 2020 (DPIE Reference: **SSD 10101987**). The SEARs were subsequently issued by the NSW DPIE on 12 November 2020 and are fully addressed in this EIS, including supporting specialist reports and plans.

For reference, the full SEARs, as issued, are annexed in **Appendix 1** of this Submission. The response as to how the SEARs has been addressed, is covered fully by this EIS. A summary of all issues contained in the SEARs and all responses is set out in **Table 2** below. This EIS is also consistent with all requirements for Environmental Impact Statements, as set out in Clauses 6 and 7 of Schedule 2 of the EP&A Regulation, 2000.

| **Table 2: How SEARs have been satisfied** | |
|---|---|
| **General Requirements** | **How Addressed** |
| The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 & 7 of Schedule 2 of the EP&A Regulation. | This EIS has been prepared in accordance with Clauses 6 & 7 of Schedule 2 of the EP&A Regulation 2000. The structure of this EIS addresses all legislative requirements set out in the EP&A Regulation 2000. |
| **Key Issues** | |
| **1. Statutory and Strategic Context** – including:<br>▪ Detailed justification for the proposal and the suitability of the site.<br>▪ Detailed justification that the proposed land use is permissible with consent.<br>▪ Details of any proposed consolidation or subdivision of land.<br>▪ 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 and details on whether the relevant conditions of any applicable development consents have been satisfied.<br>▪ 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:<br>o *State Environmental Planning Policy (Infrastructure) 2007*<br>o *State Environmental Planning Policy (Western Sydney Employment Area) 2009*<br>o *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020*<br>o *State Environmental Planning Policy (State and Regional Development) 2011*<br>o *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*<br>o *Penrith Local Environmental Plan 2010*<br>o *Greater Sydney Region Plan: A Metropolis of Three Cities*<br>o *Mamre Road Precinct Structure Plan*<br>o *Western Sydney Aerotropolis Plan*<br>o *Western Sydney Aerotropolis Draft Precinct Plans*<br>o *Proposed Aerotropolis Special Infrastructure Contribution*<br>o *Draft Mamre Road Precinct Development Control Plan (DCP).* | Refer to **Sections 2.4, 2.5, 4.3** & **6.2** of this EIS. |
| **2. Suitability of the Site** – including: | Refer to **Section 2.7** of this EIS. |

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| ▪ A detailed justification the site can accommodate the proposed development, having regard to the scope of the operations and its environmental impacts and relevant mitigation measures<br>▪ An analysis of site constraints. | |
| **3. Community and Stakeholder Engagement** – including:<br>▪ A community and stakeholder participation strategy identifying key community members and other stakeholders.<br>▪ Details and justification for the proposed consultation approach(s)<br>▪ Clear evidence of how each stakeholder identified in the community and stakeholder participation strategy has been consulted.<br>▪ Discussion on the issues raised by the community and surrounding landowners and occupiers.<br>▪ Clear details of how issues raised during consultation have been addressed and whether they have resulted in changes to the development.<br>▪ Details of the proposed approach to future community and stakeholder engagement based on the results of consultation. | Refer to **Part E** and **Appendix 27** of this EIS. |
| **4. Noise and Vibration** – including:<br>▪ A quantitative noise and vibration impact assessment (NVIA) of the development during construction and operation (including testing of the back-up generators). The NVIA is to be undertaken by a suitably qualified person in accordance with the relevant Environment Protection Authority guidelines and include an assessment of nearby sensitive receivers.<br>▪ Cumulative impacts of other developments.<br>▪ Details of proposed mitigation, management and monitoring measures. | Refer to **Section 6.8** and **Appendix 14** of this EIS. |
| **5. Urban Design and Visual** – including:<br>▪ A detailed design and options analysis of the development including diagrams, illustrations and drawings with reference to built form, height, setbacks, bulk and scale in the context of the immediate locality, the wider area and desired future character of the area.<br>▪ A visual impact assessment (including photomontages and perspectives) of the development layout and design (buildings and storage areas), including staging, site coverage, setbacks, open space, landscaping, height, colour, scale, building materials and finishes, façade design, signage and lighting, having regard to Clause 31 of the State Environmental Planning Policy (Western Sydney Employment Area) 2009, particularly in terms of potential impacts on:<br>o nearby public and private receivers<br>o significant vantage points in the broader public domain<br>o the RE1 Public Recreation Zone to the south<br>▪ Consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks. | Refer to **Section 6.3** and **Appendix 6-8** of this EIS. |

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| ▪ Detailed plans showing suitable landscaping which incorporates endemic species. | |
| **6. Air Quality** – including:<br>▪ An assessment of the air quality impacts of the development during construction and operation, prepared in accordance with the relevant Environment Protection Authority guidelines. The assessment must include:<br>o scenarios which assess construction works, realistic operations, back-up generator testing and a justified worst-case scenario;<br>o justification for the proposed back-up power source and any alternatives considered;<br>o an assessment of emissions from the back-up generators against the standards of concentration outlined in the Protection of the Environment Operations (Clean Air) Regulation 2010 (including, but not limited to, polycyclic aromatic hydrocarbons (PAHs) and oxides of nitrogen (NOx) impacts); and<br>o an assessment of criteria pollutants in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016).<br>▪ Details of any mitigation, management and monitoring measures (including for back-up generators) required to ensure compliance with section 128 of the Protection of the Environment Operations Act 1997. | Refer to **Section 6.9** and **Appendix 13** of this EIS. |
| **7. Infrastructure Requirements** – including:<br>▪ A detailed written and/or graphical description of infrastructure required on the site, including any testing procedures and details for diesel generators, electrical substations and switch yard.<br>▪ Identification of any infrastructure upgrades required off-site to facilitate the development, and describe any arrangements to ensure that the upgrades will be implemented in a timely manner and maintained.<br>▪ An infrastructure delivery and staging plan, including a description of how infrastructure on and off-site will be co-ordinated and funded to ensure it is in place prior to the commencement of construction.<br>▪ An assessment of the impacts of the development on existing utility infrastructure and service provider assets surrounding the site, and a description of how any potential impacts would be avoided and minimised. | Refer to **Section 6.17** and **Appendix 22** of this EIS. |
| **8. Traffic and Access** – including:<br>▪ Details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access routes and any road upgrades or new road alignments proposed under SSD-9522.<br>▪ An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar modelling. This is to include the identification and consideration of approved, proposed and future developments/road upgrades in the vicinity.<br>▪ An options analysis for different site access points with consideration of access restrictions from potential distributor roads.<br>▪ Details of the largest vehicle anticipated to access and move within the site, including swept path analysis.<br>▪ Details and plans of the internal road network, loading dock servicing and provisions, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards. | Refer to **Section 6.6** and **Appendix 11** of this EIS. |

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| **9. Hazards and Risk** – including:<br>▪ A preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 with clear indication of class (and any subsidiary hazard), quantity and location of all dangerous goods and hazardous materials associated with the development. Should the preliminary risk screening indicate that the development is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' and Multi-Level Risk Assessment.<br>▪ Details regarding the location and number of back-up generators, diesel fuel storage tanks and lithium-ion batteries to be installed to service the development. | Refer to **Sections 3.2.9, 4.2.8** & **6.10** and **Appendix 21** of this EIS. |
| **10. Soils and Water** – including:<br>▪ A topographic assessment and justification demonstrating the proposed earthworks are responsive and contextually appropriate.<br>▪ An assessment of potential surface and groundwater impacts associated with the development, including potential impacts on watercourses, riparian areas, groundwater, and groundwater-dependent communities nearby.<br>▪ A detailed site water balance including a description of the water demands and breakdown of water supplies, and any water licensing requirements.<br>▪ A description of the surface, stormwater and wastewater management systems and details of ownership arrangements, including on site detention, and measures to treat or reuse water.<br>▪ Characterisation of the nature and extent of any contamination on the site and surrounding area.<br>▪ Demonstration satisfactory arrangements for drinking water, wastewater and if required recycled water services have been made.<br>▪ Description of the measures to minimise water use.<br>▪ A detailed flood impact assessment.<br>▪ Description of the proposed erosion and sediment controls during construction. | Refer to **Section 6.5** and **Appendix 9** & **10** of this EIS. |
| **11. Waste** – including:<br>▪ Details of the quantities and classification of all waste streams to be generated on site during the development.<br>▪ Details of waste storage, handling and disposal during the development.<br>▪ Details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021. | Refer to **Section 6.7** and **Appendix 19** of this EIS. |
| **12. Ecologically Sustainable Development** – including:<br>▪ A description of how the proposal will incorporate the principles of ecologically sustainable development in the design, construction and ongoing operation of the development.<br>▪ Consideration of the use of green walls, green roofs and/or cool roofs in the design of the data centre. | Refer to **Section 6.19** and **Appendix 17** of this EIS. |

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| ▪ A description of the measures to be implemented to minimise consumption of resources, especially energy and water. | |
| **13. Cultural Heritage and Aboriginal Cultural Heritage** – including:<br>▪ An assessment of non-Aboriginal cultural heritage items and values of the site and surrounding area.<br>▪ Evidence that Aboriginal cultural heritage values that exist across the development site have been identified and documented in an Aboriginal Cultural Heritage Assessment Report (ACHAR).<br>▪ A description of the impacts on Aboriginal cultural heritage values. | Refer to **Section 6.13** and **Appendix 16** of this EIS. |
| **14. Biodiversity** – including:<br>▪ An assessment of biodiversity impacts on the site has been undertaken 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 6.11** and **Appendix 12** of this EIS. |
| **15. Greenhouse Gas and Energy Efficiency** – including:<br>▪ 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. | Refer to **Section 6.19** and **Appendix 18** of this EIS. |
| **16. Airport Safeguarding** – including:<br>▪ A risk assessment of the proposed development on Western Sydney Airport operations and addressing related matters in State Environmental Planning Policy (Western Sydney Aerotropolis) 2020. | Refer to **Section 6.16** and **Appendix 25** of this EIS. |
| **17. Bushfire** – including:<br>▪ A bushfire assessment against the requirements of Planning for Bush Fire Protection (NSW Rural Fire Service, 2019). | Refer to **Section 6.15** and **Appendix 20** of this EIS. |
| **18. Planning Agreement / Development Contributions** – including:<br>▪ Demonstration that satisfactory arrangements have been or would be made to provide, or contribute to the provision of, necessary local and regional infrastructure required to support the development, including evidence of a Satisfactory Arrangements Certificate under the WSEA SEPP and consideration of the Proposed Aerotropolis Special Infrastructure Contribution. | Refer to **Section 6.18** 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.<br><br>In particular you must consult with:<br><br>▪ Penrith City Council<br>▪ Greater Sydney Commission<br>▪ Transport for NSW | Noted. Refer to **Part E** of this EIS and **Appendix 27** which includes the Community Consultation Report prepared by Willowtree Planning. |

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|---|---|
| ▪ Environment Protection Authority<br>▪ DPIE Environment, Energy and Science Group<br>▪ DPIE Central (Western) team<br>▪ Endeavour Energy<br>▪ NSW Fire and Rescue<br>▪ Sydney Water<br>▪ WaterNSW<br>▪ Western Sydney Airport Corporation<br>▪ Western Sydney Planning Partnership<br>▪ Surrounding local landowners and stakeholders<br>▪ Any other public transport, utilities or community service providers. | |
| **Further Consultation After Two (2) Years** | |
| If you do not lodge a development application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS. | Noted. |

# PART B SITE ANALYSIS

## 2.1 SITE LOCATION & EXISTING SITE CHARACTERISTICS

The identified portion of land, that is the subject of this Scoping Report is legally defined as 707-769 Mamre Road, Kemps Creek. The Subject Site comprises three (3) allotments as described in **Table 3** below.

| **Table 3: Site Identification** | |
|---|---|
| **Street Address** | **Legal Description** |
| 707-711 Mamre Road, Kemps Creek | Lot X DP 421633 |
| 713-755 Mamre Road, Kemps Creek | Lot Y DP 421633 |
| 757-769 Mamre Road, Kemps Creek | Lot 22 DP 258414 |

The entire Site comprises a total area of approximately 14.43 hectares (ha) and is subject to the applicable provisions outlined within SEPP (WSEA) 2009. Access to the Site is currently obtained via the proposed Estate Access Roads (**SSD 9522**), which are accessed from Mamre Road. Access into the Site is made possible via Mamre Road, which is subject to future road widening as part of the Mamre Road Widening Project (Transport for NSW).

The Site is situated approximately 40.26 km west of the Sydney CBD, 22.11 km west of Parramatta and 11.97 km southeast of Penrith. It is within close proximity to transport infrastructure routes (predominantly the bus network), as well as sharing direct links with the wider regional road network, including Mamre Road and both the M4 & M7 Motorways, all of which provide enhanced connectivity to the Subject Site and immediate vicinity, as well as the wider locality. Additionally, the Subject Site is located within close proximity to active transport links, such as bicycle routes, providing an additional mode of accessible transport available to the Subject Site.

In its existing state, the Subject Site comprises an undeveloped land portion; however, is subject to bulk earthworks and infrastructure works approved under **SSD 9522**.

Land surrounding the Site comprises the following zoning categories, including:

- IN1 General Industrial;
- RE1 Public Recreation;
- RE2 Private Recreation;
- RU2 Rural Landscape – zoned under *Penrith Local Environmental Plan 2010* (PLEP2010);
- E2 Environmental Conservation – zoned under *Penrith Local Environmental Plan 2010* (PLEP2010); and
- SP2 Infrastructure.

The nearest sensitive land uses are comprised by the E2 Environmental Conservation, RE1 Public Recreation and RE2 Private Recreation zones located to the west of the Subject Site, which are noted to be appropriately separated. Accordingly, mitigation and protection measures would be required as part of the future development proposed for the purposes of a Data Centre, in order to preserve the amenity that will be afforded in the future.

The Site is subject to the provisions outlined within SEPP WSEA, which is the primary Environmental Planning Instrument (EPI) and categorises the Site within the IN1 General Industrial zone, as displayed in **Figure 1** below. The Site and surrounding context are illustrated in **Figures 2** & **3** below.

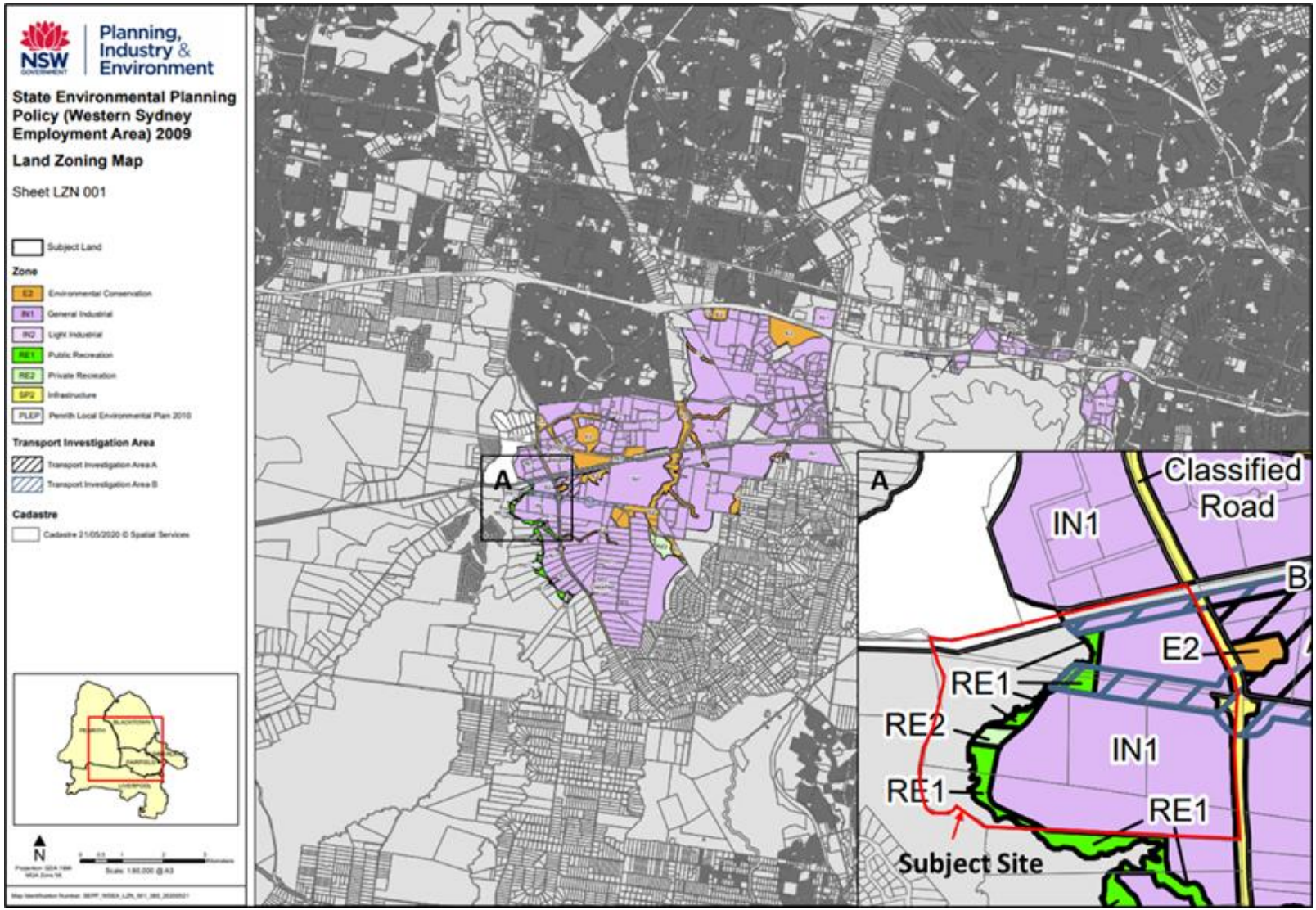


**Figure 1 Land Zoning Applicable to the Subject Site under *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (Source: NSW Legislation, 2020)**


**Figure 2 Site Context and Surrounding Area (Source: Nearmaps, 2020)**

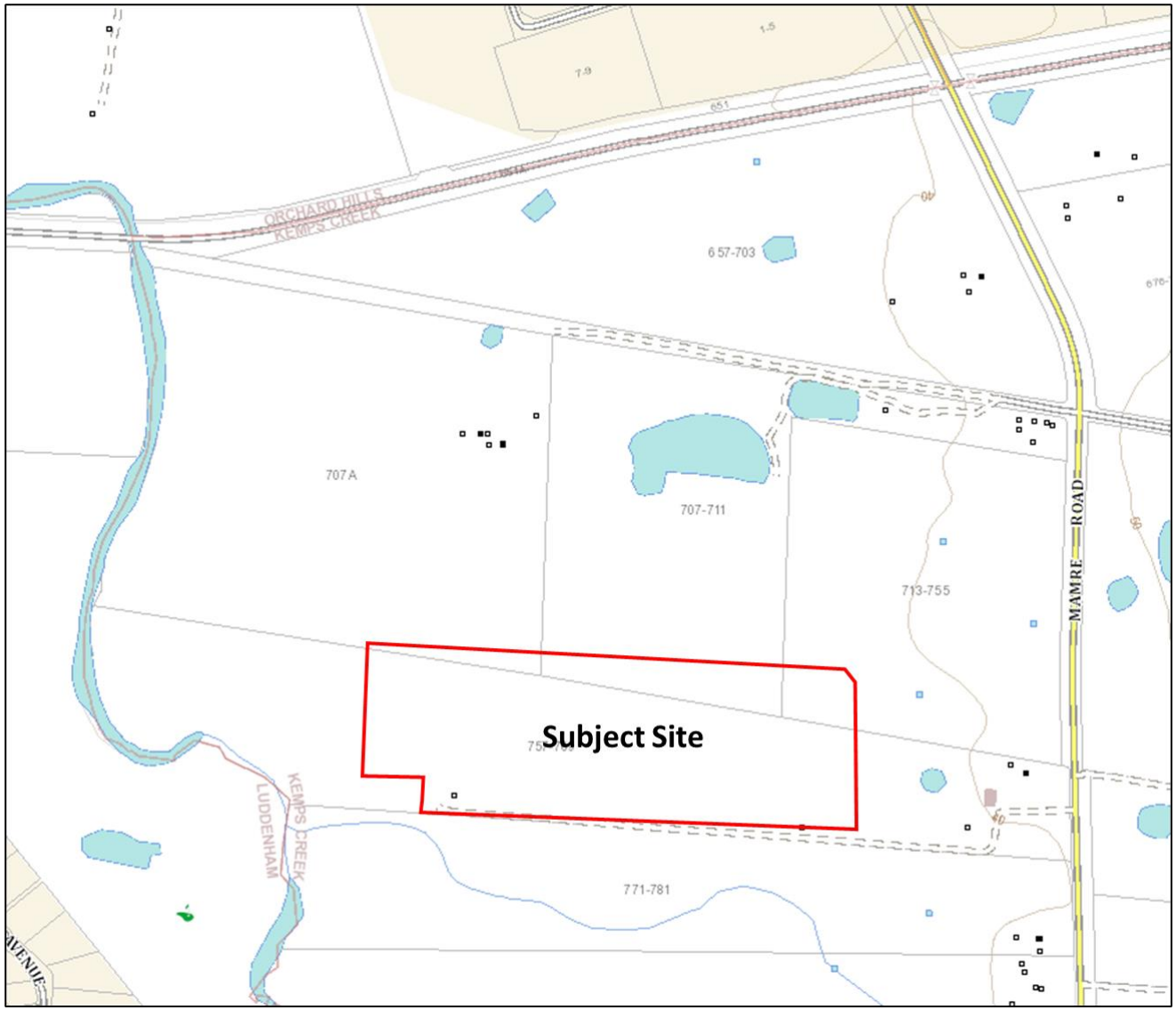


**Figure 3 Existing Site Context and Surrounding Area (Source: SIX Maps, 2021)**

## 2.2 LOCAL AND REGIONAL CONTEXT

The Subject Site is located in the suburb of Kemps Creek, which forms part of the wider Penrith LGA.

The immediate Site context exhibits an industrial character, being undeveloped; however, is zoned for industrial-related purposes pursuant to the provisions of SEPP (WSEA) 2009 and forms part of the wider Kemps Creek Industrial Estate subject to **SSD 9522**, which was approved by the NSW DPIE on 21 December 2020.

Other land uses in the vicinity of the Site include:

- North – First Estate (Altis Property Partners), as well as the residential suburbs of St Clair and Erskine Park, comprising typical residential dwellings interspersed with pockets of open space – predominantly used for recreational purposes parks and sporting grounds. Additionally, the WaterNSW pipeline is located to the north running east to west.
- South – Rural-residential and industrial zoned landholdings within the Mamre Road Precinct.
- East – Industrial zoned land located within the Mamre Road Precinct, as well as Mamre Anglican School, Emmaus Catholic College and the Catholic Healthcare Retirement Living Community.
- Northeast – Erskine Business Park, comprising various warehouse / logistics and industrial facilities that operate on a 24-hours, 7-day basis, including CEVA Logistics, CSR, Woolworths and Alvaro Transport.
- West – rural-residential land holdings and Twin Creeks Golf and Country Club.

SEPP WSEA remains the primary EPI applicable to the Subject Site. It is noted, that the surrounding regional road network is located in close proximity to the Subject Site, which includes Mamre Road and both the M4 and M7 Motorways, providing enhanced connectivity to the wider Sydney Metropolitan Area.

## 2.3 LAND OWNERSHIP

The Subject Site is owned by the Trust Company Australia Limited (000 000 993) as Custodian for the ARET Frasers Project Trust.

## 2.4 STRATEGIC CONTEXT OF THE SITE

Key contextual attributes of the Subject Site are noted as follows:

- The Subject Site is located approximately 40.26 km west of the Sydney CBD, 22.11 km west of Parramatta and 11.97 km southeast of Penrith.
- The Subject Site is wholly located within the Penrith Local Government Area (LGA).
- The Site is adjoined by existing industrial land uses towards the north (First Estate) and northeast (Erskine Business Park) and is surrounded by IN1 General Industrial zoned land throughout the Mamre Road Precinct.
- SEPP (WSEA) 2009 remains the primary EPI applicable to the Subject Site. Under the provisions of SEPP (WSEA) 2009, the Subject Site is located within the Mamre Road Precinct (Precinct 12) (refer to **Figure 4** below).
- The Proposed Development represents a logical connection and extension of the employment lands in this location with respect to the Kemps Creek Industrial Estate (approved under SSD 9522) and the wider Mamre Road Precinct and WSEA. It would provide employment-generating land uses that are complimented by access to the surrounding regional road network.

- A significant regional road network is in close proximity to the Site, including Mamre Road and both the M4 & M7 Motorways, affording the Site excellent accessible transport links.

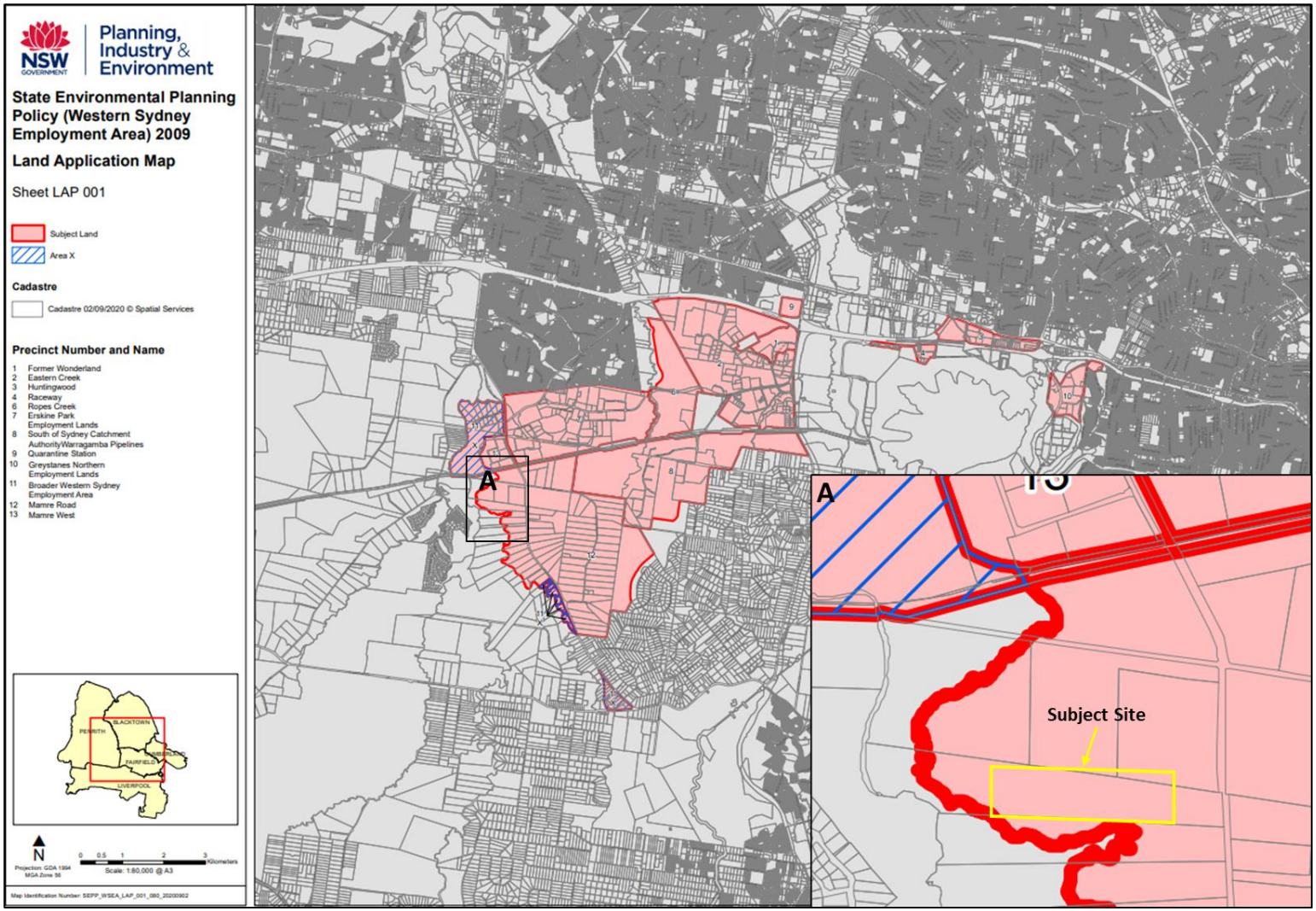


**Figure 4 Land Application Map – *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (Source: NSW Legislation, 2021)**

## 2.5 DEVELOPMENT AND PLANNING HISTORY

**SSD 9522** was granted by the Minister for Planning and Public Spaces on 21 December 2020 for a Warehouse, Logistics and Industrial Facilities Hub on the Subject Site, which comprised of the following development particulars:

- *demolition of existing structures, site-wide earthworks, landscaping, stormwater and other infrastructure and an internal road network;*
- *construction and operation of eight warehouses comprising 162,355 m² of floor space;*
- *intersection upgrade works in Mamre Road;*
- *744 parking spaces; and*
- *17-lot Torrens title subdivision (over two Stages, - Stage 1 residual lot subdivision and Stage 2 residual and development lot subdivision).*

The particulars pertaining to **SSD 9522** are outlined in **Table 4** as follows:

| **Table 4: SSD 9522 Development Particulars** | |
|---|---|
| **Project Element** | **Development Particular** |
| **Site Area** | - 118 ha |
| **Developable Area** | - 89.495 ha (construction of all roads and buildings). |
| **Development Gross Floor Area** | - 166,225 m² |
| **Subdivision** | 17 lot Torrens Title Subdivision comprising two (2) stages:<br><br>Stage 1:<br>▪ Five (5) residual allotments proposed.<br><br>Stage 2:<br>▪ 17 development allotments proposed.<br><br>**Note:** The subject Proposal would be located on Lot 2 Stage 1 Subdivision (refer to **Appendix 4** & **5** of this EIS). |
| **Built Form** | Eight (8) Warehouse buildings (comprising 10 potential tenancies), including ancillary offices, hardstand, car parking area and associated landscaping. |
| **Primary Land Use** | Lots 1-13 (including Stage 1 Subdivided Lot 2):<br>▪ Warehousing and Distribution.<br>▪ **Note:** Lots 11-13 comprise the proposed OSD basins.<br><br>Lots 14-17:<br>▪ Public Recreation and Private Recreation. |
| **Bulk Earthworks** | ▪ Cut: -60,350 m³;<br>▪ Detailed Excavation: -109,600 m³;<br>▪ Fill: +2,072,750 m³; and<br>▪ Balance: +1,902,800 m³ (Import required). |
| **Landscaping** | ▪ New Vegetation Area: 91,700 m²;<br>▪ Number of New Trees: 1,250; and<br>▪ Approximate Canopy Cover (average): 141,250 m². |
| **Site Access** | ▪ Access is achieved from Mamre Road and the Estate access roads. |
| **Infrastructure and Services** | Services to the Subject Site are able to be successfully augmented where necessary. |
| **Biodiversity and Vegetation Clearing** | 14.41 ha of Native Vegetation identified on-site:<br><br>▪ 9.29 ha proposed to be cleared. |

| | |
|---|---|
| **Employment Generation** | **SSD Application:** 1,650 full time jobs, comprising:<br><br>▪ 950 operational jobs<br>▪ 700 construction jobs<br><br>**Note:** The subject Proposal will deliver 379 full time jobs, being 79 operational jobs and 300 construction jobs upon completion of the entire Data Centre. |

It is noted, that a Section 4.55(2) Modification Application was approved on 3 September 2021 which includes provisions to amend the Subdivision Plan; Architectural Plans; and Site Masterplan approved under SSD 9522, including:

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

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

- Masterplan:
  - Increase in overall GFA across the Site from 162,355 $m^2$ to 186,123 $m^2$ – this includes an amendment to **Condition A6** of **SSD 9522**;
  - Increase in overall car parking from 744 spaces to 772 spaces; and
  - Decrease in the site area of the public access roads from 58,490 $m^2$ to 55,381 $m^2$.
  - The NS Road has moved east.
  - Access to the allotments to the north of Bakers Lane is being dealt with separately to satisfy B18 of **SSD 9522**.
  - Addition of secondary access on the NS Road for Lot 5, which is for emergency access only.
  - The landscape setbacks are proposed to be amended to 3.75 m in accordance with the Instrument of Approval and consistent with Mamre Road Precinct DCP.

It is noted, that the subject Proposal has taken into consideration the modifications proposed.

## 2.6 SITE SUITABILITY

The Proposed Development provides for a Data Centre in a location that is highly appropriate, away from sensitive land uses. The Site has an obvious advantage, as it provides an unconstrained platform for development given it will be constructed on a benched and serviced building pad. The Site has identified riparian corridors along both the western boundaries (South Creek); with a portion of the Site identified as bushfire prone land, for which planned management and mitigation measures would be implemented accordingly, based on the recommendations provided in the specialist reports prepared, which are summarised in **Part F** of this EIS.

In summary, the Subject Site is highly-suited to accommodate the intended new, State-of-the-Art Data Centre due to the following factors:

- It is already identified within the Land Application Area under SEPP (WSEA) 2009, which allows for the Proposed Development;
- It is zoned IN1 General Industrial under SEPP (WSEA) 2009;
- Access to the NSW regional road network is readily available;
- Compatibility with surrounding development and local context is evident;
- The Site represents orderly and sequential development given its proximity to existing and planned industrial development in the Mamre Road Precinct, Mamre West Precinct and Erskine Park Employment Lands; and other developed employment lands in the WSEA;
- The Site causes minimal impact on the environment and has little affected site Flora and Fauna as approved to be cleared under SSD 9522;
- All built form at the Site has been designed to mitigate any impacts on surrounding properties, through siting, the conscious positioning of the Data Centre building, fencing, deep-soil landscaping and a conducive architectural and urban design outcome.

The following key elements of the Site and Proposed Development are also significant to note:

1. **Visual Impact:**

   - The Visual Impact Assessment prepared by Geoscapes (2021) confirms that the Proposed Development w.ill create visual impacts of varying significance for receptors in close proximity to the Site; however, the significance of these impacts are generally low, due to the fact the Proposal is located against the backdrop of the Estate approved under SSD 9522 (refer to **Appendix 8**).

2. **Noise:**

   - The Noise Impact Assessment, which has been undertaken and prepared by ARUP (2021), confirms compliance with all current NSW Environment Protection Authority (EPA) Guidelines and relevant criteria, as required for a 24-hour Data Centre operation (refer to **Appendix 14**).

3. **Traffic:**

   - The Traffic Impact Assessment prepared by ARUP (2021) demonstrates, that the Proposed Development can operate at a satisfactory Level of Service 'C', for which there would be no adverse impacts anticipated on the local and regional road network (refer to **Appendix 11**).

The Site's consistency with applicable Regional and Local Strategies, is demonstrated in the comprehensive Environmental Assessment, provided in full in **Part F** of this EIS. The Environmental Assessment contains an analysis of all potential Site impacts, which has been informed by the relevant consultant reports. Accordingly, the Environmental Assessment concludes that the Site is highly suited for its intended land use. It also sets out recommendations and mitigation measures (where necessary), to account for identified potential impacts, which may be caused by the Proposed Development.

The suitability of the Subject Site with regard to the Proposed Development, can be attributed to its ready ability to provide employment; its excellent access arrangements to the regional road network; its suitable contextual setting; and its minimal impact on the environment it would impose.

# PART C PROPOSED DEVELOPMENT

## 3.1 OBJECTIVES OF THE PROPOSAL

The subject Proposal seeks Development Consent for the construction and operational use of a proposed Data Centre. The following aims and objectives have been identified as forming the basis of the Proposed Development in line with Industry Best Practice, as well as being consistent with the aims set out with SEPP (WSEA) 2009, including:

1. Construct a new Data Centre equating to 60,934 $m^2$ of GFA.
2. Provide for an employment-generating land use and improve access to jobs for residents of the immediate community and wider locality.
3. Design the Site to achieve a viable economic return.
4. Further build on the end user's strengths to ensure Sydney (and NSW in general) are capable of providing efficient data storage provisions to businesses.
5. Upskill the IT infrastructure industry in the latest cutting-edge data storage technology providing safe and efficient cloud-based storage capacity.
6. Increase capacity to service the present and growing demand for data storage in the Sydney Metropolitan Region.
7. Ensure minimal environmental and amenity impact by providing suitable mitigation measures where required, to minimise any unforeseen impacts arising in the future.
8. Ensure ongoing compliance with all operational legislative requirements.
9. Ensure development is compatible with surrounding development and the regional and local context.

The Site and proposed design are considered to meet the objectives of the Project, as it allows for development on a land portion that is currently undeveloped in its state, as well as being zoned for such industrial-related purposes.

## 3.2 DESCRIPTION OF THE PROPOSAL

Development Consent is sought to develop the Subject Site for the purposes of a Data Centre. Operational use of the Data Centre would be undertaken on a 24-hour, 7-day basis, consistent with surrounding operations approved under SSD 9522 and existing developments within the wider WSEA.

The Proposed Development includes a CIV of approximately $1.29 Billion (refer to **Appendix 2**), for which a complete set of Architectural Plans prepared by Greenbox Architecture are located in **Appendix 6** of this EIS. The Proposal's development particulars are outlined in **Table 5** below.

| **Table 5: Proposed State Significant Development Particulars** | |
|---|---|
| **Project Element** | **Development Particular** |
| **Subject Site Area** | 14.43 ha |
| **General** | The Proposed Development is considered State Significant Development pursuant to Schedule 1, Part 25 of SEPP (SRD) 2011 with an estimated 190 MW output, for which the Data Centre will comprise a total of 60,943 $m^2$ GFA. |
| **Primary Land Use** | - Data Storage Premises for the purposes of a Data Centre (24/7 use) |
| **Built Form** | Data Centre Building: |

| | |
|---|---|
| | - Construction and operation (24/7 basis) of two (2) Data Centre buildings over two (2) levels (21.31 m), comprising 60 data halls (60,943 $m^2$ Gross Floor Area (GFA), one (1) electrical substation, provision for diesel fuel storage tanks, plant and equipment (on the roof level).<br>- Ancillary office space (6,255 $m^2$ GFA).<br>- 24,186.34 $m^2$ of landscaping across the Site.<br>- Associated hardstand and driveways. |
| **Associated Plant and Equipment** | Emergency Backup Generators:<br>- Total of 62 comprising:<br>o 60 x 3MW for the data halls themselves; and<br>o 2 x 500kW for the office areas.<br>- The locations of which are illustrated on the Architectural Plans located in **Appendix 6**.<br><br>Diesel Fuel Storage Tanks:<br><br>- Total of 63, comprising:<br>o 60 x 32kL for the data hall generators;<br>o 2 x 7kL for the office generators; and<br>o 1 x 150L for the sprinkler pump.<br>- The locations of which are illustrated on the Architectural Plans located in **Appendix 6**.<br><br>Lithium-ion Batteries:<br><br>The Proposal includes provisions for a total of 840 lithium-ion battery cabinets, with a weight of 500 kg per cabinet and 500 MWh of stored energy. **Note:** that these are design estimates are subject to confirmation based on the final manufacturer product selections and will be further confirmed during the Detailed Design phase.<br><br>Other Major Plant and Equipment:<br><br>- 4 x large power transformers and associated air-insulated switchgear yard and MV switch rooms for the substation;<br>- 9 x water tanks of varying sizes and associated pump rooms, providing water storage for cooling, water recycling and treatment, and fire protection;<br>- 65 x medium power transformers serving the data halls, offices, and substation auxiliary loads; and<br>- 480 x indoor air handling units providing cooling to the data halls.<br><br>A further exhaustive list will be further confirmed during the Detailed Design phase. |
| **Building Height** | - 21.31 m from the levels approved under SSD 9522 measured to the top of the catladder on SYD-05.<br><br>**Note:** There is a portion of the building attaining a height of 23.27 m from the levels approved under SSD 9522 measured to the top of the lightning rod; however, in accordance with the building height definition this component is excluded from the overall building height. |

| | |
|---|---|
| **Bulk Earthworks** | Earthworks on the Site were approved under SSD 9522. There would be minor filling required as a result of the Proposal to establish the finished floor levels for the Data Centre buildings. |
| **Infrastructure and Services** | All Services to the Site are able to be provided from Mamre Road and the internal Estate Access Roads to the Site, including potable water; electricity; gas; wastewater; and communications. All services have been assessed under SSD 9522. |
| **Access** | The Site would be accessed by cars on a daily basis, with interim deliveries undertaken by Articulated Vehicles in respective loading and unloading areas on the Site.<br><br>Primary access would be achieved along the north western portion of the Site, with emergency maintenance access provisions provided along the eastern boundary along the north south road which would be used infrequently and only during emergency periods.<br><br>Access is also provided internally for the purposes of internal circulation for which both buildings can be traversed by moving vehicles in a safe and efficient manner. |
| **Car Parking** | - 120 car parking spaces (including six (6) accessible spaces).<br>- 12 bicycle spaces. |
| **Subdivision** | Subdivision for the Site was approved under SSD 9522. |
| **Operational & Construction Jobs** | **Employment Generation (Subject SSD Application):**<br><br>- Operational jobs generated by the Proposed Development, are estimated at 79 full time jobs.<br>- Construction jobs generated by the Proposed Development, are expected to be in the order of up to 300 full time jobs. |

It is noted, that the installation of equipment and associated technology within the proposed data halls would be undertaken as part of a separate Development Consent pertaining to the internal fitout, based on customer demand.

The proposed Site Plan (See **Figure 5** of this EIS below) uses landscaping and architectural design, to create a pleasant work environment. This vision is commensurate with the planning aspirations and objectives contained in *A Metropolis of Three Cities*, the *Western City District Plan* and the Draft Mamre Road Precinct DCP.

The Proposed Site Plan and Elevations are shown in **Figures 5-7** overleaf. The complete Architectural Plans are located in **Appendix 6** of this EIS.

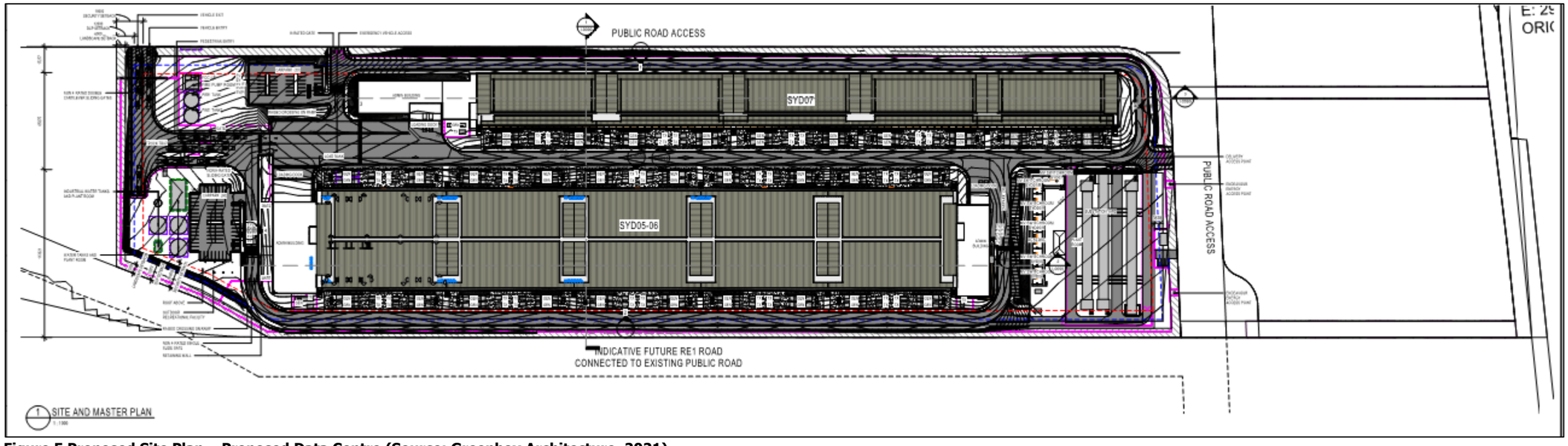


**Figure 5 Proposed Site Plan – Proposed Data Centre (Source: Greenbox Architecture, 2021)**

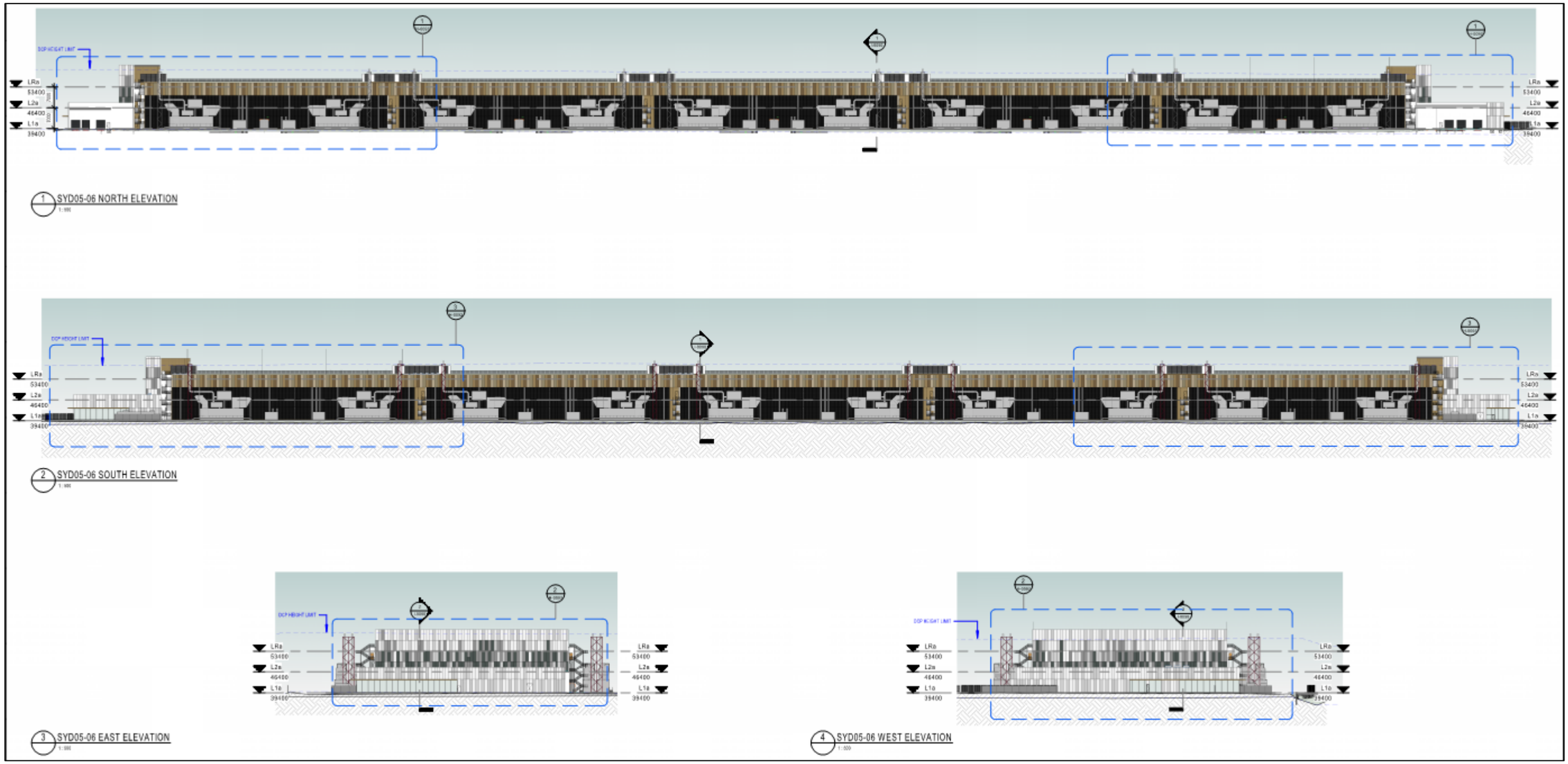


**Figure 6 Proposed Elevations Pertaining to SYD05 & 06 (Source: Greenbox Architecture, 2021)**

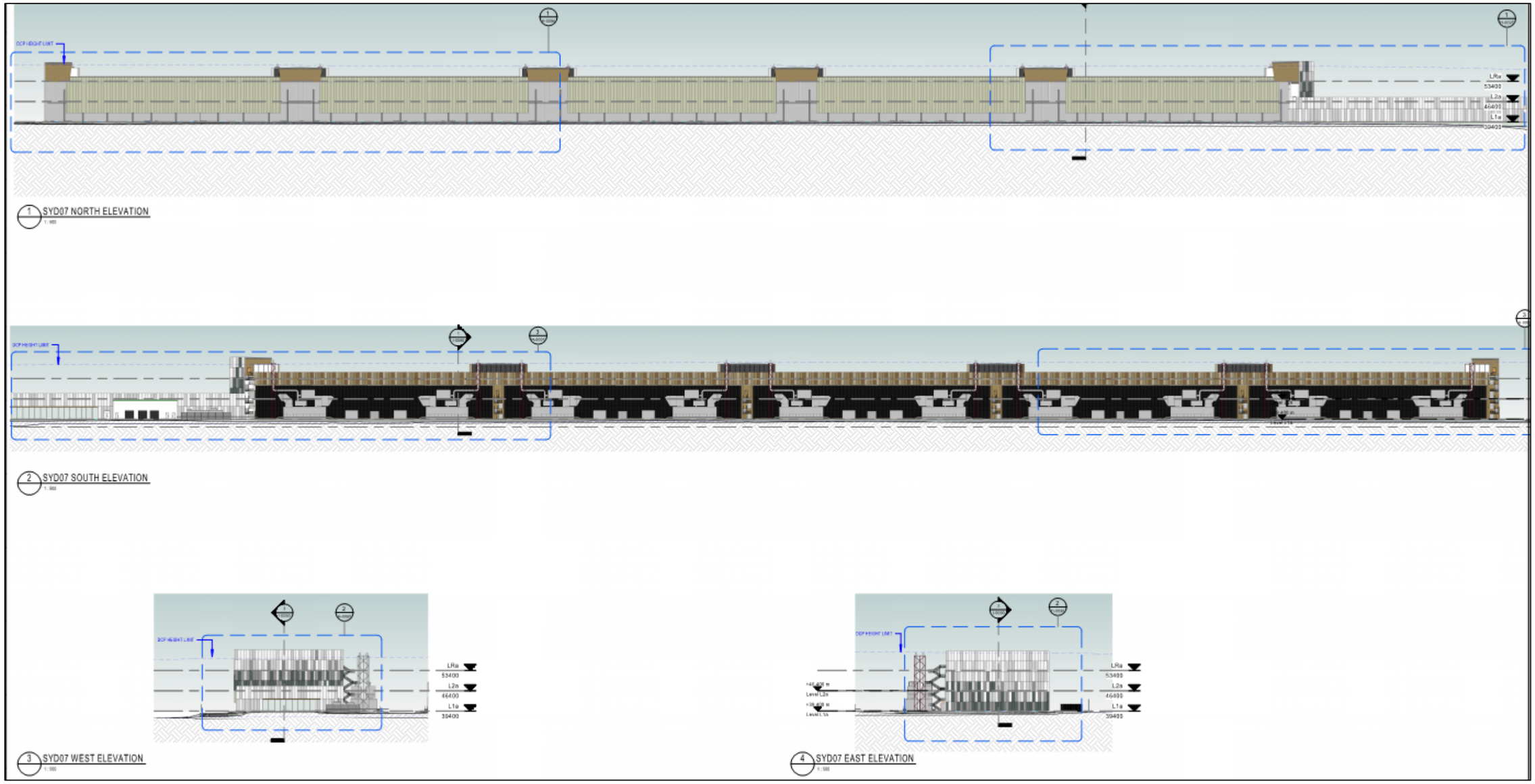


**Figure 7 Proposed Elevations Pertaining to SYD07 (Source: Greenbox Architecture, 2021)**

### 3.2.1 Data Centre Building

The Site layout has been developed for approximately three (3) data centre buildings totalling 190 MW. The proposed Site Plan is illustrated in **Figure 5** above, for which the Architectural Plans are located within **Appendix 6** of this EIS.

Accordingly, the Proposal will comprise two (2) two-storey buildings with roof mounted plant accruing a total of approximately 60,943 $m^2$ of Gross Floor Area (GFA), 62 generators for the data halls and office space, one (1) generator for the substation and a maximum overall height of approximately 21.31 m.

The proposal includes the provision of a new High Voltage (HV) switchyard to service the Site. Perimeter access roads will be provided to allow for direct servicing of the external plant and equipment. Suitable screening to address acoustic requirements will be incorporated and generous landscape buffer zones in the setback areas (as described in **Section 3.2.5** below).

The fitout of data racks are excluded from the scope of works and will likely be undertaken via means of a Complying Development Certificate or Modification Application depending on the scope of works.

It is envisaged that the project will be built in relevant construction stages to meet end user demand for racking space.

### 3.2.2 Electrical Substations and Diesel Fuel Storage

The Site will be supplied by three (3) dedicated 132/11kV 100MVA oil filled transformers. These will be installed within the HV switchyard proposed on-site. It is noted, that building transformers are kiosk type and are distributed by the data halls on each level. There are 60 11/0.4kV 3.36MVA dry type transformers in total serving the data halls. There will also be two (2) smaller transformers serving the base-build.

Each generator will be provided with 48-hours of fuel storage. Each generator on the Ground Level will have a belly tank with two (2) fuel compartments, one supplying the Ground Floor generator and one supplying the Level 1 generator.

Additionally, there will be 30 belly tanks in total on the Ground Level, each belly tank will be able to support approximately 32kL of fuel, across two (2) separate compartments. There will also be two (2) smaller generator belly fuel tanks at the Ground Level serving the base-build.

A Dangerous Goods Report has been prepared to assess any potential requirements for an Environmental Protection Licence (EPL) required for the proposal pertaining to diesel fuel storage (refer to **Appendix 21**).

### 3.2.3 Office

The admin and support blocks contain key program elements such as the Facility Operations Centre (FOC), Security Operations Centre (SOC), Loading Dock, Staging, Storage and Open Office.

The Open Office is a touch down office space for single vendor use while supporting the proposed Data Centre. The office space includes non-dedicated, open workstations for use by operations personnel during peak deployments periods. The Security Operations Centre (SOC) serves as the access control point for the facility and is located directly adjacent to the Lobby so that personnel access can be monitored visually by security staff. Facilities Operations Centre (FOC) is a dedicated enclosed space for facilities monitoring, with operator consoles for Facilities Operations.

### 3.2.4 Access and Servicing

Access to the Site would be facilitated by the Estate Access Roads approved under SSD 9522, for which afford connectivity with Mamre Road to the east of the Site. Servicing pertaining to the Subject Site was investigated under SSD 9522 with respect to the Estate; however, for the Proposal concerning the proposed Data Centre, provisions for a substation have been included to facilitate the increased energy requirements of the proposed land use (refer to **Section 6.17** of this EIS).

Additionally, the Proposal includes provisions for internal access roads providing circulation and safe ingress and egress throughout the Site, including appropriate directional access and vehicular movement across the Site.

Primary vehicular access is proposed along the north-western portion of the Site for light vehicles and Articulated Vehicles, with appropriate safety measures to be incorporated providing a safe and efficient design outcome. There is a proposed emergency access along the eastern boundary which would be utilised on an infrequent basis during emergencies only. Should an emergency occur, the appropriate safety protocols would be implemented on this portion of the Site to ensure access into the Site, as well as any traffic generation occurring on adjoining sites are not compromised by the emergency requirements.

### 3.2.5 Landscaping

A carefully selected landscape setting will be chosen comprising a mix of native and endemic plant species, shrubs, trees and grasses which will help to improve the aesthetic for workers and visitors, as well as exhibit an appropriate landscaping treatment for motorists traversing Mamre Road and the Estate access roads. Landscaping will aid the proposal by virtue of landscape screening ultimately improving the visual amenity of the Site.

Accordingly, 24,186.34 $m^2$ of landscaping has been proposed for the Site, with the boundaries of the Site incorporating extensive landscape setbacks beyond those required under the Draft Mamre Road Precinct DCP as follows:

- Front Setback (northern boundary): 6 m landscape setback and 3 m turf verge
- Side Setback (eastern boundary): 6 m landscape setback and 10.1 m turf verge – noting the substation yard fence includes a 2.5 m separation between the yard fence and the 2.4 m high security fence
- Side Setback (western boundary): 6 m landscape setback
- Rear Setback (south boundary): 8 m landscape setback with screen planting and tiered retaining walls to provide increased visual amenity for the adjoining RE1 zone

The Landscaping Strategy for the Site is considered to be consistent with the Government Architect NSW (GANSW) *Green Places* principles; the landscaping strategy approved under SSD 9522; and considers the future operational requirements of the Site, through careful species consideration that achieve all safety and security concerns. The indicative species schedule is noted as within the Landscape Plans (refer to **Appendix 7**) on Drawings L10 & L11.

### 3.2.6 Car Parking

Car parking has been provided across the Site to facilitate both the construction and operational phases of the Proposed Development. Parking has been provided in accordance with the Mamre Road Precinct DCP and NSW Roads and Maritime Services (RMS) rates for industry (one (1) space per 300 $m^2$) and office (one (1) space per 40 $m^2$). Accordingly, 120 car parking spaces have been provided for the Proposed Development (including accessible (6) accessible spaces) across three (3) separate locations of the Site – with two (2) along the western side of the Site and one (1) along the eastern portion of the Site.

### 3.2.7 Construction Staging of Development

The approval strategy sought, seeks to obtain Development Consent to complete the construction works over several construction stages upon issue of the relevant Construction Certificates; however, any such staging does not constitute staged development as defined under Section 4.22 of the EP&A Act, 1979.

The proposed construction stages will be completed as demand for data storage and distribution of cloud-based data storage and services is required. Notwithstanding, the relevant phases of the construction phase would see the northern-most building (SYD-05 & 06) constructed ahead the southern building (SYD-07) in accordance with the following line of construction works:

- Phase 1 – shell and core
- Phase 1 – external works
- Phase 1 – fitout works
- Phase 2 – shell and core works
- Phase 3 – future external works

The Architectural Plans (Drawing SYD05-06-07_A-B-0095) located in **Appendix 6** accurately demonstrates the three (3) envisaged construction stages, as well as an indicative construction phasing diagram illustrated within **Figure 8** below.

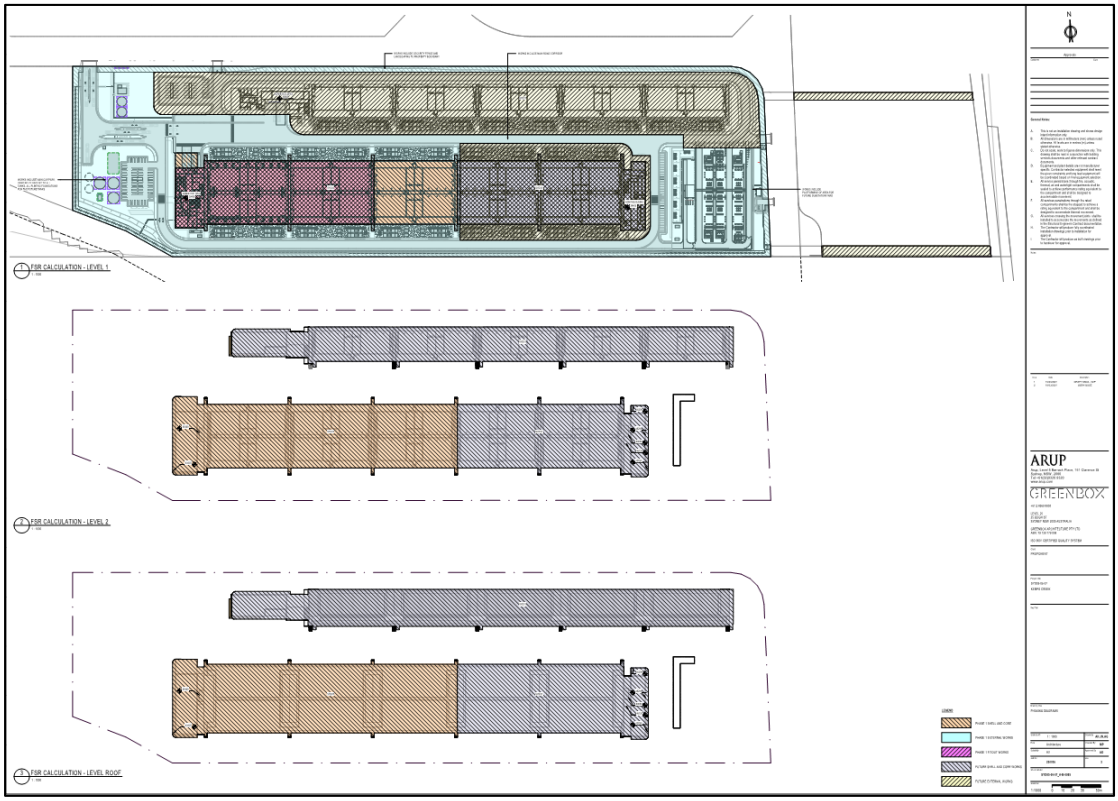


**Figure 8 Indicative Construction Phasing Diagram (Source: Greenbox, 2021)**

### 3.2.8 Site Preparation

Earthworks across the Site to facilitate development of the building pads to support future development was approved under SSD 9522. Notwithstanding, the Proposed Development includes provisions pertaining to the internal access roads and building finished floor levels which are to be set higher than the surrounding estate road network, with the overland flow paths at the Site ultimately discharging to the Estate road network.

In accordance with the bulk earthworks approved under SSD 9522, the Site will encounter a 3 m fall from the southeast corner to the northwest corner. Further earthworks will be required to enable a consistent finished floor level, as well as providing suitable gradients pertaining to the internal roads on-site.

With respect to the western portion of the Site, the earthworks platform will require filling to bring the ground up to the proposed building platform level. This fill material will be sourced from the eastern portion of the Site, or from pavement, utility and stormwater drainage construction, with additional imported fill material as required. ARUP note, that fill material is also required within the southern utility corridor to infill behind the proposed retaining wall, which will provide a shallow graded platform for installing utilities.

Investigations undertaken by ARUP confirm that the Proposal results in 46,500 $m^3$ of fill material and 37,000 $m^3$ of cut materials, which equates to a net import of fill pertaining to 9,500 $m^3$. Following additional fill being imported to the Site, the post-development floor levels will be as follows:

- SYD-05/06: RL 39.4 m AHD
- SYD-07: RL 39.3 m AHD
- HV Switchyard: 39.4-40.0 m AHD

### 3.2.9 Dangerous Goods

No Dangerous Goods are proposed to be stored on-site, which would trigger the threshold provisions of *State Environmental Planning Policy No 33 – Hazardous and Offensive Development* (SEPP 33). Should the Proposed Development ever require the need to store Dangerous Goods on-site, a SEPP 33 Preliminary Hazard Analysis would be undertaken by a suitably-qualified specialist, with any recommendations on further approvals required (if any), to follow all statutory requirements. The SEPP 33 screenings for storage of dangerous goods indicate that the development may not be classified as a hazardous or offensive industry (refer to **Section 4.2.8** below).

### 3.2.10 Employment Generation

The Proposal would positively impact on the social and economic conditions of the Penrith LGA and the wider WSEA, which are envisaged for employment-generation and economic growth and prosperity. Construction jobs are expected to be in the order of approximately 300, whilst operational jobs would be expected to exceed approximately 79 future staff (which includes maintenance contractors).

### 3.2.11 Supporting Project Documentation

Documents provided in support of the Proposal are outlined in **Table 6** below.

**Table 6: Document Schedule and Consultant Team**

| Appendix No. | Detailed Report or Document | Author |
|---|---|---|
| **Appendix 1** | Secretary's Environmental Assessment Requirements | NSW DPIE |
| **Appendix 2** | Quantity Surveyors Report | Linesight |
| **Appendix 3** | Survey Plan | Monteath & Powys |
| **Appendix 4** | SSD 9522 Stage 1 Subdivision Plan | Frasers Property and Altis Property Partners |
| **Appendix 5** | SSD 9522 Stage 2 Subdivision Plan | Frasers Property and Altis Property Partners |
| **Appendix 6** | Architectural Plans | Greenbox Architecture |
| **Appendix 7** | Landscape Plans & Design Report | Habit8 |

| | | |
|---|---|---|
| **Appendix 8** | Landscape and Visual Impact Assessment | Geoscapes |
| **Appendix 9** | Civil Engineering Design & Flooding Report and Plans | ARUP |
| **Appendix 10** | Geotechnical Report | ARUP |
| **Appendix 11** | Traffic Impact Assessment | ARUP |
| **Appendix 12** | Biodiversity Development Assessment Report | ARUP |
| **Appendix 13** | Air Quality Impact Assessment | ARUP |
| **Appendix 14** | Noise Impact Assessment | ARUP |
| **Appendix 15** | Historical Heritage Impact Statement | Artefact |
| **Appendix 16** | Aboriginal Cultural Heritage Memorandum | Artefact |
| **Appendix 17** | Ecologically Sustainable Development Report | ARUP |
| **Appendix 18** | Greenhouse Gas Assessment and Energy Efficiency Report | ARUP |
| **Appendix 19** | Waste Management Report | ARUP |
| **Appendix 20** | Bushfire Impact Assessment | Australian Bushfire Protection Planners |
| **Appendix 21** | SEPP 33 Report | ARUP |
| **Appendix 22** | Services Infrastructure Assessment | ARUP |
| **Appendix 23** | BCA Report | Blackett Maguire + Goldsmith |
| **Appendix 24** | Airport Safeguarding Memorandum | ARUP |
| **Appendix 25** | Mamre Road Precinct Development Control Plan Compliance Table | Willowtree Planning |
| **Appendix 26** | Community Consultation Report | Willowtree Planning |
| **Appendix 27** | Sydney Water Correspondence | Sydney Water |
| **Appendix 28** | Architectural Design Report | Greenbox Architecture |
| **Appendix 29** | BDAR Waiver Request | ARUP |

## 3.3 PROJECT NEED

The way data and records are stored is considered to be continually evolving. The storage of cloud and electronic data is now a fundamental piece of infrastructure and services for both business and consumer transactions. The world today depends on digital infrastructure. Data centres are considered to be critical digital infrastructure that provide communication services essential for everyday life. Governments, businesses, and the community rely on IT systems and networks supported by data centres to operate and function.

A significant part of a data centre's function is to facilitate the ongoing operation of critical infrastructure and delivery of critical services (e.g. energy, water, food, transport, health, banking, and finance). It is imperative that the operations of data centres are completely secure and resilient. This also supports productivity and helps to drive the business activity that underpins economic growth. Reliable supply, security and continuity of the digital service provided by data centres is imperative for users who rely on these facilities for their ongoing critical infrastructure and service operations. Disruption to this supply can have serious implications for customers due to their reliance on digital infrastructure.

It is noted that global mobile data traffic increased by 49% during 2019 (compared to an 18% increase in 2018). This surge in demand for data storage was initially due to increased levels of remote working during the COVID-19 pandemic; however, this has also generated significant requirements for additional data centre capacity in the long-term. This rapid global increase is projected to continue to grow 31% a year to 2025. Demand for data centres in Sydney increased by 76 per cent (2018-2019) (compared to only 34% in Tokyo, 27% in Hong Kong

and 14% in Singapore) (CBRE, 2020). Most demand for data storage in Sydney is from the Government with demand also increasing from internet and technology, healthcare, education, and financial service providers. Accordingly, the Proposed Development responds to this increasing demand and supports the continued drive for business development across Sydney and New South Wales leading to longer-term and sustained economic growth through the provision of critical digital infrastructure.

The Proposed Development would assist in providing new employment opportunities and promote further industry diversification (i.e. ICT sector). Accordingly, this Proposal would not alter the quantity or configuration of land currently zoned for industrial-related uses pursuant to the IN1 General Industrial zone under SEPP (WSEA) 2009.

The Proposed Development, for the purposes of a Data Centre is considered consistent with the strategic direction of A Metropolis of Three Cities; the Western City District Plan (Greater Sydney Commission); and the Mamre Road Precinct. Additionally, the Proposed Development will further contribute to the growth and knowledge of professional service jobs within the Western City District; hence, contributing to the Western City District's economic growth, particularly supporting the Mamre Road Precinct, as well as the wider Penrith LGA.

Furthermore, the Proposed Development could support the retention and maintenance of existing industrial land stocks and employment objectives, whilst promoting industry diversification (and generating new employment sources); and could generate more employment through the relevant planning, construction and maintenance stages.

Additionally, the Proposed Development at the Subject Site would generate a range of community need drivers, in particular the following:

- Reduced travel distances, leading to savings in time and fuel for local working residents, due to much better access to the Site, as opposed to other dense employment areas at the local level. It is noted, that a reduction in travel times and distances generates related benefits, including reduced vehicle wear and tear, reduced fuel costs, reduced pollution, reduced traffic congestion, reduced risks of car accidents and more time which can be spent either working, socialising or undertaking other activities;
- New employment opportunities from other industries, such as ICT businesses to operate within the Penrith LGA; and
- Provision of jobs near people's homes and consequent economic multiplier impacts, which will boost the local economy.

## 3.4 CONSIDERATION OF ALTERNATIVES

The purpose of the Proposed Development is to contribute towards the intended industrial character and nature of the IN1 General Industrial zone; and provide a Data Centre, which provides secure, reliable and scalable solutions for cloud, content and large enterprise customers to house their high rapidly growing volumes of data and information. The Proposed Development seeks to ensure it:

- Is compatible with surrounding development and the local context;
- Would provide increased operational efficiencies for storage and distribution of data;
- Would result in minimal impact on the environment; and
- 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 and underutilised land portion completely, into a modernised, State-of-the-Art Data Centre, which will be consistent with surrounding industrial-related uses in close proximity to the Site and the wider (WSEA. The Site design and

layout of the built form proposed, seeks to maintain consistency with the zone objectives under SEPP (WSEA) 2009 and enhance the underlying industrial character intended for the identified land portion, which is zoned for such permissible land uses. Furthermore, this would be achieved by the resultant built form that would reinforce the nature of the land use and is sensitive to the surrounding environment.

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

### *(a) The 'Do Nothing' Option*

This option was dismissed as the objectives of the Project would not be met, including the objective of facilitating an employment-generating development and providing essential IT infrastructure. If the Proposed Development was not to proceed, the Site would continue to remain vacant, or be developed for another industrial-related development.

### *(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 SEPP (WSEA) 2009, 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 existing industrial development in close proximity to the Subject Site;
- The Proposed Development has not been identified as containing any items of Heritage significance, including Aboriginal Cultural Heritage and State or Local Heritage items, that require further consideration; 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 Site's topography; street access (access approved under SSD 9522); existing mature and proposed landscaping; 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. This option was therefore not considered appropriate.

Furthermore, the Proposal has evolved overtime following its inception and resultant conceptual design surfacing. Greenbox have included the relevant options explored with the Architectural Design Report (refer to **Appendix 28**) which takes into account the relevant and potential designs that were investigated prior to the Proposed Development (as illustrated above) being decided on. Below includes a synopsis of the relevant options investigated:

Option 1:

Option 1 was predicated on the initial clients' brief with a series of miniature data centre buildings traversing the length of the Site. However, to accommodate future infrastructure and the envisaged road networks this option was not considered viable (refer to **Figure 9** below).

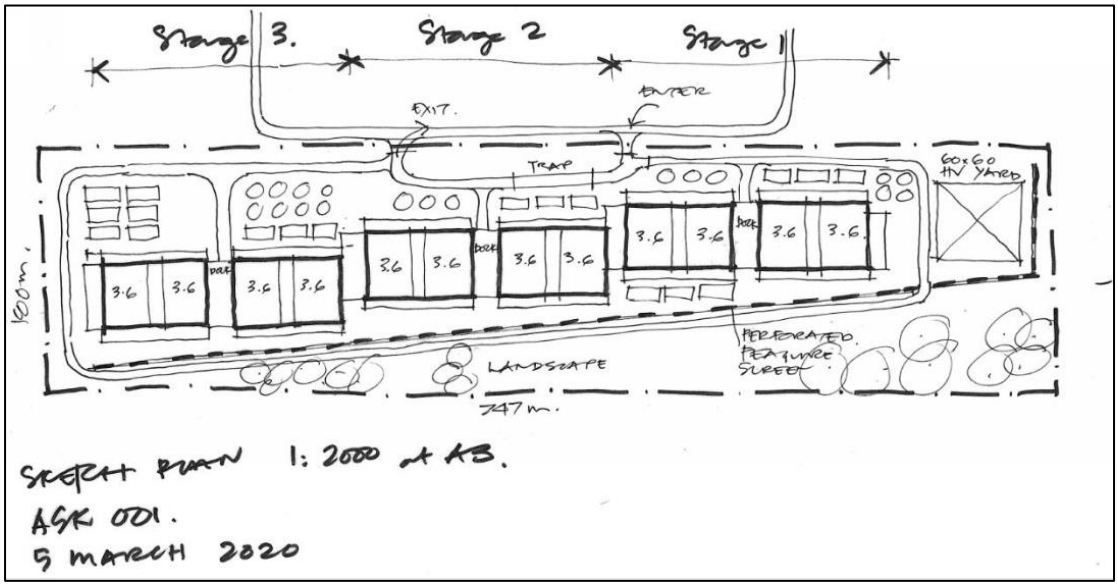


**Figure 9 Concept Sketch of Option 1 of the Proposal (Source: Greenbox Architecture, 2021)**

Option 2:

Following further discussions with the Proponent the design evolved into a formal concept plan, which commenced formal engagement with the wider consultant team allowing finer grain parameters and overall operations of the Data Centre to be investigated.

Option 2 saw the introduction of the main vehicular entry along the eastern boundary of the Site coming of the north-south road, with the Phase 1 building sited at the north, with future construction phases towards the south of the Site (refer to **Figure 10**).

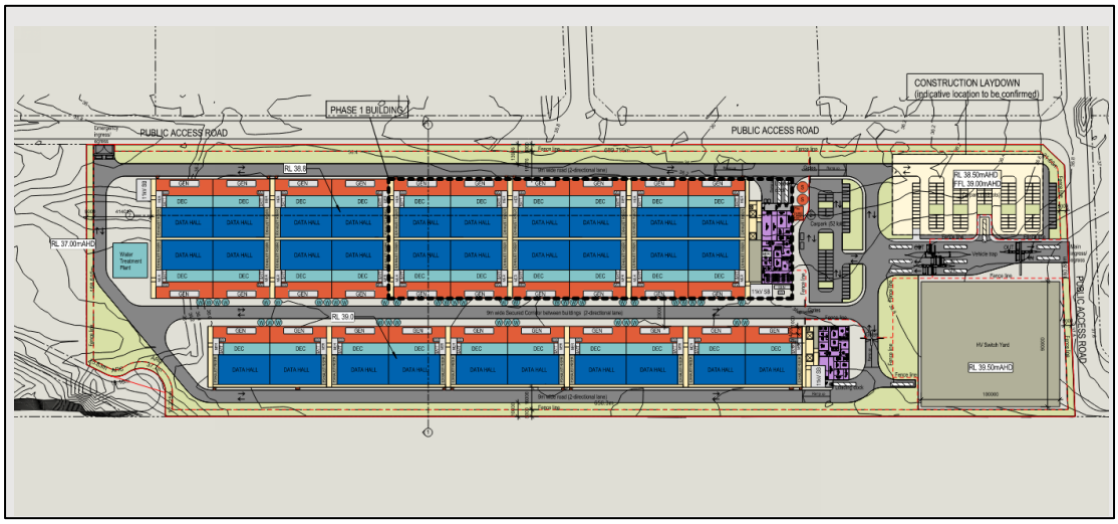


**Figure 10 Option 2 Concept (Source: Greenbox Architecture, 2021)**

Option 3:

Following further surveying being undertaken, Option 3 realised a slight shift pertaining to the southern building due to a realignment of the property boundary at the southwest corner of the Site (refer to **Figure 11**).

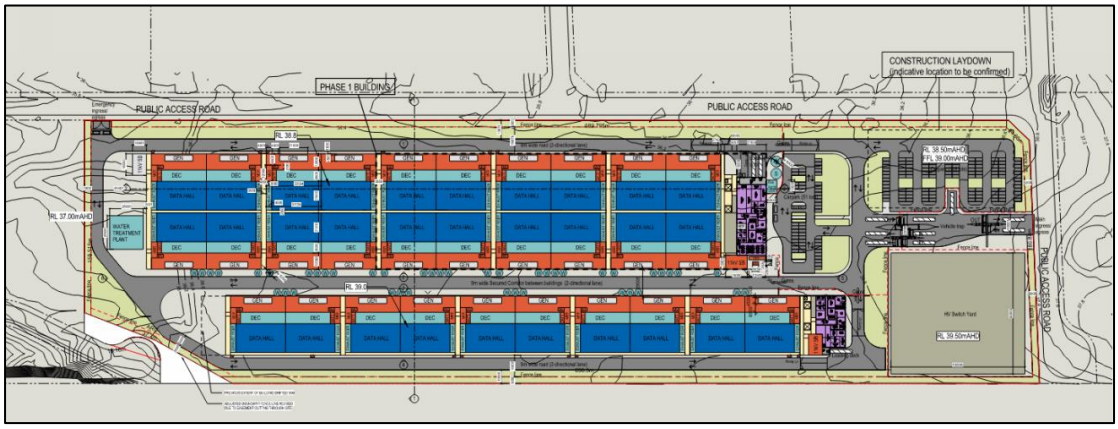


**Figure 11 Option 3 Concept (Source: Greenbox Architecture, 2021)**

Option 4:

Following issue of the SEARs by the NSW DPIE, the Proposed Development underwent a redesign to cater for comments raised by the NSW DPIE, State Agencies and Council, which included moving the main vehicular entry point towards the north-western boundary of the Site. As a result of this amendment, the Phase 1 building was relocated to the south of the Site with the future built form stages to be undertaken at the north of the Site (refer to **Figure 12** below).

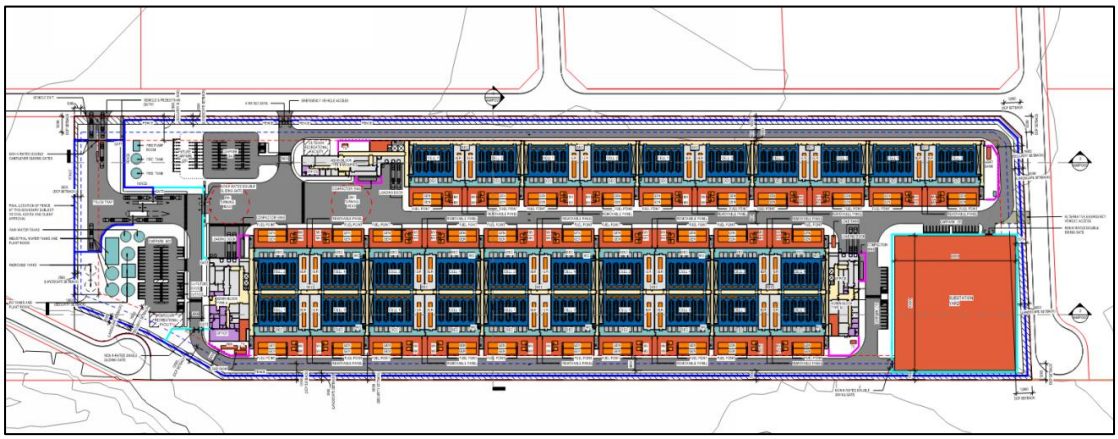

**Figure 12 Option 4 Concept (Source: Greenbox Architecture, 2021)**

The Proposal:

The resultant development option (Option 5 – the Proposed Development) 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. The development as proposed (refer to **Figures 5-7** above) represents the final built form proposed, which is considered to be representative of surrounding and future industrial development, which will be coupled with an aesthetically pleasing architectural landscape design provide enhanced visual screening around the Site, whilst providing for a further cooling mechanism on-site.

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.

## 3.5 PROPOSED DATA CENTRE

From an operational perspective (as an owner / operator / landlord), the future end user provides a similar service to its tenants as any commercial landlord would. Notwithstanding, the point of difference is, that the tenants of the facilities are focused on the housing and delivery of cloud-based internet to service the global market.

The Data Centre proposed, commits to maintaining high levels of reliability through the provision of the Site's infrastructure, ultimately supporting the tenant's environment. This is accomplished through industry leading redundancy of mechanical cooling and power systems (including emergency backup power generators) serving the Data Centre along with the necessary and vital telecommunications links required for the Site to carry out an efficient and effective operation.

It is important to note, that in addition to deploying reliable infrastructure in secure facilities, the future end user invests in high performing 24/7 operational teams, whose sole focus is to ensure that the Site is never at risk.

From a locational perspective, the Subject Site was chosen as it would be able to accommodate an unconstrained 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 Data Centre. Additionally, the Site's locality is reinforced by its close proximity to nearby regional road networks, such as Mamre Road and both the M4 & M7 Motorways, as well as available bus networks in close proximity to the Site (throughout Erskine Business Park), which are considered highly beneficial for the overall operations of the Proposal.

It is noted, that if the Proposed Development did not proceed, the Site would not provide employment opportunities for an employment sector. Additionally, it would not provide local employment opportunities, including achieving the '30-minute City' (as outlined in the Regional and District Plans) or generate construction and operational (including maintenance) jobs.

In light of the above information, which promotes an industrial-related development, for the purposes of a Data Centre at 707-711, 713-755 & 757-769 Mamre Road, Kemps Creek (Lots X & Y DP 421633 and Lot 22 DP 258414), this would allow for the delivery of more employment space and promotes the supply and competitiveness of the existing employment land floorspace within the immediate locality, which will be immediately surrounded by industrial development in the future.

# PART D LEGISLATIVE AND POLICY FRAMEWORK

## 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 State Significant Development Application:

### Commonwealth Planning Context

- *Commonwealth 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 19 – Bushland in Urban Areas*
- *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 Employment Area) 2009*
- *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020*

### Strategic / Regional Planning Context

- *A Metropolis of Three Cities – Greater Sydney Region Plan*
- *Western City District Plan*
- *Western Sydney Employment Area*

### Local Planning Context

- *Penrith Local Environmental Plan 2010*
- *Penrith Development Control Plan 2014*
- *Draft Mamre Road Precinct Development Control Plan 2021*

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

## 4.1 COMMONWEALTH PLANNING CONTEXT

### 4.1.1 Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act 1999, 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 Matters of National Significance, it is declared a "Controlled Action" for which formal Commonwealth approval is required.

Based on investigations carried out, the Proposal does not warrant referral to the Commonwealth Minister for Environment. Additionally, the investigations undertaken for SSD 9522 confirmed that there were no MNES identified on the Subject Site, which require concurrence with the Commonwealth.

## 4.2 STATE PLANNING CONTEXT

### 4.2.1 Environmental Planning and Assessment Act 1979

The EP&A Act, 1979 is the overarching governing statute for all development in NSW and pursuant to Part 4, Section 4.36(2), the Proposed Development is considered State Significant Development, for which the SSD Application would be submitted to and determined by the NSW DPIE.

The Proposal is deemed to be entirely consistent with the EP&A Act, 1979, particularly Part 1 Preliminary, Section 1.3 Objects of the Act. The following response is provided with regard to each Object:

***Object (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,***

***to promote the social and economic welfare of the community***

The Proposed Development strongly promotes the social and economic welfare of the community, because its function is to support the continued growth of the ICT sector as well as encourage and promote employment generation outcomes as a result of the Proposal. The creation of jobs would have a direct and positive economic impact on both the local and broader communities located within the Western Sydney Region. The economic development of the Proposal, would attract a diverse workforce over a range of long-term permanent and part-time jobs, sourced from the region and beyond. Having diverse permanent full-time and part-time employment opportunities, in Western Sydney, it is indeed highly significant in promoting the economic welfare of the community.

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, not yet supplied with employment, due to the undeveloped nature of the Site; however, having been recently approved under SSD 9522 for a Warehouse, Logistics and Industrial Facilities Hub. The Proposal also fulfils the underlying objectives of SEPP (WSEA) 2009, which emphasises the importance of job creation throughout the WSEA. This is achieved here (in line with the objectives of both the Act and the SEPP), via the promotion of economic development, through a large financial investment to development the Subject Site for the purposes of a Data Centre.

The Proposed Development also satisfies both the objectives of *A Metropolis of Three Cities*, the *Western City District Plan* and the wider objectives of the WSEA, by creating jobs in close proximity to established residential areas within the Penrith LGA. This strongly aligns with the GSC's 30-Minute City Concept, which enhances liveability and elevates the role of the Western Parkland City to a competitive and connecting working hub with direct linkages to Parramatta, Sydney and Penrith with the Eastern and Central Cities, promoting the overall social and economic welfare of the broader Sydney community.

***a better environment by the proper management, development and conservation of the State's natural and other resources***

By providing a conducive built form design and informed aesthetically pleasing architectural landscape design, this will further assist in the creation of a more sustainable project. Also, in

creating a more meaningful sense of place and community, the Site will further contribute to the social and economic welfare of the community, through delivering both a healthier and more-sustainable working and recreational environment for workers.

Conservation practices at the Site, such as rainwater harvesting, is expected to deliver greater efficiencies in both water and energy management, as well as waste minimisation via increased recycling capabilities. In line with broader State Resource Conservation Objectives, such as recycling materials and waste during the construction and operational phases of development, this development will ultimately reduce its carbon emissions substantially.

***Object (b): to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,***

The Site exhibits a fully considered architectural landscape design, by creating an enjoyable space for all users and visitors. This is achieved through the use of varied plant and trees species selection; applying a sustainable landscape design; and increasing community and environmental benefits simply through good landscape design practices. The landscape design incorporates endemic species and trees, providing natural screening along the interfaces of the internal Estate access roads and Mamre Road.

***Object (c): to promote the orderly and economic use and development of land,***

The WSEA is fully recognised and promoted by State Policy for rapid transformation into employment-generating land uses. The Proposed Development constitutes a sequential (and highly orderly) economic development. It is highly compatible with respect to immediately-surrounding land uses, as well as in the wider locality. Given its siting and location, the Site is highly logical, given its proximity to existing industrial facilities and services to which it can connect at.

Accordingly, the Proposed Development is considered to be fully consistent with the aims and objectives of the SEPP (WSEA) 2009, which are comprehensively assessed in **Section 4.2.7** of this EIS. As well as fulfilling a significant role in satisfying market needs and improving the operational efficiencies of Data Storage businesses within NSW and the wider ICT Sector. The Proposal demonstrates, a logical and orderly extension of existing land use both nearby and adjoining. It is already earmarked in SEPP (WSEA) 2009 for this very purpose pursuant to its IN1 General Industrial zoning. The Site's economic development is both logical and orderly for the following reasons:

1. It delivers employment-generating opportunities in both the construction and operational phases in an area already earmarked by both State and Regional Policy for employment.

2. It provides both a new economically and ecologically sustainable development, delivering new industry-best-practice in industrial construction.

3. It provides a genuine and obvious transition from existing industrial development, further reinforcing the notion of orderly development, within an area already designated for such purposes.

4. It minimises impact on the environment – the Subject Site has been confirmed as having 'low' ecological significance, minimal Aboriginal Cultural and Historic Heritage significance. It also implements best-practice sustainability measures, to promote ecologically sustainable development.

5. Includes increased provisions for landscaping, helping to revitalise and naturally landscape a substantial canopy cover across the Site, further minimising the potential impacts of the Urban Heat Island Effect, by further reducing the Site's microclimate.

6. Improves water-quality for stormwater by fully treating it prior to discharge, filtering it through a carefully-designed, On-site Stormwater Detention (OSD) system beyond the requirements of both the Penrith City Council DCP, Draft Mamre Road Precinct DCP and Council's engineering guidelines.

The overall scale of the Proposed Development and the low-interface impacts with surrounding properties, demonstrates that the Site is able to be developed for employment purposes immediately following Development Consent being obtained. Accordingly, this represents orderly development of the Site as currently proposed under this SSD Application. This is because the Site is not only highly compatible with the nearby industrial developments towards the east but is also precisely in line with the aims of both the WSEA, all of which emphasise the need for employment in Western Sydney.

The Proposed Development is also deemed orderly because the land use proposed under this SSD Application, would not pose a risk to any existing industrial or logistics businesses within the broader WSEA, including the Mamre Road Precinct.

In terms of appropriate use of land, the Proposal is deemed appropriate for the following reasons:

1. The Proposal provides employment on land already designated for employment.
2. The Proposed Development minimises land use conflict by locating similar land uses, as is demonstrated by the similar land uses on industrial development surrounding the Site.

The proximity of this Site to and the ability to consolidate with other industrial land uses by having the Proposed Development co-locate with nearby industrial development is a great advantage. This also allows the Site and the Proposal to achieve the economic and ecological outcomes, as set out by both the EP&A Act and other State Policies.

It is for these reasons and others that this SSD Application represents development that promotes the orderly and economic use and development of land, in line with the objects of the EP&A Act, 1979.

***Object (d): to promote the delivery and maintenance of affordable housing,***

This objective is not applicable to the Proposed Development, given that no housing will ever exist at the Site.

***Object (e): to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.***

The Conditions of Consent pertaining to SSD 9522 permit clearing of native vegetation across the Subject Site. Accordingly, as part of the subject Proposal, the Proponent requests that the requirement for a BDAR be formally waived in accordance with Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act).

***Object (f): to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),***

Artefact assume that all requirements ascertained from the Aboriginal Cultural Heritage Assessment Report (ACHAR) pertaining to SSD 9522 have been followed as part of the Conditions of Consent under SSD 9522, for which all Aboriginal sites within the current study area have been subject to total direct impact, leading to a loss of value, as described in the ACHAR prepared by Biosis (2020).

Notwithstanding, as part of the memorandum prepared by Artefact, they note the following recommendations, including:

1. *Based on the ACHAR for the bulk earthworks (SSD 9522), this assessment has identified that Aboriginal objects are not likely to occur beneath the ground surface. As such further archaeological assessment of the study area is not required.*
2. *Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity that are not covered by an AHIP, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and DLALC must be notified.*
3. *If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured and the NSW Police and the Office of Environment and Heritage NSW should be notified.*

***Object (g): to promote good design and amenity of the built environment,***

The Proposed Development can be seen to promote both good design and at the same time improving the amenity of the built environment through activation of the Site by enhanced landscaping across the Site. Through both the use of new-age materials and an innovative contemporary design, the Proposal allows the built form to connect with the natural landscape, to tie the built-form elements into a relatable thematic nexus to the natural environment, using industry-best-practice.

***Object (h): to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,***

The Data Centre building has been designed to comply with the Building Code of Australia (BCA) and the requirements of Fire and Rescue NSW, with respect to Fire Safety. This incorporates into the design, all of the statutory and functional requirements of the BCA regarding access, egress and fire, deemed necessary to safeguard the safety of building occupants, and the longevity of functional structures in the Development.

***Object (i): to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,***

The Proposed Development will have a positive impact on other existing (and proposed) developments within the wider locality, particularly, the wider WSEA, which is further reinforced throughout the specialist reports contained in this EIS that have satisfactorily reinforced the main content of this EIS (See **Part F** of this EIS). Where potential impacts have been identified throughout the assessment, such as flooding, noise and traffic, appropriate mitigation measures have been set out accordingly to counteract any possible adverse impacts on existing or proposed developments within the immediate vicinity, as well as the wider locality.

It is noted, that throughout the assessment process, all relevant Government agencies have been consulted and provided opportunity to both assess the Proposed Development and provide comments. This SSD process has been informed by significant input from agencies

such as EES Group, TfNSW, FRNSW and NSW RFS, as well as the community. Community consultation has been undertaken as part of this Proposal, which has assisted to inform the final submitted design and reinforces compliance with this objective.

***Object (j): to provide increased opportunity for community participation in environmental planning and assessment.***

A comprehensive level of community and stakeholder engagement has been undertaken for the Proposed Development. This has included numerous Government Agency meetings and notification letters to both Government agencies and all potentially-impacted residents.

A comprehensive Community Consultation and Stakeholder Report (located in **Appendix 26** of this EIS), prepared by Willowtree Planning, offers a summary and analysis of all community and stakeholder consultation sessions, distilling into themes, those items identified in the consultation process, as significant.

### 4.2.2 Environmental Planning and Assessment Regulation 2000

In accordance with EP&A Regulation 2000, the Proposed Development is not classified as Designated Development.

**Section 4(1) – 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 Act. The Proposed Development being for a proposed Data Centre, does not trigger the Designated Development thresholds under Part 1 of Schedule 3 of the EP&A Regulation.

### 4.2.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act, 2016) is the key legislation in NSW relating to the protection and management of biodiversity and threatened species. The purpose of the BC Act 2016 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 2016 is supported by a number of regulations, including the *Biodiversity Conservation Regulation 2017* (BC Regulation 2017).

The Conditions of Consent pertaining to SSD 9522 permit clearing of native vegetation across the Subject Site. Accordingly, as part of the subject Proposal, the Proponent requests that the requirement for a BDAR be formally waived in accordance with Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) on the basis that the Proposed Development:

- Includes provisions for the construction of a building and associated infrastructure on a site that has been cleared of native and exotic vegetation, with bulk earthworks and associated civil works being undertaken as part of SSD 9522.
- Will not require any clearing of vegetation.
- Will not result in any development within or adjacent to any riparian corridors and is located over 180 m from a fifth order watercourse, identified as South Creek.
- Will not result in any adverse impacts to any threatened species or ecological communities.

- Will not require impacts to any non-native vegetation or human-made structures that could potentially provide habitat for threatened fauna species.

### 4.2.4 Protection of the Environment Operations Act 1997

Another important item of legislation against which this Proposal has been assess ed, is The Protection of the Environment Operations Act 1997. Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act, 1997) 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 1997 is:

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

Under the Schedule 1, Clause 9(1) – Petroleum Products Storage of the POEO Act, diesel fuel storage is listed as a Scheduled Activity. Capacity to store greater than 2,000 tonnes requires an Environmental Protection Licence (EPL) from the NSW Environment Protection Authority (EPA). With respect to the Proposal, provisions are made for 1,650 tonnes of diesel fuel storage for which an EPL would not be required as part of the subject Proposal.

Notwithstanding, a licence may be required to be considered for other scheduled activities pertaining to electricity generation, subject to approval.

### 4.2.5 State Environmental Planning Policy (State and Regional Development) 2011

Proposed Developments that are listed in Schedule 1 of SEPP (SRD) 2011 are identified as being State Significant Development. Schedule 1, Clause 25 of SEPP (SRD) 2011 includes provisions for developments comprising Data Centres to be undertaken as SSD. Clause 25 states:

> ***"25 Data Storage***
>
> *(1) Development for the purpose of storage premises used for the storage of data and related information technology hardware that has a total power consumption of more than the relevant amount.*
> *(2) In this clause –*
> ***Relevant amount** means –*
> *(a) for development in relation to which the relevant environmental assessment requirements are notified under the Act on or before 31 May 2023—10 megawatts, or*
> *(b) for any other development—15 megawatts."*

The Proposed Development is in relation to the development of a Data Centre. The Proposed Development will have a total power consumption of more than 10 MW (190 MW total load), thus satisfying the SSD provisions, for which they can be applied to the Proposal. This EIS has been prepared based on the SEARs issued on 12 November 2020.

### 4.2.6 State Environmental Planning Policy (Infrastructure) 2007

*State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) includes provisions to achieve permissibility for the development of certain activities for a range of infrastructure types. The ISEPP indicates whether an activity is permissible with or without consent on what land the activity is permissible.

In accordance with the meaning bestowed under the ISEPP, a Data Centre is defined as *"development for the purposes of storage premises used for the storage of data and related information technology hardware."* Furthermore, it is noted, that the IN1 General Industrial zone is identified as a Prescribed Zone pursuant to Part 3, Division 3, Clause 27(2) of the ISEPP.

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 (RMS) for concurrence.

Schedule 3 lists the types of development that are defined as Traffic Generating Development. The referral thresholds for 'Industry' are:

- *20,000 $m^2$ in area with site access to any road; or,*
- *5,000 $m^2$ in area where the site has access to a classified road or to a road that connects to a classified road (if access is within 90 metres of connection, measured along the alignment of the connecting road).*

The Subject Site attains an area greater than 20,000 $m^2$. Therefore, any such future development would require referral to the NSW RMS (now TfNSW).

### 4.2.7 State Environmental Planning Policy (Western Sydney Employment Area) 2009

The Site forms part of the WSEA – 'Precinct 12 (Mamre Road)' and is subject to the provisions of SEPP (WSEA) 2009. According to SEPP (WSEA) 2009, the Aims of the Policy are:

- *To facilitate a wide range of employment-generating development including industrial, manufacturing, warehousing, storage and research uses and ancillary office space;*
- *To encourage employment opportunities along motorway corridors, including the M7 and M4;*
- *To minimise any adverse effect of industry on other land uses;*
- *To facilitate road network links to the M7 and M4 Motorways;*
- *To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment; and,*
- *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.*

SEPP (WSEA) 2009 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 SEPP (WSEA) 2009, 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 Site, would be consistent with both short and long-term outcomes for the Penrith LGA and the broader Western Sydney Region.

The aims of SEPP (WSEA) 2009 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 with regard to the Data Centre proposed under this SSD Application.

> *"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 the WSEA (including the Mamre Road Precinct) and the wider Penrith LGA with regard to 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. The Proposed Development contributes to the provision of employment, in line with the aims of SEPP (WSEA) 2009. It is an appropriate form of development as the Mamre Road Precinct transitions with regard to similar industrial development both approved (SSD 9522) and proposed throughout the Precinct and wider WSEA.

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

**Response:** The Proposed Development represents a permissible industrial-related land use for employment purposes. The Proposed Development does not affect the E2 Environmental Conservation and RE1 Public Recreation zones in close proximity to the Site.

> *"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 outcome within the operational employment lands within the WSEA. The scale of development proposed is deemed consistent with the employment lands, that are in relatively close proximity to the Site, 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 Proposed Development has been designed to comply with the controls specified in the Draft Mamre Road Precinct DCP. Importantly, the Draft Mamre Road Precinct DCP has been designed to be cognisant of adjoining rural-residential development (identified to the south and west), whilst transitioning into industrial-related development on the Site and throughout the Mamre Road Precinct.

> *"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 will not be impacted by the Proposal as a result of the Proposed Development. Aboriginal Cultural Heritage will also be mitigated accordingly as previously approved under SSD 9522. Planned management and mitigation measures are outlined in **Part G** of this EIS.

#### 4.2.7.1 Permissibility under the SEPP

It is noted, that permissibility for the future development of the Subject Site for the purposes of a Data Centre would be achieved pursuant to the provisions of the ISEPP, as noted in **Section 4.2.6** above.

**Subdivision**

There is no subdivision proposed under the subject Proposal. Subdivision of the Site was undertaken pursuant to SSD 9522.

**Requirements for a Development Control Plans**

The Draft Mamre Road Precinct DCP has been prepared in accordance with Part 4 of SEPP (WSEA) 2009 and would be applied accordingly to any future DA (or SSD Application) undertaken on the Subject Site.

The relevant development controls applicable to the Subject Site are outlined in **Section 4.4.4** below and further explained within **Appendix 26**.

Below in **Table 7**, is a summary of all SEPP (WSEA) 2009 provisions (Clauses 11 – 34), as they apply to the Proposed Development. It is noted, Data Centres are permissible under the SEPP, for which the Proposal would remain consistent with.

| **Table 7: SEPP WSEA Provisions** | |
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| **Clause** | **Comment** |
| 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.*<br><br>***Zone IN1 General Industrial***<br><br>***1 Objectives of Zone***<br><br>▪ *To facilitate a wide range of employment-generating development including industrial, manufacturing, warehousing, storage and research uses and ancillary office space.*<br><br>**Response:** The Proposal includes provisions for the construction and operational use of a Data Centre within a zone designated for employment generation.<br><br>▪ *To encourage employment opportunities along motorway corridors, including the M7 and M4.*<br><br>**Response:** The Subject Site is suitably located in close proximity to key infrastructure corridors including Mamre Road and both the M4 & M7 Motorways.<br><br>▪ *To minimise any adverse effect of industry on other land uses.*<br>▪ *To facilitate road network links to the M7 and M4 Motorways.*<br><br>**Response:** The Proposal would support industry and other land uses by distributing cloud-based products from a range of end users that provides economic growth and support in the immediate and wider localities. Additionally, the Proposed Development has been set back from the internal Estate access roads and Mamre Road to allow for appropriate separation distances to be able to be achieved.<br><br>▪ *To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment.* |

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| | **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 Data Centre which is considered commensurate with surrounding industrial development within the wider WSEA.<br><br>▪ *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.*<br><br>**Response:** As mentioned above, the Proposal includes provisions for the construction and operational use of a Data Centre 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. |
| Clause 18: Requirements for Development Control Plans | The Proposed Development has been designed to comply with the controls specified in the Draft Mamre Road Precinct DCP. Importantly, the Draft Mamre Road Precinct DCP has been designed to be cognisant of adjoining rural-residential development (identified to the south and west of the Site), whilst transitioning into industrial-related development on the Site and throughout the Mamre Road Precinct and wider WSEA. |
| Clause 20: Ecologically Sustainable Development | Future development on the Subject Site, for the purposes of a Data Centre would incorporate a number of Ecologically Sustainable Development (ESD) initiatives to reduce the consumption of potable water and greenhouse gas emissions of future built form. Initiatives relate to:<br><br>▪ Energy & Greenhouse Gas Emissions;<br>▪ Potable water reduction;<br>▪ Minimising waste to landfill;<br>▪ The Indoor Environment;<br>▪ Occupant amenity and comfort;<br>▪ Land Use & Ecology;<br>▪ Emissions; and<br>▪ Building Management. |
| Clause 21: Height of Buildings | No maximum building height has been adopted under SEPP WSEA.<br><br>However, the consent authority must be satisfied that:<br><br>*(a) Building heights will not adversely impact on the amenity of adjacent residential areas, and,*<br>*(b) Site topography has been taken into consideration.*<br><br>Notwithstanding, the maximum building height with respect to the Proposed Development would be approximately 14 m. For consistency and completeness, a Landscape and Visual Impact Assessment has been prepared by Geoscapes (2021) to justify the proposed building height in the Site context (refer to **Appendix 8**). |
| Clause 22: Rainwater Harvesting | *"the consent authority must not grant consent to development on land to which this Policy applies unless it is satisfied that adequate* |

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| | *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."*<br><br>Rainwater harvesting would be provided for a large part of the Proposed Development. Water re-use for non-potable applications, has been adopted. Internal uses include such applications as toilet flushing, while externally, the water would be used for irrigation.<br><br>The rainwater harvesting system, would be an "in-line tank", designed for the collection and storage of rainwater. The latest technology would be used which would permit, at times when rainwater storage tanks are full, for rainwater to pass through the tanks and continue to be discharged via gravity into the stormwater drainage system. Rainwater from the storage tanks, would then be pumped for distribution throughout the development, in a dedicated non-potable water reticulation system. |
| Clause 23: Development Adjoining Residential Land | The Site does not adjoin land zoned primarily for residential purposes, although is located within close proximity to residential land located to the west of the Site, beyond South Creek providing appropriate separation and screening. In consideration of Clause 23 of SEPP (WSEA) 2009, a Landscape and Visual Impact Assessment has been carried out for the Site and the Proposed Development by Geoscapes (refer to **Appendix 8**). It has considered all resultant visual impacts, assessed (where possible) from adjoining residential properties.<br><br>Furthermore, the Proposed Development has been assessed against the provisions of Clause 23 of SEPP (WSEA) as follows:<br><br>*a) wherever appropriate, proposed buildings are compatible with the height, scale, siting and character of existing residential buildings in the vicinity.*<br><br>**Response:** The Proposed Development, has been designed to achieve a highly-compatible outcome with the surrounding environment, including proper consideration of both the residential development located to the south and west; along with the existing warehouse facilities within the WSEA to the north and northeast. Measures incorporated within the design to date, include the following:<br><br>▪ The maximum building height under the Proposed Development have been limited to 21.31 m, to be sensitive to surrounding properties.<br>▪ Setbacks to all boundaries, that allow for visual separation and deep-soil planting.<br><br>*b) goods, plant, equipment and other material resulting from the development, are to be stored within building, so as to be suitably screened from view, away from any residential buildings and associated land.* |

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| | **Response:** Goods, plant and equipment would be suitably screened from the adjacent residential development. Coupled with the significant current separation distances to the nearest surrounding residential development, the Proposed Development is considered sensitively positioned and is designed to afford a significant level of amenity with regard to these properties. All plant and equipment associated with the Proposed Development, is considered typical for Data Centre operations as proposed and is consistent in design and function with the latest facilities located throughout the wider WSEA and the Sydney Metropolitan Region.<br><br>*c) the development would not otherwise cause nuisance to residents, by way of hours of operation, traffic movement, parking, headlight glare, security lighting or the like*<br><br>**Response:** Given the separation distances currently planned for the Proposed Development overall, including considerable setback to any nearby rural-residential properties to the south and west, and proposed future mitigation measures in respect of noise, it is not anticipated (based on current modelling) that there would be any resulting adverse noise impacts. Light spill would also be properly managed through the strategic location of outdoor lighting on building facades at ground level, and under awnings, in full compliance with AS4282-1997.<br><br>Lighting would be directed towards car parking areas, similar to traffic street lighting which is required for new council access roads. This is effective at minimising light spillage.<br><br>The resultant noise impacts associated with the movement of vehicles during hours of operation, will be minimised through new acoustic-mitigation measures (refer to **Appendix 14**).<br><br>*d) the development would provide adequate off-street parking, relative to the demand for parking likely to be generated.*<br><br>**Response:** 120 car parking spaces (including six (6) accessible spaces) are proposed along with the built-form in this SSD Application. This is deemed adequate, based on similar scale developments approved recently for Data Centre operations.<br><br>*e) the Site of the Proposed Development would be suitably landscaped, particularly between any building and the street alignment.*<br><br>**Response:** Landscaping is designed to be planted throughout the Site, including a landscaped setback all the way to the property boundary creating a natural and vibrant "green spine" consistent with development approved under SSD 9522. The Landscape Area is extensive and will comprise trees, plantings and shrubs, that serve to provide a buffer between the public domain and the proposed Data Centre. |
| Clause 24: Development involving Subdivision | Any future subdivision of the Subject Site will be required to consider the following provisions, as outlined under Clause 24:<br><br>*(a) the implications of the fragmentation of large lots of land,* |

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| | *(b) whether the subdivision will affect the supply of land for employment purposes,*<br>*(c) whether the subdivision will preclude other lots of land to which this Policy applies from having reasonable access to roads and services.*<br><br>There is no subdivision proposed under this SSD Application. |
| Clause 25: Public Utility Infrastructure | All essential services would be required to be successfully augmented to the Subject Site for any future development, which include:<br><br>▪ Potable water;<br>▪ Wastewater;<br>▪ Electricity; and<br>▪ Telecommunications.<br><br>The Services Infrastructure Report prepared by ARUP (refer to **Appendix 22**) confirms all services can be delivered to the Site. |
| Clause 26: Development on or in the Vicinity of Proposed Transport Infrastructure Routes | The Subject Site is in close proximity to the future Southern Link Road and Mamre Road upgrades, which have previously been considered under SSD 9522. Notwithstanding, the subject Proposal is positioned clear of any future road upgrades and would benefit from the future upgrades once undertaken. |
| Clause 29: Industrial Release Area – Satisfactory Arrangements for the Provision | The Subject Site is identified within an Industrial Release Area pursuant to Clause 29 of SEPP WSEA, for which satisfactory arrangements with the relevant consent authority would be required to be made for any future development of the Subject Site, via means of a Voluntary Planning Agreement (VPA).<br><br>It is noted, that SSD 9522 included provisions for a VPA across the Site satisfying the provisions of Clause 29 of SEPP (WSEA) 2009. Notwithstanding, a Satisfactory Arrangement Certificate (SAC) would be required from the NSW DPIE as part of the Development Consent. |
| Clause 31: Design Principles | The design principles of SEPP (WSEA) 2009 are summarised further in subsequent sections of this EIS. The Proposed Development seeks to address the below provisions as follows:<br><br>***Provision 31 (a):*** *the development is of a high-quality design, and*<br><br>**Response:** New and suitable materials and finishes, would be used to activate and provide a visual outcome that seamlessly integrates with surrounding employment lands throughout the wider WSEA.<br><br>***Provision 31 (b):*** *a variety of materials and external finishes for the external facades are incorporated, and*<br><br>**Response:** Some of the new materials currently envisaged for use on Site, include precast concrete, colourbond and steel based products with varied grey tones. Ancillary office areas are also proposed to be located and positioned, so as to create a sense of visual interest and address the public domain.<br><br>***Provision 31 (c):*** *high-quality landscaping is provided, and* |

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| | **Response:** Extensive landscaping is proposed for the Site. A fully laid-out landscaping plan has already been completed for the Site. It contains screen planting and new shrubs that will provide a visual and natural buffer between the public domain and the proposed Data Centre, which is considered to be consistent with the landscaping strategy proposed under SSD 9522.<br><br>***Provision 31 (d):*** *the scale and character of the development is compatible with other employment-generating development in the precinct concerned.*<br><br>**Response:** The overall scale of the Proposed Development will serve as a transition from similar and existing development, of which the Development is compatible in terms of built form and scale. The scale of the Site allows for a range of employment-generating land uses and future development that are adaptable and able to respond to shifting economic conditions. |
| Clause 32: Preservation of Trees or Vegetation | Approval for vegetation removal across the Site was approved under SSD 9522 to facilitate earthworks across the Site to establish the building pads for development and installation / augmentation of infrastructures services to satisfactorily service the Site. It is noted, that the future built form will include provisions for landscaping across the Site in accordance with the relevant development controls articulated within the Draft Mamre Road Precinct DCP, as well as remaining consistent with the landscaping strategy approved under SSD 9522. |
| Clause 33A: Development Near Zone Boundaries | The Proposed Development would not rely on Clause 33A of SEPP WSEA. |
| Clause 33B: Development of land within or adjacent to transport investigation area | Concurrence has been undertaken with Transport for NSW (TfNSW) to discuss the Proposal. Further comments will be provided as part of the Response to Submissions following exhibition of the SSD Application. |
| Clause 33C: Development within the Mamre Road Precinct | Due to the CIV for the Proposed Development being for more than $200,000, concurrence with TfNSW would be required. |
| Clause 33D: Development in areas subject to aircraft noise | The Subject Site is located outside of the Western Sydney Airport Aircraft Noise Exposure Forecast (ANEF) 2030 contours. There are no further treatments to the building façade which would be required to comply with AS 2021:2015 internal assessment requirements in accordance with the Proposal. |
| Clause 33E: Airspace operations | AS 2021:2015 sets limits for noise intrusion when a new development is located in an area within the ANEF contour 20 and 25. Accordingly, the Site is located outside of the 20-25 ANEF contour with respect to Western Sydney Airport; therefore, satisfying Clause 33D of SEPP (WSEA) 2009. |
| Clause 33F: Development of land adjacent to Airport | The Proposed Development is for the purposes of a Data Centre and is not likely to attract birds or animals in numbers that are likely to increase hazards of operating an aircraft. Therefore, further consideration with regard to Clause 33F is not considered to be required. |
| 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. |

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| Clause 33H: Earthworks | *(1) The objectives of this clause are as follows—*<br>*(a) to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land,*<br>*(b) to allow earthworks of a minor nature without separate development consent.*<br>*(2) Development consent is required for earthworks unless—*<br>*(a) the work is exempt development under this Policy or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.*<br>*(3) Before granting development consent for earthworks, the consent authority must consider the following matters—*<br>*(a) The likely disruption of, or detrimental effect on, existing drainage patterns and soil stability in the locality,*<br><br>**Response:** The Proposal includes management of site runoff and upstream drainage paths managing the quantity and quality of water across the Site; and ensuring acceptable impacts are incurred as a result of the Proposed Development in accordance with various Council and NSW Government Policy, as well as remaining consistent with the flood modelling approved as part of SSD 9522. Additionally, consideration has been given to stability of soil during and post construction of the Subject Site, as well as the post-development flooding scenario across the Site, which the Proposed Development would not impede by any means.<br><br>*(b) The effect of the proposed development on the likely future use or redevelopment of the land,*<br><br>**Response:** The Proposed Development is consistent with the land zoning applicable to the Subject Site, for which future redevelopment of the Site would be able to be undertaken.<br><br>*(c) The quality of the fill or the soil to be excavated, or both,*<br><br>**Response:** Both geotechnical and environmental assessments have been undertaken for the Site, which investigates the suitability for use as engineered fill; foundations; and other development requirements to support development for the purposes of a Data Centre. The reports demonstrate that with due consideration to the design requirements that the Proposed Development would be able to be completed over the Proposed Development footprint via an unconstrained platform for development.<br><br>*(d) The effect of the proposed development on the existing and likely amenity of adjoining properties,*<br><br>**Response:** Adjoining properties to the south, north and east are noted to comprise similar zoning attributes, hence similar amenity to these frontages is achieved by the Proposal, including the immediate frontages achieved within the Estate approved under SSD 9522. |

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| | *(e) The source of fill material and the destination of excavated material,*<br>*(f) The likelihood of disturbing relics.*<br><br>**Response:** The investigations undertaken by Artefact confirm the Site will not impact on identified items of Aboriginal Cultural Heritage or Historic (European) Heritage (refer to **Appendix 15** & **16**). Where potential impacts have been identified, recommendations will be implemented accordingly to appropriately manage any potential impacts that may occur.<br><br>*(g) The proximity to and potential for adverse impacts on a waterway, drinking water catchment or environmentally sensitive area,*<br><br>**Response:** A detailed Stormwater and Flood Impact Assessment has been prepared by ARUP (2021) and is detailed within **Appendix 9** of this EIS.<br><br>*(h) Appropriate measures proposed to avoid, minimise or mitigate the impacts of the development,*<br><br>**Response:** Appropriate mitigation measures would be implemented during and following earthworks being undertaken on the Site, which would also include the implementation of an Erosion and Sediment Control Plan.<br><br>*(i) The proximity to and potential for adverse impacts on a heritage item, an archaeological site, or a heritage conservation area,*<br><br>**Response:** The investigations undertaken by Artefact confirm the Site will not impact on identified items of Environmental Heritage significance (refer to **Appendix 15** & **16**).<br><br>*(j) The visual impact of earthworks as viewed from the waterways.*<br><br>**Response:** There will be no visual impacts to adjoining waterways such as South Creek as a result of proposed earthworks approved under SSD 9522, and minor filling as a result of the Proposal. |

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| Clause 33I: Development on flood prone land | *(1) This clause applies to development requiring consent that is carried out on flood prone land.*<br>*(2) Consent is not to be granted to the carrying out of development to which this clause applies unless the consent authority has taken into consideration whether or not—*<br>*(a) the development will adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and*<br><br>**Response:** The modelling completed and presented in the Flood Impact Assessment (refer to **Appendix 9**) demonstrates that there are no adverse impacts to upstream, downstream or adjoining properties, including consideration to cumulative impacts in accordance with the recommendations of Councils DCP and agreed impact criteria with the NSW DPIE as previously assessed and approved under SSD 9522.<br><br>*(b) the development will alter flow distributions and velocities to the detriment of other properties or the environment of the floodplain, and*<br><br>**Response:** Modelling undertaken demonstrates there is no significant alteration to the post-development flows as a result of the Proposal.<br><br>*(c) the development will enable safe occupation of the flood prone land, and*<br><br>**Response:** A detailed assessment of occupant safety has been completed within SSD 9522.<br><br>*(d) the development will detrimentally affect the floodplain environment or cause avoidable erosion, siltation, salinity, destruction of riparian vegetation or a reduction in the stability of the riverbank/watercourse, and*<br><br>**Response:** The Proposed Development does not propose any works within riparian corridors adjoining the Site. The flood modelling shows that the Proposal will not adversely alter flow paths or velocities, hence there would be no increased potential for erosion, siltation or reduction in the stability of riverbanks or watercourses.<br><br>In relation to the Proposed Development itself, during construction a detailed Erosion and Sediment Control Plan will be implemented to mitigate potential for siltation during construction. During the operational phase, stormwater detention and water quality measures will be required to address the potential for impact associated with the increased impervious land surfaces.<br><br>*(e) the development will be likely to result in unsustainable social and economic costs to the flood affected community or general community, as a consequence of flooding, and* |

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| | **Response:** The Proposal is not considered likely to result in unsustainable social and economic costs relating to flooding. The modelling and information presented in the Flood Impact Assessment shows all impacts to be local and benign in nature to the proposed works area only and to not adversely affect upstream, downstream or adjoining properties (refer to **Appendix 9**).<br><br>*(f) the development is compatible with the flow conveyance function of the floodway, and*<br><br>**Response:** The Subject Site is located above the 1% AEP flood extent and is not impacted by the PMF.<br><br>*(g) the development is compatible with the flood hazard, and*<br>*(h) in the case of development consisting of the excavation or filling of land, the development—*<br>*i. will detrimentally affect the existing drainage patterns and soil stability in the locality, and*<br>*ii. will adversely impact or alter flood behaviour.*<br><br>**Response:** The Subject Site is located above the 1% AEP flood extent and is not impacted by the PMF. |
| Clause 33J: Heritage conservation | *(1)* ***Objectives*** *The objectives of this clause are as follows –*<br>*(a) To conserve the environmental heritage of the Western Sydney Employment Area,*<br>*(b) To conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*<br>*(c) To conserve archaeological sites,*<br>*(d) To conserve Aboriginal objects and Aboriginal places of heritage significance.*<br><br>**Response:** Artefact assume that all requirements ascertained from the Aboriginal Cultural Heritage Assessment Report (ACHAR) pertaining to SSD 9522 have been followed as part of the Conditions of Consent under SSD 9522, for which all Aboriginal sites within the current study area have been subject to total direct impact, leading to a loss of value, as described in the ACHAR prepared by Biosis (2020).<br><br>Notwithstanding, as part of the memorandum prepared by Artefact, they note the following recommendations, including:<br><br>1. *Based on the ACHAR for the bulk earthworks (SSD 9522), this assessment has identified that Aboriginal objects are not likely to occur beneath the ground surface. As such further archaeological assessment of the study area is not required.*<br>2. *Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity that are not covered by an AHIP, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and DLALC must be notified.* |

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| | *3. If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured and the NSW Police and the Office of Environment and Heritage NSW should be notified.* |
| Clause 33K: Consent for clearing native vegetation | All clearing impacts have been assessed under SSD 9522. |
| Clause 33L: Stormwater, water quality and water sensitive design | *(1) The objective of this clause is 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.*<br><br>**Response:** The Proposed Development includes a satisfactory stormwater management cycle which includes a Water Sensitive Urban Design (WSUD) strategy which achieves Council's stormwater and pollution reduction targets across the Site. |
| | *(2) Before granting development consent to development on land to which this Policy applies, the consent authority must take into consideration whether—*<br>*(a) water sensitive design principles are incorporated into the design of the development, and*<br><br>**Response:** The Proposed Development includes a satisfactory stormwater management cycle which includes a Water Sensitive Urban Design (WSUD) strategy which achieves Council's stormwater and pollution reduction targets across the Site.<br><br>*(b) riparian, stormwater and flooding measures are integrated, and*<br><br>**Response:** The Site includes appropriate drainage and landscaping measures to satisfactorily capture runoff and adverse flooding conditions. The on-site stormwater detention basin would act as an appropriate Stormwater Treatment Measure for the Site.<br><br>*(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*<br><br>**Response:** All reasonable and feasible recommendations and mitigation measures including landscaping provisions; retaining walls; and incorporation of erosion and sediment controls would satisfactorily avoid adverse impacts on adjoining properties and demonstrate and environmentally sustainable development.<br><br>*(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* |

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| | **Response:** There are no environmental impacts anticipated as a result of the Proposed Development, for which **Part F** of this EIS satisfactorily demonstrates.<br><br>*(e) the development will have an adverse impact on—*<br>*i. the water quality or quantity in a waterway, including the water entering the waterway, and*<br>*ii. the natural flow regime, including groundwater flows to a waterway, and*<br>*iii. the aquatic environment and riparian land (including aquatic and riparian species, communities, populations and habitats), and*<br>*iv. the stability of the bed, banks and shore of a waterway, and*<br><br>**Response:** As mentioned above, the Proposed Development includes a satisfactory stormwater management cycle which includes a Water Sensitive Urban Design (WSUD) strategy which achieves Council's stormwater and pollution reduction targets across the Site. There are no adverse impacts anticipated to the water quality or downstream flows as a result of the Proposed Development.<br><br>*(f) the development includes measures to retain, rehabilitate and restore riparian land.*<br><br>**Response:** Notwithstanding, landscaping provisions have been included across the Site, for which the Urban Heat Island Effect commonly experienced across the Western Sydney Region will be managed for the proposal's microclimate. |

### 4.2.8 State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

*State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (WSA SEPP) applies to land within the Western Sydney Aerotropolis. As set out within Clause 3 of the WSA SEPP, the aims of the Policy include:

*(a) to facilitate development in the Western Sydney Aerotropolis in accordance with the objectives and principles of the Western Sydney Aerotropolis Plan,*
*(b) to promote sustainable, orderly and transformational development in the Western Sydney Aerotropolis,*
*(c) to ensure development is compatible with the long-term growth and development of the Western Sydney Airport (including in relation to the operation of the Airport 24 hours a day) and other critical transport infrastructure,*
*(d) to promote employment and world-class innovation and provide for residential development in suitable locations,*
*(e) to recognise the physical and cultural connection of the local Aboriginal community to the land and to incorporate local Aboriginal knowledge, culture and tradition into development,*
*(f) to preserve land for future infrastructure development,*
*(g) to protect, maintain and enhance, and to minimise the impact of development on, trees and vegetation, soil quality and the health of waterways and to contribute to the conservation of biodiversity,*
*(h) to recognise and protect the ecological and cultural value of Wianamatta–South Creek.*

It is noted, that the western portion of the Subject Site pertaining to SSD 9522 – Stage 1 Subdivision Lots 3-5 are located within the Wianamatta-South Creek Precinct, for which this portion of the Site is zoned ENZ Environment and Recreation pursuant to the WSA SEPP; however, it is noted that there are no works proposed within this portion of the Site under the subject Proposal.

### 4.2.9 State Environmental Planning Policy No 19 – Bushland in Urban Areas

The Subject Site contains land zoned or reserved for public open space purposes (RE1 Public Recreation); however, the portion of the Site pertaining to the Proposed Development has been designated for employment-generating development (IN1 General Industrial). Therefore, the provisions of *State Environmental Planning Policy No 19 – Bushland in Urban Areas* (SEPP 19), are not relevant to the Proposed Development. Notwithstanding, where the Subject Site adjoins land zoned RE1 Public Recreation, there is suitable separation proposed with respect to building lines and proposed landscaping provisions to provide screening as well as a visual buffer between adjoining land use zones.

### 4.2.10 State Environmental Planning Policy No 33 – Hazardous and Offensive Development

The *Hazards and Risk* report prepared by ARUP (2021) contains a preliminary risk screening in accordance with *State Environmental Planning Policy No 33 – Hazardous and Offensive Development* (SEPP 33) – and if required, a Preliminary Hazard Analysis (PHA), for which it details the location and quantity of potentially hazardous materials proposed to be used on-site (refer to **Appendix 21**).

The substances to be stored on-site are outlined in **Table 8** below. ARUP note, that Class 9 DGs are excluded from the risk screening.

**Table 8: Dangerous Goods Stored On-site**

| Substance | UN Number | DG Class | Quantity |
|---|---|---|---|
| Lithium-ion Batteries | 3480/3481 | 9 | 250 t |
| Diesel | 1202 | N/A – not a DG but it is a C1 combustible liquid | ~1,650 t |
| Transformer oil (mineral oil or ester oil) | N/A – not a DG but it is a C2 combustible liquid. | | 120 kL |

Since no thresholds set out within **Table 8** are exceeded, the development is not considered to be potentially hazardous and SEPP 33 does not apply in terms of storage. Additionally, the details of the storage of diesel fuel for the generators proposed on-site is outlined in **Table 9** below.

**Table 9: Diesel Stored in Back-Up Generators**

| Location | Number of Generators | Generator Capacity (kL) | Total Fuel (kL) |
|---|---|---|---|
| Data Hall | 60 | 31 | 1,860 |
| Administration Building | 2 | 6.5-7.5 | 15 |
| Total | 62 | N/A | 1,875 |

With regard to **Table 9** outlined above, each of the three (3) main buildings will have 20 data halls, and each data hall will have its own battery storage room. Additionally, each battery

storage room will store 14 battery cabinets, which totals 840 cabinets for the Site pertaining to 250 t of lithium-ion batteries to be stored on-site.

In accordance with the quantities to be stored on-site, ARUP provides the following recommendations regarding the Site:

- *Each room storing battery cabinets is to be installed with the following measures:*
  - *A fire resistance level (FRL) of 120/120/120.*
  - *Adequate ventilation to ensure the off gassing of combustible gases or a gas detection system.*
  - *Smoke detection.*
  - *Dry pre-action sprinkler system.*
  - *The inclusion of lithium-ion batteries is to be incorporated into the overall fire safety strategy by the project fire engineer.*

Furthermore, the following recommendations apply to the storage of diesel fuel on-site, including:

- *The belly tanks shall comply with AS 1940-2017: The storage and handling of flammable and combustible liquids (AS 1940).*
- *Specifically, the tanks shall comply with Section 5.9 of AS 1940 - Requirements for above-ground tanks with integral secondary containment.*
- *There shall be at least 600 mm between generators stored side by side.*
- *There shall be at least 5.7 m between each set of generators and associated belly tanks.*

Further recommendations and mitigation measures to be implemented as a result of the Proposal include:

- *The regulator must be notified in accordance with Regulation 348 of the WHS Regulations.*
- *Outer warning placards are to be displayed at any entrance where emergency services may enter the workplace in accordance with Regulation 349 and Schedule 13 of the WHS Regulations.*
- *Placards are to be displayed on or near the containers of diesel in accordance with Regulation 350 and Schedule 13 of the WHS Regulations.*
- *An emergency plan will have to be prepared for the site and provided to the NSW Fire and Rescue as per the requirements of Regulation 361 of the WHS Regulations.*

### 4.2.11 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*."

Despite contamination previously being assessed and approved under SSD 9522, ARUP have included the *Preliminary Site Investigation Contamination Report* as part of Appendix A within the Geotechnical Report prepared for the Site (refer to **Appendix 10**).

Accordingly, the findings from the soil investigations comprising sampling and analysis of shallow soils from 16 borehole locations (refer to **Section 6.5** below), indicated the following:

- The generalised soil profile at the Subject Site comprised silty clay topsoil overlying residual Bringelly Shale (sandy/silty/gravelly clay or sandy/clayey silt with intermediate clayey/silty sand).
- Potential asbestos containing materials (e.g. bonded cement sheets) were not observed in the boreholes.
- Trace concentrations of PFOS and PFOA were detected in four samples (ABH-A10 1.0m, ABH-C2 0.5m, ABH-P3 0.5m and ABH-P4 0m). These concentrations were orders of magnitude below the relevant human health and environmental screening levels and below the SCC for 'General Solid Waste' and PFAS NEMP (2020) Landfill Disposal Criteria.
- Concentrations of heavy metals were reported to be either below the laboratory LOR or below the relevant human health and environmental screening levels and below the SCC for 'General Solid Waste'.
- Concentrations of PAHs, phenols, OCPs, OPPs, PCBs and phenoxyacetic acid herbicides in all samples were reported to be below the laboratory LOR.
- Concentrations of COPCs, where detected, did not exceed the maximum values of specific contaminant concentration (SCC) for 'General Solid Waste'.

An assessment of groundwater quality was beyond the scope of the investigation undertaken by ARUP; however groundwater levels were identified to range from 1.3 to 4.9 mBGL in the four (4) standpipes installed at the Subject Site. Further sampling and analysis of soils is recommended in areas of environmental concern where potential sources of contamination have not been investigated, including:

- Potential soil contamination related to the building and demolition waste identified in the south western and eastern portions of the Subject Site.
- Potential soil contamination related to the cattle yard and fertiliser storage area in the south eastern portion of the Subject Site.
- Footprints and immediate surrounds of existing and historical buildings and structures for potential hazardous materials, including asbestos containing materials.

A CEMP is required for the redevelopment of the Subject Site. The CEMP should include, but not be limited to the following:

- Site salinity management plan to address sodicity and saline nature of soils
- Unexpected finds protocol to ensure adequate assessment and management of risks relating to potential contamination.
- Spoil management plan to address to classification of spoil and wastes.
- Imported fill material management plan to ensure the material is suitable for the future commercial/industrial use of the Subject Site.

## 4.3 STRATEGIC PLANNING CONTEXT

### 4.3.1 A Metropolis of Three Cities – Greater Sydney Region Plan

*A Metropolis of Three Cities – Greater Sydney Region Plan* 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", namely:

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

The GSC's division of Greater Sydney into three (3) Cities, aims to locate a greater proportion of the population closer to employment regions with more intensive jobs; 'city-scale' infrastructure & services; entertainment; and cultural facilities. By managing and retaining industrial land close to city centres and transport, the Plan aims to ensure that critical and essential services, are readily available to support local businesses and community members and residents. The Proposed Development would not only achieve new economic growth, but would also encourage employment-generating opportunities, closer to residential communities, allowing for better access to job opportunities and a shorter commute time to and from work.

The Proposed Development also contributes to the four (4) standardised elements in the Plan, across all three (3) cities, including:

- **Infrastructure and Collaboration** – the Proposed Development of the Site for the purposes of a Data Centre, would provide cloud storage to available clients, allowing for more efficient operations on end to end business models.

- **Liveability** – the Proposed Development encourages employment-generating opportunities and economic prosperity, which has positive influences on the wider locality.

- **Productivity** – the ultimate location of the Subject Site, ensures that it can connect with the Western and Eastern City and remain competitive. It is expressly noted in the Plan, that it is essential to ensure that the three (3) Cities envisaged by the GSC, are more connected and economically competitive. This competition would be facilitated unequivocally by the Proposed Development, through the creation of jobs and provision of space for Data Storage. To this end, the objective of a "30-Minute City", can be realised under the Proposed Development. The Site will create up to 350 new jobs under this SSD Application.

  The development of the Site for employment purposes, therefore, further enhances productivity, as envisaged under the Plan.

- **Sustainability** – the Proposed Development would not exhibit or emit any detrimental impacts to its wider ecological surroundings.

In summary, the Proposed Development would substantially contribute to the objectives set out in the *A Metropolis of Three Cities - Greater Sydney Region Plan,* by providing employment-generating opportunities to the wider locality and community, by being already located within SEPP (WSEA) 2009 and the wider Penrith LGA.

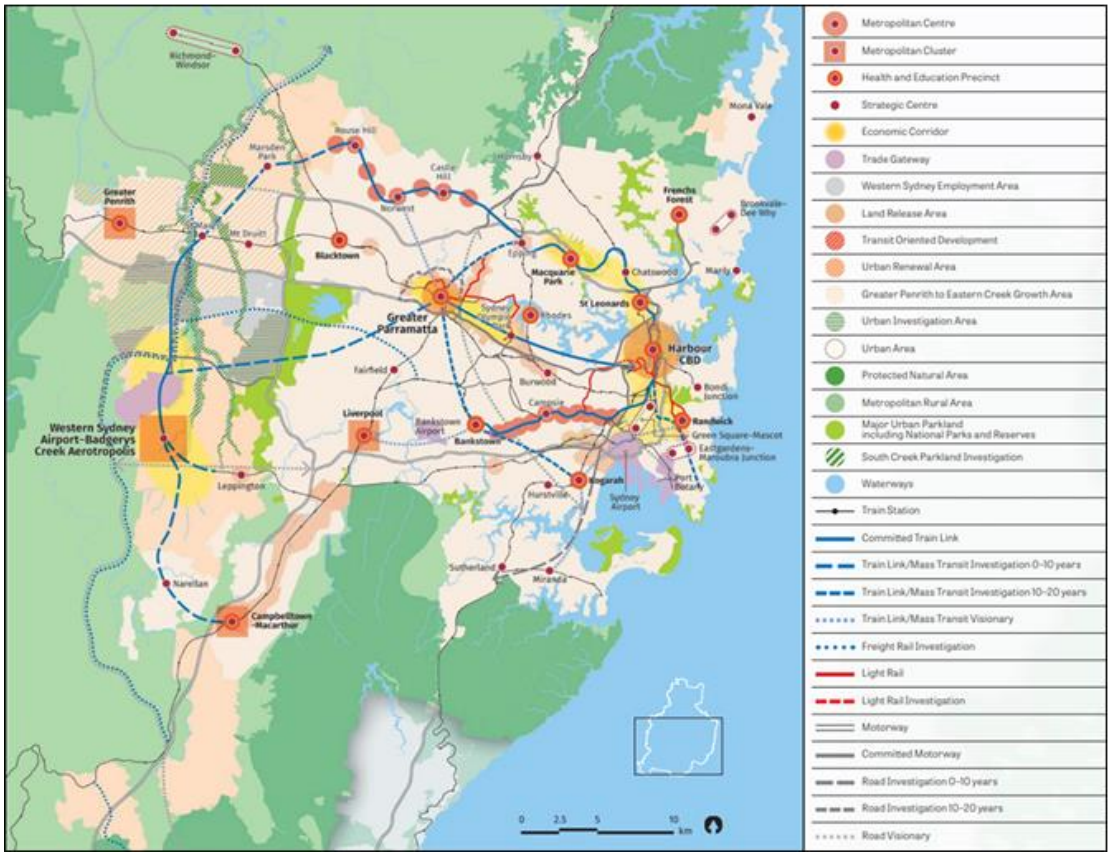


**Figure 13 A Metropolis of Three Cities: A Vision to 2056 (Source: Greater Sydney Commission: Greater Sydney Region Plan, 2018)**

### 4.3.2 Western City District Plan

The *Western City District Plan* covers the Penrith LGA. The Plan encourages a twenty-year plan to help encourage and establish goals set out in *A Metropolis of Three Cities – Greater Sydney Region Plan* mentioned above in **Section 4.3.1**. The Plan is considered the 'bridge' between Regional and Local planning.

The Subject Site – 657-769 Mamre Road, Kemps Creek is situated within the *Western City District Plan*, which falls within the Western Parkland City.

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 (Data Centre) and other associated land uses; facilitating the provision of greater and improved infrastructure pertaining to an industry sector that is becoming much more prevalent; 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 for the purposes of a Data Centre.

### 4.3.3 Western Sydney Employment Area

The Subject Site is located within the north eastern 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 Scoping Report 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 3.1** of this EIS, the Proposed Development is considered to meet the objectives outlined above, as it enables development on land zoned for such permissible industrial-related uses.

## 4.4 LOCAL PLANNING CONTEXT

### 4.4.1 Penrith Local Environmental Plan 2010

As the Subject Site is part of the WSEA Land Application Area, the Proponent is seeking to invoke the provisions of SEPP (WSEA) 2009. The provisions of the PLEP2010, therefore do not require consideration.

### 4.4.2 Draft Environmental Planning Instruments

No draft EPIs apply to the Subject Site.

### 4.4.3 Penrith Development Control Plan 2014

The PDCP2014 is a non-statutory policy used to guide development in the Penrith LGA, including land that is covered by SEPP (WSEA) 2009. 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 SEPP (SRD) 2011 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, which encapsulates key planning controls, such as setbacks, building heights and landscape requirements. Review of the applicability of the Mamre Road Precinct DCP has been considered in **Appendix 26**.

### 4.4.4 Draft Mamre Road Precinct Development Control Plan 2021

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 26** of this EIS.

### 4.4.5 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.

# PART E CONSULTATION

## 5.1 STAKEHOLDER CONSULTATION

The following stakeholders were required to be consulted with under this SSD Application:

1. Penrith City Council.
2. Greater Sydney Commission.
3. NSW DPIE Central Western Team.
4. Endeavour Energy.
5. Sydney Water.
6. Western Sydney Airport Corporation.
7. Western Sydney Planning Partnership.
8. Fire and Rescue NSW.
9. NSW Rural Fire Service.
10. Environment Protection Authority.
11. Transport for NSW.
12. WaterNSW.
13. DPIE Water.
14. DPIE Environment, Energy and Science Group.
15. Surrounding and Local Landowners and Stakeholders.
16. Any other Public Transport, Utilities or Community Service Providers.

Extensive consultation has already been completed to date. The *Community Consultation Report* (Willowtree Planning) provides, details with a comprehensive analysis of the overall strategy undertaken to date (refer to **Appendix 26**). The matters addressed are summarised below in accordance with the requirements of the SEARs. The information provided herein, demonstrates that genuine consultation has already taken place with stakeholders seeking feedback for the Proposed Development and its proposed future benefits and possible impacts.

Consultation with adjoining landowners has taken place, prioritising proximity to the Proposed Development. As **Figure 14** illustrates, consultation was completed within a considerable geographical area, (irregular polygon coloured purple) which encompassed residents and landowners within close proximity to the Site, that have potential views of the Site.

As part of the Community & Stakeholder and Participation Strategy, stakeholders and adjoining landowners, were all issued with consultation letters. The letters as sent, summarised the Proposed Development giving information on the Proposed Development with a neutral information perspective. This was specifically aimed at giving no bias as to the Proposed Development itself and allowing for questions and issues to be raised and dealt with accordingly.

### 5.1.1 Agency Consultation

In preparation of this SSD Application, the relevant State Agencies (including Council) were consulted with to inform them of the Proposed Development. Agency consultation undertaken to date includes those detailed in **Table 10** below.

| **Table 10: Agency Consultation Records** | |
|---|---|
| **Stakeholder** | **Consultation Notes** |
| NSW DPIE | Formal consultation was undertaken with NSW DPIE via correspondence on both 24 & 28 September 2020 with the Pre-Scoping Meeting taking place in 23 September 2020. A Scoping Report was prepared to facilitate the formal request for SEARs which were subsequently issued on 12 November 2020. |

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| | Further ongoing consultation has occurred on an iterative basis with DPIE as the SSD Application preparation has progressed. Matters that have been the subject of discussion, include:<br><br>▪ Required documentation and substance of content.<br>▪ Design of the building and options considered.<br>▪ Landscaping treatment and interface to the RE1 land.<br>▪ Access arrangements to the Site.<br>▪ Visual impacts of the substation.<br><br>The Proposal as submitted has sought to respond to the matters previously raised which are addressed through the reports and design plans provided. |
| Penrith City Council | On 14 April 2021, an initial meeting was held with Penrith City Council with various Council representatives in attendance, to inform the participants of the intentions of the overall Proposal and approvals pathways envisaged for the Subject Site. **Table 11** outlined below includes a summation of the meeting minutes, including formalised responses to each of the matters raised during the meeting, which this SSD Application appropriately responds to. |
| NSW DPIE – Central (Western) Team | A meeting was held with the NSW DPIE – Central (Western) Team on 5 August 2021 to discuss the Proposed Development and identify any key matters for consideration. The key matters to consider as part of the Proposal include the following items:<br><br>▪ The Mamre Road Precinct traffic modelling is currently being finalised which will provide further certainty on the Mamre Road Precinct DCP being finalised.<br><br>**Response:** Upon the DCP being finalised, the Proponent will consider any implications of the finalised traffic modelling and finalised road networks applicable to the Mamre Road Precinct. It is understood that Altis/Frasers are dealing with estate road widths through a future application that contemplate the modelling outcomes. The future road widths have no material impact on the design outcomes of the Proposal.<br><br>▪ Waterway health objectives and trunk drainage controls are to be maintained in accordance with the NSW DPIE – EES Group water quality objectives and controls.<br><br>**Response:** The Proponent noted that as the subject allotment (including infrastructure) was approved under **SSD 9522**, the objectives approved would apply to the Site, particularly given that the infrastructure for the estate is already under construction.<br><br>▪ Landscaping provisions are to include a 15% coverage on-lot comprising permeable landscaping.<br><br>**Response:** As confirmed in the Landscape Plans prepared by Habit8, the Proposal includes 23,050 $m^2$ of landscaping, which equates to 16.85% coverage across the Site. |

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| | ▪ Tree canopy cover on-lot is to comprise a minimum of 10%.<br><br>**Response:** As confirmed in the Landscape Plans prepared by Habit8, the Proposal includes 7.22% canopy cover across the Site.<br><br>▪ Proposed fencing variations are to be justified in accordance with the future operational requirements of the Site.<br><br>**Response:** Fencing proposed is to provide a safe and secure Site that maximises the security of protected assets within the data centre building once operational. All fencing will be largely screened by deep soil landscaping reducing any potential visual impacts from occurring. The paramount objective for all fencing is to ensure that the Site is highly secure to prevent unauthorised access.<br><br>▪ Retaining walls are to comprise a maximum of 6 m (including a step every 2 m).<br><br>**Response:** The retaining proposed is generally as per the outcomes of SSD 9522. This has dictated the benched levels and the Proposal is required to integrate in that respect with retaining previously approved.<br><br>▪ Interface with the RE1 Public Recreation zone is to be further justified and illustrated via a series of landscaping plans and photomontages that include the addition of a 5 and 10-year element, including consideration of the southern and western interfaces.<br><br>**Response:** The Landscape Plans and Landscape and Visual Impact Assessment include planting scenarios for 0, 5, 10 and 15-years as a result of the Proposal which demonstrates the screening relationship and interface of the RE1 zone over time as a result of the Proposed Development. The assessment conducted has included viewpoints within the RE1 land adjoining to the south to show the direct interface and relationship with the publicly accessible land. The outcome achieves a balance between maintaining safety and security for the Data Centre and visually screening it from the public domain.<br><br>▪ Access from the north-south road is to be justified.<br><br>**Response:** The access on the eastern boundary (north-south road) will be infrequently used and is designated for emergency maintenance provisions only. This access point is expected to be used once per month.<br><br>All matters raised and responded to above have been considered and addressed in this EIS and the supporting consultant reports and plans. |

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| Transport for NSW (TfNSW) | A Consultation Letter was sent to TfNSW on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter.<br><br>Notwithstanding, a letter dated 28 October 2020 was provided to NSW DPIE by TfNSW as part of the formal SEARs process. TfNSW's comments have been considered and acknowledged as part of the Traffic Impact Assessment prepared by ARUP (refer to **Appendix 11**). It is noted, that the GFA proposed will fall within the limits of those established under SSD 9522 MOD 1 (186,123 $m^2$), as well as being a relatively low traffic generating development compared to other warehousing and distribution facilities on-site. |
| NSW Rural Fire Service (RFS) | Following Consultation Letters being issued, the NSW Rural Fire Service (RFS) provided preliminary commentary on 7 April 2021, whereby they confirmed that, *"The New South Wales Rural Fire Service (NSW RFS) has examined the overview of the development and advise that the Environment Impact Statement must incorporate a bush fire report prepared by a suitably qualified person that addresses the requirements under section 8.3.10 of Planning for Bush Fire Protection 2019. The report must also specifically address the following:*<br><br>▪ *The potential hazard from the future rehabilitation of land zoned RE1 Public Recreation to the south and west of the development;*<br>▪ *The suitability and strategic siting of the fuel storage tanks and electrical substation/s from potential bush fire attack, and measures to protect human life (including firefighters) and property;*<br>▪ *Proposed construction standards to withstand bush fire attack, including ember protection;*<br>▪ *The provision for perimeter roads; and*<br>▪ *The provision for water, electricity and gas."*<br><br>A Bushfire Impact Assessment was prepared by Australian Bushfire Protection Planners Pty Ltd (ABPP), which has considered the relevant items raised by the NSW RFS. ABPP have also included further management and mitigation measures that appropriately address potential bushfire-related concerns pertaining to the Proposal (refer to **Appendix 20**). |
| NSW DPIE – Crown Lands | Following Consultation Letters being issued, the NSW DPIE – Crown Lands provided feedback on 25 March 2021 confirming they would provide a response; however, no such response was received. It is expected a formal response will be provided during the exhibition of the SSD Application. |
| NSW DPIE – Department of Primary Industries (DPI) – Water | Following Consultation Letters being issued, the NSW DPIE – Department of Primary Industries (DPI) – Water confirmed that "we prefer to wait until we see the EIS and provide comments at this stage." It is expected a formal response will be provided during the exhibition of the SSD Application. |
| NSW DPIE – EES Group | A Consultation Letter was sent to EES Group on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. |

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| | Notwithstanding, a letter dated 19 October 2020 was provided to NSW DPIE by EES Group as part of the formal SEARs process. EES Group's comments have been considered and acknowledged as part of the BDAR Waiver and Civil Engineering Report prepared by ARUP (refer to **Appendix 9** & **29**). |
| Endeavour Energy | A Consultation Letter was sent to Endeavour Energy on 23 March 2021 to seek commentary on the Proposal.<br><br>A letter dated 26 November 2020 was provided to NSW DPIE by Endeavour Energy as part of the formal SEARs process. Endeavour Energy's comments have been considered and acknowledged as part of the Services Infrastructure Assessment prepared by ARUP (refer to **Appendix 22**). |
| Fire and Rescue NSW (FRNSW) | A Consultation Letter was sent to FRNSW on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. Notwithstanding, the FEBQ and FER process has commenced with early consultation being undertaken with FRNSW by the appointed Fire Engineer. |
| Greater Sydney Commission (GSC) | A Consultation Letter was sent to the GSC on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. |
| Natural Resources Access Regulator (NRAR) | A Consultation Letter was sent to NRAR on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. |
| NSW Aboriginal Land Council (ALC) | A Consultation Letter was sent to the NSW ALC on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. It is noted, that an Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared under SSD 9522 which included a post-approval Aboriginal Cultural Heritage Management Plan; therefore, there is no requirement to assess Aboriginal Cultural Heritage further under the subject Proposal as the recommendations under SSD 9522 would be applied across the Site. |
| NSW Environment Protection Authority (EPA) | A Consultation Letter was sent to the NSW EPA on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter.<br><br>Notwithstanding, a letter dated 29 October 2020 was provided to NSW DPIE by the NSW EPA as part of the formal SEARs process. The NSW EPA's comments have been considered and acknowledged as part of the SEPP 33 Report, Noise Impact Assessment and Air Quality Impact Assessment, all of which were prepared by ARUP (refer to **Appendix 13**, **14** & **21**). |
| Sydney Water | ARUP in conjunction with Altis/Frasers have consulted on an iterative basis with Sydney Water regarding the water services to the Site.<br><br>A letter in response acknowledging the evolving nature of infrastructure provision was received from Sydney Water dated 21 June 2021, which provides support to service the Site with respect to future potable and wastewater provisions (refer to **Appendix 27**). |
| WaterNSW | A Consultation Letter was sent to WaterNSW on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. |

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|---|---|
| | Notwithstanding, a letter dated 29 October 2020 was provided to NSW DPIE by WaterNSW as part of the formal SEARs process. WaterNSW's comments have been considered and acknowledged as part of the Civil Engineering Report and Services Infrastructure Assessment prepared by ARUP (refer to **Appendix 9** & **22**). |
| Western Sydney Airport Corporation | A Consultation Letter was sent to the Western Sydney Airport Corporation on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. It is noted that the Site is situated 8 km from the new Western Sydney Airport and the Proposal does not protrude into the air space with respect to aircraft operations. |
| Western Sydney Planning Partnership | A Consultation Letter was sent to the Western Sydney Planning Partnership on 23 March 2021 to seek commentary on the Proposal. No response was received regarding the consultation letter. |

As detailed in **Table 10** above, a Pre-Lodgement Meeting was held with Penrith City Council on 14 July 2021, for which the meeting minutes provided by Council are addressed in **Table 11** below.

| **Table 11: Penrith City Council Key Issues for Assessment** | |
|---|---|
| **Key Issues** | **How Addressed** |
| **Pre-Lodgement Advice Meeting – 14 April 2021** | |
| **Planning & Landscaping Considerations:**<br><br>▪ It is noted that the preceding SSD determination and the resulting proposed development is advancing ahead of the finalisation of the recently exhibited Draft Development Control Plan for the Precinct. While it is understood that a site specific DCP accompanied the SSD Application, this aspect is still is concerning as the strategic planning controls and objectives for the Precinct are not yet confirmed and early advancement of development proposals ahead of this process, have the potential to undermine orderly development within the Precinct. As a result, the statement of environmental effects is required to address the key built form, space planning, landscaping and site coverage provisions across both the Draft DCP for the Mamre Road Precinct as well as the site specific DCP that supported the SSD determination. This is required to demonstrate that advancement of development ahead of Draft DCP finalisation is not significantly in conflict with the strategic vision intended for the Precinct by the State Government. | The subject Proposal has been designed in accordance with the objectives and relevant provisions of the Draft Mamre Road Precinct DCP, which is currently being finalised by the NSW DPIE in order to provide ongoing building controls, a road network, overarching drainage strategy (including water quality and quantity controls), as well as wider landscaping provisions and biodiversity controls for the Mamre Road Precinct.<br><br>As noted in the Draft Mamre Road Precinct DCP, the DCP has been prepared in accordance with Part 3, Division 3.6 of the EP&A Act and applies to the Mamre Road Precinct within SEPP WSEA. Hence, the Draft Mamre Road Precinct DCP is considered to be most relevant DCP in terms of providing strategic planning controls and objectives for the Precinct, as it relates to the Subject Site.<br><br>As demonstrated throughout the EIS (including the supporting consultant reports and plans) and |

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| | **Appendix 26**, the Proposal is contextually responsive to the envisaged strategic planning outcomes pertaining to the Mamre Road Precinct and represents both orderly and economic use of the land, consistent with Section 1.3 of the EP&A Act concerning the Objects of the Act. |
| ▪ The building mass and elongated building form will require specific architectural design development to ensure that the height and overall length can be ameliorated by the materials and finishes selected as well as the landscape setting (to be refined). Opportunities to further treat the front building may assist to break up the mass of the building, noting comments below will further assist. | The architectural design of the building has largely focused on the operational requirements with respect to the future end user, whilst being cognisant of the future development outcomes of the surrounding sites, as well as future development to be undertaken throughout the wider Mamre Road Precinct. The Proposal incorporates a sophisticated and aesthetically pleasing architectural design, that is coupled with high quality landscaping to combat against the overall length proposed (running east to west). This is particularly evident along the southern and western interfaces, for which increased landscaping provisions have been proposed to ameliorate any concerns with regards to the adjoining RE1 Public Recreation zone and allow for a harmonious interaction between land uses, whilst not precluding the intended development outcomes from being achieved.<br><br>The landscaped outcome seeks to provide a balance between achieving the aesthetic outcomes for the Mamre Road Precinct and ensuring ongoing security for the Data Centre. It is imperative to ensure for security purposes that vegetation is avoided along the boundaries to prevent access by way of climbing trees and the like.<br><br>Similarly, for security purposes, it is key to ensure that unimpeded sight lines are maintained to the boundaries for optimal surveillance. |
| ▪ The proposed setbacks between the circulating driveway and road frontage / property boundary are reasonable provided that the specie selections for canopy tree | Reference should be made to the Landscape Plans in **Appendix 7** which include a synonymous planting strategy complimenting |

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| planting can provide sufficient canopy spread to ameliorate the scale of building form proposed. The street tree indications within the landscape cross sections are not realistic given the constrained verge width. Canopy trees of the heights depicted in the street tree cross sections should be planted within the front setback zone to achieve the outcomes envisaged by the cross-section drawings. It was suggested that if safety and security is a key concern, that taller trees with higher and wider canopy foliage in the setback zone would assist with this aspect. | the strategy proposed under SSD 9522, as well as meeting the future end user requirements for the purposes of a Data Centre which require strict security and maintenance provisions on-site. Accordingly, the landscaping provisions include large canopy trees on the street verges and smaller canopy trees within the setbacks. |
| ▪ The internal driveway alignment adjacent to the northeastern corner of the site and resulting visual prominence of the substation element as viewed from the public road is concerning. Opportunities to realign the driveway closer to the building and maximum planting opportunities in the north eastern corner of the site is recommended to screen the substation view from the road reserve. | As above. |
| ▪ The landscape concept plans which were presented (not provided prior to the meeting) indicate opportunities for break out space and landscaping however opportunities for further tree planting and understorey shrub planting within expansive turfed areas is encouraged. This will provide further shading opportunities and assist to address Council's Cooling the City Strategy. | It is important to note that the layout of the Site has been designed to ensure the functionality and efficiency of the Proposal's operations can be achieved. Notwithstanding, adequate landscaping provisions are proposed around the Site and throughout the car parking areas to provide leverage towards the potential impacts of the Urban Heat Island Effects by aiding to the reduce the Site's microclimate where possible. Accordingly, clear lines of site under and around proposed tree planting in the turf is preferred to comply with the strict security parameters. Trees have been spaced to allow cameras and security patrols to have maximum effectiveness. |
| ▪ The southern boundary interface is concerning as the setback zone would suggest greater capability for screen planting than what was depicted in the presented cross sections. The finished ground level is approved under the SSD however the interface treatment requires refinement and reliance on retaining walls greater than 1.5m should be addressed by tiering the landscaping and enabling access and maintenance opportunities. Wall heights of 2-3m are not supportable as an edge treatment. | As noted above, the Proposal incorporates a sophisticated and aesthetically pleasing architectural design, that is coupled with high quality landscaping to combat against the overall length proposed (running east to west). This is particularly evident along the southern and western interfaces, for which increased landscaping provisions have been proposed to ameliorate any concerns with regards to the adjoining RE1 Public |

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| | Recreation zone and allow for a harmonious interaction between land uses, whilst not precluding the intended development outcomes from being achieved. Where retaining walls are proposed, these include tiered walls every 2 m in height coupled with increased landscaping to provide screening that is conducive towards the adjoining RE1 Public Recreation zone. Furthermore, it is important to note that the southern section is consistent with the landscaping section approved under SSD 9522. The levels and the height of the retaining walls have not changed. The only change to note is the screening trees have been moved (Blueberry Ash) further away from the retaining wall to allow security surveillance along the base of the retaining wall. |
| ▪ The proposal will need to address fire safety and BCA compliance, which includes trafficable access around the building. Considerable of ground surface treatment and the proposed landscaping in setback zones will need to be reflected within the plans submitted. | In the BCA Report (refer to **Appendix 23**) prepared by Blackett, Maguire + Goldsmith, it is noted that the proposed Data Centre does not comply with the provisions of C2.4 of the BCA, whereby a performance solution will be implemented across the Site. This has been tabled in the FEBQ which is currently being reviewed by FRNSW. |
| ▪ The implication of development progression in advance of broader strategic planning resolutions will also need to be considered and addressed in the assessment of this development proposal. This includes the status of contribution planning and calculations of contributions payable that would (or should) apply. | Refer to **Section 4.4.5** of this EIS, for which the Subject Site would be applicable to the future draft Mamre Road Precinct Section 7.11 Contributions Plan. |
| **Environmental Management:**<br><br>The application will need to address and comply with the established environmental performance objectives and criteria outlined within the determination of SSD9522. The SSD Notice of Determination includes conditions outlining various requirements across all environmental themes requiring address. The most pertinent being as follows:<br><br>▪ SEPP 55 – Site suitability has been established through the SSD Determination however that consent requires an Unexpected Finds Protocol to be prepared and submitted. This | Reference should be made in relation to **Section 4.2.11** of this EIS. Following investigations undertaken by ARUP, they note that a CEMP is required for the redevelopment of the Subject Site. The CEMP should include, but not be limited to the following:<br><br>▪ Site salinity management plan to address sodicity and saline nature of soils<br>▪ Unexpected finds protocol to ensure adequate |

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| should be included in the application when lodged with Council. | assessment and management of risks relating to potential contamination.<br>▪ Spoil management plan to address to classification of spoil and wastes.<br>▪ Imported fill material management plan to ensure the material is suitable for the future commercial/industrial use of the Subject Site.<br><br>Accordingly, the relevant provisions of SEPP 55 and the Conditions of Consent pertaining to SSD 9522 have been considered where required. |
| ▪ Noise Management – The application should include a Noise Impact Assessment prepared by a suitably qualified acoustic consultant demonstrating compliance with the SSD requirements and established criteria regarding both construction and operational noise (including vehicle noise) | ARUP have undertaken and prepared a Noise and Vibration Impact Assessment, which considers Council's requirements as well as the NSW EPA's relevant noise emission criteria guidelines to inform the Proposal. Refer to **Section 6.8** and **Appendix 14** of this EIS. |
| ▪ Air Quality – The application will need to address (supported by information prepared by a suitably qualified environmental consultant) construction and operational air quality impacts, demonstrating compliance with the emission criteria and objectives established by the SSD | ARUP have undertaken and prepared a qualitative and quantitative Air Quality Impact Assessment, which considers the relevant air emission criteria applying to the Site. Refer to **Section 6.9** and **Appendix 13** of this EIS. |
| ▪ SEPP 33 – The application will need to address SEPP 33. It is noted that condition B74 of the consent for SSD9522 requires '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. Compliance with this will need to be demonstrated in the application. | Since no thresholds of SEPP 33 are exceeded, the Proposed Development is not considered to be potentially hazardous and SEPP 33 does not apply in terms of storage. Refer to **Section 4.2.10** of this EIS. |
| **Engineering and Stormwater Management Considerations:**<br><br>▪ It is noted that the lot will be created under the parent SSD Determination (Ref: SSD 9522) and that stormwater drainage from the site will be connected into the estate drainage system, with external roads approved under the SSD application. Details of how stormwater discharge from the site complies | Stormwater assessment and management strategy, including surface water runoff, water quality and water quantity has been completed by ARUP with particular reference to the stormwater parameters established under SSD 9522 for the wider Estate. MUSIC modelling has been completed and is included within the assessment. |

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| with the over-arching Water Cycle Management Strategy approved for the parent subdivision will be required which should include:<br>○ Submission of relevant MUSIC modelling,<br>○ Operation and maintenance requirements of any Stormwater Quality Improvement Devices (SQID's).<br>○ A stormwater concept plan, accompanied by a supporting report and calculations, shall be submitted with the application.<br>○ A water sensitive urban design strategy prepared by a suitably qualified person is to be provided for the site. The strategy shall address water conservation and harvesting, water quality, water quantity, operation and maintenance. | Refer to **Section 6.5** and **Appendix 13** of this EIS. |
| ▪ It is also noted that a future RE1 road is shown along the southern boundary which is in accordance with the Mamre Road Precinct DCP. This road was not provided in the parent subdivision and its ultimate delivery and resulting interface between this development and the future road (including finished ground levels) will need to be considered and addressed. | The RE1 Road is a deferred matter under SSD 9522 and will form a separate Application. Notwithstanding, the Proposal provides opportunity for a future interface and would not preclude the outcomes of a future road. |
| ▪ Traffic Management & Parking: Internal car parks and internal vehicular access should be separated from heavy vehicle access for safety. Pedestrian movements from the car parks should also be separated from any heavy vehicle movements. | The car parking layout pertaining to the Proposed Development has been designed in a safe and secure manner to allow for passage into the Data Centre buildings. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ The application will need to demonstrate how the proposed traffic generation can be accommodated within the approved road network and connecting intersections, as well as addressing the timing of local road works with respect to the timing of this development. | As a general note, the operational outcomes of the Proposal in relation to traffic generation are relatively low compared to that of a Warehousing and Distribution Facility. The Proposal will not impact upon the traffic generation thresholds established under SSD 9522 MOD 1 (4,884 vehicles per day), nor will it have any impacts in relation to the future road networks, with all access entering and exiting the Site in the north-western corner, with emergency maintenance activities taking place to the east of the Site, whereby occasional access would be required. Refer to **Section 6.6** and **Appendix 11** of this EIS. |

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| ▪ External Works: Any driveway crossover shall be at a minimum of 1m clearance from any public utility service lid, power / light pole or stormwater pit. | Noted. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ Earthworks: No retaining walls or filling is permitted for this development which will impede, divert or concentrate stormwater runoff passing through the site. | Noted. All retaining walls have been designed to allow for efficient and compliant stormwater management objectives to be achieved across the Site, that would not impede and surrounding sites. Additionally, under SSD 9522, the Site will be benched with the retaining walls provided under the construction phase pertaining to SSD 9522. The subject proposal includes minor provisions to step the retaining walls for the allowance of reconfiguring the landscaping for security and surveillance purposes. |
| **Traffic Management and Car Parking Considerations:**<br><br>▪ The development shall 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 and/or SSD 9522 DCP if applicable. | A Traffic Impact Assessment has been prepared by ARUP which includes a qualitative and quantitative assessment with respect to the Proposed Development in accordance with the immediate and wider regional road networks. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ The Traffic Impact Assessment shall include the proposed development driveway accesses for heavy vehicles and visitor / staff car parks, sight distance compliances at intersections and 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 and the car park to the office buildings, at least 1.5m wide accessible pedestrian access to other buildings and car parking, 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. | The Traffic Impact Assessment has considered the relevant AS 2890 Series pertaining to access and design, for which the report includes swept path analysis plans demonstrating compliance can be achieved across the Site. Refer to **Section 6.6** and **Appendix 11** of this EIS. |

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| ▪ The Traffic Impact Assessment, plans and documentation shall include dimensioned plans of the proposed accessible paths of travel, driveways, access aisles, loading and vehicle swept path manoeuvring areas and parking spaces and 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, Council's Development Control Plans and SSD 9522 Development Control Plans if applicable. | As mentioned above, the Traffic Impact Assessment has considered the relevant AS 2890 Series pertaining to access and design. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ Heavy vehicle (including semi-trailer) access from the public road and along internal aisles is shown on the plans as shared with light vehicles to the car parking areas. Heavy vehicle access and internal aisle movements should be physically separated from light vehicle access to the car parking areas for safety reasons due conflicts with heavy vehicle movements. This is a first principle, safely in design practice to remove any conflicts for this "greenfield" site. It should not be retained and then only addressed by Data Centre operational safety protocols that are not failsafe compared to removing the conflict by safety in design. | Whilst circulation of the Site is required by different types of vehicles this has been designed to be undertaken in a safe and efficient manner, with the future Operational Traffic Management Plan to capture all relevant safety protocols for the Site. Notwithstanding, the Architectural Plans clearly delineate pedestrian pathways into the office components from the designated car parking areas, which would not be in conflict with trucks accessing the Site. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ The car parking areas at buildings are shown as being separated by heavy vehicle aisles that are in conflict cars and especially pedestrians (including persons with mobility or visual impairment and/or children). The car parks should be located with light vehicle access and pedestrian access to the buildings that is not in any conflict with heavy vehicle movements. This is a first principle, safely in design practice to remove any conflicts for this "greenfield" site. It should not be retained and then only addressed by Data Centre operational safety protocols that are not failsafe compared to removing the conflict by safety in design. | As above. |
| ▪ The proposed heavy vehicle service driveway for long low loader trucks off the north-south road appears too narrow for this size/type of heavy traffic and is requested to be supported by heavy vehicle swept turning paths at the driveway and internal routes and an Operational Traffic Management Plan due to conflicts with internal and external traffic and pedestrians when in use. | Access from the north-south is solely for emergency maintenance vehicles, for which this would be undertaken in a safe and secure manner by interim road closures, with traffic controls and all relevant provisions to ensure emergency maintenance can be undertaken in an appropriate manner. Refer to **Section 6.6** and **Appendix 11** of this EIS. |

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| ▪ Plans shall include dimensions of driveways, ramps, aisles, parking spaces, accessible parking, bicycle parking, accessible parking and at least 1.8 metre wide accessible pedestrian access from the road frontage and the car park to the office buildings, at least 1.5m wide accessible pedestrian access to other buildings and car parking, services vehicle manoeuvring and loading areas complying with AS 2890, AS 1428, Council Development Control Plan (DCP) C10, other Council guidelines and SSD 9522 Development Control Plans if applicable. | As mentioned above, the Traffic Impact Assessment has considered the relevant AS 2890 Series pertaining to access and design. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ A minimum of two Electric Vehicle Charging Stations (EVCS) are to be provided within the car parking areas of each warehouse development. The charging stations are to be designed to accommodate the requirement of commercially available public vehicles and their required connector types (currently known as Type 1 and Type 2 connectors). A minimum of three additional car parking spaces are to be designed to as 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. | Parking bays will contain charging facilities for electric vehicles (EV) with at least 6 EV bays. This will encourage the use of EV's, again having a positive impact on local pollution. Refer to **Section 6.6** and Appendix **11** of this EIS. |
| ▪ Complying numbers of secure, all weather bicycle parking, end of journey facilities, change rooms, showers, lockers are to 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). | To determine the bicycle parking requirement, ARUP have utilised the Planning Guidelines for Walking and Cycling (NSW Government, 2004), adopting the rates for industrial and warehousing. Provisions for 12 bicycle spaces have been allocated within end of trip facilities to complement the bicycle parking being provided. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ Accessible parking is to be provided with accessible paths of travel to the facility in accordance with AS 2890.6. | Six (6) accessible parking spaces have been included in the Proposal and will located adjacent to each building entry and include a 2.4 m shared area on one side of each bay. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ All vehicle are to enter and leave in a forward direction. | Noted. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ Appropriate signage, visible from the public road and on-site shall to be installed to reinforce designated vehicle circulation and to direct staff / delivery vehicle drivers / service | Noted and agreed. Refer to **Section 6.6** and **Appendix 11** of this EIS. |

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| 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. | The landscaping strategy would not compromise the safety and access provisions for the Site which have been designed in accordance with AS 2890 Series. Refer to **Section 6.6** and **Appendix 11** of this EIS. |
| ▪ Sight distance requirements at driveways are to be in accordance with AS 2890.2 Figure 3.3 and Figure 3.4. | Noted. Refer to **Section 6.6** and **Appendix 11** of this EIS which demonstrates compliance. |
| **Waste Management Considerations:**<br><br>▪ It should be demonstrated that waste collection vehicles are able to safely and efficiently access the site and the nominated collection point to perform on-site waste collection. There must be sufficient manoeuvring area on-site to allow the collection vehicle to enter and exit the site in a forward direction and service the development efficiently with little or no need to reverse. | It is noted, that all servicing vehicles have been conservatively assessed for the Site as 19 m Articulated Vehicles (AVs) for which waste collection vehicles will comply with the access requirements for the Site. Refer to **Section 6.7** and **Appendix 19** of this EIS. |
| ▪ Scaled architectural plans are required to support the development application which demonstrate the site's entry point, vehicle's route of travel and manoeuvring comply with a standard waste collection vehicle (section 3.5). | Noted. This has been demonstrated in the Waste Management Plan. Refer to **Section 6.7** and **Appendix 19** of this EIS. |
| ▪ All development applications to be submitted with accompanying 'Plan of Operations', outlining proposed; Bin Infrastructure Sizes, Collection Frequency, Waste Collection Vehicle Dimensions, Hours of Collection and Access to Waste Collection Room. | Noted. This has been demonstrated in the Waste Management Plan. Refer to **Section 6.7** and **Appendix 19** of this EIS. |
| ▪ Waste collection infrastructure to be provided in accordance with section 3.1 of the 'Industrial, commercial and mixed-use waste management guideline' document. | Noted. This has been demonstrated in the Waste Management Plan. Refer to **Section 6.7** and **Appendix 19** of this EIS. |
| ▪ Proposed generates rates for respective developments are required to be provided to permit waste collection in accordance with section 3.3 of the 'Industrial, commercial and mixed-use waste management guideline' document | Noted. This has been demonstrated in the Waste Management Plan. Refer to **Section 6.7** and **Appendix 19** of this EIS. |
| ▪ For further specific waste operational and infrastructure information refer to the 'Industrial, commercial and mixed-use waste management guideline' document attached: https://www.penrithcity.nsw.gov.au/Building-and-Development/Development-Applications/Forms/ | Noted. This has been demonstrated in the Waste Management Plan. Refer to **Section 6.7** and **Appendix 19** of this EIS. |

### 5.1.2 Community Consultation

**Table 12** outlined below details those landowners with whom contact occurred during the period of consultation.

The consultation letters provided to the adjoining landowners (issued 23 March 2021), provided a two (2) week turn-around-time for all responses to be received. It is important to note, that landowners were chosen because of the following:

- Proximity to the Proposed Development, i.e. directly adjoining and / or opposing the Subject Site; and
- Any residential dwelling located in close proximity along the following road interfaces:
    - Mamre Road;
    - Luddenham Road;
    - Sarah Andrews Close;
    - Bakers Lane (i.e. Mamre Anglican School, Trinity Primary School, Emmaus Catholic College, Emmaus Retirement Village & Catholic Healthcare Emmaus Village);
    - Aldington Road;
    - Twin Creeks Drive;
    - Medinah Avenue;
    - Pine Valley Crescent; and
    - Pennard Crescent.

Also, noteworthy, is that the land located directly north of the Warragamba Pipeline and sharing all of the northern boundary with the Subject Site, is owned by Altis Property Partners (First Estate), a JV partner in SSD 9522.

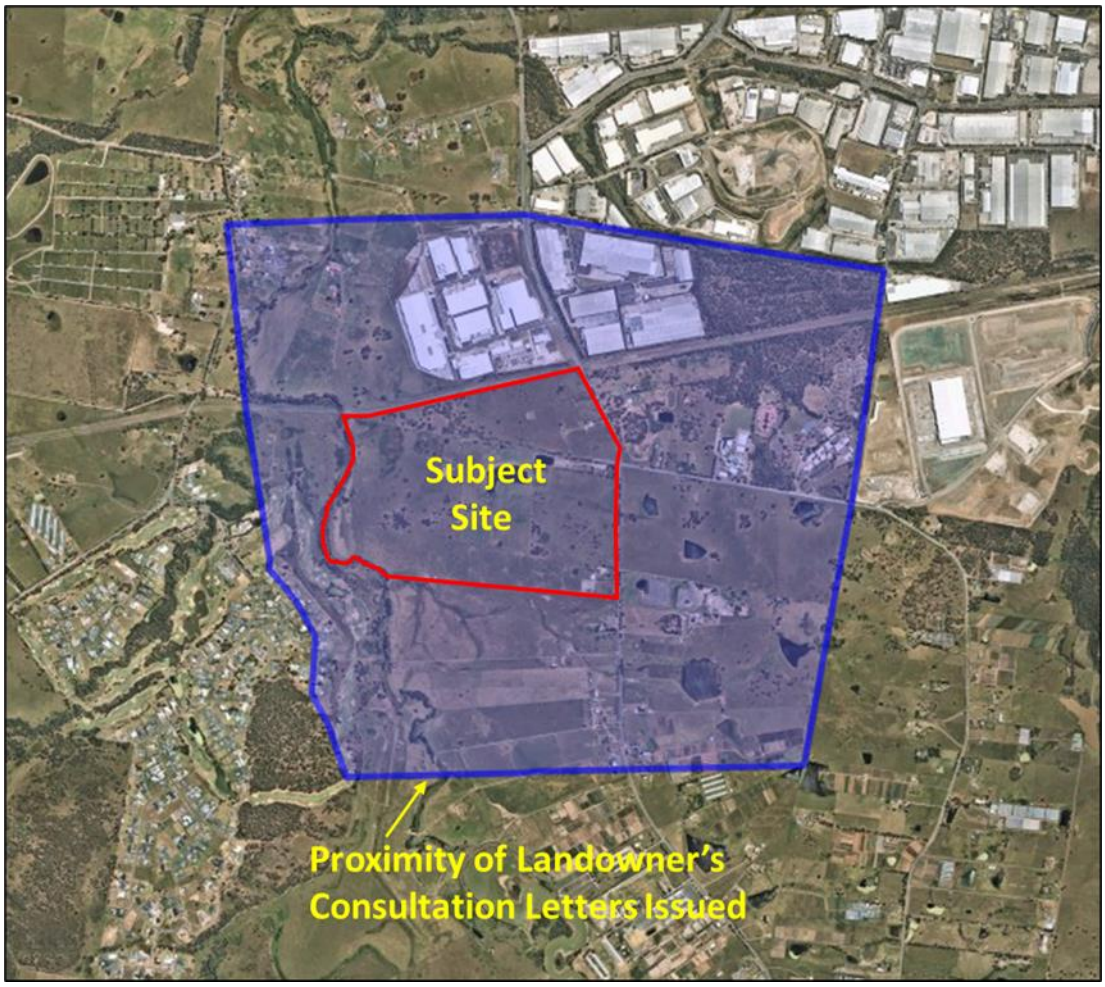


**Figure 14 Proximity for which Landowners were Engaged for Consultation (Source: Nearmaps, 2021)**

In accordance with the consultation undertaken, there were no submissions received from adjoining landowners. It is noted that not all agencies responded to requests for consultation. However, the EIS and supporting material has sought to respond to all matters that were identified directly with the NSW DPIE when they provided comments for SEARs which has resulted the Proposed Development to evolve its design (as proposed) implementing (where possible) suggested improvements from the relevant agencies.

| Table 12: Consultation Undertaken with Adjoining Landowners | | | |
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| **No.** | **Address** | **Letter Box Drop** | **Contact Date of Letter Box Drop** |
| **Bakers Lane** | | | |
| 1 | 21-43 Bakers Lane, Kemps Creek | Y | 23/03/2021 |
| 2 | Mamre Anglican School – 45-59 Bakers Lane, Kemps Creek | Y | 23/03/2021 |
| 3 | 118/85 Bakers Lane, Kemps Creek (i.e. Trinity Primary School, Emmaus Catholic College, Emmaus Retirement Village & Catholic Healthcare Emmaus Village) | Y | 23/03/2021 |
| **Aldington Road** | | | |
| 4 | 1-23 Aldington Road, Kemps Creek | Y | 23/03/2021 |
| **Sarah Andrews Close** | | | |
| 5 | 1-27 Sarah Andrews Close, Erskine Park | Y | 23/03/2021 |
| 6 | 28 Sarah Andrews Close, Erskine Park | Y | 23/03/2021 |
| 7 | 29-34 Sarah Andrews Close, Erskine Park | Y | 23/03/2021 |
| 8 | 35-44 Sarah Andrews Close, Erskine Park | Y | 23/03/2021 |
| 9 | 45-59 Sarah Andrews Close, Erskine Park | Y | 23/03/2021 |
| **Luddenham Road** | | | |
| 10 | 202-210 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 11 | 212-214 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 12 | 216 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 13 | 222-224 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 14 | 226-228 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 15 | 230-234 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 16 | 236-238 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 17 | 240-244 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 18 | 246-248 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 19 | 250-254 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 20 | 256 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 21 | 262-266 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 22 | 268-288 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 23 | 320-326 Luddenham Road, Orchard Hills | Y | 23/03/2021 |
| 24 | 339-363 Luddenham Road, Luddenham | Y | 23/03/2021 |
| **Twin Creeks Drive** | | | |

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| 25 | 2-8 Twin Creeks Drive, Luddenham (Twin Creeks Golf and Country Club) | Y | 23/03/2021 |
| **Medinah Avenue** | | | |
| 26 | 1a Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 27 | 1 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 28 | 3 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 29 | 5 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 30 | 7 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 31 | 9 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 32 | 11 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 33 | 13 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 34 | 15 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 35 | 17 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 36 | 19 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 37 | 21 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 38 | 23 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 39 | 25 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 40 | 27 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 41 | 29 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 42 | 2 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 43 | 4 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 44 | 6 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 45 | 8 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 46 | 12 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 47 | 14 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 48 | 16 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 49 | 24 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| 50 | 26 Medinah Avenue, Luddenham | Y | 23/03/2021 |
| **Pine Valley Crescent** | | | |
| 51 | 2 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 52 | 4 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 53 | 6 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 54 | 8 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |

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| 55 | 10 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 56 | 12 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 57 | 3 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 58 | 5 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 59 | 7 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 60 | 9 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 61 | 11 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 62 | 13 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 63 | 15 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| 64 | 17 Pine Valley Crescent, Luddenham | Y | 23/03/2021 |
| **Pennard Crescent** | | | |
| 65 | 3 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 66 | 5 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 67 | 7 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 68 | 9 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 69 | 11 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 70 | 15 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 71 | 2 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 72 | 4 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 73 | 6 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 74 | 8 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 75 | 10 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 76 | 12 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 77 | 14 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| 78 | 16 Pennard Crescent, Luddenham | Y | 23/03/2021 |
| **Mamre Road** | | | |
| 79 | 654-674 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 80 | 676-702 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 81 | 754-770 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 82 | 772-782 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 83 | 788-804 Mamre Road Kemps Creek | Y | 23/03/2021 |
| 84 | 806-824 Mamre Road, Kemps Creek | Y | 23/03/2021 |

| | | | |
|---|---|---|---|
| 85 | 826-842 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 86 | 844-862 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 87 | 864-882 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 88 | 884-902 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 89 | 771-781 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 90 | 783-797 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 91 | 799-803 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 92 | 805-817 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 93 | 819-831 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 94 | 833-843 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 95 | 845-857 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 96 | 859-869 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 97 | 871-883 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 98 | 885-899 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 99 | 901 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 100 | 917 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 101 | 919-929 Mamre Road, Kemps Creek | Y | 23/03/2021 |
| 102 | 931a Mamre Road, Kemps Creek | Y | 23/03/2021 |

### 5.1.3 Outcomes of Engagement

All engagement with both the community and stakeholders to date has generally been positive and supportive of the Proposed Development. As detailed in the Community Consultation Report (refer to **Appendix 26**) the consultation process has been useful in identifying key issues[1] to be considered when undertaking the various technical studies, whilst ensuring broad awareness of the Proposed Development (refer to **Table 13** below).

**Table 13: Summary of Key Matters for Consideration**

| Issue | Response |
|---|---|
| Traffic and Parking | A comprehensive Traffic Impact Assessment has been undertaken by ARUP as part of the SSD Application, that assesses the relevant matters identified by NSW DPIE, TfNSW and and Penrith City Council. Of particular consideration has been potential implications on traffic generation .,the local and regional road networks, as well as access and car parking (refer to **Appendix 11**). |
| Height | The proposed building height throughout the Proposed Development would be built to complement and transition building's that are considered in close proximity to, and adjoin the Subject Site, which comprise similar industrial-related land uses, within the IN1 General Industrial zone, as well as complementing built form which was approved under SSD 9522.<br><br>It is noted that the height of the building is 21.31 m which correlates with the desired character for the Mamre Road Precinct. |
| Views | Aesthetically pleasing architectural landscaped designs would form part of the Proposed Development. Views of the Site are broken by existing road infrastructure providing a buffer and additional screening towards the Site via Mamre Road and the internal Estate access roads, which the Proposed Development would provide a transitional development mitigating potential built form views. Substantial consideration has been given towards the adjoining RE1 Public Recreation zone towards the south and southwest of the Site, through increased landscaping provisions to manage and screen potential views towards the Site (refer to **Appendix 6-8**). This is a balanced outcomes with respect to achieving the aesthetics envisaged and ensuring safety and security of the Data Centre operation. |
| Heritage | Further archaeological testing / surveying has been undertaken by a specialised consultant (Artefact), via means of an addendum to the Aboriginal Cultural Heritage Assessment Report approved under SSD 9522 (refer to **Appendix 16**). Any mitigation measures and recommendations would be implemented across the Site and adhered to accordingly. |
| Flora and Fauna | A Biodiversity Development Assessment Report (BDAR) waiver has been requested by a specialised consultant to investigate the Site's biodiversity values and significance. Any mitigation measures and recommendations would be implemented across the Site and adhered to accordingly (refer to **Appendix 29**). |
| Bushfire | The Subject Site is intersected by Bushfire Prone Land across the Subject Site, for which a Bushfire Assessment Report has been prepared in accordance with the requirements of the *Planning for Bushfire Protection 2019* document and appended with the EIS (refer to **Appendix 20**). |

[1] Noting there were no submissions received from the wider community.

### 5.1.4 Ongoing and Future Engagement

Ongoing consultation and engagement shall be undertaken through all future stages of the Proposed Development. It is assumed that formal notification of the Proposed Development will be undertaken by the NSW DPIE during the assessment period for this SSD Application, with the Proponent committed to responding to all relevant matters for consideration and any queries raised through the exhibition phase of the Project.

# PART F ENVIRONMENTAL RISK ASSESSMENT

## 6.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The SEARs were issued by the NSW DPIE on 12 November 2021. The Key Issues included in the SEARs and addressed by this EIS are:

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

Other considerations evaluated throughout this EIS, include the following:

19. Economic Impact
20. Social Impact

The above 20 matters have all been satisfactorily addressed in the various sections of this EIS, as detailed below.

## 6.2 STRATEGIC & STATUTORY CONTEXT

**Sections 2.3** and **4.2** above have previously considered the Proposed Development's strategic and statutory context.

## 6.3 URBAN DESIGN AND VISUAL

This part of the EIS considers the SEARs, specifically addressing the Urban Design and Visual assessment items, as well as the design principles outlined in Clause 31 of SEPP (WSEA) 2009. The design principles addressed are summarised below, including:

- *The development of a high-quality design;*
- *Incorporating a variety of materials and external finishes for the external facades;*
- *Providing a high-quality landscaping; and*
- *Having a scale and character of development that is compatible with other employment-generating development in the precinct.*

The layout and design of Site features and built form, have been considered in terms of the visual amenity of both the Site and the broader context, in order to create a positive visual outcome. Specifically, the visual impact of the Proposed Development is informed by the following.

### 6.3.1 Site Layout and Landscaping

The proposed Site layout has been designed to ensure that the efficient use of the land and the functionality of the proposed Data Centre, meets the operational requirements of the future end user. The overall site layout is configured in a sense to allow fluid access around the Site, whilst offering a sense of safety and continuity relating to the circulation of vehicular and pedestrian movements on-site.

The precise siting of the various structures and hardstand areas of the Site including the Data Centre building, offices, loading docks, car parks and landscaping, has been strategically coordinated to provide a highly functional layout and coherent visual outcome. Where feasible, offices have been positioned and orientated to address the street frontage (access road) and loading docks located away from the street (Estate access road) frontage.

Soft landscaping around the perimeter of the Subject Site and in the building separation zones, are designed to soften the appearance of the built-form (whilst remaining compliant with the objectives of the Planning for Bushfire Protection 2019 document) and contribute to an attractive streetscape, as envisaged under SSD 9522 for the wider Estate, characterised by native vegetation planting and green verges. Vegetation planting would provide a natural buffer between the Site and surrounding allotments to define the Data Centre building and ensure views to and from the Site take in high-quality landscaping, as proposed by Habit8 within their landscape design (refer to **Appendix 7**).

### 6.3.2 Design of Built-Form

The approach to the built-form of the Proposed Development, is to create an architectural treatment towards a high-quality, cohesive Data Centre building with an attractive appearance, in a manner that is consistent with the articulated within the Structure Plan for the Mamre Road Precinct. The proposed built-form, incorporates a high-quality design and fabric, to ensure a positive, visual outcome and sustainable development.

The bulk and scale of the proposed built-form, is typical of similar Data Centre's throughout the WSEA (and the wider Sydney Metropolitan Region) and is therefore considered highly appropriate for the Site. The proposed Data Centre exhibits a consistent design that would be reflected throughout the broader area upon the development of additional land in direct proximity to the Subject Site.

The proposed building bulk and scale would not cause any undesirable visual impact, view obstruction, privacy intrusion or loss of solar access owing to the provision of adequate setbacks, building separation and deep-soil landscaping.

Overall, the Site layout has been designed to address the street frontages through the positioning and orientation of offices at the forefront of the Site, where feasible. This would provide additional façade articulation, as well as opportunities for passive surveillance of the street and car park, in accordance with the principles of Crime Prevention Through Environmental Design (CPTED).

Façade articulation will be incorporated in the design through a complementary variety of materials, colours design features and openings, that would create visual interest and prevent the presentation of large expanses of blank wall with positive connotations for views toward the Subject Site. An architectural perspective of the Proposal is provided in **Figure 15** below.

**Figure 15 Perspective of the Proposal - Looking West (Source: Greenbox Architecture, 2021)**

### 6.3.3 Height, Scale, Materials and Colours

The height and scale of the Proposed Development is to be uniform and representative of existing and proposed industrial developments throughout the wider WSEA. The heights proposed are considered consistent with building's located in close proximity to the Site, which allows for flexibility for the end user and high volumes of data storage to be undertaken on the Site. Additionally, the height and scale of the Proposed Development is further articulated within a comprehensive Visual Impact Assessment prepared by Geoscapes and in **Figures 17** & **18** below. The Landscape and Visual Impact Assessment Report is located within **Appendix 8** of this EIS.

The *Visual Impact Assessment Report* prepared by Geoscapes (2021) based the potential visual impacts on visual receptors that were perceived to potentially have the highest sensitivity with respect to the Proposed Development. These included the following 12 viewpoints (refer to **Figure 16** below):

1. Approach from Bakers Lane, Kemps Creek (VP1)
2. Mamre Road, Kemps Creek (VP2)
3. 127 Aldington Road, Kemps Creek (VP3)
4. Mamre Road South, Kemps Creek (VP4)
5. 833A Mamre Road, Kemps Creek (VP5)
6. 799 Mamre Road, Kemps Creek (VP6)
7. Twin Creeks Reserve / Golf Course, Twin Creeks (VP7)
8. 405 Luddenham Road, Luddenham (VP8)
9. View northwest of Lot 15 (SSD 9522 – RE1 Zone) (VP9)
10. View west of Lot 17 (SSD 9522 – RE2 Zone) (VP10)
11. View from RE1 Zone to the southwest (VP11)
12. View from RE1 Zone to the southeast (VP12)

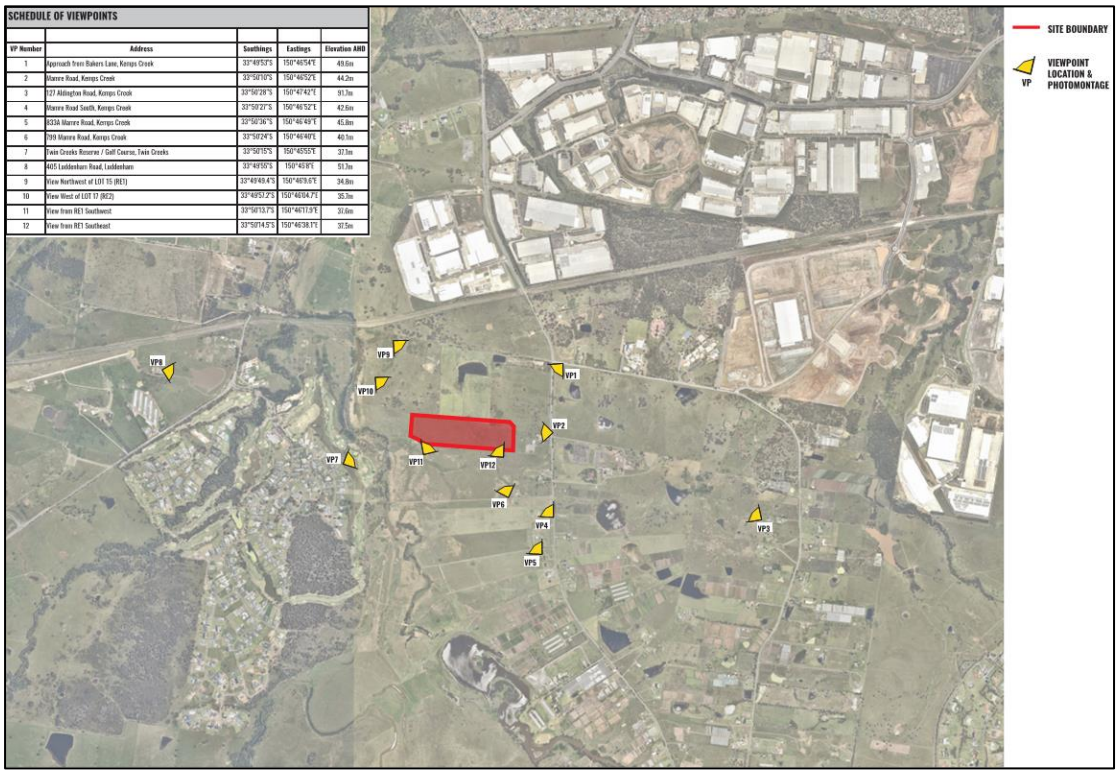


**Figure 16 Viewpoint Locations Utilised by Geoscapes to Inform the Preparation of the Visual Impact Assessment (Source: Geoscapes, 2021)**

As shown on the Architectural Plans appended to this EIS, the proposed building height of the Data Centre is 21.31 m, consistent with similar industrial-related; Data Centre's and existing warehouse facilities that exist within the broader WSEA; therefore, the Proposed Development is considered to be of an appropriate scale and character having regard to the desired outcome for the locality.

The main Data Centre walls have been designed to present an articulated form to the public roads where visible. The application of various tones and cladding seeks to alleviate the bulk and scale of the built form making a positive contribution to the streetscape, particularly for passersby traversing Mamre Road and internal Estate access roads as approved under SSD 9522.

The colours, materials and finishes have been selected to consider the surrounding environment and orientation. The colours are generally recessive with the majority of the building to be a mixture of grey tones. Overall, the colour scheme responds to the surrounding environment through the application of grey tones with provisions for increased and enhanced landscaping across the Site creating a vibrant and natural aesthetic. Materials used, consist predominately of pre-cast concrete, glazing (for the offices only) and colourbond, consistent with contemporary industrial developments within the locality. Specific materials and associated colours are noted as follows:

- Material: Aluminium powdercoat cladding
  - Colour: White / light grey
- Material: Aluminium powdercoat cladding – pixelated pattern
  - Colours: White, light grey, dark grey and dark green
- Material: Aluminium anodised extruded horizontal battens
  - Colour: Satin dark bronze
- Material: Aluminium anodised sheet panel
  - Colours: Satin sandstone, satin beige, satin light bronze and satin bronze
- Material: Black powdercoat louvres and black painted handrail / balustrade

- Material: Patterned precast concrete
- Material: Roof insulated panel
- Material: Glazing
- Material: Black custom orb cladding

The overall design concept of this Data Centre, is encapsulated by a vision to provide quality functional building design solutions, that respond to the Site and wider surroundings. Accordingly, the design is more flexible in its environment and its form and matches with the end user's needs and standards for data storage.

Geoscapes (2021) note, that the landscape value of the Site has been assessed based on the character and context in which it is located (including any environmental significance). Geoscapes conclude, that the significance of impact upon the landscape at the Subject Site would be moderate to minor. This is due to the surrounding character of the immediate locality being heavily influenced by existing industrial development and the retention of ecologically important elements on the Site (including existing riparian corridors).

Accordingly, the Proposed Development is expected to create visual impacts for some user groups who will experience views of the Site. The highest visual impacts are predominantly a number of residential dwellings that are located in close proximity to the Site towards the north and west within Luddenham and further south in Kemps Creek. Notwithstanding, the Landscape and Visual Impact Assessment demonstrates that careful selection of building finishes and colours combined with proposed landscape planting at the Subject Site can be helpful in filtering and blending the Proposal and its surrounding context. This in turn will help to reduce visual impacts for those people and locations in close proximity to the development. Landscaping will be most effective after a period of 15 years, which is the point the trees and shrubs are expected to begin reaching maturity.

**Figures 17** & **18** below, demonstrate a series of photomontages prepared to assist the Visual Impact Assessment. It is noted, that the majority of potential receiver locations would be screened due to landscaping and built form approved across the wider Estate. This includes views from the southern and western interfaces along the RE1 Public Recreation and RE2 Private Recreation zones, which will be landscaped in the future providing further screening towards the Site (refer to **Figures 19-22**). Of particular importance, is the landscaping approach along the southern interface, which is consistent with the landscaping approved under SSD 9522.


**Figure 17 Viewpoint 4 of the Proposed Development (Source: Geoscapes, 2021)**


**Figure 18 Viewpoint 6 of the Proposed Development (Source: Geoscapes, 2021)**


**Figure 19 Viewpoint 9 of the Proposed Development (Source: Geoscapes, 2021)**

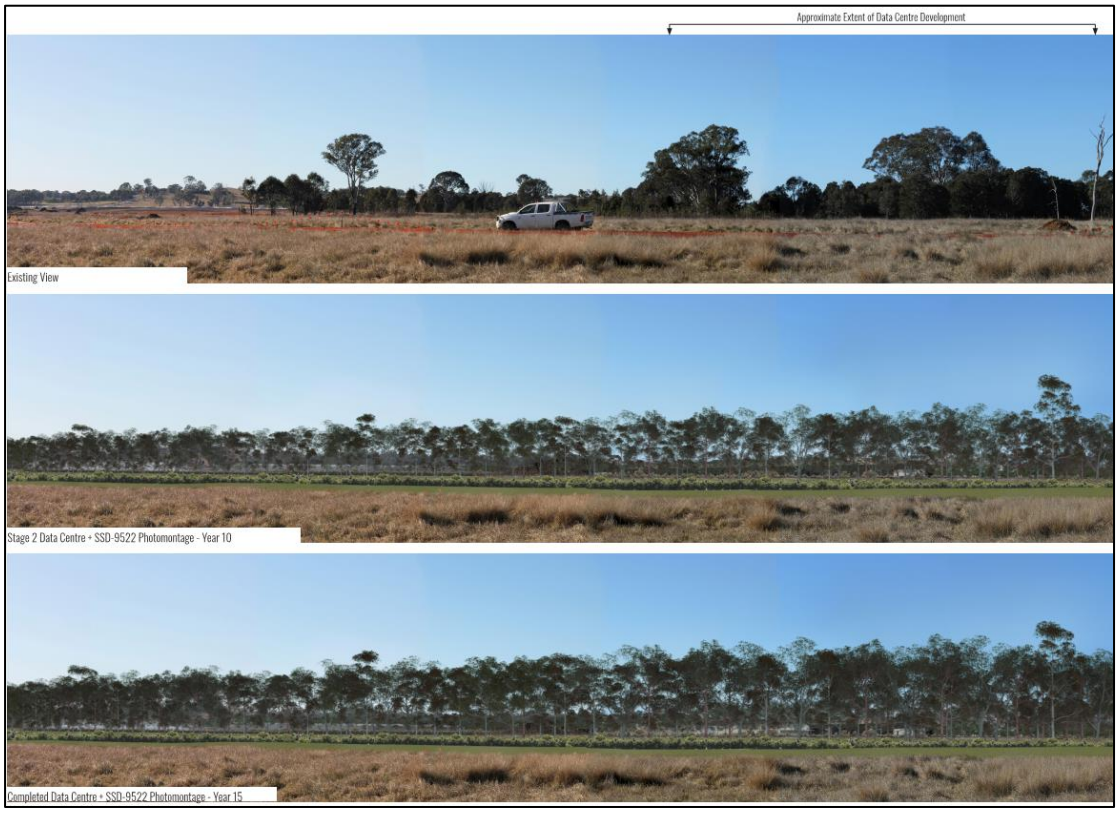


**Figure 20 Viewpoint 10 of the Proposed Development (Source: Geoscapes, 2021)**


**Figure 21 Viewpoint 11 of the Proposed Development (Source: Geoscapes, 2021)**

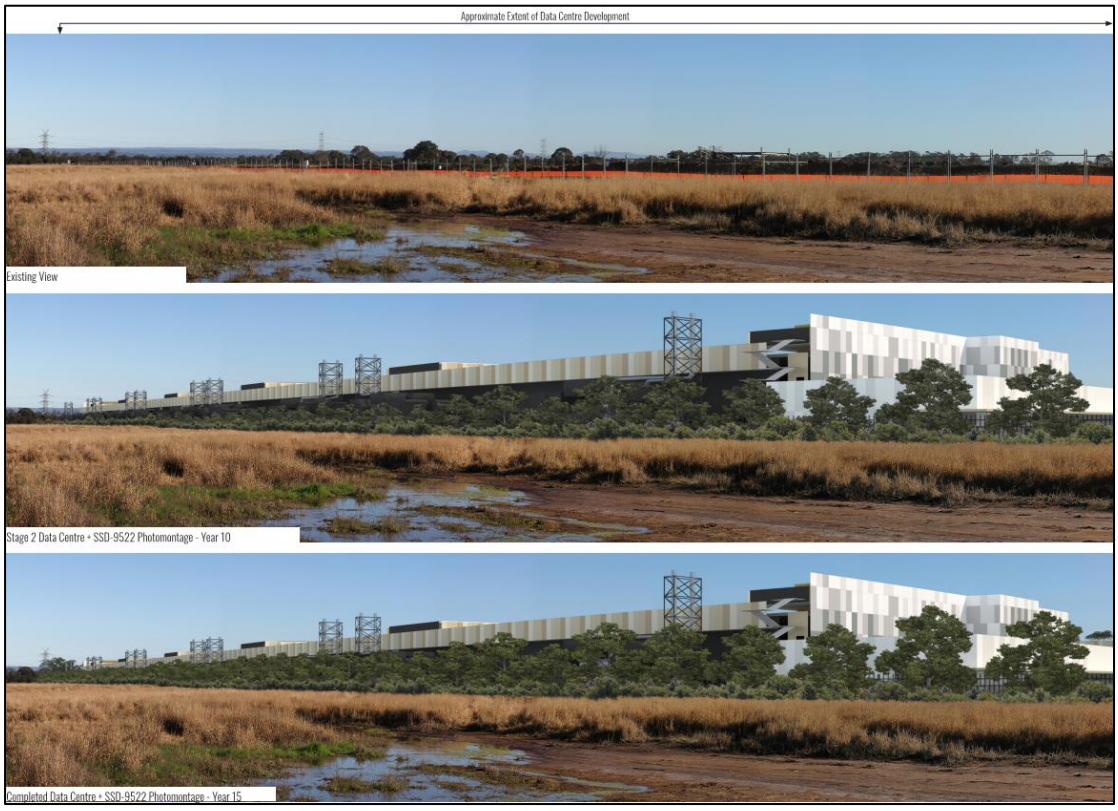


**Figure 22 Viewpoint 12 of the Proposed Development (Source: Geoscapes, 2021)**

The complete Landscape and Visual Impact Assessment, prepared by Geoscapes (2021), is located within **Appendix 8** of this EIS.

### 6.3.4 Land Use Conflict

The Subject Site is identified under the SEPP (WSEA) Land Application Area. Accordingly, the Site context may be described as an emerging industrial precinct – that has been recently rezoned (November 2020), which the Proposed Development positively contributes to the envisaged development outcome for the Site. Given the future industrial character of the Site's surrounds, any land-use conflicts would be minimal in the long-term. Notwithstanding, the rural-residential land uses which adjoin the Site to the northwest can co-exist in perpetuity with the Proposed Development, as all related amenity impacts in terms of noise, traffic and visual bulk and scale, have all been accounted for under this SSD Application, including satisfactory separation incurred by Mamre Road, approved development under SSD 9522 and the WaterNSW Pipeline to the north, as well as planned management and mitigation measures to be incorporated across the Site to appropriately treat any potential visual and amenity impacts. Measures such as noise screening, visual articulation and setbacks to boundaries ensures that the residential amenity of existing properties used for this purpose, would not be undermined. Similarly, existing operative industrial sites towards the north and northeast, would retain their functionality and amenity and therefore successfully co-exist with the Proposed Development reinforcing the notion of an orderly and sequential development.

There are a range of land uses which surround the Site, all of which have been given due consideration in the design of the Proposed Development. Of particular relevance, the following land uses are noted within the vicinity of the Site:

- **East** - To the east there are a range of other land uses comprising existing rural-residential dwellings; however, these land uses have an overarching industrial zone under SEPP (WSEA) 2009, which gives rise to future industrial-related development that would complement the employment-generating nature of the Proposal.

- **North** – North of the Subject Site comprises approved development under SSD 9522, with existing industrial development located further north, identified as First Estate, which was approved under SSD 7173, for which the Proposed Development would provide a gradual transition towards this land portion, retaining a consistent and desirable outcome for development as intended throughout the wider WSEA, with respect to employment-generating development.

- **South** – south of the Site is land zoned both RE1 Public Recreation IN1 General Industrial under SEPP (WSEA) 2009. Furthermore, there is land within the South Creek Precinct zoned Environment and Protection (ENZ) under the provisions of SEPP (WSA) 2020.

- **West –** Located to the west, includes land within the South Creek Precinct zoned Environment and Protection (ENZ), for which is suitably separated from the Subject Site.

In terms of the Site's perception from the public domain, Mamre Road and Bakers Lane are the main vantage points which afford direct views of the Site. Vehicles passing the Site would afford a direct view of the proposed Data Centre; however, this is consistent for vehicles passing along these key infrastructure routes along the regional road network which bypass through the WSEA, specifically the Mamre Road Precinct. It is therefore noted, with significant emphasis, that the design of the Proposed Development responds suitably to the surrounding context. Proposed materials, design innovation, architectural articulation and deep soil landscaping, remodels the visual amenity of the Site. The proposed architectural design

treatment and landscaping approach, would further reduce any conflicts with adjoining landowners and limit any visual obtrusiveness occurring with regard to passers-by.

### 6.3.5 Geotechnical Assessment

No geotechnical or topographic constraints have been identified that would preclude or restrict the development of the Subject Site. A Geotechnical Report has been prepared by ARUP (2021) which has concluded that the Subject Site provides an unconstrained platform for development to occur with the Site conditions being described and classified as "non-saline" with no potential for Acid Sulfate Soils to occur. The Geotechnical Report prepared by ARUP is located within **Appendix 10** of this EIS.

### 6.3.6 Lighting

Lighting would be designed to be in compliance with the latest version of AS1158 and AS4282 (INT) – Control of Obtrusive Effects of Outdoor Lighting. Lighting has also been provided in accordance with the requirements of Australian Standard 1158.3.1-1999 and the recommendations contained therein.

Glare and spill lights would be limited by the selection of fittings and are in accordance with the Australian Standard 4282-1987. Additionally, light fittings are LED wall mounted, pole mounted and mounted on the face of the awning and directed in such a manner, that they do not cause nuisance to surrounding properties or the public road network.

## 6.4 SAFETY, SECURITY AND CRIME PREVENTION

The principles of Crime Prevention Through Environmental Design (CPTED) have been considered in the design of the proposed development.

The CPTED guidelines were prepared by the NSW Police in conjunction with NSW DPIE. CPTED provides a clear approach to crime prevention and focuses on the 'planning, design and structure of cities and neighbourhoods'. The main aim of the policy is to:

- Limit opportunities for crime;
- Manage space to create a safe environment through common ownership and encouraging the general public to become active guardians; and,
- Increase the perceived risk involved in committing crime.

The guidelines provide four (4) key principles to limit crime, including:

- Natural Surveillance;
- Access Control;
- Territorial Reinforcement; and,
- Space Management.

**Principle 1 – Surveillance:**

The attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical.

- The Proposed Development would orientate active areas such as the ancillary offices and building entrances towards surrounding roads, pedestrian paths, car parking areas and deep-soil landscaping;
- The Proposed Development would utilise low lying landscaping in appropriate locations to ensure there would be no obstruction of surveillance opportunities; and,

- External lighting would enable the maintenance of sight-lines and surveillance after dark.

**Principle 2 – Access Control:**

Access Control can be defined as physical and symbolic barriers that are used to 'attract, channel or restrict the movement of people'.

- The Site would be secured by perimeter fencing and access gates to deter unauthorised access to the Site; and,
- Directional signage to heavy vehicle, car parking, pedestrian paths and building entries would define the various areas of the Site, providing legibility and minimising vehicular and pedestrian conflict with the Site.

**Principle 3 – Territorial Reinforcement:**

Territorial Reinforcement can be described as creating a sense of ownership to a public space or vicinity, encouraging the usage of that space. By increasing usage capability, this also deters crimes and further increases the chances of a crime being witnessed and reported in a timely manner.

- The provision of security-controlled entrances to the Site and proposed Data Centre would emphasise the separation between the private and public domain; and,
- Well maintained landscape design would indicate the proposed development is well-used and cared for to reduce criminal activity.

**Principle 4 – Space Management:**

Space Management is intuitive of Principle 3 – Territorial Reinforcement – and, refers to ensuring a space is utilised and cared for appropriately.

- On the ground level, pathways and planters would be well maintained by a landscape contractor. Continued repairs and maintenance would discourage vandalism; and,
- High quality materials, varied façade treatments and landscaping along boundaries would assist in discouraging vandalism and graffiti.

The Proposed Development would successfully integrate the four (4) principles outlined to limit crime outlined in the CPTED guidelines, which are adopted into the Draft Mamre Road Precinct DCP.

## 6.5 SOILS AND WATER

### 6.5.1 Geotechnical

The *Geotechnical Technical Report* prepared by ARUP (2021) considers the geotechnical profile of the Site (refer to **Appendix 10**).

A geotechnical investigation was carried out by ARUP between 5-12 January 2021. The purpose of the investigation was to the provide the following information:

- The stratigraphy underlying the Site;
- The nature and properties of the soil and rock (including rock quality); and
- The groundwater levels.

A total of 18 boreholes were drilled, which included eight (8) boreholes with HQ rock coring (refer to **Figure 23** below). The results indicated that the underlying soil is made up of residual

gravelly / sandy / silty clay or clayey / sandy silt with intermediate sand layer. Bedrock comprising predominantly of layers of laminated siltstone and sandstone was encountered approximately 6.5 to 11 m Below Ground Level (BGL).

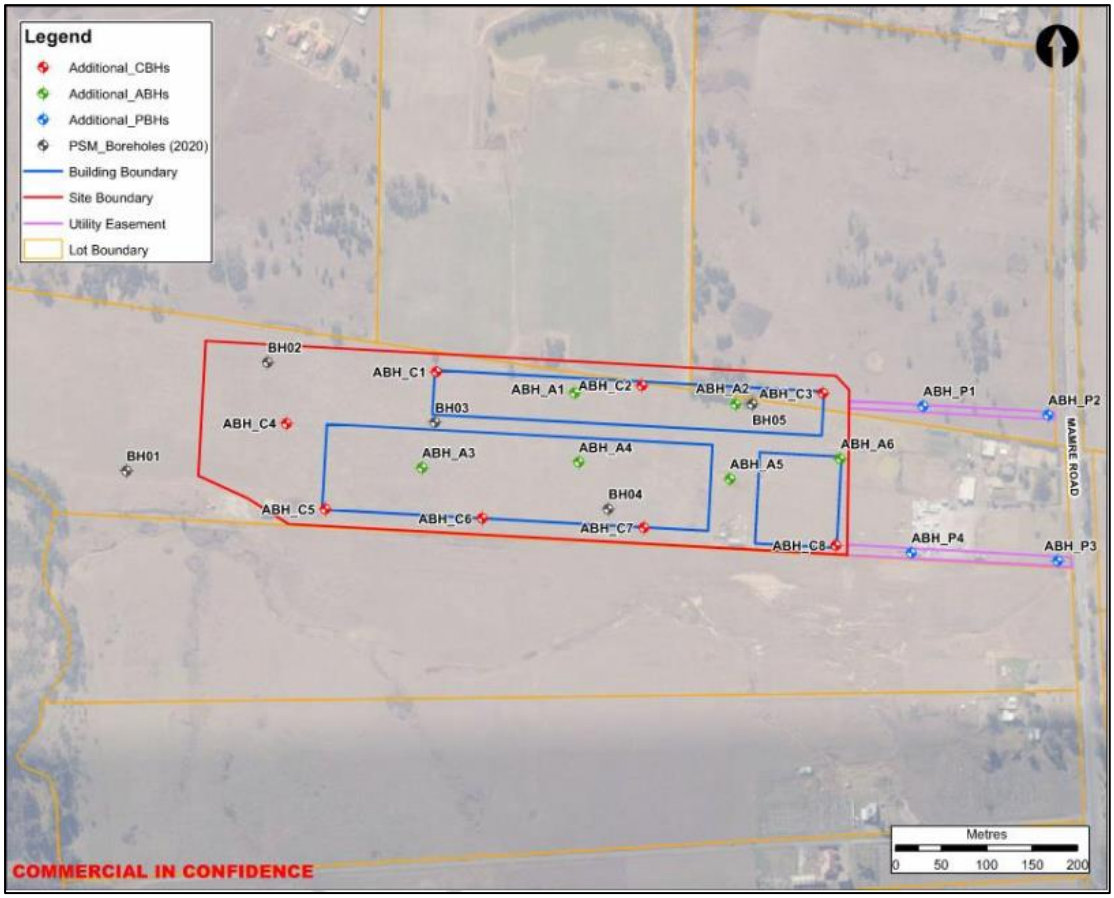


**Figure 23 Borehole Location Plan (Source: ARUP, 2021)**

Accordingly, there were no geotechnical or topographic constraints that have been identified that would preclude or restrict the development of the Subject Site. A Geotechnical Report has been prepared by ARUP (2021) which has concluded that the Subject Site provides an unconstrained platform for development to occur with the Site conditions being described and classified as "non-saline" with no potential for Acid Sulfate Soils to occur. The Geotechnical Report prepared by ARUP is located within **Appendix 10** of this EIS.

### 6.5.2 Contamination

Under SSD 9522, a Phase 2 Environmental Site Assessment was undertaken by JBS&G to assess the potential for contamination in soil and groundwater across the Site. It is important to note, that in the investigations previously undertaken, no Contaminants of Potential Concern (COPC) were detected above the laboratory Limits of Reporting (LOR) or the site assessment criteria in the analysed samples; however, it is noted, that low levels of mid-fraction TRHs were detected in sample MW02 (refer to **Figure 24** below). Silica gel clean-up and subsequent reanalysis for TRHs, indicated that no TRHs were present above the laboratory LORs for relevant fractions.


**Figure 24 Identified Boreholes and Sampling Locations Taken by JBS&G (2019) Pursuant to Undertaking an Environmental Site Assessment (Source: JBS&G, 2019)**

Based on the scope of investigation undertaken by JBS&G (2019) and the proposed industrial land use proposed for the Site, the following conclusions are provided:

- Desktop assessment and detailed inspection of the Site has not identified the potential for gross and / or widespread contamination to exist at the Site. Potential for localised impacts were identified, consistent with the historical use of the Site for a combination of commercial (Mamre Produce), agricultural, recreational and rural residential purposes;
- Potential contamination impacts were assessed by advancement of 48 intrusive investigation locations, field screening of site media and subsequent laboratory analysis for COPCs. No COPCs were identified within site media samples analysed, which exceeded relevant site screening assessment criteria for industrial land use site suitability;
- No background contamination, chemical mixtures or the potential risk of migration of contaminants from the Site have been identified;
- Potential aesthetic issues were identified at two (2) locations within the Subject Site; however, no trigger for further assessment of aesthetics were identified during the site investigation undertaken;
- A fragment of bonded ACM was identified in a single location (TP01). With respect to the concentration of ACM within the broader soil matrix, this occurrence does not comprise an exceedance of site suitability criteria, but will require management during site development under the Work Health and Safety Regulation 2017; and,
- From a contaminated land perspective, the Site is considered suitable for the Proposed Development.

It is noted, that a CEMP, including an unexpected finds protocol, has been developed for the Site following the post-approval requirements of SSD 9522 to ensure that typical site management strategies are implemented, and no contamination is introduced to the Site during redevelopment.

### 6.5.3 Flooding

For context, in support of SSD 9522 a flood study was conducted for South Creek. The flood modelling undertaken confirmed that the western part of the Site pertaining to SSD 9522 was within the extents of the 1% AEP flood event. As a result of flooding, filling was proposed under SSD 9522 to mitigate potential flooding impacts as illustrated in **Figure 25** below and **Table 14** below.

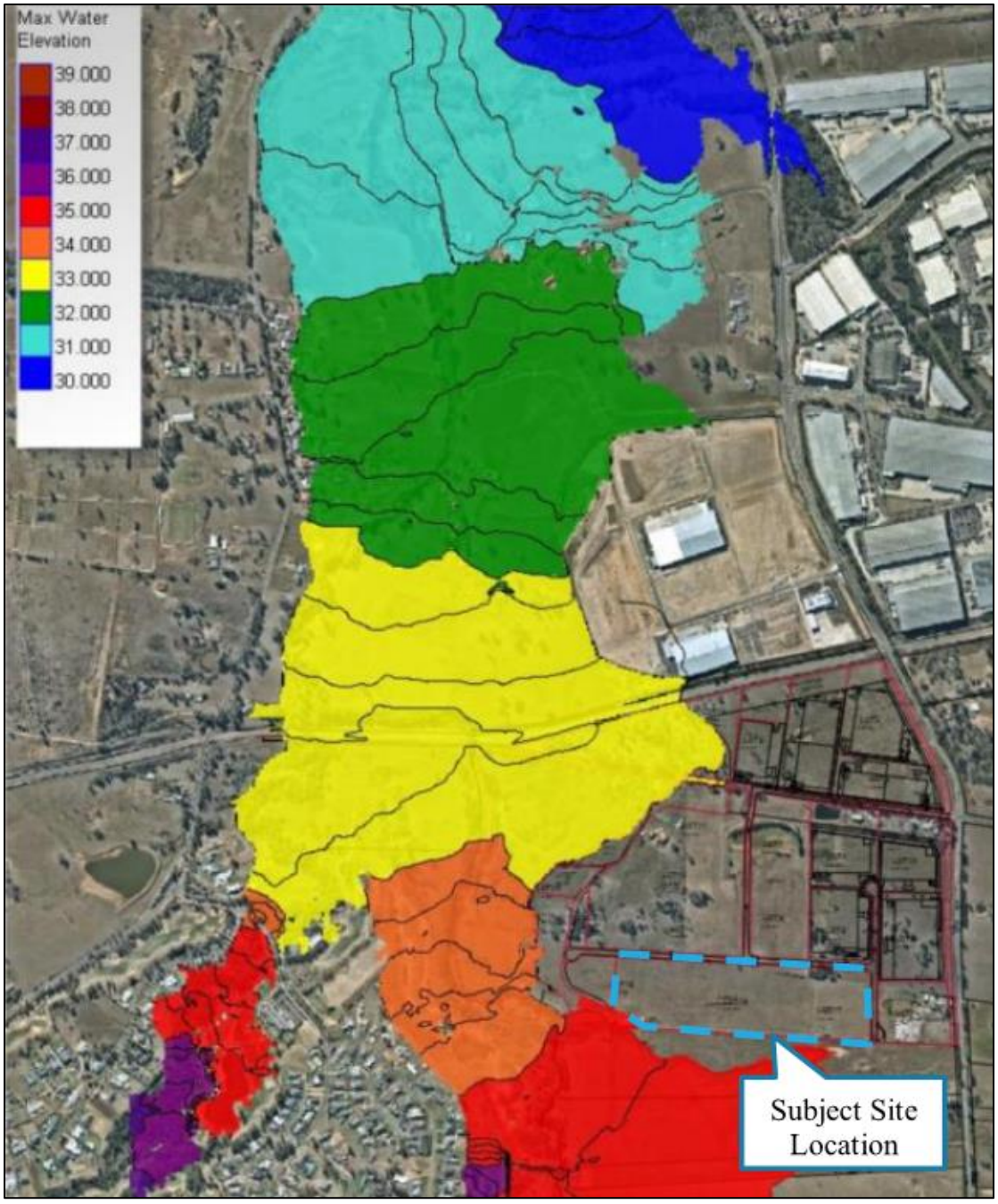


**Figure 25 Post-Development Scenario – 1% AEP Flood Surface Levels (Source: ARUP, 2021)**

| Table 14: Consented Development Flood Levels | |
|---|---|
| **Flood Event** | **Level (m AHD)** |
| 1% AEP | 35.10 |
| 1% AEP + 0.5 m freeboard | 35.6 |
| PMF | 37.7 |

Accordingly, the Proposed Development works are located outside of the 1% AEP and PMF flood extent; and do not impact the Estate-wide flooding assessment completed as part of SSD 9522. Furthermore, the building finished floor levels have been raised further beyond the Estate development under SSD 9522, which provides additional protection against flooding. The proposed floor levels for the Data Centre will be a minimum of 3.7 m above the flood planning level and over 2 m above the PMF level, as outlined in **Table 15** below.

| Table 15: Post-Development Flood and Building Finished Floor Levels | | | | | |
|---|---|---|---|---|---|
| **Building** | **Lot Level RL (m AHD)** | **1% AEP (m AHD)** | **1% AEP + 0.5 m (m AHD)** | **PMF (m AHD)** | **Above 1% AEP + 0.5 m** |
| SYD05/06 | 39.4 | 35.10 | 35.60 | 37.07 | Yes |
| SYD07 | 39.3 | 35.10 | 35.60 | 37.07 | Yes |
| HV Switching Station | 39.4 – 40.0 | 35.10 | 35.60 | 37.07 | Yes |

ARUP note, that in events larger than a 5% AEP flood event, the overland flow path will travel along the internal access road from east to west, ultimately discharging in the northwest entrance of the Site to the Estate-road network. There may be some localised flooding within the sag locations for extreme rainfall events; however, this will be minor and does not present a flood hazard to the occupants.

Accordingly, given the Site will not be affected by the PMF flood event, on-site refuge within the Proposed Development and the wider Estate could be undertaken for all occupants.

### 6.5.4 Stormwater Management

It is noted, that SSD 9522 included provisions for an Estate-wide MUSIC model of the Gross Pollutant Trap (GPT) and bio-retention basin treatment train. The MUSIC model prepared includes the catchment areas pertaining to the Proposed Development and assumes 90% of the Site will be impervious. For consistency and completeness, the MUSIC model results for the Estate are outlined in **Table 16** below and demonstrates that the baseline site achieves the pollutant reduction targets as set out within the PDCP2014.

| Table 16: Baseline Estate-wide MUSIC Model Results | | |
|---|---|---|
| **Baseline Model** | **% Reduction** | **% Targets** |
| Total Suspended Solids (kg/yr) | 86.9 | 85 |
| Total Phosphorus (kg/yr) | 71.9 | 60 |
| Total Nitrogen (kg/yr) | 45.1 | 45 |
| Gross Pollutants (kg/yr) | 100 | 90 |

The proposed stormwater drainage network consists of a pit and pipe network designed to drain towards the Estate-wide drainage network through the primary western and secondary central provisional connection stubs as illustrated in **Figure 26** below.

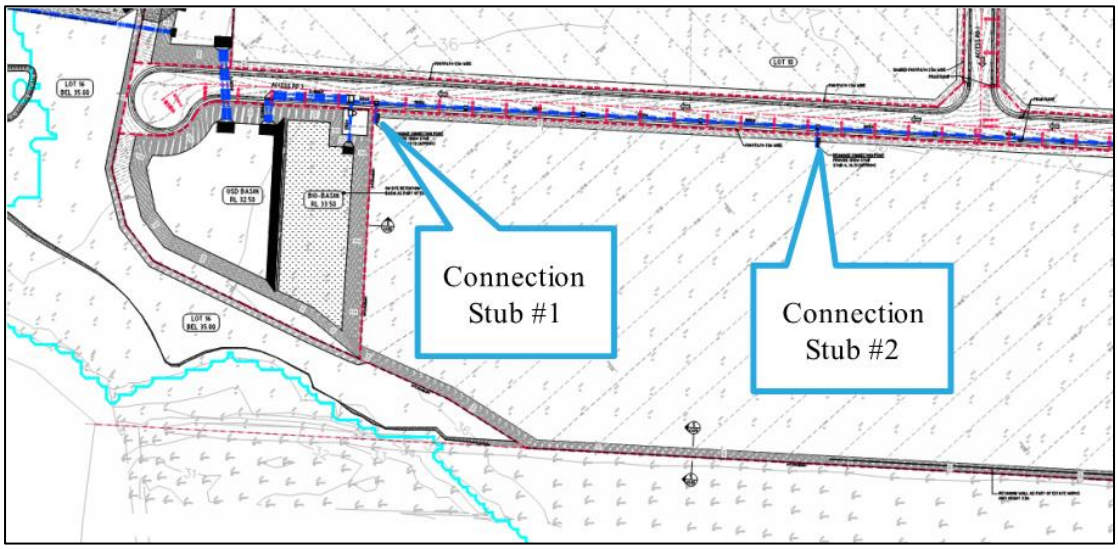


**Figure 26 Baseline Stormwater System – West (Source: ARUP, 2021)**

With regard to **Figure 26** above, the primary drainage system will drain towards the northwest connection stub whilst the secondary drainage line will drain towards the middle connection stub. The wider Estate development stormwater drainage network has been designed, taking into account the future proposed development flows. Ultimately, the stormwater runoff from the Subject Site discharges to the Estate bio-retention and on-site detention basins before being discharged in South Creek.

Although no site water quality measures are require to achieve the pollutant reduction targets, a 340 kL rainwater harvesting tank is proposed to capture 47% of the runoff from the SYD05/06 roof catchment and treat the runoff for reuse within the Site, such as evaporative cooling systems and irrigation. Upstream of the rainwater harvesting tank, a Gross Pollutant Trap (GPT) is proposed to remove the larger pollutants and sediments. Additionally, oil and water separators are proposed to serve connections from the HV switching station. This ensure any accidental fuel spillages will be captured prior to entering the Site stormwater network.

Due to the additional site treatment measures, the Proposed Development achieves a slight increase in pollutant reduction as demonstrated in **Table 17** below.

**Table 17: Site MUSIC Modelling Results**

| | Baseline Estate % Reduction | Estate including Proposed Site % Reduction | % Targets |
|---|---|---|---|
| Flow (ML/yr) | 2.6 | 4.5 | N/A |
| Total Suspended Solids (kg/yr) | 86.9 | 88.1 | 85 |
| Total Phosphorus (kg/yr) | 71.9 | 72.4 | 60 |
| Total Nitrogen (kg/yr) | 45.1 | 46.3 | 45 |
| Gross Pollutants (kg/yr) | 100 | 100 | 90 |

As part of the Construction Management Plan (CMP), an Erosion and Sediment Control Plan (ESCP) will be prepared, which includes provisions for managing the pollution risks associated with spillage or contamination on the Site and surrounding areas. The plan will incorporate controls such as:

- Earth bunding
- Sediment fencing
- Shaker pads at construction entrances/exits
- Cut-off drains
- Check dams
- Temporary sediment basins
- Stockpile stabilisation

The complete Stormwater and Flooding Report is located within **Appendix 9** of this EIS.

## 6.6 TRAFFIC AND TRANSPORT

The *Traffic and Transport Assessment Report* prepared by ARUP (2021) considers the potential traffic impacts on the road network as a result of the Proposed Development (refer to **Appendix 10**).

### 6.6.1 Site Access Strategy

The Site will be accessed via the upgraded Mamre Road and Bakers Lane intersection (western approach) and two (2) new internal public access roads (refer to **Figure 27** below). The internal Estate access roads have been designed and approved for construction as part of SSD 9522.

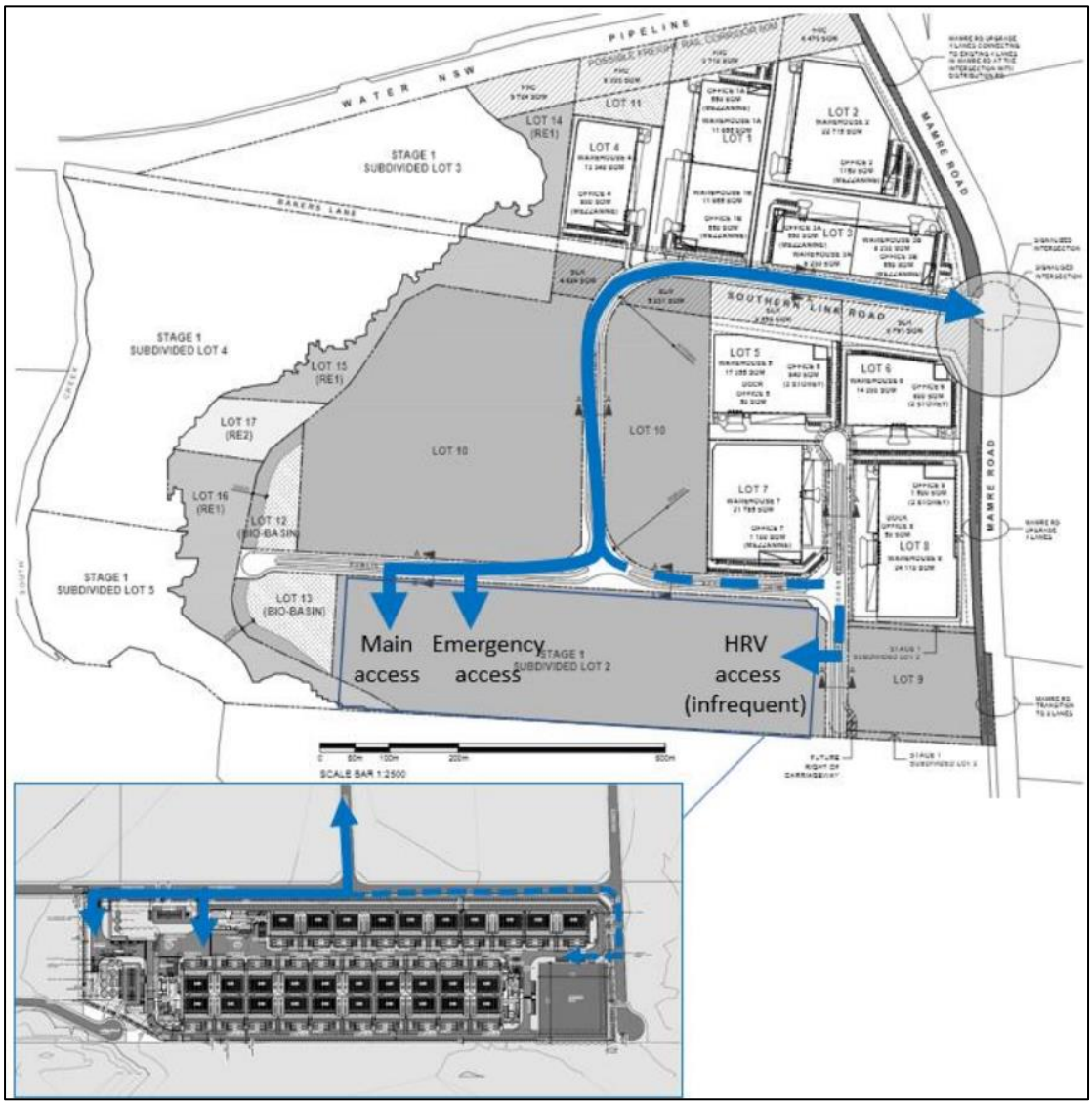


**Figure 27 Site Access from Upgraded Mamre Road / Bakers Lane Intersection (Source: ARUP, 2021)**

With respect to **Figure 27** illustrated above, the main vehicle entry will be located in the northwest corner of the Site. This left in / left out has been designed to accommodate two-way Articulated Vehicle (AV) movements. Vehicle swept path analysis of the proposed access has been conducted using expected design vehicles. The Safe Intersection Sight Distance has been checked considering a speed limit of 50 km/h on the access road and a reduced deceleration coefficient to consider truck movements has been included within Appendix B of **Appendix 11**.

Additionally, there are a further two (2) access points to the Site, including one (1) located on the northern boundary east of the main access, which will be provisional for emergency vehicles. The other access point is located on the eastern boundary of the Site and will be used infrequently for specialist maintenance activities (less than once a month).

### 6.6.2 Construction Traffic

**Table 18** outlined below contains the combined construction vehicle and worker traffic generation.

| Table 18: Peak Construction Traffic | | | | |
|---|---|---|---|---|
| **Type** | **AM Peak (8:00-9:00)** | | **PM Peak (17:00-18:00)** | |
| | **In** | **Out** | **In** | **Out** |
| Construction Vehicle | 8 | 8 | 8 | 8 |
| Construction Worker | 75 | - | - | 75 |
| Total | 83 | 8 | 8 | 83 |

Based on the data outlined in **Table 18** above, the additional traffic volumes for the peak construction phase in both the AM and PM peak hours are demonstrated in **Figures 28** & **29** below.

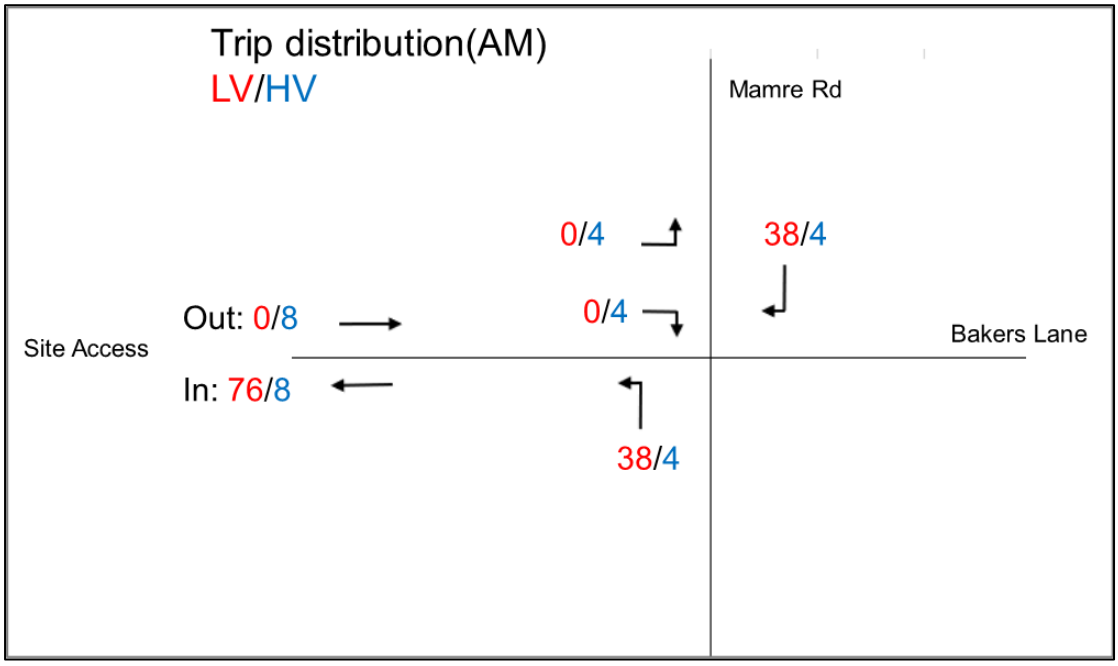


**Figure 28 Construction Traffic – AM Peak Hour Net Traffic Volumes (Source: ARUP, 2021)**

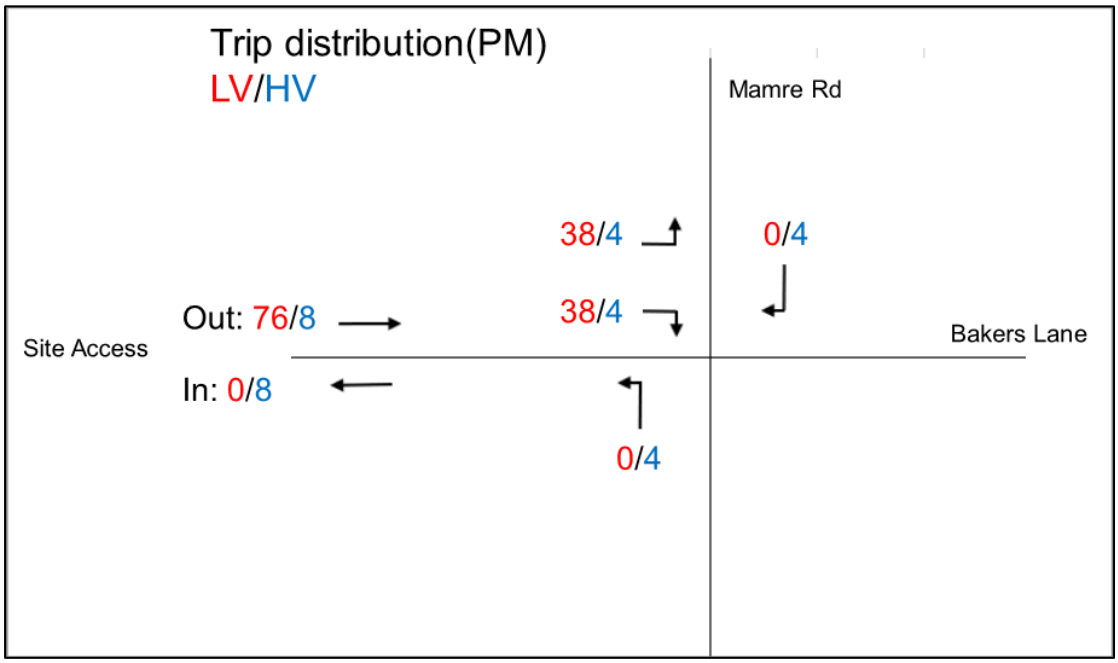


**Figure 29 Construction Traffic – PM Peak Hour Net Traffic Volumes (Source: ARUP, 2021)**

Based on **Figures 28** & **29** illustrated above, the modelling undertaken by ARUP indicates that the intersection would operate at a Level of Service (LoS) 'C' despite the increase in traffic volumes due to construction, representing minimal change to the operation of the intersection.

### 6.6.3 Operational Traffic

From an operational perspective, the Proposal will generate traffic due to a range of different users. These can be differentiated into three (3) categories:

1. Staff;
2. Visitors; and
3. Servicing Vehicles.

As the majority of staff will work standard hours, ARUP have assumed 50% arrive between 8:00-9:00AM and will depart between 17:00-18:00PM, with 25% arriving in the shoulder hours either side of these peaks. Given the location of the Site, the majority of staff are expected to drive to the Site.

ARUP have estimated, that the Site would generate approximately 258 two-way trips daily. Combining the demand profiles for staff, visitors and servicing traffic generation produces a daily vehicle movement profile for the Proposal, which is illustrated in **Figure 30** below. The profile as illustrated within **Figure 30** below indicates that the peak hour is 8:00-9:00AM with 50 two-way trips.

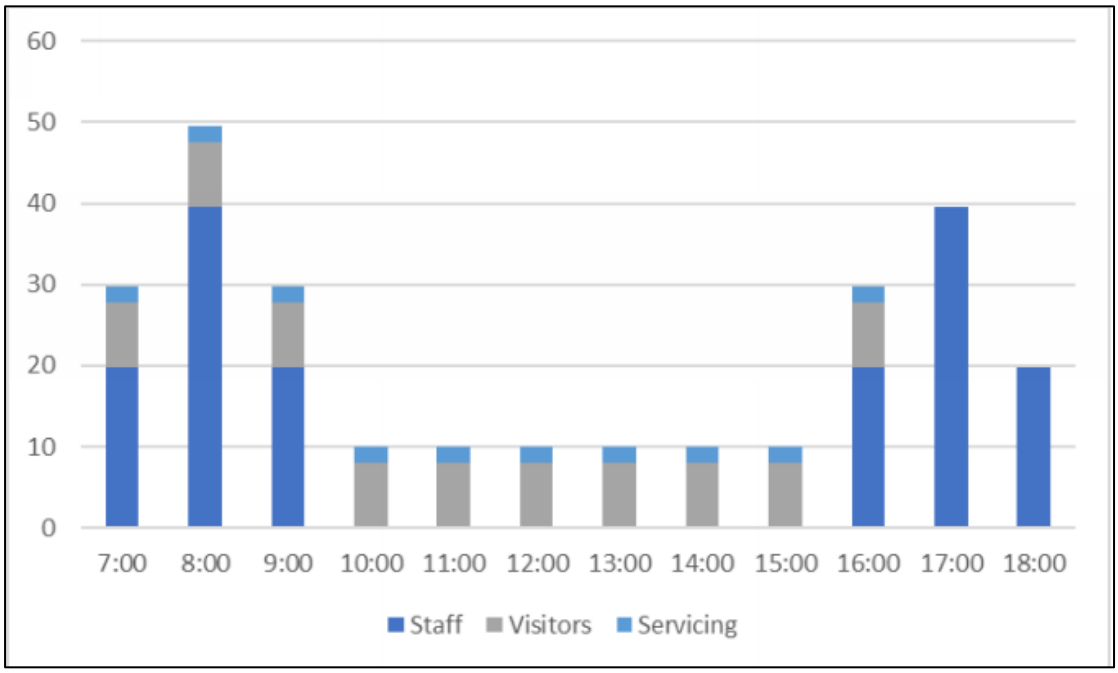


**Figure 30 Operational Vehicle Demand Profile (Two-Way Trips) (Source: ARUP, 2021)**

Accordingly, based on the overall operational traffic generation articulated within **Figure 30** above, the net intersection volumes are depicted for the operational phase of the Proposal in both the AM and PM peak hours in **Figures 31** & **32** below.

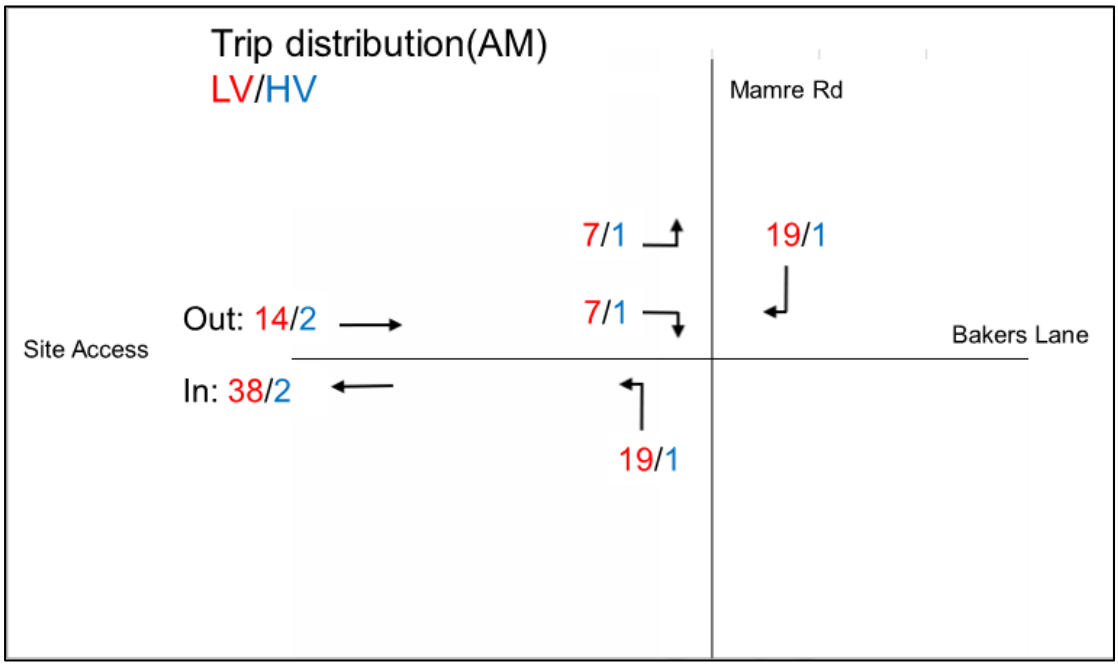


**Figure 31 Operational Traffic – AM Peak Hour Net Traffic Volumes (Source: ARUP, 2021)**

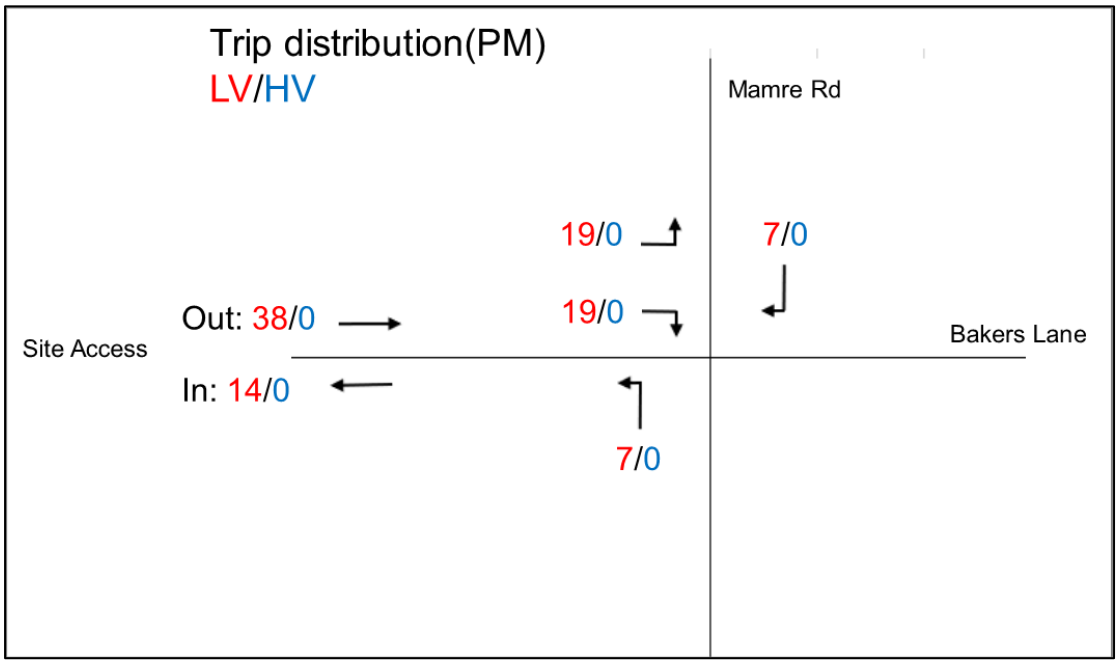


**Figure 32 Operational Traffic – PM Peak Hour Net Traffic Volumes (Source: ARUP, 2021)**

From **Figures 31** & **32** above, the results of the analysis undertaken are outlined in **Table 19** below.

**Table 19: SIDRA Modelling Results – Operational Phase**

| Scenario | AM Peak (8:00-9:00) | | | | PM Peak (17:00-18:00) | | | |
|---|---|---|---|---|---|---|---|---|
| | DoS | Delay (sec) | LoS | Queue (m) | DoS | Delay (sec) | LoS | Queue (m) |
| Future Case (1A) | 0.922 | 38.9 | C | 168 | 0.849 | 35.2 | C | 196 |
| Future Case (1B) | 0.918 | 35.4 | C | 156 | 0.917 | 26.4 | C | 209 |
| Future Case (2) | 0.826 | 36.3 | C | 240 | 0.660 | 35.4 | C | 171 |

The modelling indicates that the intersection would operate at a LoS 'C' for all future intersection arrangements despite the increase in traffic volumes related to the operation of the Proposed Development, representing minimal change to the future operation of the intersection which are noted to be all within the parameters and thresholds established for the Estate under SSD 9522.

### 6.6.4 Parking

ARUP have utilised two (2) different methodologies to develop the parking requirements for the Site. The first was by using the minimum parking rates outlined within the Mamre Road Precinct DCP for warehouse operations (refer to **Table 20** below). Comparatively, a first principles assessment was developed based on the number of staff and visitors expected to be on-site per day (refer to **Table 21** below).

**Table 20: Mamre Road Precinct DCP Vehicle Parking Requirement**

| Method | | Rate | Parking Requirement |
|---|---|---|---|
| GFA ($m^2$) | 65,354 | One (1) space per 300 $m^2$ of GFA | 218 |

| Table 21: First Principles Vehicle Parking Requirement | |
|---|---|
| **User** | **Parking Requirement** |
| Staff | 79 |
| Visitor | 40 |
| Total | 119 |

Accordingly, the first principles approach has been adopted as the appropriate methodology for the Site with 120 car parking spaces (including six (6) accessible spaces) included within the Site layout. Additionally, the Proposal has considered the *Planning Guidelines for Walking and Cycling* (NSW Government, 2004) which the Proposed Development has allocated provisions for 12 bicycle spaces with end of trip facilities.

ARUP conclude, that in accordance with the increased traffic associated with the proposed operations of the Proposal on the surrounding road networks, to ensure there are no adverse traffic and parking impacts, the following should be implemented for the Site:

- Implement a Green Travel Plan
- Shared car travel for staff with parking bays prioritised for employees choosing to car share
- Implement adequate bicycle parking and end of trip facilities

## 6.7 WASTE

Details of the construction and operational waste are provided within the *Waste Management Plan* prepared by ARUP (refer to **Appendix 19**). Where possible, all construction materials would be recycled either on-site through reuse or offsite at a licensed facility. Waste would be transported and disposed of offsite by a licensed contractor to a licensed landfill facility.

Similarly, recyclable and non-recyclable materials generated during operation would be collected and disposed of by a licensed contractor. The ongoing management of waste would be promoted through the following:

- *Staff awareness of recyclable items, providing on-site training. This would include the company's Waste and Recycle Policy with clear objectives and expectations;*
- *Staff awareness and educational programs would be run which would supplement existing OH&S, and environmental programs on waste management;*
- *Suitable information would be supplied in staff induction kits, which would require refreshers on a yearly basis;*
- *The recycle and waste areas would be clearly marked and bins suitably labelled; and,*
- *Cleaning staff would be responsible for day-to-day management and control of all waste and recycling stations.*

### 6.7.1 Construction Waste

The site preparation and construction activities are anticipated to generate the following broad waste streams, including:

- Site clearance and excavation wastes;
- Construction waste;
- Packaging waste; and,
- Work compound waste from on-site employees.

Notwithstanding, at the time of developing this WMP, estimates of excavation and construction waste quantities were not available.

### 6.7.2 Operational Waste

Small amounts of operational waste are anticipated to be generated from the Site admin areas and maintenance works, for which are summarised below:

- General waste;
- Commingled recycling;
- Cardboard and paper;
- Confidential paper;
- Food and organic wastes;
- E-waste;
- Bulky waste items, such as furniture; and
- Ad-hoc waste, such as batteries, plant and general maintenance wastes.

With respect to the Proposal, waste generation estimates for the operational phase are outlined in **Table 22** below.

**Table 22: Waste Generation Estimates**

| Waste Generation | SYD05 | SYD06 | SYD07 |
|---|---|---|---|
| Office Area ($m^2$) | 710 | 240 | 525 |
| General Waste (L/day) | 107 | 36 | 79 |
| Comingled Recycling (L/day) | 7 | 2 | 5 |
| Paper and Cardboard Recycling (L/day) | 171 | 58 | 126 |
| Food Waste (L/day) | 36 | 12 | 26 |

ARUP note, that the Proposal is likely to generate a significant quantity of e-waste in the form of server racks and associated data storage equipment reaching the end of their service life. Accordingly, a waste collection and recycling contract should be implemented to collect all e-waste for refurbishment, reuse and recycling to ensure it is not disposed of to landfill.

Additionally, waste storage locations would be designed in accordance with accessibility and sufficient space for storage and servicing requirements, will be integrated into the design. Where space is restricted, dedicated stockpile areas are to be delineated on the Site and adequately contained. Waste storage locations would be provided within loading dock areas that comply with BCA requirements and relevant Australian Standards.

All wastes removed from the Subject Site should be transported in accordance with relevant road and transportation regulatory requirements. Additionally, where required (depending on the classification of wastes), appropriately licensed transport contractors will be commissioned. Further details are provided within **Appendix 19**.

## 6.8 NOISE AND VIBRATION

The *Noise and Vibration Impact Assessment* prepared by ARUP (2021) has considered the potential noise and vibration sources and impacts during the construction and operation of the Proposed Development (refer to **Appendix 14**).

The assessment undertaken pertaining to acoustics has considered all nearest receivers to the Site, including residences in Luddenham to the west, isolated rural residences to the south and east and residential and commercial / industrial premises to the north (refer to **Figure 33**).

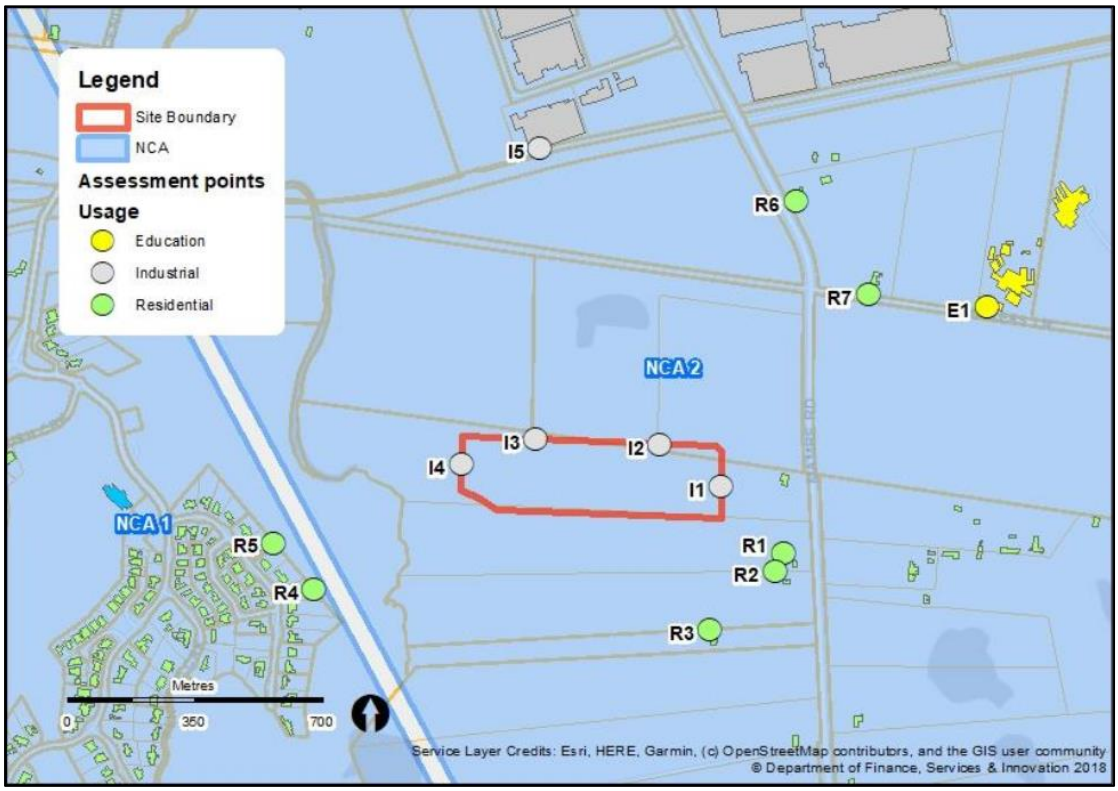


**Figure 33 Site and Surrounding Receivers (Source: ARUP, 2021)**

Noise monitoring was undertaken for the purposes of deriving noise criteria and qualifying the noise environment at nearby receivers. Long-term unattended and short-term attended monitoring was conducted at locations presented in **Table 23** and **Figure 34** below over two (2) period from 15-23 May 2019 and 25 November to 7 December 2020.

**Table 23: Monitoring Locations**

| Type | Purpose | ID | Location | Description |
|---|---|---|---|---|
| Both long-term unattended and short-term attended | Establish criteria | L1 | Residential – 1 Medinah Avenue, Luddenham | Backyard of 1 Medinah Avenue, near the overhead power line. |
| | | L2 | Residential – Bakers Lane West, Kemps Creek | Adjacent to Bakers Lane West, a private access road, |
| Short-term attended only | Quantify and qualify noise levels surrounding site | S1 | On wider Estate | Along the northern boundary of site. |
| | | S2 | Adjacent to Mamre Road | South of intersection of Mamre Road and Bakers Lane. |

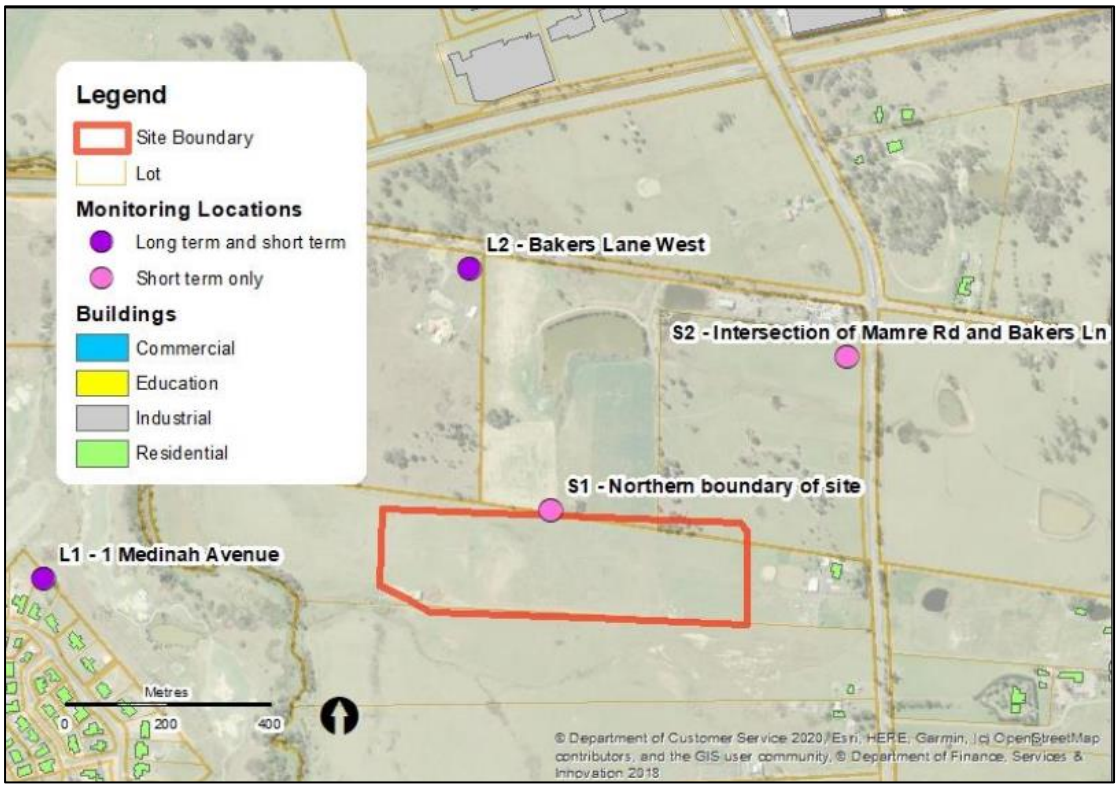


**Figure 34 Noise Monitoring Locations (Source: ARUP, 2021)**

**Figure 35** below summarises the background and ambient noise level results, whilst **Figure 36** below demonstrates the short-term attended noise measurements.

| Location | NCA | Time period[1] | Rating Background Levels, $dBL_{A90}$ | Ambient $dBL_{Aeq}$ noise levels |
|---|---|---|---|---|
| L1 - 1 Medinah Avenue, Luddenham | 1 | Day | 37 | 49 |
| | | Evening | 36 | 45 |
| | | Night | 33 | 45 |
| L2 – Bakers Lane West, Kemps Creek | 2 | Day | 39 | 47 |
| | | Evening | 43 | 46 |
| | | Night | 38 | 46 |

1 - Day: 07:00-18:00 Monday to Saturday and 08:00-18:00 Sundays & Public Holidays
Evening: 18:00-22:00 Monday to Sunday & Public Holidays
Night: 22:00-07:00 Monday to Saturday and 22:00-08:00 Sundays & Public Holidays
As required by the NPfI, the external ambient noise levels presented are free-field noise levels.

**Figure 35 Long-term Noise Monitoring Results, dB(A) (Source: ARUP, 2021)**

| Location | Date and start time | Measured levels | | Noise Sources Contributions |
|---|---|---|---|---|
| | | $dBL_{A90(15min)}$ | $dBL_{Aeq(15min)}$ | |
| L1 | 25/11/20 14:30 | 39 | 45 | Relatively quiet with limited traffic noise. Insect and bird song fairly present throughout measurements. Occasional helicopter/plane passbys. |
| L2 | 15/05/19 13:00 | 39 | 48 | Traffic noise, light aircraft flyovers, construction noise (jackhammers, reversing alarms), birdsong and insects. |
| S1 | 25/11/20 11:14 | 41 | 45 | Light and heavy traffic from Mamre Road. Insect and bird song fairly present throughout measurement |
| S2 | 25/11/20 11:54 | 55 | 74 | Heavy/light traffic dominated. Some air braking from trucks, Insects audible when traffic noise low. |

**Figure 36 Short-term Noise Monitoring Results, dB(A) (Source: ARUP, 2021)**

### 6.8.1 Construction Noise & Vibration

Construction of the Proposed Development would take place between standard working hours, including:

- Monday to Friday: 7am to 6pm.
- Saturday: 8am to 1pm.
- Sunday & Public Holidays: No work.

Accordingly, predicted residential and non-residential construction noise levels at surrounding receivers are illustrated in **Figure 37** below.

| Receiver | NML | Construction phase | | | |
|---|---|---|---|---|---|
| | | Site Establishment and Excavation | Pavement & Road Works | Building Construction | Plant Installation and Connection |
| **Residential receivers** | | | | | |
| R1 - 771-781 Mamre road Kemps creek | 49 | 64 | 64 | 69 | 46 |
| R2 - 783-797 Mamre road Kemps creek | 49 | 64 | 64 | 69 | 46 |
| R3 - 799-803 Mamre road Kemps creek | 49 | 64 | 64 | 69 | 46 |
| R4 - 15 Medinah avenue Luddenham | 47 | 60 | 60 | 65 | 42 |
| R5 - 9 Medinah avenue Luddenham | 47 | 60 | 60 | 65 | 42 |
| R6 - 676-702 Mamre road Kemps creek | 49 | 59 | 59 | 64 | 41 |
| R7 - 676-702 Mamre road Kemps creek | 49 | 60 | 60 | 65 | 42 |
| **Non-residential receivers** | | | | | |
| E1 - 45-59 Bakers lane Kemps creek | 55 | 50 | 50 | 55 | 32 |
| I1 - Master site boundary - east | 75 | 82 | 82 | 87 | 64 |
| I2 - Master site boundary - north east | 75 | 82 | 82 | 87 | 64 |
| I3 - Master site boundary - north west | 75 | 82 | 82 | 87 | 64 |
| I4 - Master site boundary - west | 75 | 84 | 84 | 89 | 66 |

**Figure 37 Equipment and Plant Sound Power Levels (Source: ARUP, 2021)**

The results shown in **Figure 37** above indicate that exceedances are predicted at surrounding residential receivers during site establishment and excavation, pavement and road works and building construction phases. Notwithstanding, these levels are not considered to cause adverse impacts on surrounding receivers.

The trucks modelled to confirm construction noise impacts were done so in accordance with >20 tonne trucks, for which the truck noise source levels and descriptions have been taken from AS 2436.

### 6.8.2 Operational Noise

From an operational perspective, noise emissions were assessed for both standard operations and emergency operations in accordance with the *Noise Policy for Industry* (NPI) document, for which **Figure 38** identifies the Recommended Amenity Noise Levels (RANL) and Project Amenity Noise Levels (PANL) applicable to the Proposed Development.

| Receivers | Indicative Noise Amenity Area | Time of day[1] | Recommended Amenity Noise Level (RANL) $dBL_{Aeq(period)}$ | Project Amenity Noise Level (PANL) | |
|---|---|---|---|---|---|
| | | | | $dBL_{Aeq(period)}$ | $dBL_{Aeq(15min)}$[2] |
| Residences in NCA 1 | Rural | Day | 50 | 45 | 48 |
| | | Evening | 45 | 40 | 43 |
| | | Night | 40 | 35 | 38 |
| Residences in NCA 2 | Suburban | Day | 55 | 50 | 53 |
| | | Evening | 45 | 40 | 43 |
| | | Night | 40 | 35 | 38 |
| School classroom - internal | All | Noisiest 1-hour period when in use | 45[3] | 40 | 43 |
| Industrial premises | All | When in use | 70 | 65 | 68 |

Notes

1. The NPfI defines day, evening and night time periods as:
   - Day: the period from 7 am to 6 pm Monday to Saturday; or 8 am to 6 pm on Sundays and Public Holidays.
   - Evening: the period from 6 pm to 10 pm.
   - Night: the remaining period.
2. 3 dB added to $L_{Aeq(period)}$ to determine $L_{Aeq(15min)}$ as per NPfI.
3. External noise level based on 10dB reduction through open window

**Figure 38 NPI RANLs and PANLs pertaining to the Proposal (Source: ARUP, 2021)**

It is noted, that the NPI recommends the following screening criteria for the assessment of potential sleep disturbance, for the period between 10pm and 7am:

- $L_{AFmax}$ 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater.

As noise sources associated with Data Centres namely mechanical and electrical plant, have constant noise characteristics, sleep disturbance arising from high maximum noise levels is not anticipated to be an issue and have been assessed by ARUP.

Accordingly, based on the background noise monitoring undertaken, **Figure 39** below identifies the derived project specific noise levels based on the NPI.

| Receiver | Time Period | Project Specific Noise Levels, $dBL_{Aeq(15min)}$ | | |
|---|---|---|---|---|
| | | Intrusive Noise Trigger Levels | Project Amenity Noise Level (PANL) | Project Noise Trigger Level (PNTL) |
| NCA 1 | Day | 42 | 48 | 42 |
| | Evening | 41 | 43 | 41 |
| | Night | 38 | 38 | 38 |
| NCA 2 | Day | 44 | 53 | 44 |
| | Evening | 44[1] | 43 | 43 |
| | Night | 43 | 38 | 38 |

Notes

1. The NPfI states "in determining project noise trigger levels for a particular development, it is generally recommended that the project intrusiveness noise level for evening be set at no greater than the project intrusiveness noise level for daytime. The project intrusiveness noise level for night-time should be no greater than the project intrusiveness noise level for day or evening. Alternative approaches to these recommendations may be adopted if appropriately justified."

**Figure 39 NPI Project Specific Noise Levels – Residences (Source: ARUP, 2021)**

**Note:** The NPfI states "in determining project noise trigger levels for a particular development, it is generally recommended that the project intrusiveness noise level for evening be set at no greater than the project intrusiveness noise level for daytime. The project intrusiveness noise level for night-time should be no greater than the project intrusiveness noise level for day or evening. Alternative approaches to these recommendations may be adopted if appropriately justified."

ARUP note, that maintenance testing of emergency plant is anticipated to occur during the daytime period (from 7am and 6pm Monday to Saturday; or 8am to 6pm on Sundays and Public Holidays). The total testing regime for all 62 generators is outlined in **Figure 40** below.

| Month | Test | Duration (min) | | Colo gen testing | | Admin gen testing | | Total Gens Tested | Total Mins |
|---|---|---|---|---|---|---|---|---|---|
| | | Run | Cooldown | Number of tests | Gens run per test[1] | Number of tests | Gens run per test[1] | | |
| **1** | **Bi-monthly, no load** | **10** | **0** | **30** | **2** | **2** | **1** | **62** | **320** |
| 2 | No test | | | | | | | 62 | 0 |
| 3 | Quarterly, 70% load | 30 | 5 | 60 | 1 | 2 | 1 | 62 | 2170 |
| **4** | **Bi-monthly, no load** | **10** | **0** | **30** | **2** | **2** | **1** | **62** | **320** |
| 5 | No test | | | | | | | 62 | 0 |
| 6 | Quarterly, 70% load | 30 | 5 | 60 | 1 | 2 | 1 | 62 | 2170 |
| **7** | **Bi-monthly, no load** | **10** | **0** | **30** | **2** | **2** | **1** | **62** | **320** |
| 8 | No test | | | | | | | 62 | 0 |
| 9 | Quarterly, 70% load | 30 | 5 | 60 | 1 | 2 | 1 | 62 | 2170 |
| **10** | **Bi-monthly, no load** | **10** | **0** | **30** | **2** | **2** | **1** | **62** | **320** |
| 11 | No test | | | | | | | 62 | 0 |
| 12 | Annual, 100% load | 60 | 5 | 60 | 1 | 2 | 1 | 62 | 4030 |
| | | | | | | | | **Total minutes per year** | **11820** |
| | | | | | | | | **Total hours per year** | **197** |

**Figure 40 Annual Testing Regime (Source: ARUP, 2021)**

Two (2) potential worst-case scenarios including generator testing have been identified for the Proposal including:

1. Bi-monthly no load – two (2) 'colo generators' being tested concurrently with no load applied, i.e. no load bank operating; and
2. Annual 100% load – single 'colo generators' being tested with 100% load applied, i.e. load bank operating.

Furthermore, quarterly testing noise emissions are expected to generate noise emissions lower than annual testing, based on the same operating scenario but with the load bank only to be operating at 70% load.

Additionally, ARUP note that whilst the design criteria for the Proposed Development includes scheduled testing of emergency plant, targets are not considered reasonable for critical power failure conditions, and would be considered unreasonable to implement noise treatment due to the low likelihood of this scenario occurring. If power failure was to occur, the duration of an outage would be expected to be hours rather than days.

Accordingly, the primary outdoor noise sources on-site are outlined in **Figure 41**. Where equipment has yet to be selected, the sound power levels and octave band spectra have been estimated based on expected equipment power ratings and past project experience.

| Major Equipment and function | Description / function | Number of items on site | Overall sound power level, dBA | Octave band (Hz) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 63 | 125 | 250 | 500 | 1k | 2 | 4 | 8 |
| | | | | Sound power level, dB(Z) | | | | | | | |
| Generator inlet louvre - Generator used to provide power in critical power failure scenario. | Inlet of acoustic generator enclosure | 62 | 89 | 101 | 104 | 87 | 60 | 58 | 54 | 61 | 80 |
| Generator outlet louvre - Generator used to provide power in critical power failure scenario. | Outlet of acoustic generator enclosure | 62 | 89 | 101 | 104 | 87 | 56 | 54 | 51 | 60 | 80 |
| Generator exhaust - Generator used to provide power in critical power failure scenario. | Generator diesel engine exhaust. | 62 | 89 | 59 | 64 | 85 | 81 | 82 | 84 | 82 | 76 |
| Load Bank - Provides the electrical load representative of the datacentre operational load to allow maintenance testing of generators. | Provides the electrical load representative of the datacentre operational load to allow maintenance testing of generators. | 3 | 111 | 114 | 111 | 109 | 105 | 105 | 104 | 102 | 95 |
| Data Hall Transformers - Steps down power for supply to the data centre at the required voltages | 3 MVA capacity | 480 | 87 | 91 | 88 | 91 | 87 | 78 | 69 | 69 | 64 |
| Site Transformers - Steps down power for supply to the data centre at the required voltages | 70 MVA | 3 operational, 1 idle. | 92 | 96 | 93 | 96 | 92 | 83 | 74 | 74 | 69 |
| Data hall – contains server racks and cooling fans. Noise breaking out through data hall exhaust louvres. | Level 1 exhaust louvre outlet based on internal data hall noise level of 90dBA | 1 per data hall. 30 data halls | 62 | 72 | 69 | 62 | 56 | 56 | 53 | 49 | 49 |
| | Level 2 exhaust louvre outlet based on internal data hall noise level of 90dBA | 1 per data hall. 30 data halls | 66 | 72 | 69 | 64 | 61 | 61 | 59 | 55 | 55 |
| Data hall – contains server racks and cooling fans. Noise breaking out through data hall roof. | Roof construction: metal deck, absorption between purlins, two layers of plasterboard | 1 per data hall. 30 data halls | 76 | 89 | 91 | 76 | 62 | 54 | 51 | 55 | 45 |
| AHU – supplies ventilation air to data hall | Fresh air inlets open to louvred plantrooms. | 8 per data hall level, 480 overall | 63 | 81 | 75 | 66 | 53 | 46 | 44 | 34 | 40 |
| | Supply air ducted to data hall, anticipated to be mitigated by data hall building and through exhaust paths | 8 per data hall level, 480 overall | Not anticipated to generate significant noise levels compared to other equipment on site. If required, mitigation of these minor noise sources will be possible through typical acoustic treatment methods, eg. attenuators, enclosures. | | | | | | | | |
| Admin transformers / isolation transformers (within data halls) - Steps down power for supply to the data centre at the required voltages | | 3 | | | | | | | | | |
| Condensing units – facilitates ventilation of admin building | Domestic type | Servicing admin buildings | | | | | | | | | |
| Toilet exhaust fans – ventilates toilets | | Servicing admin buildings | | | | | | | | | |

**Figure 41 Project Equipment, Quantities and Unmitigated Sound Power Levels (Per Unit) (Source: ARUP, 2021)**

With consideration of the noise sources depicted in **Figure 41**, **Figure 42** below presents the predicted operational noise levels at residential receivers with no acoustic mitigation measures. The results should that operational noise levels during the day, evening and night periods are predicted to exceed the PNTLs for the Site by up to 4 dB. Due to the number of operational noise sources on-site, the exceedances are attributed to a range of plant, including contributions from site transformers, data hall exhausts and AHU plantroom inlets.

| Receiver | 1A. Day | | | 1B. Day | | | 2. Evening | | | 3. Night | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PNTL | Predicted Noise level | Complies | PNTL | Predicted Noise level | Complies | PNTL | Predicted Noise level | Complies | PNTL | Predicted Noise level | Complies |
| R1 - 771-781 Mamre Road Kemps Creek | 42 | 47 | No | 42 | 46 | No | 41 | 42 | No | 38 | 42 | No |
| R2 - 783-797 Mamre Road Kemps Creek | 42 | 45 | No | 42 | 45 | No | 41 | 42 | No | 38 | 42 | No |
| R3 - 799-803 Mamre Road Kemps Creek | 42 | 46 | No | 42 | 46 | No | 41 | 42 | No | 38 | 42 | No |
| R4 - 15 Medinah Avenue Luddenham | 44 | 37 | Yes | 44 | 37 | Yes | 43 | 34 | Yes | 38 | 34 | Yes |
| R5 - 9 Medinah Avenue Luddenham | 44 | 36 | Yes | 44 | 36 | Yes | 43 | 34 | Yes | 38 | 34 | Yes |
| R6 - 676-702 Mamre Road Kemps Creek | 42 | 36 | Yes | 42 | 36 | Yes | 41 | 33 | Yes | 38 | 33 | Yes |
| R7 - 676-702 Mamre Road Kemps Creek | 42 | 39 | Yes | 42 | 37 | Yes | 41 | 34 | Yes | 38 | 34 | Yes |

**Figure 42 Unmitigated Standard Operations – Residential Receivers, $dBL_{eq,\ 15\ min}$ (Source: ARUP, 2021)**

Juxtaposed to **Figure 42** above, **Figure 43** below includes an assessment of operational noise levels following the implementation of mitigation measures (refer to Section 7 of **Appendix 14**), for which all predicted noise levels comply with the established PNTLs.

| Receiver | 1A. Day | | | 1B. Day | | | 2. Evening | | | 3. Night | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PNTL | Predicted Noise level | Complies | PNTL | Predicted Noise level | Complies | PNTL | Predicted Noise level | Complies | PNTL | Predicted Noise level | Complies |
| R1 - 771-781 Mamre Road Kemps Creek | 42 | 42 | Yes | 42 | 40 | Yes | 42 | 37 | Yes | 38 | 37 | Yes |
| R2 - 783-797 Mamre Road Kemps Creek | 42 | 42 | Yes | 42 | 40 | Yes | 42 | 37 | Yes | 38 | 37 | Yes |
| R3 - 799-803 Mamre Road Kemps Creek | 42 | 40 | Yes | 42 | 40 | Yes | 42 | 37 | Yes | 38 | 37 | Yes |
| R4 - 15 Medinah Avenue Luddenham | 44 | 30 | Yes | 44 | 31 | Yes | 43 | 29 | Yes | 38 | 29 | Yes |
| R5 - 9 Medinah Avenue Luddenham | 44 | 30 | Yes | 44 | 31 | Yes | 43 | 29 | Yes | 38 | 29 | Yes |
| R6 - 676-702 Mamre Road Kemps Creek | 42 | 33 | Yes | 42 | 30 | Yes | 42 | 30 | Yes | 38 | 30 | Yes |
| R7 - 676-702 Mamre Road Kemps Creek | 42 | 36 | Yes | 42 | 32 | Yes | 42 | 32 | Yes | 38 | 32 | Yes |

**Figure 43 Mitigated Standard Operations – Residential Receivers, $dBL_{eq,\ 15\ min}$ (Source: ARUP, 2021)**

### 6.8.3 Cumulative Noise

ARUP note that cumulative noise impacts are addressed as part of the prescribed procedure outlined in the NPfI [2] Project Noise Trigger Levels (PNTLs). The PNTLs consist of the project intrusiveness noise level and the Project Amenity Noise Level (PANL). The project intrusiveness noise level aims to protect against significant changes in noise levels, whilst the PANL seeks to protect against cumulative noise impacts from industry and maintain amenity for particular land uses. Accordingly, by applying the most stringent requirement as the PNTL, this ensures that both intrusive noise is limited and amenity is protected and that no single industry can unacceptably change the noise level of an area. Therefore, the PNTLs established for the Proposed Development ensures that noise amenity and cumulative noise impacts are appropriately limited.

Reference should be made to Section 7 of the Noise and Vibration Impact Assessment (refer to **Appendix 14**) which includes a comprehensive breakdown of planned management and mitigation measures to be implemented for the construction and operational phases of the Proposed Development. Furthermore, **Figure 44** below provides a synopsis of these mitigation measures pertaining to pre-mitigation and residual impacts.

| Potential pre-mitigation adverse impact | Relevant management measures | Potential residual impact after implementation of management measures |
|---|---|---|
| **Construction** | | |
| Adverse noise impacts affecting community | Preparation and implementation of a CNVMP. | Some residual noise impacts are likely to exceed noise management levels however receivers are not predicted to be 'highly affected', i.e. experience noise levels of 75 dBA or above. Disturbances to the community will be minimised by the implementation of recommended management measures. |
| Vibration impacts on human comfort or structural damage | Preparation and implementation of a CNVMP. | Low likelihood of residual vibration impacts if vibration management measures are implemented. |
| **Operation** | | |
| Operational noise adversely impacting community | Implement recommended mitigation measures | Low likelihood of residual noise impacts on community. |
| Road traffic noise affecting community | None | Low likelihood of residual noise impacts on community. |

**Figure 44 Summary of Pre-Mitigation and Residual Impacts (Source: ARUP, 2021)**

The complete Noise and Vibration Impact Assessment is located within **Appendix 14** of this EIS.

## 6.9 AIR QUALITY AND ODOUR

The *Air Quality Report* prepared by ARUP (2021), considers the potential air quality impacts on the Site and surrounding sites during the construction and operational phases of the Proposed Development (refer to **Appendix 13**).

The Air Quality Impact Assessment (AQIA) has been undertaken in accordance with the following legislation, policy and guidelines:

- The National Environment Protection (Ambient Air Quality) Measure (NEPM AAQ)
- NSW Protection of the Environment Operations (Clean Air) Regulation 2010 (POEO)
- NSW EPA – Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (January 2017)
- NSW Protection of the Environment Operations Act 1997 – Section 128

The closest receivers are generally rural-residential properties with some schools and childcare. The identified sensitive receivers are summarised in **Figures 45** & **46** below.

| Receiver ID (Figure 2) | Receiver Address/ Name | Receiver Type | X: Easting (m) | Y: Northing (m) |
|---|---|---|---|---|
| 1 | 797 Mamre Road, Kemps Creek | Residential | 294434 | 6253412 |
| 2 | 771 Mamre Road, Kemps Creek | Residential | 294610 | 6253567 |
| 3 | 772 Mamre Road, Kemps Creek | Residential | 294930 | 6253555 |
| 4 | 754A Mamre Road, Kemps Creek | Residential | 295116 | 6253612 |
| 5 | 784 Mamre Road, Kemps Creek | Residential | 295432 | 6253678 |
| 6 | 1 Aldington Road, Kemps Creek | Residential | 295849 | 6253923 |
| 7 | Emmaus Catholic College | School | 295549 | 6254311 |
| 8 | Trinity Primary School | School | 295327 | 6254520 |
| 9 | Little Smarties Early Learning Centre | School | 295142 | 6254276 |
| 10 | 2 Bakers Lane, Kemps Creek | Residential | 294972 | 6254207 |
| 11 | 11 Barkers Lane, Kemps Creek | Residential | 294821 | 6254345 |
| 12 | 654 Mamre Road, Kemps Creek | Residential | 294667 | 6254684 |
| 13 | 573 Mamre Road, Orchard Hills | Residential | 294075 | 6255528 |
| 14 | 83 Mandalong Close, Erskine Park | Childcare | 294017 | 6255711 |
| 15 | 43 Mandalong Close, Erskine Park | Residential | 293690 | 6255879 |
| 16 | 65 Mandalong Close, Erskine Park | Residential | 293522 | 6255791 |
| 17 | 501 Mandalong Close, Erskine Park | Residential | 293234 | 6255114 |
| 18 | 275 Luddenham Road, Orchard Hills | Residential | 292585 | 6255033 |
| 19 | 320 Luddenham Road, Orchard Hills | Residential | 292669 | 6254624 |
| 20 | 2 Comargo Lane, Luddenham | Residential | 29266 | 6254131 |
| 21 | 1 Medinah Avenue, Luddenham | Residential | 292994 | 6253788 |
| 22 | 9 Medinah Avenue, Luddenham | Residential | 293133 | 6253618 |
| 23 | 15 Medinah Avenue, Luddenham | Residential | 293258 | 6253490 |
| 24 | 25 Medinah Avenue, Luddenham | Residential | 293261 | 6253292 |
| 25 | Twin Creeks Golf (Maintenance Facility) | Recreational Area | 292829 | 6253966 |
| 26 | Twin Creeks Golf (Clubhouse) | Recreational Area | 292766 | 6253754 |

**Figure 45 Identified Nearby Sensitive Receivers (Source: ARUP, 2021)**

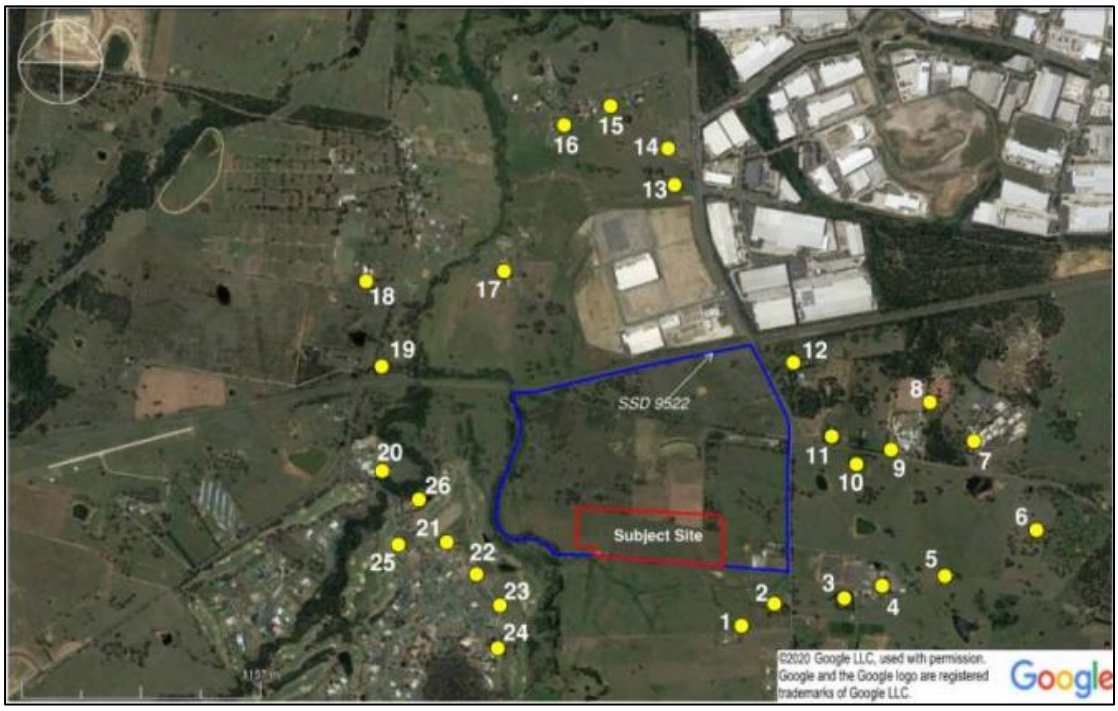


**Figure 46 Identified Nearby Sensitive Receiver Locations (Source: ARUP, 2021)**

### 6.9.1 Existing Background Air Quality

Existing air quality conditions for the area were determined using nearby Air Quality Monitoring Stations (AQMS) – the nearest being located at St Marys (3.7 km north of the Site), which includes relevant data recorded in 2014 pertaining to $NO_2$, $O_3$ and $PM_{10}$. The $PM_{2.5}$ data was ascertained from the Liverpool AQMS. Accordingly, the maximum 2014 background air quality concentrations are outlined in **Table 24** below.

**Table 24: Maximum Background Air Quality Concentrations for CO and $SO_2$**

| Pollutant | Averaging Period | Maximum Background Concentrations (µg/m³) |
|---|---|---|
| $PM_{10}$ | 1-hour | 121.8 |
| | 24-hour | 45.0 |
| $PM_{2.5}$ | 1-hour | 63.5 |
| | 24-hour | 24.3 |
| $O_3$ | 1-hour | 196 |
| $NO_2$ | 1-hour | 58.3 |
| CO | 1-hour | 2,875 |
| | 8-hour | 2,579 |
| $SO_2$ | 1-hour | 41.9 |
| | 24-hour | 12.8 |

**Note:** $SO_2$ background concentration data for year 2014 is not available at Liverpool AQMS. Data was based on year 2019, as year 2020 may not be representative of typical year conditions due to the COVID-19 pandemic.

ARUP note, that in the absence of publicly available data pertaining to the 10-minute and 15-minute local background concentration for the assessed CO and $SO_2$ pollutants, 1-hour background concentrations have been utilised for the purposes of the AQIA. Furthermore, ARUP note whilst the 15-minute or 10-minute background concentrations may be higher than the 1-hour concentrations, given the predicted cumulative impact of CO and $SO_2$ is generally well below the design criteria, it is unlikely that adopting the 15-minute or 10-minute background concentrations would result in significant increases to cause exceedances for these pollutants.

### 6.9.2 Construction Phase

ARUP note, that there is potential for dust generation associated with the construction of the Proposal. In addition, exhaust emissions from construction plant, machinery and vehicles may also generate impacts on local air quality.

The closest sensitive receiver to the Subject Site boundary is approximately 300 m in the southeast, for which it is noted, that winds are most prevalent from the southwest and south-southwest direction which will mostly disperse any construction dust from the Subject Site away from the closest receivers. Accordingly, ARUP anticipate that the risk of amenity / nuisance issues and human health impacts would be low for the construction phase of the Proposal with respect to air quality.

### 6.9.3 Operational Phase

From an operational perspective, the potential air quality impacts have been assessed over two (2) potential scenarios including:

**Scenario 1 – Justified Worst-case Scenario (All Generators Operating in a Loss of Mains Power Situation**

Nitrogen Dioxide

The concentrations shown in **Figure 47** below represent the maximum possible concentrations during a loss of mains power, with all generators operating and coinciding with the worst-case meteorological conditions. However, the likelihood of this scenario occurring is considered to be very low.

| Receiver ID | 1-Hour Nitrogen Dioxide ($NO_2$) Concentration ($\mu g/m^3$) | | | Comply |
|---|---|---|---|---|
| | Incremental | Cumulative | Criteria | |
| 1 | 712.3 | 723.6 | 246 | No |
| 2 | 768.1 | 771.9 | | No |
| 3 | 713.3 | 717.1 | | No |
| 4 | 684.4 | 688.2 | | No |
| 5 | 621.8 | 631.2 | | No |
| 6 | 463.5 | 484.1 | | No |
| 7 | 644.9 | 654.3 | | No |
| 8 | 656.0 | 657.9 | | No |
| 9 | 704.0 | 715.3 | | No |
| 10 | 747.7 | 760.8 | | No |
| 11 | 774.8 | 786.1 | | No |
| 12 | 692.1 | 740.9 | | No |
| 13 | 425.9 | 427.7 | | No |
| 14 | 347.2 | 369.3 | | No |
| 15 | 400.5 | 406.1 | | No |
| 16 | 451.8 | 458.2 | | No |
| 17 | 555.1 | 558.8 | | No |
| 18 | 533.6 | 537.3 | | No |
| 19 | 558.4 | 584.7 | | No |
| 20 | 556.9 | 564.1 | | No |
| 21 | 623.4 | 625.3 | | No |
| 22 | 668.1 | 670.0 | | No |
| 23 | 728.4 | 736.0 | | No |
| 24 | 638.9 | 640.8 | | No |
| 25 | 618.3 | 648.3 | | No |
| 26 | 585.0 | 603.0 | | No |

**Figure 47 Predicted 100th Percentile 1-hour $NO_2$ GLCs (Scenario 1) (Source: ARUP, 2021)**

Particulate Matter

ARUP state that the 100th percentile 24-hour averaged GLCs for $PM_{10}$ and $PM_{2.5}$ have been predicted at each of the assessed sensitive receivers. The results are shown in **Figure 48** below. The results show that both the cumulative $PM_{10}$ and $PM_{2.5}$ concentrations (i.e. inclusive of background concentrations) are predicted to meet the impact assessment criteria of 50 $\mu g/m^3$ and 25 $\mu g/m^3$ respectively, except at receiver 11 with a very marginal exceedances of 3.6%. Given the considerably small exceedances and that the likelihood of this scenario occurring is expected to be very rare at the Subject Site, the $PM_{2.5}$ impact risk at receiver 11 is expected to be low. Therefore, under a justified worst-case scenario, no significant impact is predicted for particulate matter concentrations.

| Receiver ID | 24-Hour Ground Level Concentrations (µg/m³) | | | | | |
|---|---|---|---|---|---|---|
| | $PM_{10}$ or $PM_{2.5}$ | $PM_{10}$ | | $PM_{2.5}$ | | Comply |
| | Incremental | Cumulative | Criteria | Cumulative | Criteria | |
| **1** | 3.1 | 45.4 | 50 | 22.4 | 25 | Yes |
| **2** | 3.8 | 45.4 | 50 | 22.8 | 25 | Yes |
| **3** | 3.2 | 45.2 | 50 | 22.5 | 25 | Yes |
| **4** | 3.4 | 45.2 | 50 | 22.3 | 25 | Yes |
| **5** | 1.7 | 45.3 | 50 | 22.4 | 25 | Yes |
| **6** | 1.2 | 46.2 | 50 | 22.2 | 25 | Yes |
| **7** | 2.1 | 46.2 | 50 | 22.2 | 25 | Yes |
| **8** | 2.4 | 45.3 | 50 | 22.7 | 25 | Yes |
| **9** | 2.9 | 46.2 | 50 | 22.5 | 25 | Yes |
| **10** | 3.2 | 46.7 | 50 | 22.7 | 25 | Yes |
| **11** | 4.3 | 45.2 | 50 | 23.7 | 25 | Yes |
| **12** | 2.2 | 45.0 | 50 | 22.6 | 25 | Yes |
| **13** | 1.0 | 45.0 | 50 | 22.1 | 25 | Yes |
| **14** | 0.8 | 45.0 | 50 | 22.1 | 25 | Yes |
| **15** | 0.5 | 45.0 | 50 | 22.1 | 25 | Yes |
| **16** | 0.8 | 45.0 | 50 | 22.1 | 25 | Yes |
| **17** | 1.5 | 45.0 | 50 | 22.1 | 25 | Yes |
| **18** | 0.8 | 45.0 | 50 | 22.1 | 25 | Yes |
| **19** | 1.4 | 45.0 | 50 | 22.1 | 25 | Yes |
| **20** | 1.9 | 45.0 | 50 | 22.1 | 25 | Yes |
| **21** | 1.4 | 45.1 | 50 | 22.2 | 25 | Yes |
| **22** | 1.6 | 45.1 | 50 | 22.2 | 25 | Yes |
| **23** | 2.2 | 45.1 | 50 | 22.2 | 25 | Yes |
| **24** | 2.1 | 45.1 | 50 | 22.3 | 25 | Yes |
| **25** | 1.5 | 45.0 | 50 | 22.1 | 25 | Yes |
| **26** | 1.2 | 45.0 | 50 | 22.1 | 25 | Yes |

**Figure 48 Predicted 100th Percentile 24-hour $PM_{10}$ and $PM_{2.5}$ GLCs (Scenario 1) (Source: ARUP, 2021)**

With respect to all other pollutants, including CO, $SO_2$, Benzene and PAHs, the results confirm these parameters are well below the relevant impact assessment criteria as outlined within Tables 12-14 of the AQIA (refer to **Appendix 13**).

**Scenario 2 – Realistic Operations (Routine Maintenance)**

Nitrogen Dioxide

As depicted in **Figure 49** below, the results show that the $NO_x$ emission for one generator at 100% load is much greater than the emission of two (2) generators at 10% load combined (representing no-load scenario), and similarly with one generator under 70% load.

| Frequency | Testing Load | $NO_x$ Emission (µg/m$^3$) | Number of Generator being Tested Simultaneously | Total $NO_x$ Emission per Testing (µg/m$^3$) |
|---|---|---|---|---|
| Bi-Monthly | No Load | 0.939 (based on 10% load) | 2 | 1.878 |
| Quarterly | 70% | 3.460 (based on 75% load) | 1 | 3.460 |
| Yearly | Full Load | 6.274 | 1 | 6.274 |

**Figure 49 Generator's NOx Emissions under different Testing Cycle (Source: ARUP, 2021)**

The results in **Figure 50** below show the cumulative $NO_2$ concentrations (i.e. inclusive of background concentrations) are predicted to be well below the impact assessment criteria. The highest predicted NO2 concentration occurs at receiver ID 23 (15 Medinah Avenue, Luddenham), with a GLC of 72.4 µg/m$^3$. This indicates that predicted 1-hour $NO_2$ concentrations at nearby sensitive receivers would meet the impact assessment criteria under all routine maintenance conditions.

| Receiver ID | 1-Hour Nitrogen Dioxide ($NO_2$) Concentration ($\mu g/m^3$) | | Comply |
|---|---|---|---|
| | Cumulative | Criteria | |
| 1 | 63.3 | 246 | Yes |
| 2 | 58.3 | | Yes |
| 3 | 59.1 | | Yes |
| 4 | 58.3 | | Yes |
| 5 | 58.3 | | Yes |
| 6 | 58.3 | | Yes |
| 7 | 58.3 | | Yes |
| 8 | 58.3 | | Yes |
| 9 | 58.3 | | Yes |
| 10 | 58.3 | | Yes |
| 11 | 58.3 | | Yes |
| 12 | 66.9 | | Yes |
| 13 | 58.3 | | Yes |
| 14 | 58.3 | | Yes |
| 15 | 58.3 | | Yes |
| 16 | 58.3 | | Yes |
| 17 | 58.3 | | Yes |
| 18 | 58.3 | | Yes |
| 19 | 58.3 | | Yes |
| 20 | 58.3 | | Yes |
| 21 | 66.3 | | Yes |
| 22 | 68.9 | | Yes |
| 23 | 72.4 | | Yes |
| 24 | 66.8 | | Yes |
| 25 | 59.8 | | Yes |
| 26 | 63.9 | | Yes |

**Figure 50 Predicted 100th Percentile 1-hour $NO_2$ GLCs (Scenario 2) (Source: ARUP, 2021)**

The predicted air quality impact on the nearby identified sensitive receivers during maintenance and testing periods is well below the design criteria for all assessed pollutants. On this basis, ARUP conclude that the operation of the standby generators during maintenance and testing activity would not adversely impact the air quality of the nearby sensitive receivers. Furthermore, operation of the Proposed Development is not anticipated to significantly impact local air quality; therefore, no specific mitigation or management measures are proposed for the operational phase.

## 6.10 HAZARDS AND RISKS

As mentioned in **Section 4.2.10** of this EIS, the *Hazards and Risk* report prepared by ARUP (2021) contains a preliminary risk screening in accordance with *State Environmental Planning Policy No 33 – Hazardous and Offensive Development* (SEPP 33) – and if required, a Preliminary Hazard Analysis (PHA), for which it details the location and quantity of potentially hazardous materials proposed to be used on-site (refer to **Appendix 21**).

The substances to be stored on-site are outlined in **Table 25** below. ARUP note, that Class 9 DGs are excluded from the risk screening.

**Table 25: Dangerous Goods Stored On-site**

| Substance | UN Number | DG Class | Quantity |
|---|---|---|---|
| Lithium-ion Batteries | 3480/3481 | 9 | 250 t |
| Diesel | 1202 | N/A – not a DG but it is a C1 combustible liquid | ~1,650 t |
| Transformer oil (mineral oil or ester oil) | N/A – not a DG but it is a C2 combustible liquid. | | 120 kL |

Since no thresholds set out within **Table 25** are exceeded, the development is not considered to be potentially hazardous and SEPP 33 does not apply in terms of storage. Additionally, the details of the storage of diesel fuel for the generators proposed on-site is outlined in **Table 26** below.

**Table 26: Diesel Stored in Back-Up Generators**

| Location | Number of Generators | Generator Capacity (kL) | Total Fuel (kL) |
|---|---|---|---|
| Data Hall | 60 | 31 | 1,860 |
| Administration Building | 2 | 6.5-7.5 | 15 |
| Total | 62 | N/A | 1,875 |

With regard to **Table 26** outlined above, each of the three (3) main buildings will have 20 data halls, and each data hall will have its own battery storage room. Additionally, each battery storage room will store 14 battery cabinets, which totals 840 cabinets for the Site pertaining to 250 t of lithium-ion batteries to be stored on-site.

In accordance with the quantities to be stored on-site, ARUP provides the following recommendations regarding the Site:

- *Each room storing battery cabinets is to be installed with the following measures:*
  - *A fire resistance level (FRL) of 120/120/120.*
  - *Adequate ventilation to ensure the off gassing of combustible gases or a gas detection system.*
  - *Smoke detection.*
  - *Dry pre-action sprinkler system.*
  - *The inclusion of lithium-ion batteries is to be incorporated into the overall fire safety strategy by the project fire engineer.*

Furthermore, the following recommendations apply to the storage of diesel fuel on-site, including:

- *The belly tanks shall comply with AS 1940-2017: The storage and handling of flammable and combustible liquids (AS 1940).*

- *Specifically, the tanks shall comply with Section 5.9 of AS 1940 - Requirements for above-ground tanks with integral secondary containment.*
- *There shall be at least 600 mm between generators stored side by side.*
- *There shall be at least 5.7 m between each set of generators and associated belly tanks.*

Further recommendations and mitigation measures to be implemented as a result of the Proposal include:

- *The regulator must be notified in accordance with Regulation 348 of the WHS Regulations.*
- *Outer warning placards are to be displayed at any entrance where emergency services may enter the workplace in accordance with Regulation 349 and Schedule 13 of the WHS Regulations.*
- *Placards are to be displayed on or near the containers of diesel in accordance with Regulation 350 and Schedule 13 of the WHS Regulations.*
- *An emergency plan will have to be prepared for the site and provided to the NSW Fire and Rescue as per the requirements of Regulation 361 of the WHS Regulations.*

## 6.11 BIODIVERSITY

As noted in **Section 4.2.3** of this EIS, the Conditions of Consent pertaining to SSD 9522 permit clearing of native vegetation across the Subject Site. Accordingly, as part of the subject Proposal, the Proponent requests that the requirement for a BDAR be formally waived in accordance with Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) on the basis that the Proposed Development:

- Includes provisions for the construction of a building and associated infrastructure on a site that has been cleared of native and exotic vegetation, with bulk earthworks and associated civil works being undertaken as part of SSD 9522.

- Will not require any clearing of vegetation.

- Will not result in any development within or adjacent to any riparian corridors and is located over 180 m from a fifth order watercourse, identified as South Creek.

- Will not result in any adverse impacts to any threatened species or ecological communities.

- Will not require impacts to any non-native vegetation or human-made structures that could potentially provide habitat for threatened fauna species.

## 6.12 SOCIO-ECONOMIC IMPACTS

Penrith City Council is generally supportive of continued growth in designated employment land to increase the local economy and promote increased localised employment opportunities.

There are three (3) reasons as to why the Proposed Development should be facilitated, including:

1. There is an adequate stock of undeveloped and zoned employment land identified within the *Western City District Plan* and the wider WSEA, including the Mamre Road Precinct; hence, this land should be developed for its intended industrial land use to generate employment local jobs within the Western Parkland City region.

2. There is a demand to store electronic data and records within secure locations. It is not necessarily feasible for this to occur in city centres within commercial and business locations, for which the WSEA is a suitable location.
3. The size and location of the Site is considered suitable for the intended and proposed use. It will also generate significant employment-generating opportunities for the professional employment sector.

Additionally, the Proposed Development would assist in providing new employment opportunities and promoting industry diversification (i.e. ICT sector). This SSD Application would not alter the quantity or configuration of land currently zoned for light industrial uses.

The Proposed Development, for the purposes of a Data Centre is considered consistent with the strategic direction of both the *Western City District Plan* (2018) and the Mamre Road Precinct Structure Plan for employment-related purposes. Additionally, the Proposed Development will further contribute to the growth of knowledge and professional service jobs within the Western City District; hence, contributing to the Western City District's economic growth.

It is noted, that if the Proposed Development did not proceed, the Site would not provide employment-generating opportunities for an employment sector, and rapidly growing ICT sector.

The Proposed Development can support the WSEA (specifically the Mamre Road Precinct) by maintaining industrial land stocks and employment objectives, while promoting industry diversification (and generating new employment sources) and can generate more employment during the planning, construction and maintenance phases.

It is noted, that the Proposed Development would deliver an employment outcome accommodating approximately 79 operational (full time) jobs and up to 300 construction jobs throughout the respective construction stages.

Additionally, the: Proposed Development would generate a range of community benefits / drivers, including:

- Reduced travel distances – which would generate benefits including, reduced vehicle wear and tear, reduced fuel costs, reduced pollution, reduced traffic congestion, reduced risks of car accidents and more time which can be spent either working, socialising or undertaken other activities.
- New employment opportunities.
- Providing jobs closer to people's homes.

It should be noted, given the scale and nature of the Proposed Development, it will have a minimal impact on the existing community and social facilities and that there are no requirements to provide for or contribute to new community or social infrastructure in the local area.

Accordingly, the Proposed Development can support the WSEA and Penrith LGA by developing existing industrial land stocks and promoting industry diversification (i.e. ICT sector and professionals). Additionally, it will also generate more employment during the planning, construction and maintenance stages.

## 6.13 ABORIGINAL CULUTURAL HERITAGE

The *Kemps Creek Data Centre Aboriginal Heritage Advice Memo* has been prepared by Artefact (2021) in relation to Aboriginal Cultural Heritage pertaining to the Proposed Development (refer to **Appendix 16**).

Artefact assume that all requirements ascertained from the Aboriginal Cultural Heritage Assessment Report (ACHAR) pertaining to SSD 9522 have been followed as part of the Conditions of Consent , for which all Aboriginal sites within the current study area have been subject to total direct impact, leading to a loss of value, as described in the ACHAR prepared by Biosis (2020).

Notwithstanding, as part of the memorandum prepared by Artefact, they note the following recommendations, including:

1. *Based on the ACHAR for the bulk earthworks (SSD 9522), this assessment has identified that Aboriginal objects are not likely to occur beneath the ground surface. As such further archaeological assessment of the study area is not required.*
2. *Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity that are not covered by an AHIP, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and DLALC must be notified.*
3. *If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured and the NSW Police and the Office of Environment and Heritage NSW should be notified.*

## 6.14 HISTORIC (EUROPEAN) HERITAGE

The *Statement of Heritage Impact* prepared by Artefact (2021) was prepared in accordance with the following relevant legislation and guidelines:

- *Heritage Act 1977*
- NSW Heritage Manual 1996
- The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013
- Statements of Heritage Impact, 2002

A summary of heritage listed items located within a 2 km buffer of the study area is outlined in **Table 27** below.

**Table 27: Summary of Listed Heritage Items in the Vicinity of the Study Area**

| Item Name | Address | Heritage Listing | Distance from Study Area |
|---|---|---|---|
| Bayley Park – House | 919-929 Mamre Road, Kemps Creek | I104 | <1.59 km |
| Fleurs Radio Telescope Site | 885A Mamre Road, Kemps Creek | I832 | 2 km |
| Luddenham Road Alignment | Luddenham Road, Luddenham | I834 | <1.2 km |
| Canine Council | 391-395 Mamre Road, Orchard Hills | I846 | <1.53 km |

Artefact note, that as the Proposed Development would be operating on land that is the subject of bulk earthworks approved under SSD 9522, no archaeological resources will remain on the Site. Additionally, no archaeological resources were identified during previous assessments as party of SSD 9522. Therefore, there are no archaeological impacts anticipated to occur as a result of the Proposed Development, for which the Proposed was deemed as having a:

- Neutral direct (physical) impact to all surrounding heritage items.
- Neutral indirect (visual) impact to all surrounding heritage items.

Artefact outline the following recommendations to be implemented as a result of the Proposed Development:

1. If the design for the proposed Data Centre is revised to include any works that may further impact on surrounding heritage items (such as a substantial increase in height or bulk), additional heritage assessment must be undertaken.
2. As the Proposal would not impact any archaeological remains that would be considered 'relics' under the Heritage Act, no archaeological excavation permits or exemptions are required for the Proposal.
3. If unexpected archaeological finds are discovered during the proposed works, an unexpected finds protocol should be implemented and followed.
4. All relevant staff, contractors and subcontractors should be made aware of their statutory obligations for heritage under the *NSW National Parks and Wildlife Act 1974* and *NSW Heritage Act 1977*.

The complete Statement of Heritage Impact prepared by Artefact is located within **Appendix 15** of this EIS.

### 6.15 BUSHFIRE

The *Bushfire Protection Assessment* prepared by Australian Bushfire Protection Planners (ABPP, 2021) considers the Proposal in accordance with the requirements of *Planning for Bushfire Protection 2019* (PBP). The Bushfire Impact Assessment considers the measures required to minimise bushfire risk on the Proposed Development and determines the deemed-to-satisfy protection requirements in accordance with the PBP (refer to **Appendix 20**).

ABPP note, that the Subject Site is mapped as containing Category 2 Bushfire Prone Vegetation (refer to **Figure 51**).

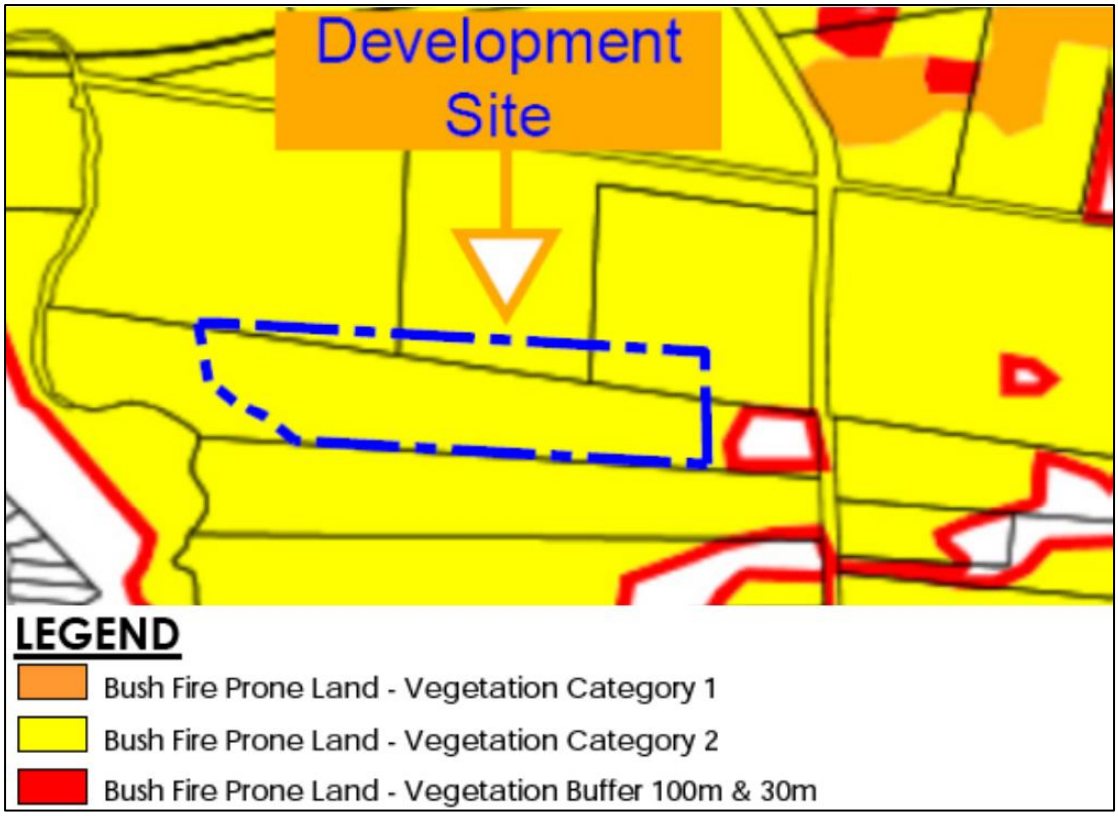


**Figure 51 Bushfire Prone Land Map (Source: NSW Legislation, 2021)**

**Table 28** outlined below examines the bushfire construction standards required to be implemented as a result of the Proposal to comply with AS 3959-2018 – Construction of Buildings in Bushfire Prone Areas.

| Table 28: Determination of Bushfire Construction Standards | | | | | |
|---|---|---|---|---|---|
| **Aspect** | **Vegetation within 140 m of the Development** | **Predominant Vegetation Formation Class** | **Effective Slope of Land** | **Width of Defendable Space provided to Fixed Assets** | **Bushfire Construction Standard – AS 3959-2018** |
| South of Data Centre | Unmanaged River Flat Forest | Forest | 0-5 degrees downslope | Minimum 27 metres | BAL 40 to southern elevation |
| South of Data Centre | Unmanaged Grassland | Grassland | 0-5 degrees downslope | Minimum 27 metres | BAL 12.5 to southern elevation |
| North & East of Data Centre | Unmanaged Grassland | Grassland | Level | N/A | Nil required – vegetation will be removed |
| West & Southwest of Data Centre | Unmanaged River Flat Forest | Forest | 0-5 degrees downslope | Minimum 27 metres | BAL 40 to western elevation |

In addition to **Table 28** outlined above, the following additional measures apply:

- Access doors (PA and Vehicle) to the building shall be fitted with seals that seal the bottom, stiles and head of the door against the opening / frame to prevent the entry of embers into the building.

  Particular attention shall be given to the gap at the head of the curtain of the roller doors, where mohair type seals shall be used.

- External timber doors shall be fitted with a stainless steel / colorbond kick plate of 400 mm high on the outside of the door.

- External glazed doors and windows shall comply with the requirements for glazing less than 400 mm above finished ground level; paths / pavement and elevated roofs.

- Any external vents, grilles and ventilation louvres shall have stainless steel mesh with a maximum aperture of 2 mm square fitted to prevent the entry of embers into the building, or be fitted with a louvre system which can be closed in order to maintain aperture or gap of no more than 2 mm.

Furthermore, the management of the defendable spaces within the Site shall comply with the recommendations of Appendix 4 of PBP and *Standards for Asset Protection Zones*, which should comply with the following recommendations:

- Maintain a clear area of low cut lawn or pavement adjacent to the buildings; and utilise non-flammable materials such as Scoria, pebbles and recycled crushed bricks as ground cover to landscaped gardens in close proximity to the building.

- Keep areas under shrubs and trees rakes and clear of combustible fuels.

- Trees and shrubs should be maintained in such a manner that tree canopies are separated by 2 m and understorey vegetation is not continuous (retained as clumps).

Accordingly, recommendations and further management measures to address the aims and objectives of PBP are noted as follows:

1. Defendable Space:
    a. The Defendable Space shall be maintained as an Inner Protection Area (IPA) – Asset Protection Zone (APZ).

2. Landscape Management:
    a. The design and maintenance of the landscaped areas within the Site shall comply with the prescriptions of an IPA pursuant to the specifications of Appendix 4 of the PBP and the NSW RFS document *'Specifications for Asset Protection Zones'.*
    b. The management of the landscaped areas shall be maintained under the terms of a positive covenant, pursuant to Section 88B of the *Conveyancing Act 1909* on the Title of the land.

3. Bushfire Construction Standards:
    a. Any part of the Data Centre located within 100 m of the bushfire hazard, being the vegetation within the RE1 Public Recreation zoned land, shall be constructed to comply with Sections 3 & 5 (BAL 12.5) of AS 3959-2018 – *'Construction of Buildings in Bushfire Prone Areas'.*
    b. The parts of the building located adjacent to the RE1 zoned land towards the south, west and southwest of the Proposal shall be constructed to comply with Sections 3 & 8 (BAL 40) of AS 3959-2018 – *'Construction of Buildings in Bushfire Prone Areas'.*
    c. Whilst the type of construction recommended addresses the potential radiant heat levels from a future bushfire in the vegetation on the adjoining RE1 zoned land, the following additional construction standards shall be implemented to safeguard the buildings against possible burning ember attack:
        i. Any external vents, ventilation louvres or grilles within the south-eastern elevation shall have stainless steel mesh [or perforated metal] with a maximum aperture of 2 mm square fitted to prevent the entry of embers into the building or be fitted with a louvre system which can be closed in order to maintain a maximum aperture or gap of no more than 2 mm;
        ii. Access doors [PA/Fire Exit] shall be fitted with seals that seal the bottom, stiles and head of the door against the opening/frame to prevent the entry of embers into the building; and
        iii. Roof ventilators shall be fitted with stainless steel flymesh [2 mm aperture] to prevent the entry of embers into the building or be fitted with a louvre system which can be closed in order to maintain a maximum aperture or gap of no more than 2 mm.

4. Evacuation Plan:
    a. A Site-specific Evacuation Plan shall be prepared for the Data Centre. The evacuation shall address the protocols for the timely location of staff / visitors in the event that an emergency occurs, both within the Site, or within the local area.
    b. A copy of the Evacuation Plan shall be provided to the Local Emergency Management Committee / NSW Police, Fire & Rescue NSW and the NSW RFS.
    c. The Evacuation Plan shall comply with AS 3745:2010 *'Planning for Emergencies in Facilities'.*

ABPP conclude that the Proposed Development complies with the aims and objectives of PBP and the deemed-to-satisfy provisions of Section 8.3.10 of the PBP – Buildings of Class 5 to 8 and Class 10 of the BCA.

## 6.16 AIRPORT SAFEGUARDING

An Airport Safeguarding Memorandum has been prepared by ARUP, which satisfactorily considers and addresses the relevant requirements stipulated under Section 2.1.1 of the Draft Mamre Road Precinct DCP, which is located in **Appendix 25** of this EIS. The safeguarding controls set out aims to prevent airspace intrusion, protect interference with avionics and landing instrumentation, and remove any distractions or conflicts for pilots.

Accordingly, the Proposal would not detract from the operations of the future Western Sydney Airport as the Proposal does not fall within the relevant contours or the Obstacle Limitation Surface (OLS) (the building is under 190-210 m), for which further assessment would be required to be undertaken with respect to heights and acoustic attenuation across the Site.

## 6.17 INFRASTRUCTURE REQUIREMENTS

The *Infrastructure Requirements Report* prepared by ARUP (2021) considers the relevant infrastructure requirements to facilitate future built form on the Subject Site (refer to **Appendix 22**). Accordingly, all infrastructure services can be provided as for the Proposed Development.

ARUP note, that the proposed Data Centre is a 'mission critical' facility which requires redundancy in its utility servicing, including back-up electrical generation, water storage tanks and separate telecommunication conduit routes. Accordingly, the construction of the Data Centre would be phased to suit future market demand.

### 6.17.1 Electricity

A temporary 22 kV switching station will be provided at the Site boundary to serve as a point of connection for the initial stages of the Data Centre. In the permanent arrangement, a 132 kV switching station, owned by the Proponent will be constructed and includes:

- 132 kV switchgear for control of the incoming 132 kV feeders and protection and distribution to the 70 MVA transformers.
- Four (4) 70 MVA 132/22 kV transformers.
- 22 kV switchgear to allow for protection, control and distribution of power around the Site via a 22 kV Proponent owned network.

Furthermore, back-up electrical supply is provided in the form of 60 x low voltage 3MW standby low voltage generators to supply the proposed Data Centre critical loads. Each generator will be housed in a prefabricated generator enclosure with noise attenuation and a belly tank, designed to comply with AS1940, providing 48 hours fuel storage.

A connection offer has been received from Endeavour Energy pertaining to two (2) redundant, fully rated supplies of the Site load at 132 kV minimising the time that backup generators are operational.

### 6.17.2 Water

To meet the high water demands associated with the cooling equipment, both harvested rainwater and mains supplies will be used. Water and rainwater harvesting tanks will be installed to store water. Water and sewer connections will be provided from mains

infrastructure within the Estate as proposed and approved under SSD 9522. The proposed water main requires to be upsized to cater for the demands of the proposed Data Centre.

#### 6.17.2.1 Sydney Water Correspondence

In a letter dated 21 June 2021, Sydney Water note that they will deliver the recycled water trunk network in the Precinct and recycled water is anticipated to be available from 2026 via the Upper South Creek Advanced Water Recycling Centre (AWRC), for which development contributions will be applicable for recycled water.

Pertaining to interim servicing and the acknowledgement that the Proposal will require a peak day water consumption of 553 KL/D from Q3 2022, Sydney Water identify the following amplification works to be undertaken:

- *A new DN300 lead in water main down Mamre Road to Bakers Lane that will bring water in from the Erskine Park Elevated Water Supply Zone as an interim supply. This main is being delivered by another developer and is currently expected to be operational by late 2021.*
- *Developers will be required to upsize drinking water mains fronting their developments to DN300 to ensure connection and supply. As your development is within the estate developed under SSD 9522, Sydney Water has been supportive of coordinated delivery of infrastructure to service both developments. We advise that a DN300 extension west from Baker's Lane intersection to the estate frontage and a DN300 offtake is required as an interim water servicing solution for the data centre. It is expected that once recycled water is available, the drinking water main will no longer be used as the primary source for non-potable uses.*
- *Please note that offtake main size will be confirmed at detailed design phase, with potential need for additional pressure or flow control devices to ensure that the water system meets the requirements set out in our Operating Licence.*
- *Additionally, we advise Microsoft to plan for onsite storage to mitigate the risk of supply loss and to cater for the data centre's peak demands.*

With respect to wastewater, Sydney Water note that they will continue to work with the Proponent and the wider Estate for which the Proposal is located to evaluate a temporary wastewater servicing solution is designed and operable for the wider Estate.

### 6.17.3 Telecommunications

ARUP note, that four (4) entry points for telecommunication supplies are proposed for the Site, with each separated by a minimum of 20 m to ensure path diversity can be achieved.

## 6.18 CONTRIBUTIONS

The Proposed Development would be subject to Council's Draft Section 7.11 Contributions Plan.

## 6.19 GREENHOUSE GAS AND ENERGY EFFICIENCY

The *Greenhouse Gas Assessment* prepared by ARUP (2021) included an assessment of the Greenhouse Gas (GHG) emissions pertaining to both the construction and operational phases of the Proposed Development (refer to **Appendix 18**).

**Tables 29** & **30** outlined below includes a summary of the baseline emissions excluding any mitigation measures.

| Table 29: Baseline Construction Emissions (16 Month Period 2022-2023) | | | |
|---|---|---|---|
| **Scope** | **Emission Category** | **Emissions ($tCO_{2-e}$)** | **% of total** |
| Scope 1 | Fuel | 672 | 2.22% |
| Scope 2 | Electricity | 2,919 | 9.67% |
| Scope 3 | Materials | 25,943 | 88.11% |
| | Electricity | 308 | |
| | Transport | 352 | |
| Total | | 30,194 | 100% |

| Table 30: Baseline Operation Emissions | | | | |
|---|---|---|---|---|
| **Scope** | **Emission Category** | **Emissions at First Year of Operation ($tCO_{2-e}$)** | **Total Emissions over Asset Life (50 years) ($tCO_{2-e}$)** | **% of total** |
| Scope 1 | Fuel | 355 | 17,750 | 3.48% |
| | Refrigerants | 13,596 | 679,800 | |
| Scope 2 | Electricity | 1,426,571 | 18,269,294 | 91.14% |
| Scope 3 | Electricity | 133,528 | 1,071,593 | 5.37% |
| | Transport | 274 | 6,745 | |
| Total | | 1,574,388 | 20,045,181 | 100% |

ARUP note, that operational emissions account for approximately 99.8% of total GHG emissions for construction and operation of the proposal, primarily due to the high electrical loads for the Proposal. Mitigation measures have therefore been selected to target the three (3) largest emitters during operation; scope 2: electricity, scope 3: electricity and scope 1: refrigerants (refer to **Figure 52** below).

| ID | Baseline Impact (first year of operation) | Development Phase | Mitigation | Residual Impact | Further Mitigations for Consideration | Responsibility |
|---|---|---|---|---|---|---|
| 001 | Scope 2 – Electricity: 1,426,571 $tCO_{2-e}$ | Operation | Data hall is designed to run at a higher temperature than typical. Up to 35 degrees. In addition, evaporative cooling is used to cool the servers, mitigating the need for additional chillers. This has resulted in a PUE of 1.25 rather than an industry standard of 1.6. | Scope 2 – Electricity: 1,114,509 $tCO_{2-e}$ | Off-site renewables – Enter into a power purchasing agreement (PPA) where electricity is sourced from off-site renewable energy. This has the potential to offset all scope 2 emissions. | Design Manager |
| 002 | Scope 3 – Electricity: 133,528 $tCO_{2-e}$ | Operation | As above. | Scope 3 – Electricity: 104,318 $tCO_{2-e}$ | None. | Na. |
| 003 | Scope 1 – Refrigerant: 13,596 $tCO_{2-e}$ | Operation | Evaporative cooling is used instead to cool the servers, no refrigerant or compressors in areas requiring main cooling. 70,850 kg of refrigerant omitted | Scope 1 – Refrigerant: 282 $tCO_{2-e}$ | None. | Na. |

**Figure 52 Mitigation Measures for GHG Impacts (Source: ARUP, 2021)**

Following the implementation of the abovementioned mitigation measures, the total operational GHG emissions in the first year of operation are estimated to reduce from 1,574,388 $tCO_{2-e}$ to 1,219,802 $tCO_{2-e}$, saving 23% of total emissions pertaining to ongoing operation. Furthermore, **Figure 53** below compares the total emissions in the first year of operation compared to the most recent State and National emissions figures, for which the Proposal represents a significantly small percentage of State and National emissions.

| Emissions at first year of operation ($MtCO_{2-e}$) | NSW & National Emissions ($MtCO_{2-e}$) | | Project Emissions as % of NSW & National Emissions ($MtCO_{2-e}$) | |
|---|---|---|---|---|
| | NSW (Environment, n.d.) | National (Deparment of Industry, n.d.) | NSW | National |
| 1.2 | 131.7 | 499 | 0.9% | 0.2% |

**Figure 53 Comparing the Proposals Emission to State and National Emissions (Source: ARUP, 2021)**

## 6.20 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

The *ESD Report* prepared by ARUP (2021) considers how the Proposal will incorporate the principles of Ecologically Sustainable Development (ESD) into the design, construction and ongoing operation of the development. Consideration will also be given to the design initiatives included in the Proposal, or earmarked for further evaluation, which relate to ESD principles (refer to **Appendix 17**).

The ESD principles defined in Clause 7(4) of Schedule 2 of the EP&A Regulation are detailed below as well as a summation being further provided in **Part H** of this EIS.

**The Precautionary Principle**

The Proposal will target a LEED rating in relation to the design of the Data Centre, with specific targets envisaged around GHG emissions and energy efficiency. This includes optimisation of mechanical plant and equipment to improve energy performance and the purchase of Greenpower and / or carbon offsets in order to reduce emissions associated with operations.

**Inter-generational Equity**

Through the optimisation of the overall facility's design, operational energy use has been minimised. Implementation of appropriate energy efficiency measures subsequently reduce the carbon and environmental footprint of the facility, minimising potential long-term impacts on future generations.

Additionally, the Data Centre will not only provide employment-generating opportunities for the immediate term; however, will generate opportunities beyond the medium and longer-term; hence, the Proposal is considered to positively contribute towards a diverse and productive environment for current and future generations.

**Conservation of Biological Diversity and Ecological Integrity**

All native vegetation clearing has been undertaken previously pursuant to SSD 9522. The nearest sensitive land uses comprise the RE1 Public Recreation and RE2 Private Recreation zones to the west of the Subject Site, which are appropriately separated by building setbacks and increased landscaping provisions as part of the Proposal.

**Improved Valuation, Pricing and Incentive Mechanisms**

The Proposal has considered social, economic and environmental sustainability requirements during the design process. Additionally, as part of the LEED requirement, it is likely that a Life Cycle Assessment (LCA) will be undertaken ensuring that ESD principles are appropriately considered, valued and priced at each stage of the Proposal's lifecycle.

Sustainability measure that will be implemented (where deemed practicable), as outlined in **Table 31** below.

| **Table 31: ESD Project Design Initiatives** | | |
|---|---|---|
| **Impact** | **Mitigation** | **Mitigation Details** |
| Heat island effect – The proposal is a large structure with significant thermal mass so will contribute to the heat island effect | High Solar Reflectivity (SR) materials | Consideration will be given to the use of roof and non-roof materials with high SR values to mitigate the heat island effect where appropriate and where not conflicting with other requirements (such as safety around airport safeguarding). |
| Water use – The unmitigated water impact is approximately 50,000 $m^3$ of water use per year once operational. The majority of this demand is required for cooling. | Reverse Osmosis integrated AHU's | AHU's are proposed to include reverse osmosis which will enable 75% of discharge water to be reused. This is expected to reduce the total water consumption required for cooling by approximately 6,000 $m^3$ per year. |
| | Planting water efficient native plants | It is intended that water efficient native plants will be used for landscaped areas which will reduce the volume of water required for irrigation or mitigate the need for on-site irrigation altogether. The extent of water saved will be further developed through detailed design. |
| | Rainwater recycling | If on-site irrigation is required, rainwater harvesting will be implemented to capture the majority of the roof's water. Allocation of rainwater to irrigation and cooling will be part of specification with no mains back up for rainwater. This will reduce the use of potable water for the proposal. The extent of water saved will be further developed through detailed design. |
| | Water efficient appliances | All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labelling will be WELS labelled. The design will target a 20% reduction in water use for toilets, urinals, lavatory faucets, kitchen faucets and showerheads against an agreed baseline. Opportunities to reduce water use by greater than 20% will be considered where practical. |
| | Building-level metering | Water metering will likely happen per cell, enabling ongoing tracking of water consumption and identification of leaks to prevent unnecessary losses. The extent of water saved will be further developed through detailed design. |
| | Sub-metering | Further design work is required to establish sub-metering requirements for AHUs, indoor plumbing fixtures and the rainwater tank (if applicable). A schedule for water sub-meters and their location is to be included in the specs. The extent of water saved will be further developed through detailed design. |
| Energy use – The unmitigated energy use is approximately 2,00,000 MWh of grid electricity per | Power Utilization | The data hall is designed to run at a higher temperature than typical, up to 35 degrees. In addition, evaporative cooling will be used to cool the servers, mitigating the need for |

| | | |
|---|---|---|
| year. | Effectiveness (PUE) reduction | additional chillers. This is estimated to result in a PUE of 1.25 rather than an industry standard of 1.6, a saving of 22%. |
| | Whole-building energy simulation | It is intended that energy modelling will be used throughout the design to analyse energy efficiency measures. This will enable prioritisation of the most effective energy saving measures and will be further developed through detailed design. |
| | Building-level metering | Building-level energy meters will be installed in compliance with NSW service and installation rules, enabling ongoing tracking of energy consumption and identification of energy management strategies to reduce consumption. The extent of the energy saved will be further developed through detailed design. |
| | Sub-metering | All IT loads, air-conditioning plant, artificial lighting, appliance power and voltage transformers (VT) will be metered individually. Energy meters will be linked to a communications system that collates the time of use energy consumption data to a single interface monitoring system. The extent of the energy saved will be further developed through detailed design. |
| Refrigerants – The unmitigated refrigerant use is approximately 72,000 kg | Refrigerant use reduction | The amount of refrigerant required will be reduced through the use of evaporative cooling to cool the servers and main areas. Air conditioning will only be provided to offices and equipment rooms. As a result, the project is expected to use just 1,500 kg of refrigerant. |
| | Avoid CFC-based refrigerants | The use of CFC-based refrigerants will be avoided by using refrigerant type R410A throughout the building. This will reduce emissions from refrigerants by up to 75%. |
| Waste – The unmitigated waste to landfill rate during construction is approximately 11,000 tonnes | Storage and collection of recyclables | The design will provide dedicated areas accessible to waste haulers and building occupants for the collection and storage of recyclable materials for the entire building. Recyclable materials will include mixed paper, corrugated cardboard, glass, plastics, and metals. This is expected to divert approximately 70% of construction waste from landfill. |
| | Construction and demolition waste management planning | A construction and demolition waste management plan will be developed with a final report detailing all major waste streams generated, including disposal and diversion rates. |

| | | |
|---|---|---|
| Local pollution | Construction activity pollution prevention | An erosion and sedimentation control plan for all construction activities associated with the Proposal will be prepared to reduce levels of pollution. |
| | Bicycle facilities | Bicycle storage, lockers and showering facilities will be included in the design. Current provision is for 20 covered parking spaces, 10 lockers, 6 showers and 2 changing rooms. This will encourage staff to cycle to work, having a positive impact on traffic and local pollution. |
| | Electric vehicle charging | Parking bays will contain charging facilities for electric vehicles (EV) with at least 6 EV bays. This will encourage the use of EV's, again having a positive impact on local pollution. |

## 6.21 BUILDING CODE OF AUSTRALIA & FIRE ENGINEERING

The *BCA Assessment Report* prepared by Blackett Maguire + Goldsmith (2021) includes an assessment of the Proposed Development against the Deemed-to-Satisfy (DtS) provisions of the BCA. Blackett Maguire + Goldsmith consider that the Proposed Development can readily achieve compliance with the relevant provisions of the BCA. Notwithstanding the following fire safety measures are required for the Proposal, as outlined in **Table 32** below.

**Table 32: Fire Safety Measures Pertaining to the Proposal**

| Statutory Fire Safety Measure | Design / Installation Standard |
|---|---|
| Alarm Signalling Equipment | AS 1670.3 – 2018 |
| Automatic Fail-Safe Devices | BCA Clause D2.21 |
| Automatic Fire Suppression Systems | BCA Spec. E1.5 & AS 2118.1 – 2017 |
| Building Occupant Warning System activated by the Sprinkler System | BCA Spec. E1.5, Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018 |
| Emergency Lighting | BCA Clause E4.4 & AS 2293.1 – 2018 |
| Exit Signs | BCA Clauses E4.5, E4.6 & E4.8; and AS 2293.1 – 2018 |
| Fire Dampers | BCA Clause C3.15, AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and manufacturer's specification |
| Fire Doors | BCA Clause C2.12, C2.13, C3.4, C3.5, C3.8 and AS 1905.1 – 2015 and manufacturer's specification |
| Fire Hose Reels | BCA Clause E1.4 & AS 2441 – 2005 |
| Fire Hydrant Systems | BCA Clause E1.3 & AS 2419.1 – 2005 |
| Fire Seals | BCA Clause C3.15, AS 1530.4 – 2014 & AS 4072.1 – 2005 and manufacturer's specification |
| Lightweight Construction | BCA Clause C1.8 & AS 1530.3 – 1999 and manufacturer's specification |
| Mechanical Air Handling Systems | BCA Clause E2.2, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012 |
| Paths of Travel | EP&A Regulation Clause 186 |
| Perimeter Vehicular Access | BCA Clause C2.4 |
| Portable Fire Extinguishers | BCA Clause E1.6 & AS 2444 – 2001 |
| Smoke Exhaust | BCA Spec. E2.2b and AS 1668.1-2015 |
| Stretcher Lifts | BCA Clause E3.2 |
| Smoke Detectors (auto shutdown) | Clause 6(b) of Spec. E2.2a & AS 1668.1 - 2015 |
| Warning & Operational Signs | Section 183 of the EP&A Regulation 2000, AS 1905.1 – 2015, BCA Clause D2.23, D3.6 & E3.3 |

# PART G PLANNED MANAGEMENT AND MITIGATION MEASURES FOR THE PROPOSED DEVELOPMENT

| | |
|---|---|
| **By:** | ARUP |
| **In relation to:** | Proposed State Significant Development Application (Proposed Data Centre) |
| **Site:** | 707-769 Mamre Road, Kemps Creek (Lots X & Y DP 421633 and Lot 22 DP 258414) |

ARUP, plan to undertake the construction and operation of the proposed Data Centre, in accordance with the following:

Below prescribes some of the terms and abbreviations used in this Statement, including:

| | |
|---|---|
| **Approval** | The Minister's Approval of the Proposed Development |
| **BCA** | Building Code of Australia |
| **Council** | Penrith City Council |
| **Department** | Department of Planning, Industry and Environment |
| **EIS** | Environmental Impact Statement |
| **EP&A Act 1979** | *Environmental Planning and Assessment Act 1979* |
| **Project** | The Proposed Development as described in this EIS |
| **Proponent** | ARUP |
| **Secretary General** | Secretary General of the Department (or delegate) |
| **Site / Subject Site** | Land to which the project application applies |
| **WorkCover** | NSW WorkCover |

## 7.1 ADMINISTRATIVE COMMITMENTS

**Commitment to Minimise Harm to the Environment**

1. ARUP 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.

**Construction Certificates**

2. ARUP will ensure that a staged approach will be taken to obtain relevant Construction Certificates with respect to the respective construction stages.

**Occupation Certificate**

3. ARUP will ensure that a staged Interim and Final Occupation Certificate, are obtained prior to the occupation of each section of the Data Centre building.

**Terms of Approval**

4. ARUP would carry out the Project generally in accordance with the:

    a) Environmental Impact Statement;
    b) Drawings prepared by Greenbox Architecture;
    c) Management and Mitigation Measures;
    d) Any Conditions of Approval (including operational use of the Site 24/7).

5. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.

6. ARUP would ensure compliance with any reasonable requirement(s) of the Secretary-General of the Department of Planning, Industry and Environment arising from the Department's 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.

**Structural Adequacy**

7. ARUP would ensure that all new buildings and structures on the Site are constructed in accordance with the relevant requirements of the BCA.

**Operation of Plant and Equipment**

8. ARUP would ensure that all plant and equipment used on-site, is maintained and operated in proper and efficient manner, and in accordance with relevant NSW EPA noise emission criteria and Australian Standards.

**Construction Traffic Management Plan**

9. ARUP would ensure that a Construction Traffic Management Plan (CTMP) is prepared and submitted to the NSW DPIE. This plan would:

    a) be submitted to the Secretary-General 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.
    e) be in accordance with the CTMP approved under SSD 9522.

**Construction Environmental Management Plan**

10. Prior to the commencement of construction, a Construction Environmental Management Plan (CEMP) would be prepared that addresses the following:

    a) Land Contamination;
    b) Air Quality;
    c) Waste Classification;
    d) Erosion and Sediment Control; and,
    e) Materials Management Plan.

**Monitoring the State of Roadways**

11. The Proponent will monitor the state of roadways leading to and from the Subject Site and will take all necessary steps to clean up any adversely impacted road pavements as directed by Council.

**Waste Receipts**

12. A permanent record of receipts for the removal of both liquid and solid waste from the site should be kept and maintained up to date at all times. Such records will be made available to authorised person upon request.

## 7.2 SPECIFIC ENVIRONMENTAL COMMITMENTS

**General Noise Recommendations**

13. Construction on the Subject Site would only be undertaken between 7am and 6pm Monday to Friday, and 8am and 1pm on Saturdays. No construction will be permitted at the Subject Site on Sundays or public holidays. The following specific measures are proposed throughout the construction and operational phases of development:

    a) Prompt response to any community issues of concern;
    b) Noise monitoring on-site and within the surrounding areas;
    c) Refinement of on-site noise mitigation measures and plant operating procedures where practical;
    d) Preparation of a formal noise management plan including noise monitoring program;
    e) For equipment with enclosures (i.e. compressor rooms) ensure door and seals are well maintained and kept closed when not in use;
    f) Keep plant and equipment well maintained, regular inspection and maintenance of equipment to ensure it is good working order;
    g) Equipment not to be operated until it is maintained or repaired;
    h) Regularly train workers (i.e. toolbox talks) to use equipment in ways to minimise noise;
    i) Operate mobile plant in a quiet, efficient manner;
    j) Switching off vehicles and plant when not in use; and,
    k) Incorporate clear signage at the site including relevant contact numbers for community enquiries.

**Construction Noise Recommendations:**

14. Preparation and implementation of a CNVMP.

**Construction Traffic**

15. During construction:

    a) all trucks entering or leaving the Site with loads, will have their loads covered;
    b) trucks associated with the project do not track dirt onto the public road network; and,
    c) the public roads used by these trucks are to be kept clean.

**Dust Management**

16. During the construction phase of the project, all reasonable and feasible measures to minimise dust generation by the project. These include:

| Source | Control Measures |
|---|---|
| **General** | |
| Visual Inspection | Carry out visual inspections of the Subject Site during site preparatory and construction activities and employ measures (where necessary) to minimise any visible air pollution generated by the Project. |
| Regular Maintenance | Regularly inspect and perform maintenance on dust control using the latest technologies (i.e. water sprays nozzles) and measures to ensure the effectiveness of such controls. |

| | |
|---|---|
| Erosion Control Structures | Silt and other material removed frequently from around erosion control structures to ensure deposits do not become a dust source. |
| Vegetated Buffers | Retain existing vegetation, where appropriate and implementing additional vegetated buffers around the boundary of the Site to provide a physical barrier to the transportation of pollutants in the direction of sensitive receptors. |
| Waste Materials | Cleared vegetation, demolition materials and other combustible waste material will not be burnt on-site.<br><br>All waste materials be appropriately contained (in skips, bins) and covered during adverse weather conditions and handled in accordance with the Subject Site's Waste Management Plan. |
| **Wind Blown Dust Sources** | |
| Disturbed Areas | – Disturb only the minimum area necessary.<br>– Stabilise all disturbed areas as soon as practicable to prevent or minimise windblown dust.<br>– Regularly assess weather conditions to identify adverse weather conditions that are unfavourable in terms of dust levels at receptor locations surrounding the Site (such as on dry days, during strong winds, particularly north easterly winds blowing in direction of the school(s) along Bakers Lane). |
| Stockpile/s | – Water sprays and/or covers will be employed for material stockpiles, particularly during adverse weather conditions, to minimise dust generation.<br>– Stockpiles will be covered overnight.<br>– Use of chemical dust suppressants will also be used where necessary.<br>– Fencing, bunding or shelterbelts will be used to reduce ambient wind speeds (in some areas). |
| Transportation (Trucks) | – Truck loads will be covered with tarpaulin or lid prior to transport of dusty materials by road.<br>– Minimise truck queuing and unnecessary trips through logistical planning of materials delivery and work practices.<br>– Reduce vehicle / truck idling times.<br>– Maintain a following distance of trucks of 20 seconds minimum to allow for dust clouds generated by the lead truck to dissipate.<br>– Install a truck wheel wash or shaker grid to remove any loose dirt. |
| **Activity Generated Dust Sources** | |
| Internal Road Dust | – Roads and trafficked areas will be watered down using a water-cart and/or sprinklers to minimise the generation of dust.<br>– Haulage vehicles will be restricted to the most direct route and minimal manoeuvring areas to prevent indiscriminate driving over non-active areas.<br>– Haul roads and hard stand areas will have designated speed limits (i.e. generally 20 km/hour).<br>– Enforce speed limits on all on-site vehicles to minimise wheel-generated dust.<br>– Stabilise access roads and work areas as soon as practicable to prevent or minimise windblown dust.<br>– Maintain roads on a regular basis to ensure roads are clearly marked, pot holes and corrugations are eliminated, and extra material build up is removed or redistributed on the road. |

| | |
|---|---|
| | – Chemical dust suppressants used where necessary. |
| External Road Dust | – Vehicles causing dirt tracks out onto main roads would be cleaned on a regular basis to prevent this becoming an additional source of dust.<br>– Material spillages would be cleaned up promptly. |
| Excavation | – Apply water sprays to trucks and loading points for dust suppression. |
| Loading and Dumping | – Dump heights will be minimised wherever possible (reduce to 8 m). |
| Plant and Equipment | – All plant and equipment used during activities will be maintained and operated in a proper and efficient condition.<br>– Reduce idling times of trucks and other machinery.<br>– Fixed plant should be located as far from local receptors as possible. |
| **Excessive Dust Events** | |
| Internal Roads | – Employ additional water spraying / water carts.<br>– Further reduce speed on haul roads during high winds.<br>– Halt traffic movements. |
| Stockpiles | – Cover stockpiles of material. |
| Project Site | – Temporarily halt activities and resume once weather conditions have improved. |

**Waste Management**

17. ARUP will ensure that all waste generated on-site during operation is classified in accordance with the Office of Environmental and Heritage's *Waste Classification Guidelines: Part 1 Classifying Waste* and disposed of to a facility that may lawfully accept the waste.

**Erosion and Sediment Control**

18. ARUP will install silt traps during the construction phase to ensure there are no pollutants or sediments that exit the site or unacceptable impacts result on surrounding vegetation or waterways.

**Protection of Vegetation**

19. ARUP will mark the clearance boundaries prior to commencement of construction to ensure that there is no unnecessary removal of vegetation.

**Aboriginal Heritage**

20. Based on the ACHAR for the bulk earthworks (SSD 9522), this assessment has identified that Aboriginal objects are not likely to occur beneath the ground surface. As such further archaeological assessment of the study area is not required.

21. Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity that are not covered by an AHIP, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and DLALC must be notified.

22. If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured and the NSW Police and the Office of Environment and Heritage NSW should be notified.

**Ecologically Sustainable Development**

23. ARUP would investigate the following ESD measures in respect of:

(a) Energy & Greenhouse Gas Emissions.
(b) Potable water reduction.
(c) Minimising waste to landfill.
(d) The Indoor Environment.
(e) Occupant amenity and comfort.
(f) Land Use and Ecology.
(g) Emissions.
(h) Building Management.

**Bushfire Protection**

24. ARUP will ensure that:

- Defendable Space:
  - The Defendable Space shall be maintained as an Inner Protection Area (IPA) – Asset Protection Zone (APZ).

- Landscape Management:
  - The design and maintenance of the landscaped areas within the Site shall comply with the prescriptions of an IPA pursuant to the specifications of Appendix 4 of the PBP and the NSW RFS document *'Specifications for Asset Protection Zones'.*
  - The management of the landscaped areas shall be maintained under the terms of a positive covenant, pursuant to Section 88B of the *Conveyancing Act 1909* on the Title of the land.

- Bushfire Construction Standards:
  - Any part of the Data Centre located within 100 m of the bushfire hazard, being the vegetation within the RE1 Public Recreation zoned land, shall be constructed to comply with Sections 3 & 5 (BAL 12.5) of AS 3959-2018 – *'Construction of Buildings in Bushfire Prone Areas'.*
  - The parts of the building located adjacent to the RE1 zoned land towards the south, west and southwest of the Proposal shall be constructed to comply with Sections 3 & 8 (BAL 40) of AS 3959-2018 – *'Construction of Buildings in Bushfire Prone Areas'.*
  - Whilst the type of construction recommended addresses the potential radiant heat levels from a future bushfire in the vegetation on the adjoining RE1 zoned land, the following additional construction standards shall be implemented to safeguard the buildings against possible burning ember attack:
    - Any external vents, ventilation louvres or grilles within the south-eastern elevation shall have stainless steel mesh [or perforated metal] with a maximum aperture of 2 mm square fitted to prevent the entry of embers into the building or be fitted with a louvre system which can be closed in order to maintain a maximum aperture or gap of no more than 2 mm;
    - Access doors [PA/Fire Exit] shall be fitted with seals that seal the bottom, stiles and head of the door against the opening/frame to prevent the entry of embers into the building; and

        - Roof ventilators shall be fitted with stainless steel flymesh [2 mm aperture] to prevent the entry of embers into the building or be fitted with a louvre system which can be closed in order to maintain a maximum aperture or gap of no more than 2 mm.
- Evacuation Plan:
    - A Site-specific Evacuation Plan shall be prepared for the Data Centre. The evacuation shall address the protocols for the timely location of staff / visitors in the event that an emergency occurs, both within the Site, or within the local area.
    - A copy of the Evacuation Plan shall be provided to the Local Emergency Management Committee / NSW Police, Fire & Rescue NSW and the NSW RFS.
    - The Evacuation Plan shall comply with AS 3745:2010 *'Planning for Emergencies in Facilities'.*

# PART H PROPOSED DEVELOPMENT JUSTIFICATION

The Proposed Development is justified on environmental, social and economic grounds and is compatible with the locality in which it is proposed. Refer to **Part F** of this EIS, that provides detail regarding the justification of the environmental, social and economic impacts of the Proposed Development.

This SSD Application is considered supportable on this basis for the following reasons:

### 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.* It demonstrates an ability to provide employment in an area already earmarked for employment through both State and Regional planning policies.

### 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 as well as the wider WSEA and the wider Western Sydney Region. The ICT Sector is an important economic driver and job generator for Western Sydney as a region, as well as the WSEA and its surrounding area, supporting functional land uses that supports cloud based requirements for a multitude of business operations.

The Proposed Development complements significant government investment in infrastructure. Indeed, it delivers many of the strategic planning objectives enunciated throughout State Strategies, e.g. SEPP (WSEA) 2009. The Proposed Development would be a highly appropriate and compatible 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 envisage economic growth and employment-generating land uses at this location.

### 3. Minimises Environmental Impacts

Specialist consultants have all assessed all of the potential impacts of the Development and determined that the Proposed Development can be undertaken with minimal environmental and adverse impacts pertaining to the regional road network; acoustic outputs; air quality; biodiversity; and other neighbours with respect to visual amenity. The commissioned reports 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 G** of this EIS.

### 4. Creates Compatibility with Surrounding Development

The Proposed Development use (Data Storage) for the purposes of a Data Centre, is considered compatible with existing uses surrounding the Subject Site on adjoining land, as well as land located throughout the wider WSEA. The investigations undertaken as part of this SSD Application conclude, that no significant cumulative impacts will occur from the proposed use of the Site, for the purposes of a Data Centre. Rather, the proposed use would be complementary to the surrounding development within the IN1 General Industrial zone.

### 5. Delivers Ecologically Sustainable Development

The principles of Ecologically Sustainable Development 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 due to the Proposed Development.

***Inter-generational Equity***

The Project Team and Consultants have examined the overall effects of the Proposed Development on the Natural Environment and the existing Built Environment at and around the Proposed Development. The project Team has examined Flora and Fauna; Bushfire; Traffic, Aboriginal Cultural Heritage and European Heritage, Flooding, Water Quality and Quantity, Acoustics, Vibration, Hazards and Risks, Air Quality, Social Impacts and Waste Management. 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. Indeed, the Proposed Development would improve the economies of the region through both substantial investment and new employment, thereby improving the inter-generational equity.

***Conservation of Biological Diversity and Ecological Integrity***

This EIS has commissioned overall detailed assessments of the Site's Flora and Fauna. These reports were carried out by ARUP and have concluded that for the Proposed Development, there would be no significant impacts on any species or ecological communities contained within the locality. This is primarily because few species are currently present on the land and those species that exist are in a poor condition. The areas that are impacted are proposed to be offset by Biodiversity credits. Notwithstanding, all biodiversity impacts have been previously assessed under SSD 9522.

***Improved Valuation, Pricing and Incentive Mechanisms***

The Proposed Development would enable new cost efficiencies, through the timely provision of Data Centre, with a total investment (including infrastructure and land) value for this SSD Application of some $309 Million (excluding GST).

***Environmental Management***

The Proposed Development implements significant and elaborate measures that avoid, contain and address any possible air-quality impacts; noise impacts; waste and pollution; through avoidance; better design and management. This is exemplified through acoustic measures; waste management control practices; and erosion-and-sediment control measures, which will be implemented throughout both the construction and operational phases of the Proposed Development.

# PART I CONCLUSION

The Proposed Development is defined as SSD pursuant to Schedule 1, Part 25 of SEPP (SRD) 2011. In developing the Site for a Data Centre, this Application fully satisfies all requisite provisions of qualification as SSD. The Proposed Development is a category defined with SEPP (SRD) 2011, namely a Data Centre, for the purposes of data storage; it also has a CIV over $50 Million.

The Proposed Development, for the purposes of a Data Centre, is considered to be entirely consistent with the Objects of the EP&A Act, 1979 under Section 1.3, particularly, the notion of promoting the orderly and economic development of the land (Subject Site). The Proposed Development is considered to form a sequential (orderly) representation and formal extension to the already developed industrial and employment precincts of the WSEA. In this regard there are existing industrial developments already located throughout the WSEA, including approved and proposed development within the Mamre Road Precinct in close proximity to the Subject Site. 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 utilization 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, it is concluded:

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, and implementation of Ecologically Sustainable Development measures that contribute to create a new and leading-edge form of development, for the purposes of a Data Centre.

   In terms of the statutory context, the Proposal is entirely consistent with the Objects of the Act pursuant to Section 1.3 of the EP&A Act 1979 in that it represents an orderly and sequential development. The appropriateness of the Proposed Development is also demonstrated through full compliance with SEPP (WSEA) 2009 in that it achieves the employment generating outcomes envisaged for the Site with minimal impact on surrounding land uses and the environment.

2. **Suitability of the Site** - The Site is highly suitable for the Proposed Development as it can be serviced in the immediate term. It also presents an unconstrained platform for development in that it is relatively flat, is located within close proximity of key road infrastructure and it has limited constraints in terms of flooding, ecology and heritage.

3. **Community and Stakeholder Engagement** – A comprehensive community engagement strategy has been executed, which involved face to face meetings with the relevant government agencies and community members. All nearby residents were also notified of the Proposed Development with no objections received. All matters raised by the agencies have been comprehensively addressed throughout this EIS.

4. **Noise and Vibration** – Noise monitoring carried out (attended and unattended) indicates that the Proposed Development can successfully co-exist with all surrounding land uses, subject to mitigation measures.

   Construction noise and vibration is able to be suitably managed by way of conditions of consent and management plans to be implemented for the construction phase of the Proposed Development.

5. **Urban Design and Visual Assessment** – As clearly demonstrated in the submitted Architectural Plans and Landscape Plans, the Proposed Development provides a superior urban design outcome that sets a desirable precedent for future development in the locality and the immediate Estate – approved under SSD 9522. The Landscape and Visual Impact Assessment also confirms that there will be no unacceptable amenity impacts given the scale, form and overall positioning of the Data Centre building on the Site.

6. **Air Quality** – The Air Quality Impact Assessment, demonstrates that there is a low risk of health or nuisance impacts during construction works. However, a range of standard mitigation measures have been recommended to ensure that short term impacts associated with construction activities are minimised.

   In terms of operational impacts, these are considered minimal given the low impact nature of the data storage uses. It is noted that vehicle usage will be reduced where feasible and practical.

7. **Infrastructure Requirements** – The Site can be appropriately serviced, including confirmation from Endeavour Energy can facilitate provisions for a 132 kV line to the Site.

8. **Traffic and Transport** – Sufficient access and parking arrangements are provided for in the Proposed Development that ensure there will be no undue impact on the surrounding road network, for which the existing road networks in close proximity to the Site can continue to operate at a satisfactory Level of Service 'C'.

9. **Hazards and Risks** – The Proposed Development does not propose to store Dangerous Goods; therefore SEPP 33 is not triggered. Furthermore, an EPL would not be required for the storage of Diesel Fuel and lithium-ion batteries under the POEO Act or SEPP 33.

10. **Soils and Water** – The Subject Site is unconstrained in terms of geotechnical conditions and contamination and is therefore deemed suitable for the Proposed Development's land use. This is attributed to the underlying Site conditions and historical land use.

    Water reuse and rainwater harvesting has been considered for the Proposed Development. Rainwater tanks will be provided for the Data Centre building.

    The water cycle management strategies will include; water quantity; water quality; flooding; water supply; and erosion and sediment control. These measures provide an optimal stormwater management outcome for the Site as approved under SSD 9522 and proposed under the subject Proposal.

11. **Waste** – A Waste Management Plan has been provided which considers construction and operational waste measures to be undertaken for the Proposed Development. All built form proposed has considered the provision for waste management areas to ensure the effective management and disposal of waste can occur.

12. **Ecologically Sustainable Development** – The Proposed Development would aim to apply Ecologically Sustainable Development principles. The principles incorporated in the design include; indoor environment; energy; water; materials; emissions.

13. **Heritage** – Both a Historic Heritage Impact Statement and ACHAR have been completed which confirm that the Site has low Aboriginal and Historical heritage significance:

- Historical Heritage – There are no items of heritage significance which preclude the Development from proceeding; and
- Aboriginal Heritage – SSD 9522 consider potential Aboriginal Cultural Heritage impacts.

14. **Biodiversity** – The Conditions of Consent pertaining to SSD 9522 permit clearing of native vegetation across the Subject Site. Accordingly, as part of the subject Proposal, the Proponent requests that the requirement for a BDAR be formally waived in accordance with Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) on the basis that the Proposed Development:

15. **Greenhouse Gas and Energy Efficiency** – The Proposed Development can be constructed and operated so as to not prejudice the sustainability of the built form, and to minimise impacts upon the environment (both direct and indirect emissions have been considered).

16. **Planning Agreement and Development Contributions** –The Proposal would be subject to Council's Section 7.12 Contributions Plan for non-residential development.

Other parameters:

17. **Flooding** – From a local and regional perspective, the flooding impacts associated with the Proposed Development have been assessed and fully accounted for in both the pre and post development scenarios under SSD 9522 and the subject Proposal. The finished earthworks levels as approved under SSD 9522 have been designed to include a minimum level of 1% AEP plus 500 mm freeboard to ensure that the Data Centre can operate and not be impeded by flooding.

18. **Bushfire** – The Proposed Development is capable of complying with the relevant provisions from the PBP 2019 document.

Based on the findings of this EIS, it is concluded that the Proposed Development supports the continued development of jobs in the Western Sydney Region. The Proposal contributes to the retention and growth of storage and distribution (Data Storage) businesses, across both NSW and Australia. The Proposed Development is therefore considered suitable from both a local and regional context and is both orderly and appropriate, based on social, cultural, economic and environmental considerations. It also satisfies all requisite regulatory requirements for flooding, biodiversity, bushfire, traffic, air quality emissions, Dangerous Goods and noise & vibration impacts.

Given all of the above reasons and the satisfaction of both of the Objects of the Act and the aims of WSEA, it is recommended that the Proposed Development, for the purposes of a Data Storage, be supported by the NSW DPIE, as appropriate and orderly employment-generating development.

# Appendices