

Department of Planning, Housing and Infrastructure

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Julius Avenue Data Centre

State Significant Development Assessment Report (SSD-80018208)

October 2026





Acknowledgement of Country

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Published: October 2026

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Preface

This assessment report provides a record of the Department of Planning, Housing and Infrastructure's (the Department) assessment and evaluation of the State significant development (SSD) application for the Julius Avenue Data Centre located at 6-8 Julius Avenue, North Ryde, lodged by ISPT Pty Limited. The report includes:

- an explanation of why the project is considered SSD and who the consent authority is
- an assessment of the project against government policy and statutory requirements, including mandatory considerations
- a demonstration of how matters raised by the community and other stakeholders have been considered
- an explanation of any changes made to the project during the assessment process
- an assessment of the likely environmental, social and economic impacts of the project
- an evaluation which weighs up the likely impacts and benefits of the project, having regard to the proposed mitigations, offsets, community views and expert advice; and provides a view on whether the impacts are on balance, acceptable
- an opinion on whether the project is approvable or not, along with the reasons, to assist the Independent Planning Commission in making an informed decision about whether development consent for the project can be granted and any conditions that should be imposed.

Executive Summary

ISPT Pty Limited (the Applicant) proposes to construct and operate a data centre with associated infrastructure and ancillary office space at 6–8 Julius Avenue, North Ryde, within the City of Ryde local government area. The development has an estimated development cost of approximately \$1.267 billion and would generate up to 380 construction jobs and 50 operational jobs.

The site is located within the Macquarie Park Transport Oriented Development Precinct and comprises approximately 2.86 hectares of E3 Productivity Support zoned land. The site is located at the interface between the Macquarie Park employment precinct and Lane Cove National Park and contains a mix of previously disturbed land and native bushland. Surrounding land uses comprise commercial, industrial and technology-related development, while the nearest residential receivers are located approximately 300 metres from the site.

The proposed development (the development) seeks to respond to growing demand for secure, high-capacity digital infrastructure to support cloud computing, data storage, artificial intelligence and other digital services. The Applicant submitted an amended application as part of responding to issues raised in submissions and the Department. The amended proposal involves the construction and 24-hour operation of a 120 megawatt (MW) data centre comprising eight data halls, ancillary office space and supporting infrastructure, including a sub-transmission switching station (STSS), air-cooled chillers, diesel back-up generators, lithium-ion battery systems, loading facilities, parking, landscaping and publicly accessible pedestrian connections.

The Department publicly exhibited the original development application from 31 July 2025 to 27 August 2025 and the amended application from 5 March 2026 to 18 March 2026. During exhibition of the original application, the Department received 143 public submissions, including 133 objections, together with submissions from City of Ryde (Council) and government agencies. The primary concerns raised related to biodiversity impacts, vegetation removal, impacts on Lane Cove National Park, bushfire risk, noise, visual impacts, traffic and broader environmental effects. While Council initially raised concerns regarding the scale of the development, biodiversity impacts, the proposed Richardson Place connection and the location of the STSS, many of these concerns were substantially resolved through amendments to the proposal.

Following exhibition, the Applicant submitted an Amendment Report, Submissions Report and supplementary information responding to issues raised by the community, Council and government agencies. Key amendments included reducing the overall scale of the development, reducing total power consumption from 169 MW to 120 MW, relocating the STSS, removing the proposed Richardson Place connection, increasing setbacks from the site boundary, reducing vegetation clearing and

increasing tree retention. These amendments significantly reduced impacts on the southern bushland interface and improved consistency with the Macquarie Park Design Guide.

The Department's assessment focused on two key issues, corresponding to potential biodiversity impacts associated with the site's interface with Lane Cove National Park, and operational noise impacts. Biodiversity impacts were a central issue due to the removal of native vegetation, encroachment into the landscaped setback area identified in the Macquarie Park Design Guide, and potential impacts on ecological connectivity. Operational noise was also a key issue due to the continuous operation of the facility and the use of proposed diesel back-up generators. These matters were raised extensively by the community and government agencies and formed the primary focus of the Department's assessment.

In relation to biodiversity, the Department acknowledges that the amended proposal would continue to result in vegetation clearing and some encroachment into the southern bushland interface adjoining Lane Cove National Park. However, the Department is satisfied that the Applicant undertook a genuine and substantive redesign process that consolidated the development footprint within the previously disturbed northern portion of the site, reduced tree removal, increased tree retention and substantially reduced biodiversity impacts compared with the original proposal. Subject to biodiversity offsets, vegetation management measures and the recommended conditions of consent, the Department considers that residual biodiversity impacts can be appropriately managed.

In relation to operational noise, the Department notes that the proposal incorporates the use of extensive acoustic mitigation measures, including acoustic enclosures, attenuators, screening and restrictions on generator operation to achieve compliance with the noise criteria for surrounding sensitive receivers. The Department is satisfied that operational noise impacts can be appropriately managed to comply with the relevant noise criteria through the proposed mitigation measures, operational limits on back-up generator use, post-construction noise monitoring and ongoing reporting requirements. The Department has also recommended conditions to ensure that generator operation remains consistent with the assessed operational envelope.

In addition to these key issues, the Department assessed urban design, electricity/water demand and servicing, air quality, greenhouse gas emissions, construction noise, stormwater management and flooding, traffic and access, hazards and risk, heritage, and construction impacts. The Department is satisfied that these matters can be appropriately managed through design measures and recommended conditions of consent.

The Department considers the development is consistent with the Greater Sydney Region Plan, the North District Plan and Ryde Council's Local Strategic Planning Statement, which support investment in knowledge-intensive industries and employment within the Macquarie Park Corridor precinct.

On balance, the Department concludes that the development would not result in unacceptable environmental or amenity impacts, subject to the recommended conditions of consent. The Department considers the development is in the public interest and is approvable, subject to conditions.

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1 Introduction

1.1 The Department's Assessment

1. This report details the Department of Planning, Housing and Infrastructure's (Department's) assessment of a State significant development (SSD) application for the Julius Avenue Data Centre (SSD-80018208). The proposed development (the development) involves the construction and 24-hour operation of a data centre located at 6-8 Julius Avenue, North Ryde in the City of Ryde local government area (LGA).
2. The Department's assessment considers all documentation submitted by ISPT Pty Limited (the Applicant), including the Environmental Impact Statement (EIS), Amendment Report, Submissions Report and additional information, and the advice and submissions received from government authorities and utility providers. The Department's assessment also considers the legislation and planning instruments relevant to the site and the development.
3. This report describes the development, surrounding environment, relevant strategic and statutory planning provisions and the issues raised in submissions and government advice. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts during construction and operation.

1.2 Development Background

4. The development would comprise purpose-built data hall floorspace with associated ancillary office uses, together with supporting infrastructure including back-up power generation, cooling plant, electrical infrastructure, on-site servicing areas, car parking, hardstand and landscaping. A detailed description of the development is provided in **Section 2** of this report.
5. Data centres are secure facilities used by organisations to store, process and manage electronic data and digital applications using specialised information technology (IT) infrastructure. This may include personal data (such as social media content or cloud photo libraries), corporate data (such as financial systems or customer records), or sensitive government data (such as health and taxation information). Increasingly, data centres also support high-performance computing tasks, including artificial intelligence (AI), machine learning and real-time analytics.
6. In recent years, demand for both large-scale and edge data centres (smaller, decentralised facilities designed to process data closer to end-users to reduce latency) has grown significantly across New South Wales. This growth is being driven by the rapid adoption of digital technologies, including AI, autonomous systems, cloud computing and next-generation

mobile networks. As these technologies become more embedded in everyday life and business operations, additional data centre capacity is required to support the increasing volume, speed and complexity of data generated and accessed by Australians.

7. The Applicant, ISPT Pty Ltd, is a long-established Australian property investor, developer and asset manager with a diversified portfolio across industrial, logistics, business park, retail and other employment-generating asset classes. In response to the increasing demand for data storage, cloud computing and digital infrastructure, the Applicant has identified an opportunity to redevelop the site for data centre use.

1.3 Site Description

8. The site comprises approximately 28,630 m² of E3 Productivity Support zoned land (see **Figure 1** and **Figure 2**). The site is legally described as Lot 89 DP1082131.
9. It is located within the Macquarie Park Innovation District (MPID), approximately 15 kilometres (km) north-west of the Sydney CBD, and is in close proximity to key infrastructure including Epping Road, Delhi Road and the North Ryde Metro Station.

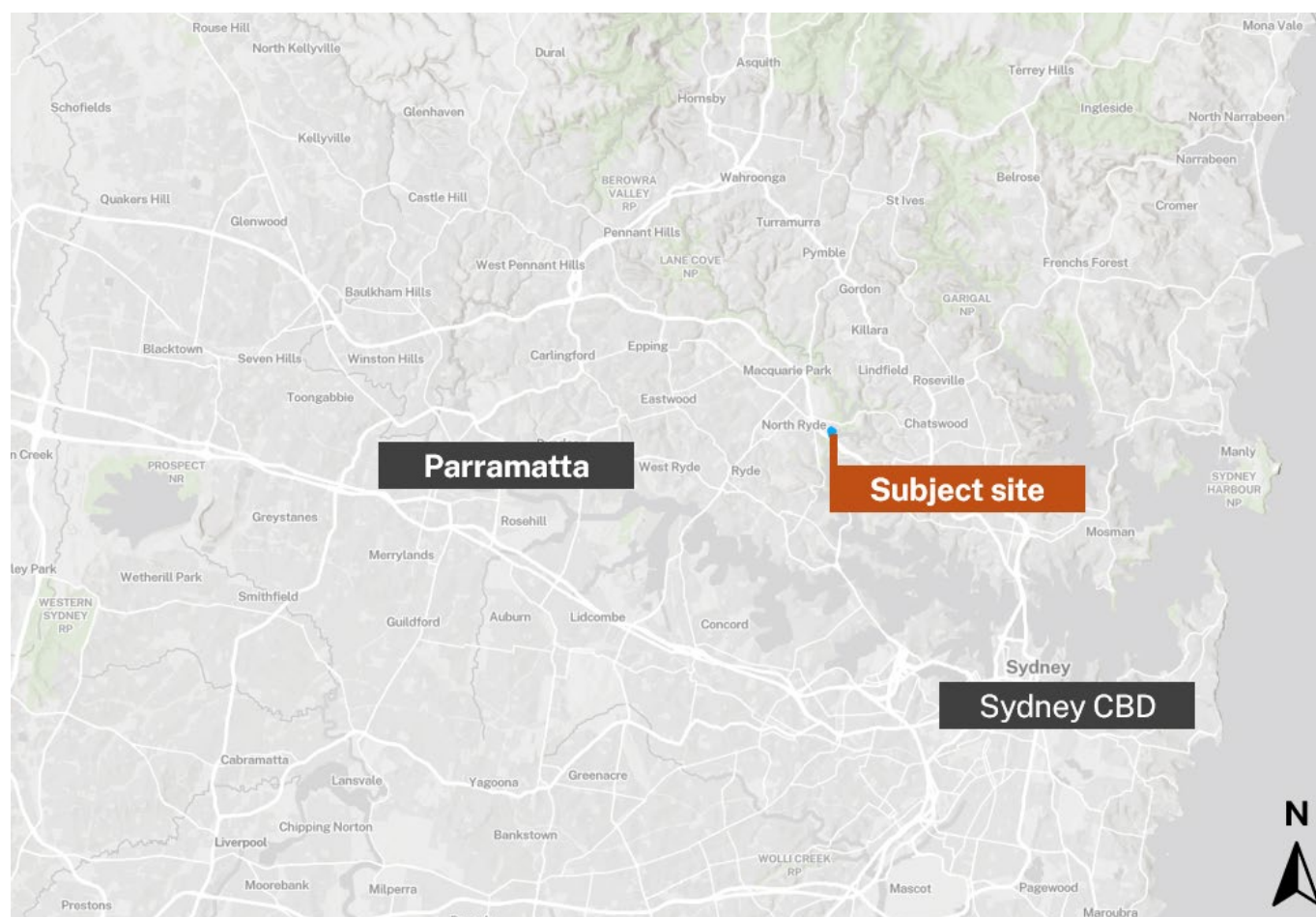


Figure 1 | Regional Context

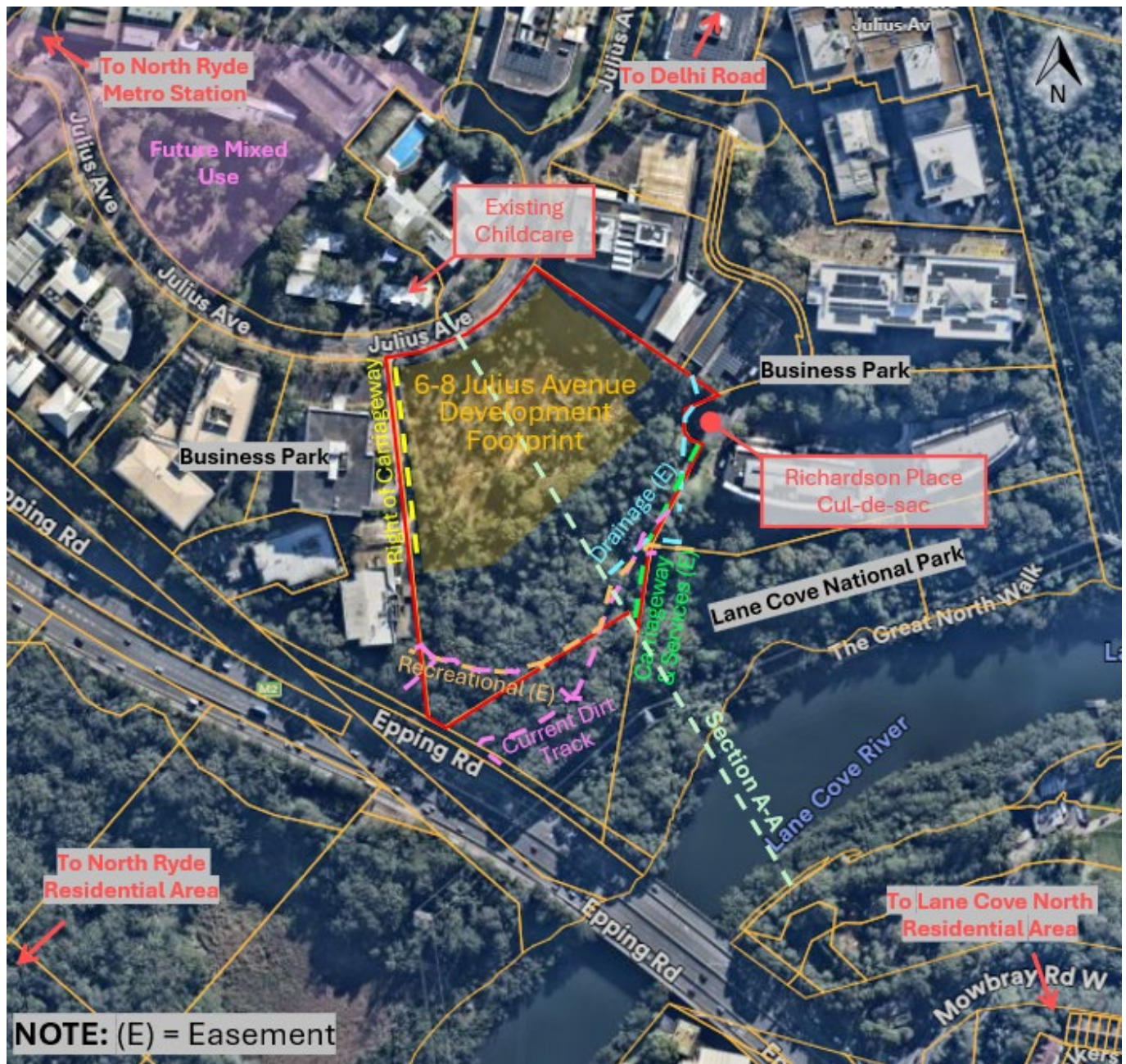


Figure 2 | Locality Map

10. The site has a primary frontage of approximately 100 metres (m) to Julius Avenue, with a partial rear interface to the Richardson Place cul-de-sac. The site is also burdened by a right of carriageway and a number of existing easements, including easements for recreational purposes, services, carriageway and drainage.
11. As can be seen in **Table 3**, the site is irregular in shape and steeply sloping, descending from approximately 47 m AHD at the Julius Avenue frontage to approximately 0 m AHD at the Lane Cove River.

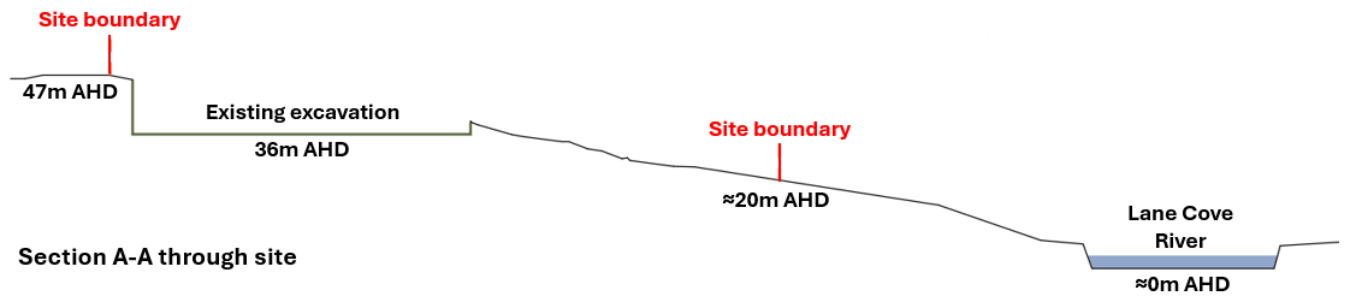


Figure 3 | Site Section Showing Relationship to the Lane Cove River

12. The site is currently vacant. The northern portion was previously excavated and cleared in 2009 under development consent DA 1395/1999 (granted by City of Ryde Council (Council)), resulting in extensive areas of exposed sandstone bedrock and a substantially modified landform. Vegetation that has subsequently regenerated within this area is predominantly comprised of *Casuarina glauca* (Swamp Sheoak) and is generally associated with disturbed site conditions. In contrast, the southern portion of the site retains areas of Sydney Coastal Enriched Sandstone Forest in moderate to good condition, forming part of a broader vegetated corridor connected to Lane Cove National Park and contributing to habitat connectivity within the surrounding landscape.
13. Further, the site is identified as bushfire prone land, comprising Category 1 Vegetation (highest risk level for a bush fire). Vegetation posing a bushfire hazard is primarily located to the south and south-east of the site, adjoining Lane Cove National Park.

1.4 Surrounding Land Uses

14. The MPID site is located within the Macquarie Park Transport Oriented Development Precinct and is surrounded by a mix of commercial, light industrial and infrastructure uses. It is situated within the North Ryde area, forming a transitional location between the data centre and technology clusters in Macquarie Park to the north-west and the Lane Cove West Business Park to the south, and supporting a concentration of technology-based and employment uses.
15. As shown in **Figure 2**, the site directly adjoins Lane Cove National Park to the south and south-east, comprising bushland, fire trails and recreational walking tracks that form part of the broader Lane Cove River corridor.
16. The nearest residential receivers are located approximately 300 m from the site, to the south-east in Lane Cove North and to the south-west across Epping Road in North Ryde.
17. These residential areas are separated from the site by intervening commercial development, arterial road infrastructure and the Lane Cove National Park reserve.

2 Development

2.1 Amended Development

18. The Applicant originally lodged a development application for the construction and operation of a data centre comprising a building footprint and associated infrastructure designed to support operations with a total power consumption of up to 169 MW. This proposal was described in the Environmental Impact Statement (EIS) and publicly exhibited in July and August 2025.
19. Following exhibition of the development application and EIS, the Applicant submitted a request to amend the development application on 10 February 2026 to incorporate changes to the design and configuration of the development. The amended scheme responds to issues raised by the Department, Council, the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and public submissions, and was informed by further design development to improve site planning outcomes and reduce environmental impacts.
20. In summary, the changes from the development as described in the EIS are outlined below and summarised in **Appendix A**:
 - a reduction in the overall scale and intensity of the development, including a reduction in the number of storeys and overall building height from 50.93 m to 40 m, reduction in data halls, with the facility's maximum power consumption reduced from 169 MW to 120 MW
 - changes to the building-level heat rejection strategy from water to air cooled plant
 - relocation of car parking from a basement level to ground level, and deletion of the previously proposed basement
 - revised setbacks (5 m to 6 m) and built form to improve the interface with Julius Avenue
 - changes to the location and configuration of the Ausgrid Sub-Transmission Switching Station (STSS)
 - removal of the previously proposed vehicular connection to Richardson Place
 - reduced extent of vegetation removal including 509 trees to 334 trees to be removed and increased retention of native vegetation within the southern portion of the site.
21. The changes were reviewed, and on 26 February 2026, the requested amendment was accepted by the A/Director, Industry Assessments under delegation in accordance with section 38(1) of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation). The amended development forms the basis of the Department's assessment in this report.

2.2 Description of the Development

22. The main aspects of the development are summarised in **Table 1** and shown in **Figure 4** to **Figure 11**, and described in full in the Amendment Report and Submissions Report included in **Appendix A**.

Table 1 | Main Aspects of the Development

Aspect	Description
Development summary	Demolition of existing buildings and construction and 24/7 operation of a 120 MW data centre, including emergency back-up generators, cooling plant, diesel and lithium-ion battery storage, sub-transmission switching station, associated infrastructure, car parking, pedestrian link and landscaping
Site area	28,630 m ²
Gross floor area	16,647 m ² , including eight data halls over a footprint of 11,408 m ² , 1,393 m ² of ancillary office and 3,846 m ² of ancillary spaces (e.g. amenities, storage and circulation areas), calculated excluding plant areas and vertical circulation
Building height	Up to 40 m (inclusive of rooftop plant and acoustic screens)
Power consumption	Total power consumption of 120 MW, with IT load of up to 76 MW
Water consumption	Up to 7,242 kL/year
Earthworks	Net cut volume of 9,475.01 m ³ (12,328.28 m ³ of cut and 2,853.27 m ³ of fill)
Construction timeframe	Construction of the development would take up to approximately 30 months, and comprise the following stages: • civil and inground works • structure construction • façade installation works • services and fit-out • final external works and commissioning.
Ancillary infrastructure	The operation of the development will be supported by the following infrastructure systems: • 132 kV sub-transmission switching station (STSS) with dual 132 kV feeders

Aspect	Description
	48 back-up diesel generators (3 MW each), supported by approximately 955 kL of diesel fuel storage (12 x 75 kL bulk tanks, 49 x 1 kL day tanks and 1 x 6 kL day tank) 282.24 tonnes of lithium-ion batteries as uninterruptible power supply (UPS), with batteries located in dedicated battery rooms and within data halls 96 air-cooled chillers (including 16 units for redundancy) - rainwater harvesting capacity of approximately 230 kL - dedicated fire protection systems, including water storage, fire-rated battery rooms, hydrant and sprinkler networks, fire detection and alarm systems, fire suppression systems, fire-resisting construction to generator facilities, firefighting equipment, and associated control infrastructure
Landscaping	- Retain 235 trees, remove 334 trees (including 149 regrowth trees), and plant 36 new trees 14,264 m² of deep soil area (49.8% of the site), comprising retained and proposed canopy
Access and parking	- Vehicular access is provided via the existing shared driveway with 10 Julius Avenue - On-site parking and servicing provision includes 38 car parking spaces (including 2 accessible spaces), two (2) medium rigid vehicle loading docks, bicycle parking with end-of-trip facilities, and internal manoeuvring areas to accommodate up to 8.8 m medium rigid vehicles
Signage	No signage is proposed
Hours of operation	24 hours per day, seven days per week
Estimated development cost	\$ 1,267,188,384
Employment	380 full-time equivalent construction jobs and 50 operational jobs

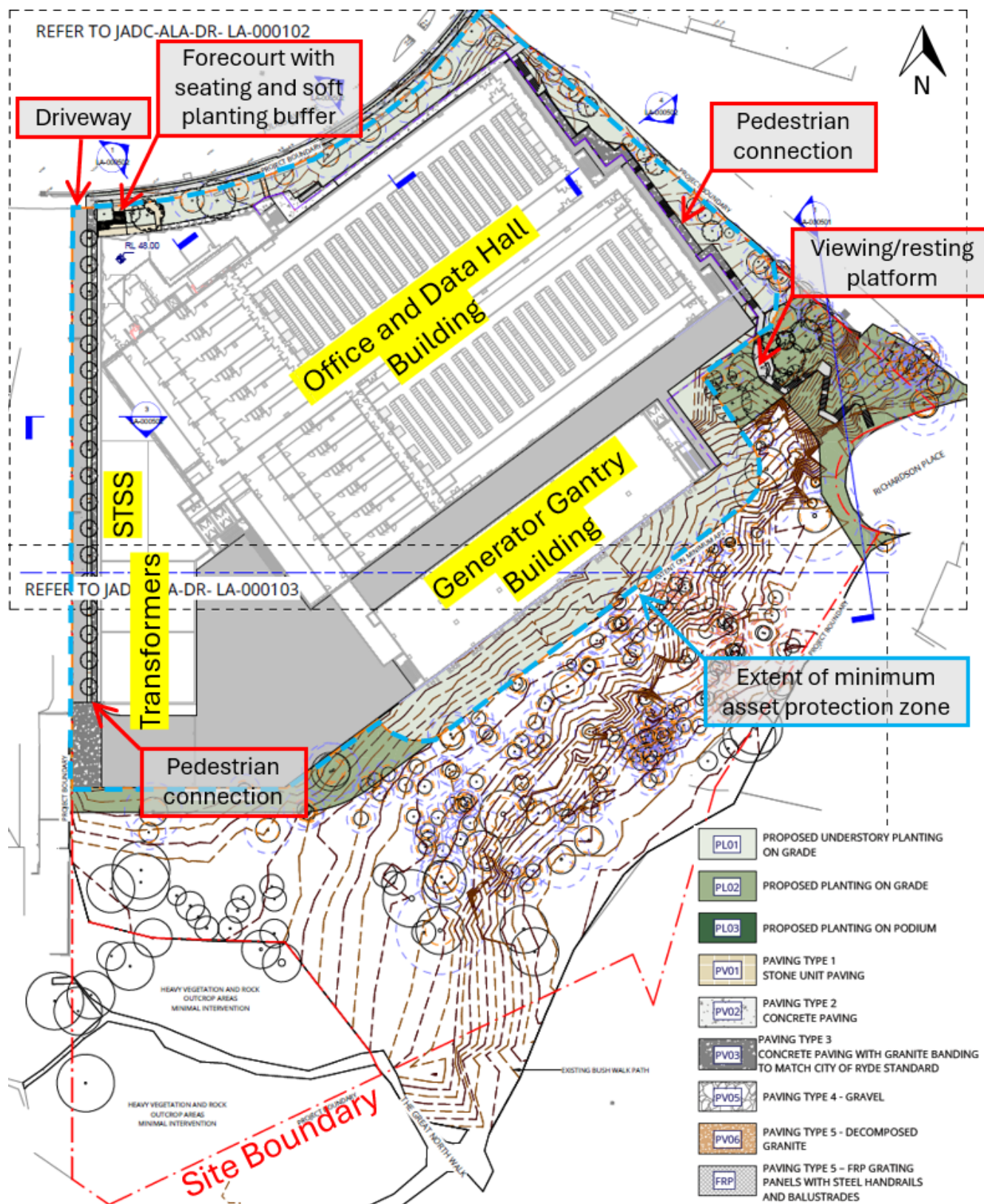


Figure 4 | Site Layout and Landscape Masterplan

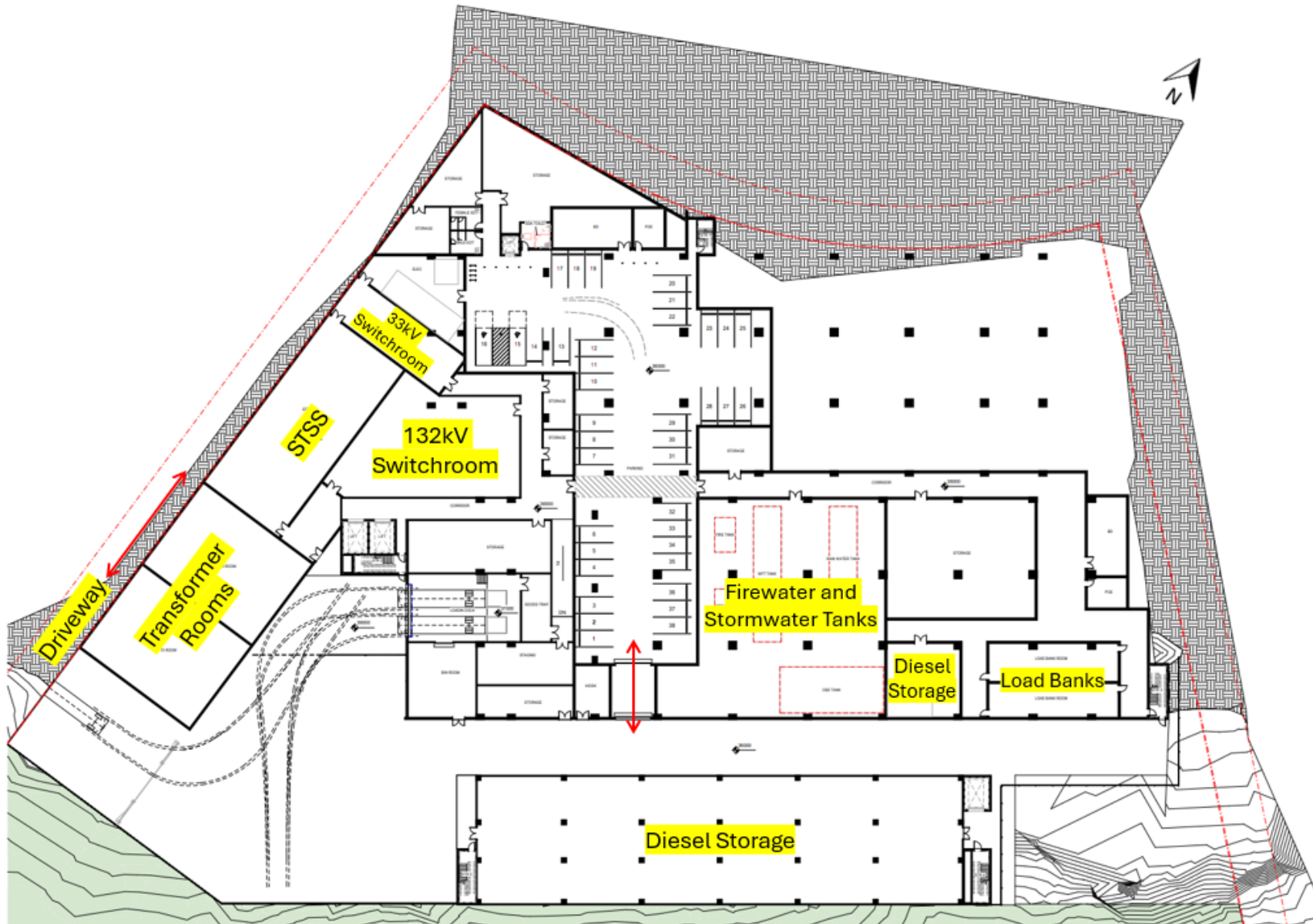


Figure 5 | Ground Floor Plan

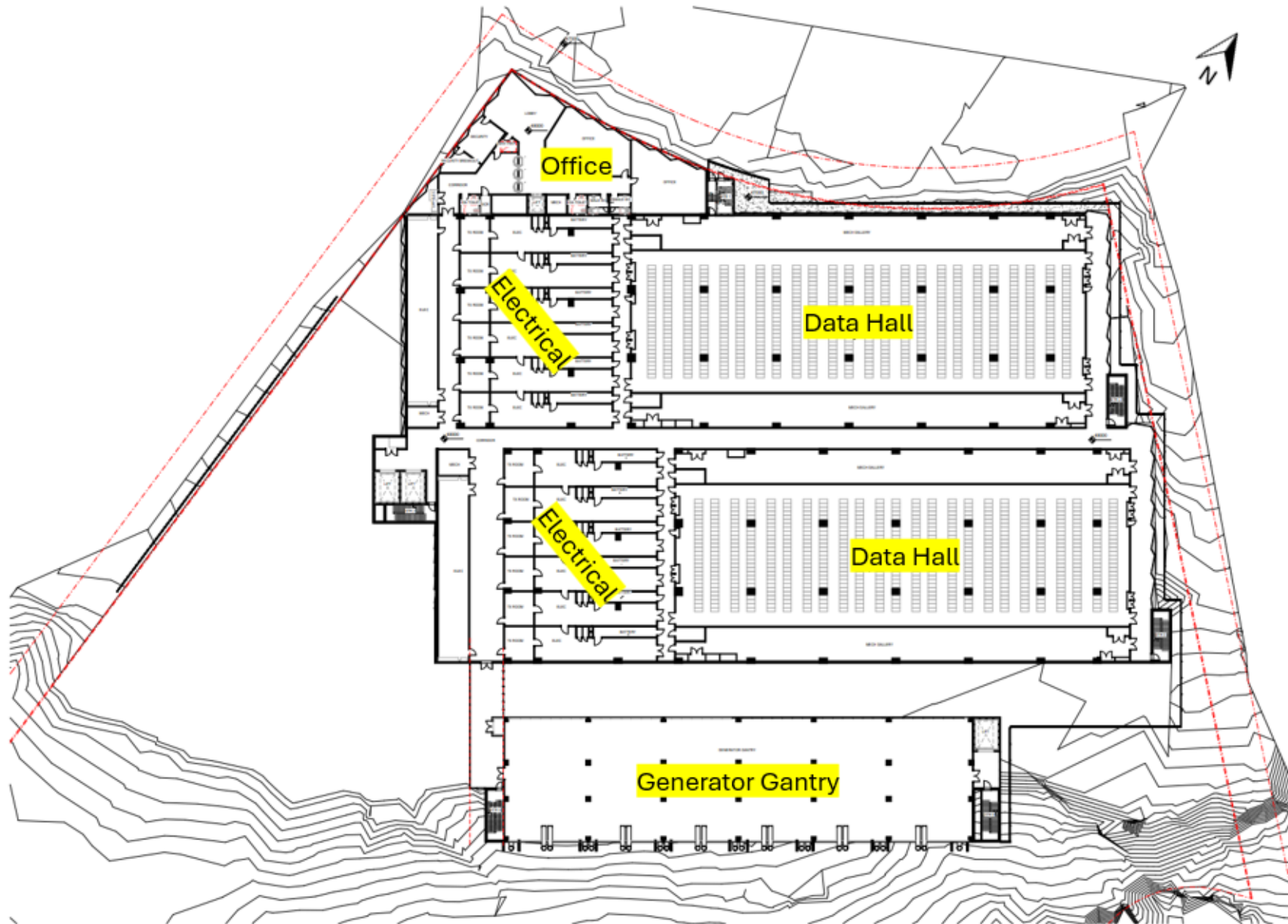


Figure 6 | Typical Data Hall Level Layout Plan (Levels 1 to 4)

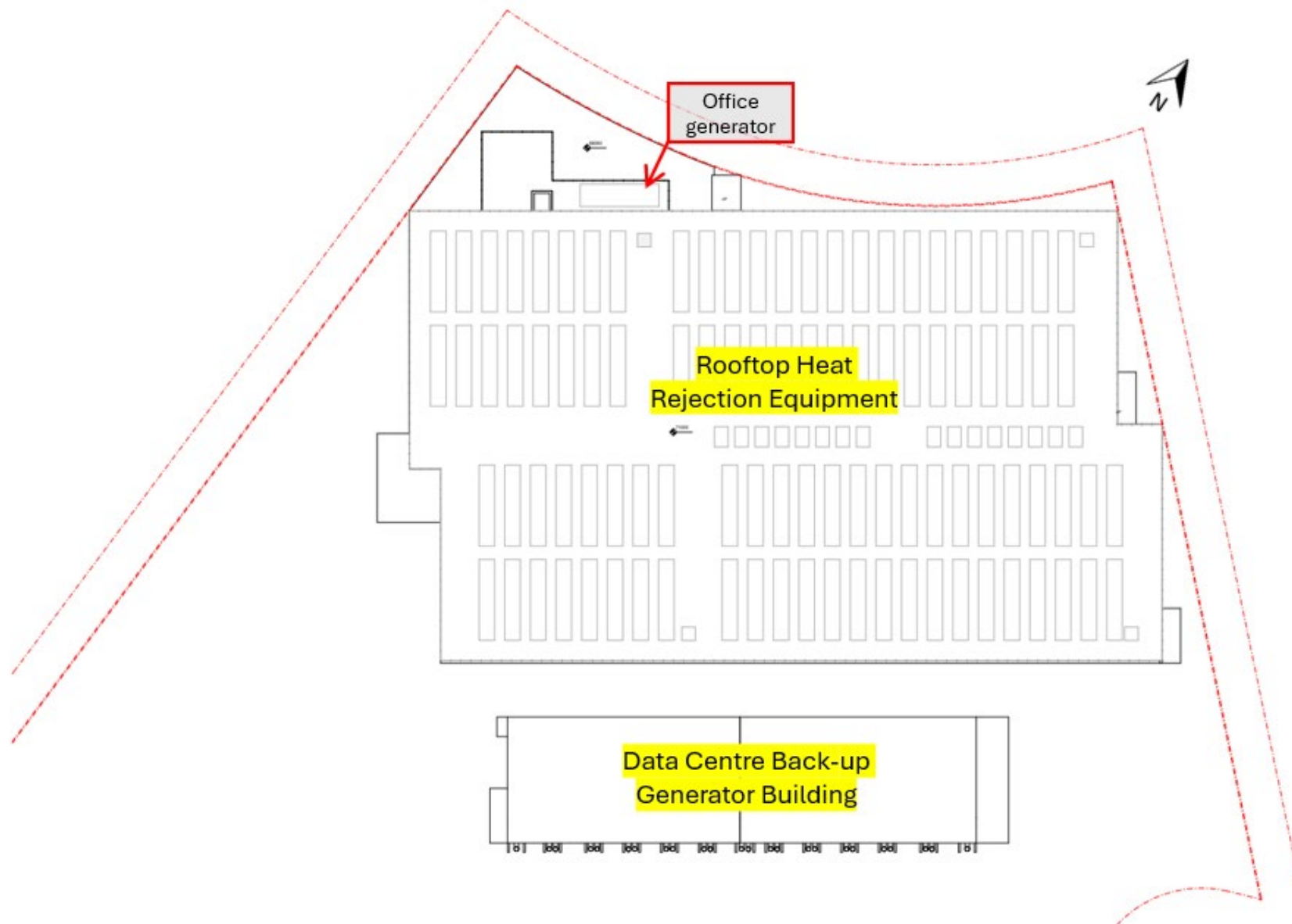


Figure 7 | Roof Plan

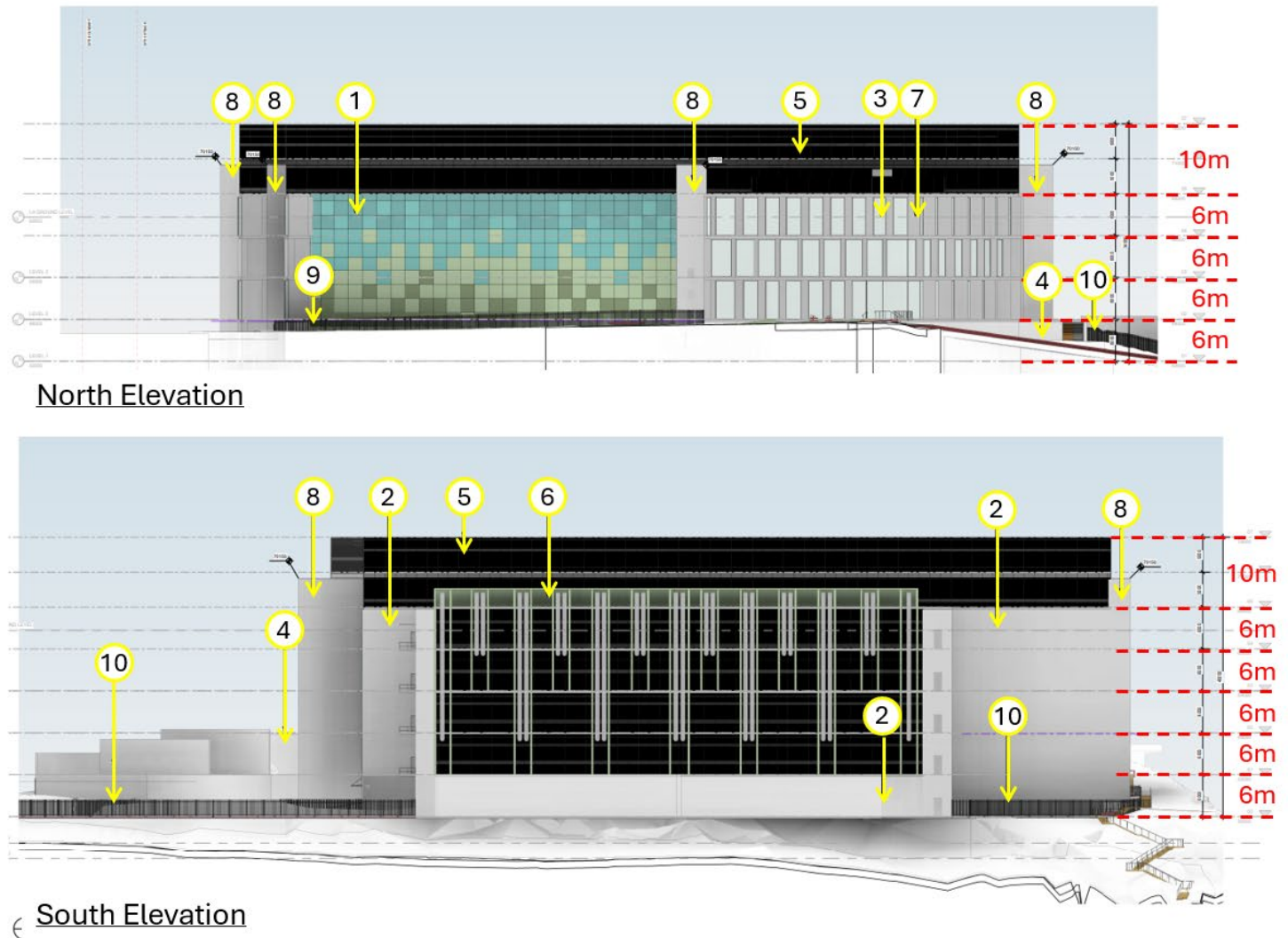
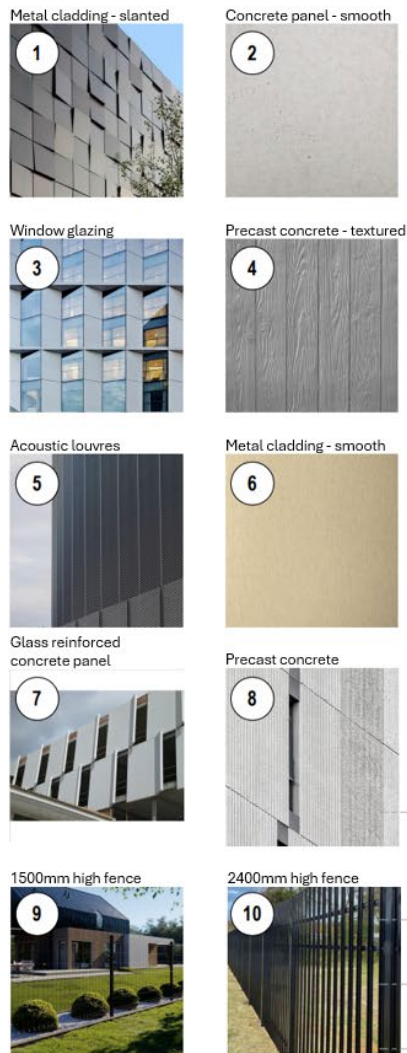


Figure 8 | North and South Elevations

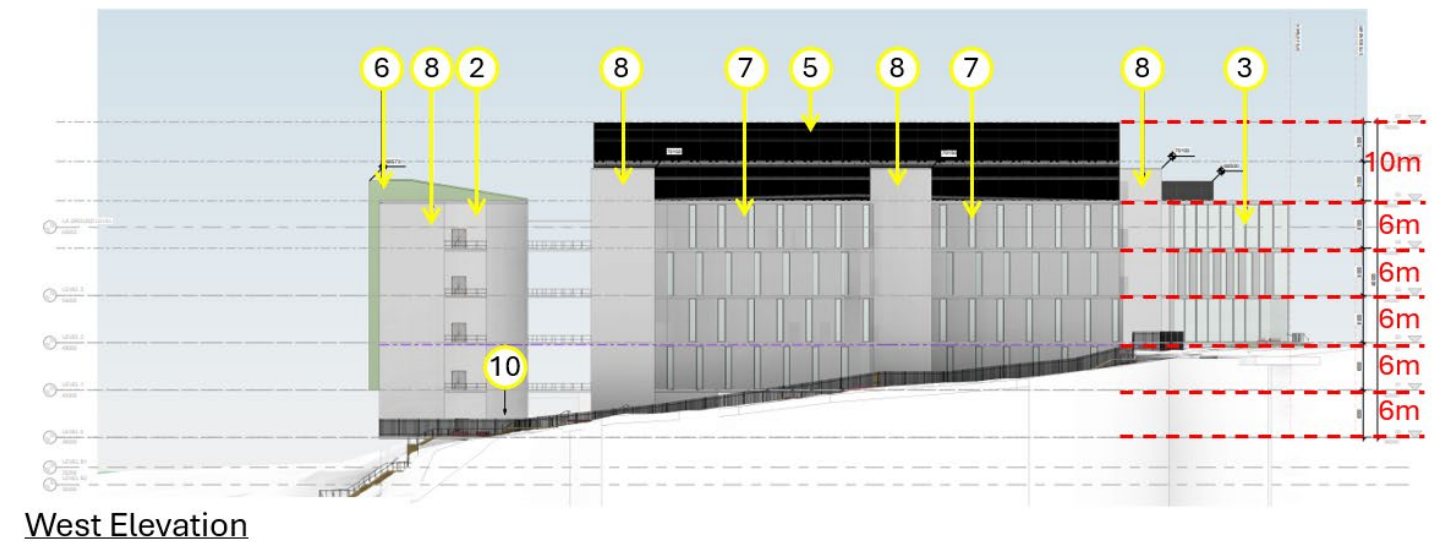
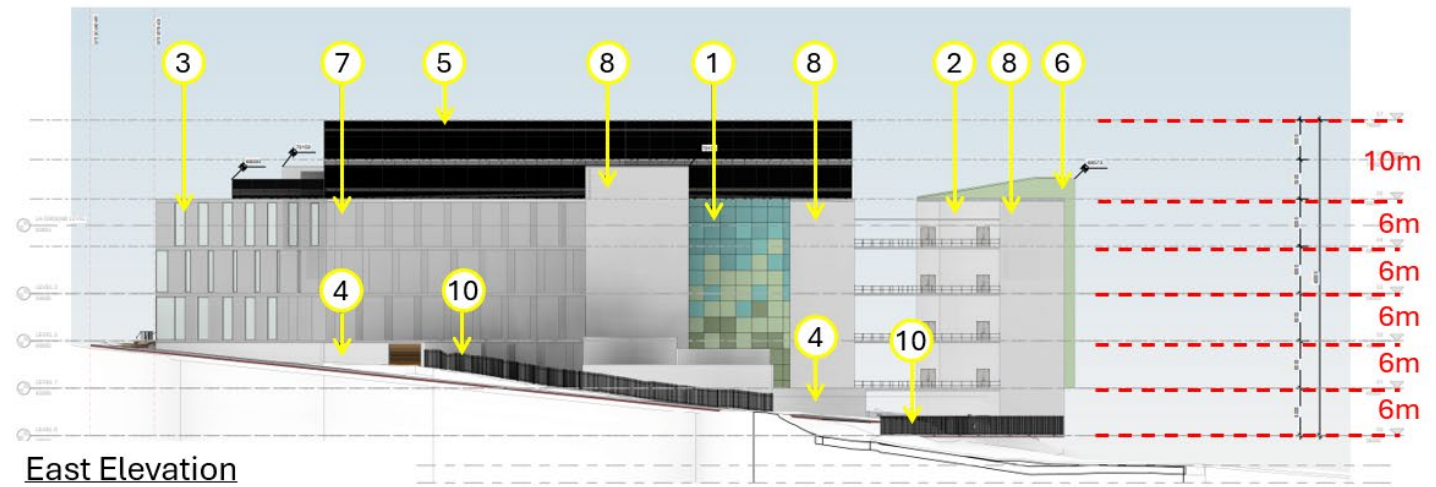
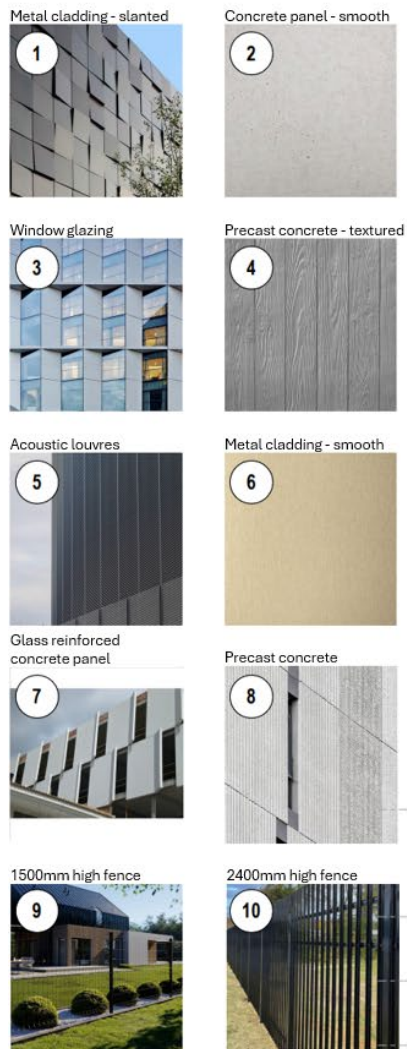


Figure 9 | East and West Elevations



Figure 10 | Artist Impression (View of the South-West)



Figure 11 | Artist Impression (View of the North-West)

2.3 Physical layout and design

23. The development has a maximum building height of 40 m and comprises a data centre with a front-of-house office and data hall building and a separate generator gantry building, together with an on-site sub-transmission switching station (STSS) (refer to **Figure 4** to **Figure 7**). The development is primarily located within the previously excavated northern portion of the site.
24. The data hall building comprises eight data halls distributed across four operational levels and is supported by associated plant rooms, switchrooms, loading facilities and technical spaces. The office building is located on the Julius Avenue frontage and provides ancillary office, staff amenities and operational support functions. The generator gantry building is located to the rear of the data hall building and accommodates back-up power generation infrastructure within a semi-enclosed structure. The STSS is also located adjacent to the main building and forms part of the site's electrical servicing infrastructure.
25. The building incorporates an articulated architectural form that differentiates the office, data hall and generator components. As can be seen in **Figure 8** to **Figure 11**, the façade design comprises angled metal cladding, textured concrete elements and glazing to the FOH building, together with a graduated colour palette intended to respond to the surrounding bushland setting.
26. As shown in **Figure 4**, landscaping is integrated throughout the site and includes substantial deep soil planting areas, retention of existing vegetation, native planting and landscaped setbacks. The proposal also provides a publicly accessible forecourt fronting Julius Avenue, together with pedestrian links connecting Julius Avenue, Richardson Place and the Great North Walk.
27. The site incorporates secure perimeter fencing, CCTV, controlled access points and associated security infrastructure to meet the operational and security requirements of the facility. Security fencing is generally setback behind landscape planting to minimise its visual prominence from the public domain.
28. Vehicular access is provided from Julius Avenue via a new internal road network, with pedestrian access provided through the landscaped forecourt and pedestrian connections. On-site parking, loading and servicing facilities are consolidated within the northern developed portion of the site.

2.4 Uses and activities

29. The primary function of the Julius Avenue Data Centre is to facilitate the secure collection, storage, processing, and distribution of electronic data and digital applications. It is anticipated

that these services would be delivered through high-performance IT infrastructure operated by cloud service providers, enterprise clients, or government entities.

30. Each data hall would be fitted out by future tenant(s) with server racks, networking equipment and associated infrastructure to support data storage and processing activities. The facility has been designed with flexibility to accommodate different tenant configurations and operational requirements over time, consistent with the evolving needs of the data centre sector.
31. Ancillary office and staff amenities are provided within the front-of-house building, supporting the day-to-day operation of the facility. These spaces accommodate activities such as systems monitoring, facility management, equipment maintenance, security oversight and administrative functions. Access to operational areas is controlled through secure entry points and internal circulation arrangements, reflecting the security-sensitive nature of the development and associated digital infrastructure.

2.4.1 Back-Up Power System

32. Electricity demand for the development would be supplied by a multi-feeder grid connection arranged to provide redundancy, allowing normal operations to continue following the loss of a single feeder without reliance on on-site electricity generation.
33. To ensure operational continuity during interruptions to grid electricity supply, the facility incorporates a comprehensive back-up power system. This includes back-up diesel generators and an integrated uninterruptible power supply (UPS) system, which provides instantaneous power in the event of a grid failure and bridges the transition period prior to generator start-up. Once operational, the generators are capable of maintaining full critical load until normal electricity supply is restored. The system would require approximately 812 tonnes of diesel storage capacity (955 kL) and includes around 282 tonnes of lithium-ion batteries associated with the UPS system.
34. Routine generator testing of up to 132.3 hours per year is required to maintain system reliability and compliance with operational standards. The Applicant proposes that testing be undertaken in accordance with the planned operation regime summarised in **Table 2**, during defined daytime hours between 7:00 am and 6:00 pm Monday to Sunday. Up to two generators would be tested concurrently under artificial load conditions using load banks, rather than exporting electricity to the grid. The generators may also operate on an unplanned basis during grid outage events.

Table 2 | Planned Operation of Back-up Generators

Operation	Frequency per year	Generator per use	Duration per use	Load	Cumulative use duration per year
Monthly test	12	2 (24.5 tests)	27 mins (including 5 mins cool down)	100%	132.3 hours

35. In addition to data storage and processing activities, the development includes supporting infrastructure and site services typical of a large-scale data centre, including cooling plant, electrical infrastructure, water storage and treatment systems, loading and servicing areas, and on-site security facilities. These uses are ancillary to, and functionally integrated with, the primary data centre use.

2.4.2 Cooling Systems

36. Power Usage Effectiveness (PUE) and Water Usage Effectiveness (WUE) are widely accepted industry metrics used to assess data centre efficiency. PUE measures the ratio of total facility energy consumption to IT equipment energy consumption, while WUE measures the volume of water consumed in support of data centre operations relative to IT energy demand.
37. At the building level, large scale data centres typically reject heat to the atmosphere through either predominantly air based (dry) or evaporative (wet) systems, regardless of whether heat is captured at the IT rack via air or liquid based cooling. Air-cooled systems generally require greater energy input to reject heat but eliminate the need for potable water for operational cooling, whereas evaporative systems can achieve lower PUE outcomes but rely on substantial ongoing water consumption.
38. The Applicant has ultimately selected an air-cooled chiller system with fan wall units as the preferred cooling strategy. This approach balances energy efficiency and operational resilience while avoiding reliance on potable water for heat rejection. The amended cooling strategy has reduced forecast potable water demand by approximately 99.7%, from about 6.18 million litres per day under the previous cooling tower design to approximately 19,842 litres per day, primarily associated with domestic building use. It has also reduced forecast sewer discharges by approximately 98%.
39. The proposed design is associated with a worst-case annualised PUE of 1.39 and an indicative worst-case WUE of approximately 0.01 L/kWh.

2.5 Applicant's Justification for the Development

40. The Applicant has justified the need for the development by identifying the growing demand for secure, high-capacity digital infrastructure to support cloud computing, enterprise services and data-intensive operations across Greater Sydney. The proposal responds to this demand by delivering a purpose-built data centre within the Macquarie Park Corridor, consistent with state and district planning objectives that promote innovation, productivity and the delivery of critical infrastructure.
41. The Applicant considers the site suitable for the proposed development due to its location within land zoned E3 Productivity Support, access to critical enabling infrastructure including electricity and telecommunications services, and its position within an established employment precinct. The site also benefits from separation from sensitive receivers.
42. Overall, the proposal represents a significant investment in digital infrastructure, intended to enhance the capacity and resilience of Sydney's digital economy while locating the use within a precinct identified for productivity-focused development.

3 Strategic Context

3.1 Key strategic issues

43. The consistency of the development with key relevant strategies, plans and policies relevant to the assessment of the development are outlined in **Table 3** below.

Table 3 | Summary of government strategies, plans and policies

Strategy, plan or policy	Comments
The Sydney Plan	The Sydney Plan is a strategic land use plan that sets out how the NSW Government will manage this growth over the next 20 years, focusing on how the NSW Government, councils and the private sector can leverage land use planning to address challenges and make the most of opportunities. The development is consistent with the Plan's Prosperous Priority and both Response 3 (Equitably grow a range of jobs) and Response 4 (Grow housing and jobs in well-located centres), as it would provide knowledge-intensive jobs within North Ryde, in a well-located location for the proposed use.
Great Sydney Region Plan <i>(in effect at the time of lodgement of the application, and has since been superseded by The Sydney Plan)</i>	The development would align with the following Objectives of the Greater Sydney Region Plan (Region Plan): • Objective 3 – The development will provide additional, flexible data storage capacity within the Eastern Economic Corridor, helping the city's infrastructure to adapt and transition in conjunction with future technological changes and megatrends (e.g. autonomous vehicles, artificial intelligence, etc). • Objective 21 – The development will contribute to the growth of Macquarie Park as a competitive technology and innovation precinct by addressing demand for data storage and the provision of information technology (IT) jobs. • Objective 22 – The development will provide new, knowledge-intensive jobs within Macquarie Park, helping to improve access to a wide range of jobs, goods and services to close to residential areas and well serviced by transport such as the Sydney Metro. • Objective 24 – The development will support the vision of the Eastern Economic Corridor through the growth and investment of digital

Strategy, plan or policy	Comments
	infrastructure within Macquarie Park to attract and enable innovation technology businesses.
North District Plan	The development would assist in meeting actions 33, 36 and 39 of the North District Plan (NDP) as it would provide new construction and knowledge-intensive jobs close to transport links and areas of high population growth, and further support Sydney's status as a global city. The development would also assist in meeting actions 46 to 49 of the NDP as it would retain and improve the efficiency of employment-zoned land in the Eastern Economic Corridor, while providing and appropriate buffer to surrounding residential receivers
Ryde Local Strategic Planning Statement 2020	The Ryde Local Strategic Planning Statement (LSPS) identifies the challenges and opportunities for the LGA and sets out planning priorities, objectives and actions to provide for the City of Ryde's needs. The development would be consistent with Planning Priorities EM1 to EM3 of the LSPS, through the provision of a new data centre and up to 20 additional knowledge-intensive operational jobs within the heart of the Macquarie Park business precinct. The development would also align with Planning Priority M2 of the LSPS, as both the initial capital investment associated with the expansion and the ongoing costs associated with regular plant/equipment renewal will help to maintain the economic viability and longevity of the Macquarie Park business precinct.

3.2 NSW Data Centre Policy Framework

44. On 17 August 2026, the NSW Government released the NSW Data Centre Policy Framework to support responsible investment in data centres that delivers benefits to the people of NSW, while managing impacts on resources and the community.
45. The NSW Data Centre Guidelines (the Guidelines), a key component of the framework, set out principles and performance measures relating to energy, water and environmental outcomes. The Guidelines also establish expectations regarding the funding of additional utility infrastructure and promote ongoing engagement with government agencies, infrastructure providers and other stakeholders.

46. The Department has considered the Guidelines as a relevant consideration under section 4.15 of the EP&A Act.
47. A number of the recommended conditions of consent relate to matters addressed in the Guidelines and are discussed in **Section 6** of this report. These include:
- requirements relating to renewable energy procurement through Power Purchase Agreements (PPAs)
 - installation of equipment and infrastructure capable of being retrofitted to support future improvements in efficiency and performance
 - ongoing monitoring, reporting and continual improvement requirements to further improve the development's energy and water performance over time (including its Power Usage Effectiveness (PUE) and Water Usage Effectiveness (WUE) values), implemented through a Sustainability Management Plan
 - conditions to manage potential amenity and environmental impacts, including in relation to noise, air quality and hazards and risk.

4 Statutory Context

4.1 Permissibility and Assessment Pathway

48. Details of the legal pathway under which consent is sought and the permissibility of the development are provided in **Table 4** below.

Table 4 | Permissibility and assessment pathway

Consideration	Description
Permissibility	Permissible with consent • Data Centres are permissible with consent in the E3 Business Productivity zone of the Ryde Local Environmental Plan 2014
Assessment pathway	State significant development • The development is SSD under section 4.36 of the EP&A Act as it satisfies the criteria under section 2.6(1) of the Planning Systems SEPP; • the development on the land concerned is not permissible without development consent, and • the development is specified in clause 25 of Schedule 1 of the Planning Systems SEPP, being a data centre with a total power consumption of more than 15 MW.
Consent authority	Independent Planning Commission • The Independent Planning Commission is designated as the consent authority for the development under section 4.5 of the EP&A Act and section 2.7 of the Planning Systems SEPP because more than 100 submissions have been made by way of objection.

4.2 Other Approvals and Authorisations

49. Should development consent be granted, other approvals may be required in order to carry out the development. Section 4.42 of the EP&A Act lists a number of approvals that cannot be refused if required to carry out the development and must be approved in a manner that is consistent with any SSD consent granted under the EP&A Act.

4.3 Mandatory Matters for Consideration

50. Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a development application (DA). The Department's consideration of these matters is shown in **Appendix D**.

4.4 Public Exhibition and Notification

51. In accordance with section 2.22 and Schedule 1 to the EP&A Act, the DA and any accompanying information of an SSD application are required to be publicly exhibited for at least 28 days. The Department exhibited the original SSD application on the NSW Planning Portal from 31 July 2025 to 27 August 2025. The Department also exhibited the amended application on the NSW Planning Portal from 5 March 2026 to 18 March 2026. Details of the exhibition process and notifications are provided in **Section 5**.

4.5 Objects of the EP&A Act

52. In determining the application, the consent authority should consider whether the development is consistent with the relevant objects of the EP&A Act (section 1.3), including the principles of ecologically sustainable development (ESD). The Department has fully considered these matters in **Appendix D**.
53. The Department is satisfied that the development is consistent with the objects of the EP&A Act and the principles of ESD.

4.6 Biodiversity Development Assessment Report

54. Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all SSD applications to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless it is determined that the development is not likely to have any significant impact on biodiversity values (as identified in the BC Act and in the *Biodiversity Conservation Regulation 2017*).
55. The relevant BDARs were submitted as part of the EIS and Amendment Report (see **Appendix B**) and was referred to the Conservation Programs, Heritage and Regulation (CPHR) Group of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) for advice. The Department's consideration of the BDAR and CPHR's advice, including the potential impact of the development upon biodiversity values at the site, is provided in **Section 6** of this report.

4.7 Matters of National Environmental Significance

56. Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), assessment and approval are required from the Australian Government if a project is likely to impact on a Matter of National Environmental Significance (MNES), as it is considered to be a 'controlled action'.
57. The EIS for the development included a preliminary assessment of the MNES in relation to the development and concluded the development would not impact on any of these matters and is therefore not a 'controlled action'. As such, the Applicant determined a referral to the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW) was not required.

5 Engagement

58. As required by the Planning Secretary's Environmental Assessment Requirements (SEARs), the Applicant undertook consultation with relevant local and State authorities as well as the community and affected landowners prior to lodgement of the EIS. The Department undertook further consultation with these stakeholders during the exhibition of the EIS and throughout the assessment of the application. These consultation activities are described in detail in the following sections.

5.1 Exhibition of the Original Application

5.1.1 Consultation by the Applicant

59. The Applicant undertook a range of consultation activities throughout the preparation of the EIS including:
- a letterbox drop to surrounding residences and businesses with contact details and link to an online survey questionnaire
 - engagement with Registered Aboriginal Parties (RAPs)
 - meetings held with City of Ryde (Council)
 - email correspondence with government agencies and utility providers.

5.1.2 Public Exhibition of the DA and EIS

60. After accepting the DA and EIS, the Department:
- publicly exhibited the application from 31 July 2025 until 27 August 2025 on the NSW Planning Portal
 - notified occupiers and landowners in the vicinity of the site about the public exhibition
 - notified and invited comment from relevant government agencies and Council.
61. During the public exhibition period, the Department received 143 submissions from the public (136 individuals and 7 interest groups), comments from City of Ryde and Willoughby City Council, and advice from 11 government authorities, utility providers and State-owned corporations. Of the 143 submissions from the public, 133 objected to the development.
62. A summary of the submissions and government advice is provided below. A link to the full copy of the submissions and advice is provided in Appendix C.

5.1.3 Public Submissions

63. A summary of the number of public submissions received during the first exhibition is provided in **Table 5** and a link to the full copy of the submissions is provided in **Appendix C**. A total of 143 submissions were received, comprising 133 objections, 9 comments and 1 submission in support. The majority of submissions were from within 5 km of the site, with objections forming the dominant response regardless of proximity to the site (see **Table 5** and **Figure 12**).

Table 5 | Submissions on the EIS

Distance	Position	Submission Count
< 5 km	Object	63
	Support	1
	Comment	4
5–10 km	Object	40
	Support	0
	Comment	5
>10 km	Object	30
	Support	0
	Comment	0
TOTAL	Object	133
	Support	1
	Comment	9

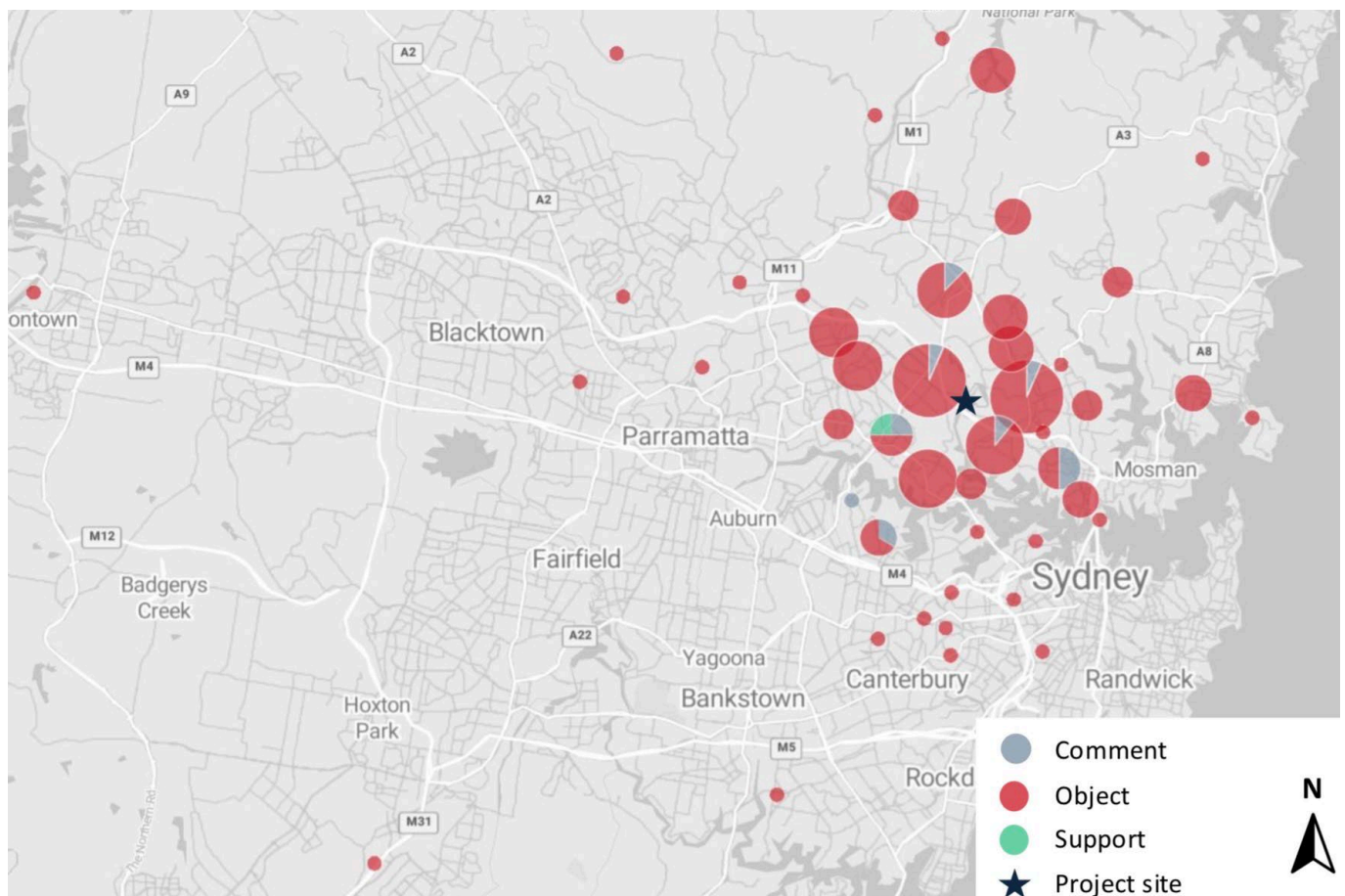


Figure 12 | Indicative Location of Public Submissions (Original DA)

64. All seven special interest group submitters objected to the original DA on environmental and cumulative impact grounds, emphasising the need for avoidance of biodiversity impacts over offsets. A consistent concern is removal of over 500 trees, resulting in potential loss of habitat connectivity, canopy, and irreplaceable features (hollows, rocky outcrops) affecting threatened species within the Lane Cove habitat corridor. These submissions also highlighted potential operational impacts (urban heat, noise, light, water and energy demand), broader cumulative development pressures, and local traffic constraints, with some supporting data centres in principle but seeking reduced scale, redesign, or relocation.
65. Issues raised in submissions follow a consistent theme, with biodiversity and habitat loss, tree removal, location incompatibility with the National Park, and noise/amenity impacts each raised in more than half of all submissions.
66. Other commonly raised issues include bushfire risk, broader environmental impacts (such as erosion and stormwater runoff), climate and urban heat effects, water and energy demand, built form scale, and community amenity impacts including visual dominance and reduced enjoyment of nearby bushland and walking tracks.

5.1.4 Summary of Council Submissions

67. **City of Ryde** (Council) commented and advised that it is generally supportive of the proposed data centre, noting the Applicant's early engagement and the proposal has addressed many preliminary issues. However, Council considers the application requires further revisions and additional information before it can be fully supported, with concerns around contributions and public benefit, urban design, the proposed STSS, biodiversity impacts, road connection, flooding and servicing. In particular, Council:
- raised concerns with the proposed connection to Richardson Place, noting that it relies on a privately owned road with constrained geometry and safety limitations, not likely suitable for heavy vehicles
 - identified issues with the bulk and scale of the development, noting the proposed built form not sufficiently responsive to the surrounding bushland setting and would result in significant visual impacts
 - highlighted substantial vegetation clearing, with over 500 trees proposed for removal, and recommends minimising clearing (particularly associated with the STSS), and ensuring appropriate replacement planting or contributions where on-site planting cannot be achieved.
68. **Willoughby City Council** commented and advised that the proposal raises environmental and design considerations due to its proximity to the Lane Cove River and surrounding bushland. Its submission highlighted the need for robust construction management measures to prevent erosion and runoff impacts on the river and adjoining conservation areas. Further, Willoughby City Council recommended consultation on the proposed connection to the Great North Walk to ensure compatibility and safe public access. In addition, the submission emphasised achieving high quality design outcomes and minimising lighting impacts on the river and local fauna.

5.1.5 Government Authority Advice

69. A summary of the government authority advice is provided in

70. Table 6 below.

Table 6 | Summary of Government Authority Advice on the EIS

Agency	Advice summary
NSW Environment Protection Authority (EPA)	The EPA advised that the proposal does not appear to require an Environment Protection Licence under the POEO Act. Notwithstanding this, the EPA raised several matters for consideration by the Department, including licensing thresholds,

Agency	Advice summary
	operational greenhouse gas emissions, air quality and noise impacts, cumulative impacts and waste management obligations. The EPA also recommended confirmation and refinement of the proposed generator operational envelope underpinning the air quality and noise assessments.
DCCEEW Conservation Programs, Heritage and Regulation (CPHR)	CPHR raised detailed concerns regarding the suitability of the site and the proposed location and staging of the STSS, advising that all stages of the STSS should be assessed as part of the SSD and that its location be re-considered due to impacts on a key biodiversity corridor and inconsistency with the Macquarie Park Design Guide. CPHR also identified significant deficiencies in the biodiversity assessment, including the inadequate application of biodiversity avoidance and minimisation principles, insufficient justification for the exclusion of threatened species, inadequate assessment of artificial lighting and bird collision risks, and the need for additional surveys. In addition, CPHR raised concerns regarding stormwater management, erosion and sediment control, operational water and contamination risks, bushfire Asset Protection Zones, and the adequacy of flood modelling, noting inconsistencies and gaps in the Flood Impact and Risk Assessment.
DCCEEW Water Group	DCCEEW Water Group advised that a post-determination requirement should be imposed to ensure the Applicant obtains a Water Access Licence to account for predicted water take during construction and operation, unless a regulatory exemption applies.
NSW National Parks and Wildlife Service (NPWS)	NPWS advised that it has an interest in the proposal due to its proximity to Lane Cove National Park and raised concerns regarding vegetation clearing, habitat fragmentation and potential impacts on ecological connectivity and park amenity. NPWS also identified the need for further assessment of cumulative impacts and environmental risks associated with the proposed substation and data cabling, bushfire management, flood and stormwater impacts, and the adequacy of erosion and sediment control measures.
Heritage NSW	Heritage NSW noted that part of the site was not properly surveyed, despite having potential to contain Aboriginal heritage items such as rock features or engravings. Heritage NSW requested additional surveying of the areas that will be disturbed, particularly where the access road and infrastructure are proposed, and that the Aboriginal Cultural Heritage Assessment Report (ACHAR) be updated accordingly.

Agency	Advice summary
Heritage Council of NSW	Heritage Council of NSW noted that the subject site is not listed on the State Heritage Register, is not in the vicinity of any SHR items, and does not contain any known historical relics. It further advised that the heritage assessment has been adequately prepared.
NSW Rural Fire Service (RFS)	RFS raised no concerns subject to subject to the adoption of recommended measures outlined in section 8 of the Applicant's bushfire assessment report.
Fire and Rescue NSW (FRNSW)	FRNSW advised that data centres with battery energy storage present special challenges for fire-fighting and that suitable additional provisions are likely to be required under the National Construction Code. FRNSW recommended that a Fire Safety Study be prepared in accordance with Hazardous Industry Planning Advisory Paper (HIPAP) No. 2 and submitted to FRNSW prior to construction to guide the final design. It also advised that an Emergency Plan and an Emergency Services Information Package be prepared in accordance with relevant guidelines prior to occupation or commissioning of the development.
Transport for NSW	TfNSW advised that it has no requirements as the proposed development is unlikely to have a significant impact on the classified road network.

5.1.6 State Owned Corporation and Utility Provider Advice

71. **Ausgrid** advised that the proponent has initiated engagement through the connection application process and that preliminary connection arrangements have been identified. It noted that servicing the development and other demand in the area will likely require delivery of a new major substation. However, this is subject to funding approval from the Australian Energy Regulator, and no certainty can currently be provided regarding delivery or timing. Ausgrid encourages ongoing consultation to refine feasible connection options. Ausgrid also identified existing transmission, overhead and underground electricity infrastructure in the vicinity of the site and advised that appropriate asset protection measures, safety clearances and access requirements must be maintained. It further noted that an existing transmission easement associated with 132 kV assets must be protected, with no works or alterations permitted without prior written approval.
72. **Sydney Water** advised that water and wastewater servicing is likely to be available, subject to detailed design and potential infrastructure adjustments. However, a detailed hydraulic assessment is required, with potential network augmentations and on-site storage to manage peak water demand. Sydney Water further noted that only average day demand will be supplied

and that capacity is not reserved. Recommended conditions include obtaining a Section 73 Compliance Certificate and Building Plan Approval, with additional requirements relating to trade wastewater and backflow prevention.

5.2 Amendment Report

73. Following the public exhibition period, the Department requested the Applicant to respond to the issues raised in submissions and the advice received from government authorities and utility providers.
74. In addition, the Department requested the Applicant provide additional information regarding the development footprint, including opportunities to reduce encroachment into the prescribed landscape setback area, demonstrate consistency with the Macquarie Park Design Guide, and further investigate feasible and reasonable alternatives to avoid and minimise biodiversity impacts. Further information was also sought relating to infrastructure servicing, operational and construction noise, air quality and urban heat impacts, traffic and access arrangements, and clarification of various technical and operational aspects of the proposed development.

5.2.1 Consultation by the Applicant

75. In response to these requests, the Applicant undertook further engagement with Council and the Friends of Lane Cove National Park through targeted meetings to discuss feedback and clarify technical matters.

5.2.2 Public Exhibition of the Amendment Report

76. In February 2026, the Applicant provided an Amendment Report, including its response to submissions, to the Department and other government authorities. The amended application saw changes to the scale, footprint and layout of the development, including a reduction in the data centre capacity, building height, number of storeys and gross floor area. The amended design relocated the STSS adjacent to the data centre building, removed the proposed Richardson Place connection and western pedestrian link, increased setbacks, and sought to minimise biodiversity impacts through greater retention of vegetation, a reduction in tree removal and a reduced encroachment into the prescribed landscape setback area.
77. After accepting the lodgement of the amended DA, the Department:
 - publicly exhibited the amendment from 5 March 2026 until 18 March 2026 on the NSW Planning Portal
 - notified occupiers and landowners in the vicinity of the site about the public exhibition

- notified and invited comment from previous submitters, relevant government agencies and Council.

5.2.3 Public Submissions on the Amendment Report

78. The Department received 35 submissions during the public exhibition period of the Amendment Report (two submissions from special interest groups and 33 submissions from individuals), of which 33 submissions objected to the amended development. This represents a substantial reduction in the number of submissions received compared with the exhibition of the original development application.
79. Compared with the original exhibition, submissions placed greater emphasis on the adequacy of measures proposed to protect, manage and offset retained bushland and ensure its long-term conservation, while biodiversity impacts, habitat fragmentation, tree removal and impacts on Lane Cove National Park remained the predominant concerns.
80. Concerns regarding cumulative noise impacts from existing and proposed data centres in the locality, together with bushfire risk, visual impacts, energy consumption, and the adequacy of alternative site investigations, were also commonly raised.
81. A link to all submissions in full is provided in **Appendix C** of this report.

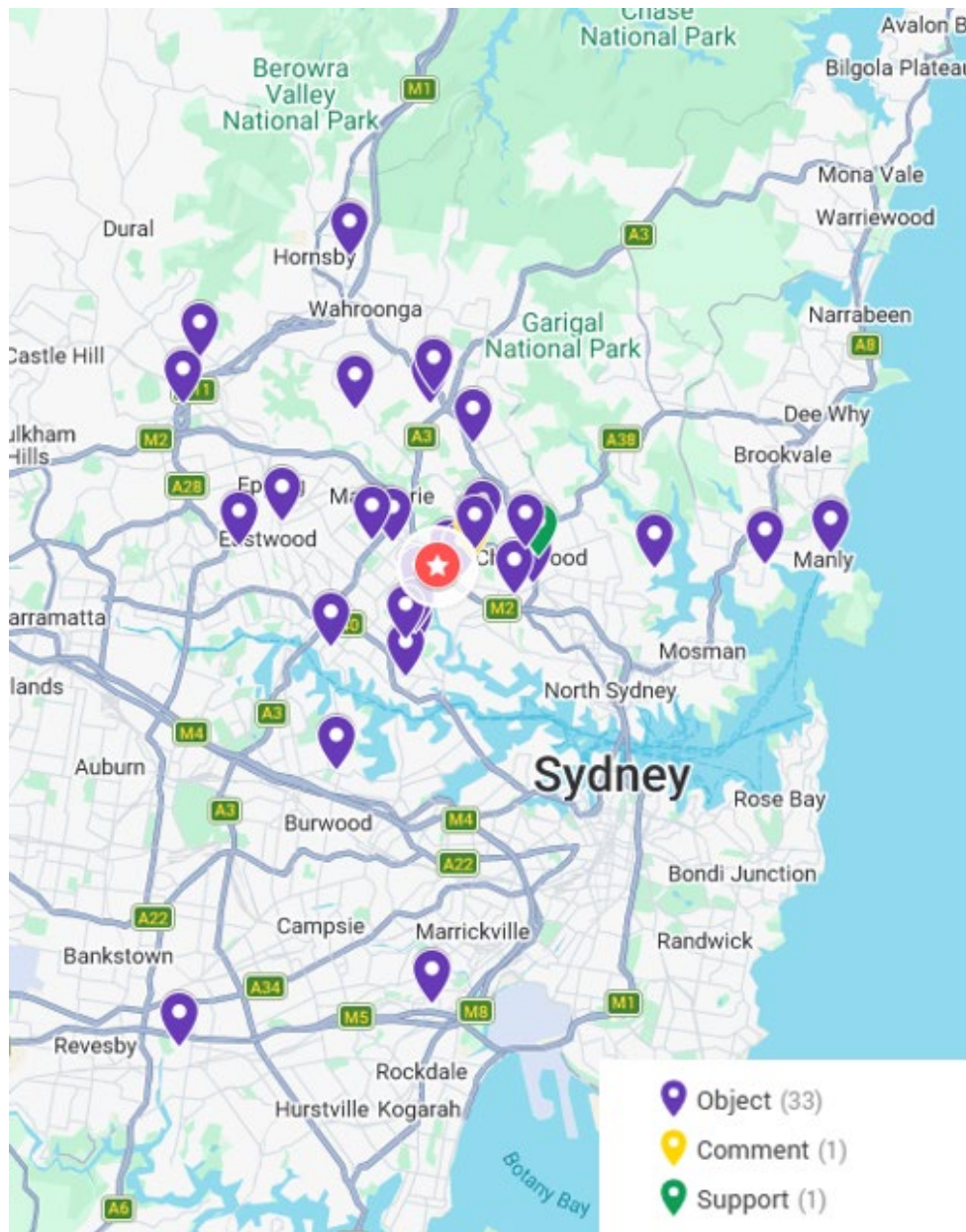


Figure 13 | Indicative Location of Public Submissions (Amended DA)

5.2.4 Council Submissions on the Amendment Report

82. **City of Ryde** (Council) noted the Applicant's continued engagement with Council throughout the assessment process and advised that the reduced scale of the development, relocation of the STSS, removal of the Richardson Place connection and increased vegetation retention had substantially resolved its previous concerns. Council also indicated that engineering, flooding, stormwater, access and parking matters had been satisfactorily addressed through the amended design. The remaining matters, including public domain works, security fencing, vegetation management, development contributions and access arrangements, were considered capable of being addressed through recommended conditions of consent.

83. Willoughby City Council did not raise any new issues in response to the Amended DA and advised that the matters raised in its original submission remained relevant.

5.2.5 Government Authority Advice on the Amendment Report

84. Further advice was provided from nine agencies on the Amendment Report. A summary of the agency advice is provided in **Table 7** below. A link to the full copy of the advice is provided in **Appendix C**.

Table 7 | Summary of Government Authority Advice on the Amendment Report

Agency	Advice summary
EPA	The EPA advised it has no further comments on the amended proposal and that no additional consultation is required. The EPA noted that the proposal would not require an Environment Protection Licence under the POEO Act.
DCCEEW CPHR	CPHR acknowledged that the amended proposal would reduce impacts on the bushland portion of the site through the relocation of the STSS and a reduction in vegetation clearing. However, it advised that several biodiversity and flood risk management matters remain unresolved. CPHR raised ongoing concerns regarding the biodiversity assessment, including the need to further demonstrate avoidance and minimisation of impacts to native vegetation, undertake and document additional threatened flora surveys, assess overshadowing and noise impacts on wildlife, clarify biodiversity offset requirements, assess impacts associated with the proposed sewer pipeline, and prepare a Vegetation Management Plan. CPHR also identified deficiencies in the Flood Impact and Risk Assessment, including the need for further information on flood modelling assumptions, flood planning levels, flood mitigation measures, emergency management arrangements and the potential flood impacts on building access points and other site infrastructure.
DCCEEW Energy, Climate Change and Sustainability (ECCS)	ECCS commented on the proposal's energy efficiency, renewable energy commitments, electricity demand management, power system impacts and backup generation arrangements. It also highlighted the potential emissions implications of back-up diesel generator operation during prolonged outages, including major event days. ECCS encouraged alignment with Commonwealth expectations for data centres and the NSW Data Centre Consultation Paper through initiatives such as improved energy efficiency, demand response during periods of grid stress, and renewable energy procurement.

Agency	Advice summary
DCCEE Water Group	Water Group did not raise any new issues in response to the Amended DA and advised that the matters raised in its original submission remained relevant.
NPWS	NPWS acknowledged the relocation of the STSS and reduction in tree removal as improvements to the proposal. However, it maintained concerns regarding habitat fragmentation and the loss of habitat for threatened species associated with Lane Cove National Park and recommended further review of the Vegetation Management Plan. It also raised concerns regarding the proposed high-voltage connection, noting that potential works within Lane Cove National Park had not been assessed and may require separate approvals.
Heritage NSW	Heritage NSW noted that the updated ACHAR adequately address prior comments and recommended conditions for the protection of Aboriginal Heritage, such as the implementation of an unexpected finds protocol during construction.
Heritage Council of NSW	Heritage Council of NSW noted that the subject site is not listed on the State Heritage Register, is not in the vicinity of any SHR items, and does not contain any known historical relics. It provided advice on recommended conditions, such as the implementation of an unexpected finds protocol during construction.
RFS	RFS raised no additional concerns.
FRNSW	FRNSW advised that the matters raised in its original submission remained relevant.
Transport for NSW	TfNSW advised that it has no requirements as the proposed development is unlikely to have a significant impact on the classified road network.

5.2.6 State Owned Corporation Advice on the Amendment Report

85. **Ausgrid** noted the amended proposal and reiterated the need for ongoing consultation regarding connection arrangements and project staging. It also reiterated requirements relating to the protection of existing overhead and underground electricity infrastructure, maintenance of easements, construction clearances and access arrangements for electricity network assets.
86. **Sydney Water** noted the proposed change in cooling methodology and advised that water and wastewater servicing should be available for the development. It also identified the need for further Sydney Water approvals and servicing investigations, including detailed information on

water demand, staging, servicing requirements and water efficiency measures for the proposed data centre.

5.3 Submissions Report and Supplementary Information

87. Following the exhibition of the Amended DA, the Department requested the Applicant to respond to the issues raised in submissions and the advice received from government agencies. In addition, the Department requested further information regarding the proposed electricity connection arrangements, bushfire protection measures, energy efficiency initiatives, greenhouse gas emissions, alternative fuel opportunities for back-up generators, and the management of electricity supply during infrastructure maintenance or grid outages.
88. The Applicant provided a Submissions Report to the Department on 8 May 2026 (see **Appendix B**), which was published on the NSW planning portal and referred to relevant government authorities and Council. The Applicant also provided a supplementary fire safety response on 19 June 2026.
89. CPHR reiterated its previous concerns regarding biodiversity impacts, the location and servicing of the STSS, flooding and stormwater management, and recommended additional actions and conditions to address a number of outstanding matters.
90. Council subsequently provided recommended conditions of consent, including conditions relating to stormwater and flood management.
91. FRNSW advised that the development would be required to achieve compliance with its *Position Statement – Lithium-ion Batteries and Diesel Generators in Data Centres*.
92. The Department has considered the issues raised in submissions, the Submissions Report, supplementary information provided by the Applicant, and the concerns raised by government authorities in its assessment of the development. A summary of the Department's consideration of community views is provided in **Appendix C**.

6 Assessment

94. The Department has considered the EIS, the issues raised in submissions, the Applicant's Amendment Report, Submissions Report and supplementary information in its assessment of the development.
95. The Department considers the key assessment issues are:
- development footprint at the bushland interface
 - operational noise.
96. A number of other issues have also been considered. These issues are considered relatively minor and are assessed in **Table 8** and **Section 6.3** below.

6.1 Development Footprint at the Bushland Interface

6.1.1 Site Sensitivity and Strategic Constraint

97. The southern part of the site forms a sensitive interface with Lane Cove National Park and contains native bushland of moderate to high ecological value, including Sydney Coastal Enriched Sandstone Forest, that contributes to a broader wildlife corridor and provides a landscape buffer (see **Figure 14**).

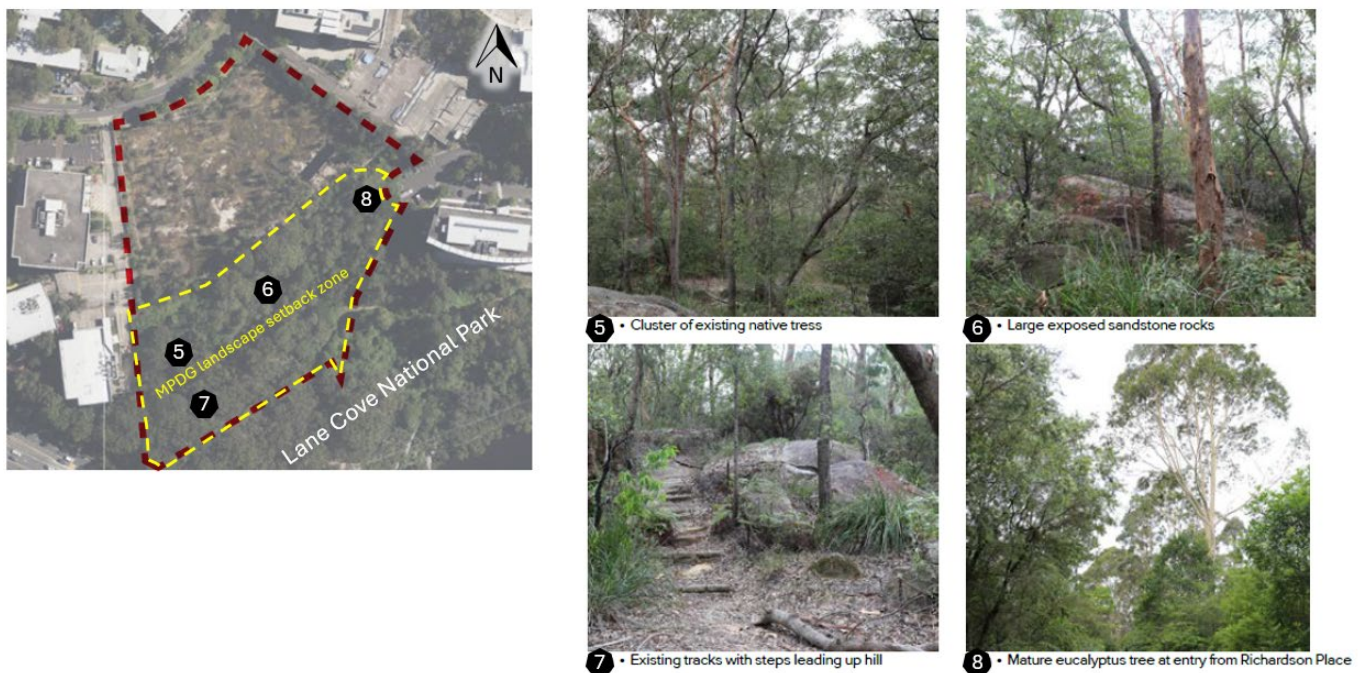


Figure 14 | Aerial Image and Site Photographs of the Southern Portion of 6–8 Julius Avenue

98. The development would extend into this interface, including part of the landscaped setback area identified in the Macquarie Park Design Guide (MPDG), which is intended to reinforce biodiversity resilience and the green character of the precinct edge. This part of the site is also bushfire-prone, such that the siting of development and associated protection measures must be carefully considered to avoid unnecessary clearing and disturbance of the bushland edge.
99. During consultation on the original proposal, biodiversity impacts, encroachment into the southern bushland interface and bushfire risk were prominent issues raised by the community (refer to **Section 5**).
100. Council, CPHR and NPWS raised concerns regarding the developments impacts on biodiversity values including wildlife corridors of local and regional significance, and the sites visual and ecological buffer with the interface to Lane Cove National Park as a result of the proposed native vegetation clearing and tree removal (refer to **Section 5**).

6.1.2 Design Response and Footprint Minimisation

101. In response to these issues, the Applicant has undertaken an iterative redesign process to reduce biodiversity impacts and improve the relationship of the development with the southern bushland edge. The amended development reduces the data centre capacity and correspondingly reduces the overall development footprint. The reduction in data centre capacity enabled built form to be more tightly consolidated within the previously disturbed and excavated northern portion of the site, which has been subject to substantial clearing and excavation and contains predominantly regrowth vegetation and exposed sandstone. This has reduced the extent of direct encroachment into the southern bushland interface with 175 additional trees to be retained and the MPDG landscaped setback area relative to the original scheme.
102. As can be seen in **Figure 15**, key components of the amendment are the relocation and reconfiguration of the STSS infrastructure, together with the removal of the previously proposed Richardson Place connection. These changes have further reduced disturbance within the southern part of the site and avoided additional clearing and fragmentation of the landscaped setback area.

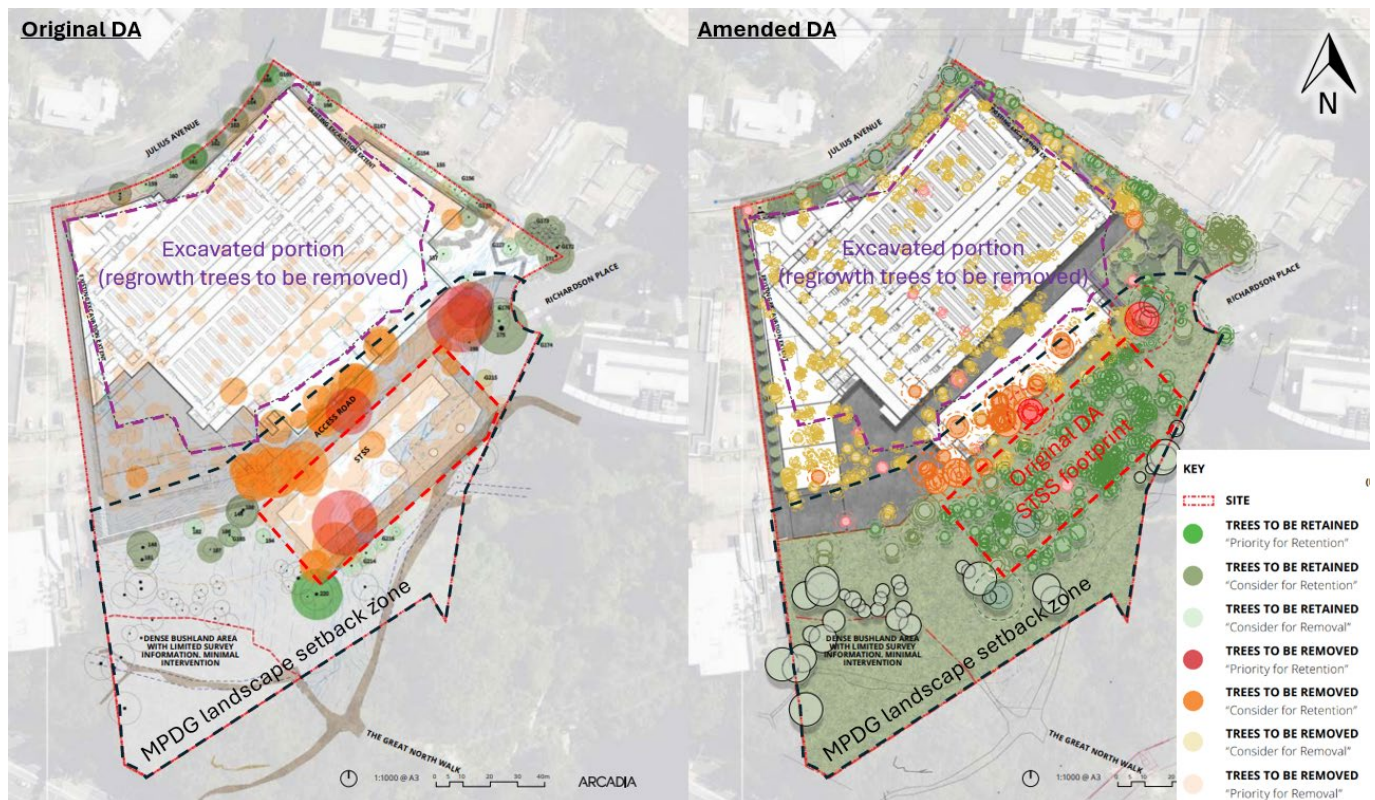


Figure 15 | Tree Removal and Retention Plans

103. The amended design also materially improves vegetation retention outcomes. Tree removal has reduced from 509 trees under the original proposal to 334 trees under the amended proposal (ie a difference of 175 trees). Of the 334 trees proposed for removal, approximately 149 are identified as low retention value and appear to be associated with regrowth since the site was originally excavated as part of a local Council DA (DA1395/1999). The amended development would also increase areas of deep soil from 32.1% to 49.8% of the site, improving the capacity for long-term canopy establishment within the revised landscape framework.
104. The amended biodiversity assessment similarly records a reduction in residual biodiversity impacts. Compared with the original BDAR prepared for the EIS, the amended BDAR reduces the requirement for ecosystem credits from 23 to 14 and species credits from 145 to 93.

6.1.3 Residual Footprint Encroachment

105. Notwithstanding those refinements, the amended proposal does not fully avoid the southern bushland edge. Some elements of the development, including the generator gantry and associated infrastructure, remain within the southern portion of the site and continue to encroach into the MPDG landscaped setback area. As such, the amended proposal remains inconsistent with the desired outcome of retaining this interface primarily as a vegetated ecological and visual buffer to the National Park.

106. In this regard, CPHR raised concerns regarding the extent of residual impacts to the southern bushland interface, including continued encroachment into the MPDG landscaped setback area and impacts to intact vegetation. CPHR considers that further avoidance and minimisation of biodiversity impacts may be achievable, including through alternative siting of key infrastructure.
107. The Applicant attributes the residual southern encroachment to the operational requirements of the data centre and the physical constraints of the site. In particular:
- the site's limited entry configuration, topography and irregular geometry necessitate a consolidated and highly coordinated arrangement of sub-elements, including the office, loading dock/carpark, data halls and electrical rooms, STSS, and generator building
 - increasing building height to redistribute plant is not viable due to the rooftop area required to accommodate the minimum number of chillers necessary for cooling, with any reduction in roof space directly constraining operational capacity further
 - separation between the data centre and generator building structure is required to maintain adequate airflow, prevent recirculation to rooftop plant and support effective air emission dispersion via exhaust flues.
108. The Department has considered CPHR's concerns and the response of the Applicant and acknowledges that these constraints reasonably limit the extent to which development can be reconfigured on the site. In particular, the core building footprint is largely dictated by the area required to accommodate essential cooling infrastructure necessary to support the facility's IT load, which in turn establishes a minimum spatial requirement for the data halls and associated plant. This requirement limits the ability to vertically or horizontally redistribute plant without materially reducing operational capacity.
109. The Department considers that the Applicant has made a genuine and substantive attempt to minimise southern encroachment, including through a material reduction in IT load (from 115 MW to 76 MW, representing approximately a 34% reduction), which has enabled a corresponding contraction and consolidation of the development footprint. While some further optimisation may be possible, such changes would require more fundamental alterations to the scale or operational configuration of the development.
110. On balance, the Department is satisfied that the amended layout represents a reasonable and largely minimised outcome, and that the extent of encroachment has been reduced to, or is approaching, the minimum practicable extent having regard to the proposal's functional requirements and site constraints.

111. Notwithstanding, the proposal continues to result in development within the MPDG landscaped setback area, with associated direct and indirect impacts on the southern bushland interface, which remain a relevant planning consideration.
112. In this regard, CPHR raised concerns regarding potential indirect impacts on adjoining bushland, particularly increased shading from the built form and associated effects on retained vegetation. In response, the Applicant updated the BDAR to assess a range of indirect impacts, including overshadowing, edge effects, noise, dust and light spill, habitat connectivity and weed and pathogen spread. The updated BDAR concludes that these impacts would be low and capable of being managed through the proposed mitigation measures (e.g. cowls to prevent light spill, sensors to reduce timing of active lighting, strategic placement of noise-generating equipment, and installation of mufflers) and long-term vegetation management. While CPHR maintained concerns regarding the extent of potential overshadowing of adjoining bushland, it did not raise any further concerns regarding noise impacts on wildlife in its subsequent advice.

6.1.4 Bushfire and Fire Safety Response

113. The generator and associated plant are located in the southern part of the site, which is the area most exposed to bushfire risk, including BAL-FZ flame zone conditions. The building also contains vertically stacked diesel generators, which FRNSW considers require fire safety measures appropriate to their fire load and operation.
114. The Applicant's Bush Fire Assessment Report identifies the southern façade of the generator building as BAL-FZ and notes that the southern site boundary has the highest bushfire exposure. Without a site-specific response, a larger APZ and additional vegetation clearing would likely be required.
115. In response, the Applicant has proposed a performance-based bushfire approach that minimises the APZ and relies on design and construction measures to manage BAL-FZ exposure. This includes a 10 m APZ to the south, non-combustible external walls, a minimum two-hour fire rating, ember protection, and protected ventilation systems.
116. The Department notes that neither the RFS nor NPWS raised residual bushfire risk concerns with the amended development. The RFS advised the implementation of measures identified in the Bush Fire Assessment Report and recommended conditions of consent. These recommendations have been adopted by the Department.
117. Separate to bushfire planning, FRNSW's position statement notes that the generator building raises a distinct fire safety issue because it contains vertically stacked diesel generators. FRNSW notes that such structures require adequate fire resistance, fire separation, suppression and firefighting equipment, and considers that their use and fire load are beyond

that typically associated with a Class 10 building (e.g. shed and garage) and more closely resemble a Class 8 industrial-type use. In this context, the Class 8 comparison reflects the significant combustible liquid load associated with vertically stacked diesel plant and tanks across multiple levels, rather than any occupied industrial use.

118. In response, the Applicant confirmed that the generator structure has been classified as a Class 7b building (e.g. warehouse and storage building) rather than a Class 10 building, and that the applicable construction, compartmentation and fire protection requirements are generally comparable to the Class 8-type outcome contemplated by FRNSW's position statement for vertically stacked diesel generator structures.
119. The Department considers that the current design has had appropriate regard to the substance of FRNSW's position in relation to the generator building. However, the southern façade incorporates ventilation openings and louvres which, given the building's bushfire-exposed location, do not provide a fully enclosed fire-rated interface. Accordingly, detailed resolution of these elements as part of the Fire Safety Study (FSS) will be critical to ensure that the performance-based fire safety and bushfire protection measures are appropriately integrated and effective for the proposed configuration.
120. Consistent with FRNSW's advice and the *Hazardous Industry Planning Advisory Paper No 2 Fire Safety Study Guidelines*, a condition is recommended requiring a FSS be prepared and approved prior to the commencement of construction, to confirm that the proposed performance-based fire safety measures are feasible for the approved built form and site context and can be implemented to the satisfaction of FRNSW. This study is to have regard to the generator building's bushfire-exposed location to ensure fire safety systems are robustly designed.
121. Subject to preparation and approval of that study prior to construction, and implementation of the relevant bushfire protection measures, the Department is satisfied that the bushfire and fire safety implications of the generator building are capable of being appropriately managed.

6.1.5 Biodiversity Offsets and Management

122. The Applicant proposes to manage biodiversity impacts through a combination of design avoidance, on-site mitigation and habitat management measures, together with biodiversity offsets under the Biodiversity Offsets Scheme to address residual impacts. This includes measures identified in the BDAR to minimise disturbance to native vegetation, supported by a landscape strategy that seeks to retain existing vegetation where practicable, incorporate native and endemic species consistent with the local ecological context, and respond sensitively to the adjoining Lane Cove National Park.

123. Where vegetation removal is unavoidable as described in **Sections 6.1.3** and **6.1.4**, the proposal incorporates tree replacement and landscape regeneration measures in accordance with the Landscape Report. These measures include:
- replacement planting to offset canopy loss, including native species consistent with the local ecological context
 - provision of deep soil zones and planting areas to support long-term canopy establishment
 - implementation of a landscape setback incorporating native planting to provide a transition between the development and adjoining bushland and support the retention and regeneration of vegetation along the site interface.
124. Collectively, these measures would result in an increase in deep soil area from 32.1% of the site under the original scheme to 49.8% under the amended scheme.
125. The Amended BDAR identifies the residual biodiversity impacts associated with the proposal and identifies a requirement for ecosystem credits to offset native vegetation loss, as well as species credits relating to threatened fauna and flora. This includes bat species that utilise rock crevice and cave habitat (such as Large-eared Pied Bat and bent-winged bats) and native plant species (including *Darwinia biflora* and *Deyeuxia appressa*) that are assumed to be present based on habitat suitability and existing records. While no threatened species were recorded during field surveys, these species have been accounted for in the biodiversity offset calculations.
126. Compared to the original BDAR prepared for the EIS, the amended BDAR identifies a reduced biodiversity offset requirement, with ecosystem credits decreasing from 23 to 14 and species credits reducing from 145 to 93. This reduction reflects design refinement and avoidance measures which have minimised the extent of native vegetation clearing and impacts to higher condition habitat within the site. The BDAR also confirms that no threatened ecological communities listed under the *Biodiversity Conservation Act 2016* (BC Act) or EPBC Act are present on the site.
127. NPWS acknowledged that the amended proposal represents an improved outcome. However, NPWS raised concerns that the removal of native vegetation, including hollow-bearing trees, would reduce the availability of foraging and habitat resources for local threatened species, and may increase pressure on existing habitat within Lane Cove National Park. NPWS noted that the proposed management measures include the installation of nest boxes to compensate for habitat loss, but expressed a preference for retention of hollow-bearing trees or the provision of carved tree hollows to better support hollow-dependent species.
128. To address these matters, conditions are recommended requiring implementation of mitigation measures identified in the BDAR through a Fauna Management Plan (FMP) and Vegetation

Management Plan (VMP) prepared in consultation with Council and CPHR. The FMP will need to include habitat management and vegetation protection measures, the retirement of biodiversity credits in accordance with the Biodiversity Offsets Scheme, tree protection in accordance with the Arboricultural Impact Assessment and measures for hollow-bearing tree retention and/or replacement. These measures have been recommended in line with CPHR's advice and provide a mechanism to secure the proposed avoidance, mitigation and habitat management outcomes.

129. The Department considers that the proposed biodiversity offsetting is consistent with the requirements of the BC Act and forms an appropriate mechanism to compensate for residual impacts that cannot be avoided or minimised. The implementation of the proposed on-site landscape and vegetation management measure will also assist in mitigating the loss.

6.1.6 The Department's Considerations

130. The Department acknowledges that the amended proposal does not fully avoid the MPDG landscaped setback area, and that elements of the development, including the generator gantry and associated plant, remain within the southern interface and would result in some modification of the bushland edge. However, the Department considers that the Applicant has undertaken substantive design refinements to reduce the extent of impact, including reducing development capacity, consolidating built form within the more disturbed northern part of the site, relocating and reconfiguring the STSS, removing the Richardson Place connection, reducing tree removal and increasing deep soil area.
131. The Department accepts that the residual siting of the generator building raises bushfire and fire safety considerations. However, RFS has raised no additional concerns subject to adoption of the Bush Fire Assessment Report measures, and conditions are recommended requiring those measures to be implemented.
132. The Department also notes FRNSW's position that vertically stacked diesel generator structures warrant fire safety consideration commensurate with their fire load and combustible liquid risk. The Applicant has responded by classifying the generator structure as Class 7b rather than Class 10, with the adequacy of the final fire safety measures to be confirmed through a Fire Safety Study. The Department considers the recommended FSS condition will be an important safeguard, as it requires the proposed performance-based fire safety measures to be tested against the approved built form, site context and external factors, including bushfire exposure, before construction commences.
133. On balance, the Department considers that while the residual footprint within the southern interface does not achieve the desired MPDG landscaped setback outcome, the amended proposal has reduced impacts to the extent practicable, including minimising both direct

vegetation loss and indirect impacts on the retained bushland interface. The Department is satisfied that the resulting development footprint reasonably balances biodiversity protection, operational requirements and bushfire constraints.

134. Subject to the recommended conditions, including implementation of the Bush Fire Assessment Report, approval of the Fire Safety Study prior to construction, biodiversity offsets and ongoing landscape/vegetation management, the Department's assessment concludes that the residual impacts associated with the development footprint are capable of being appropriately managed.

6.2 Operational Noise

135. The proposed data centre would operate on a continuous 24-hour basis and has the potential to affect the acoustic amenity of nearby sensitive receivers, including outdoor recreation areas, existing residences and future noise-sensitive developments at key sites within the Macquarie Park Transport Oriented Development Precinct.
136. Submitters raised concerns regarding operational noise generated by cooling plant, backup generators and associated 24-hour operations. Concerns related to potential impacts on residential amenity, the tranquillity of Lane Cove National Park and the Great North Walk, and disturbance to fauna within the adjoining habitat corridor. Submitters also questioned the adequacy of the operational noise assessment and the effectiveness of the proposed mitigation measures.

6.2.1 The Applicant's Assessment

137. Operational noise impacts were assessed in accordance with the NSW Noise Policy for Industry (NPfI), which provides noise mitigation trigger levels for assessing the potential impact of noise from industry and includes a framework for considering feasible and reasonable noise mitigation measures.
138. The NPfI defines the more stringent of the project intrusiveness noise level (existing background levels plus 5dB) and the project amenity noise level (specified in the NPfI for specified land uses) as the mitigation trigger level. The project intrusiveness noise level aims to protect against significant changes in noise levels, while the project amenity noise level seeks to protect against cumulative noise impacts from industry and maintain amenity for particular land uses.
139. The applicable noise trigger levels for the proposal were derived in accordance with the NPfI, having regard to the existing acoustic environment and surrounding land uses, including

residential receivers, educational facilities and recreational areas. For all assessed receivers, the project amenity noise level was identified as the governing project noise trigger level.

140. To minimise operational noise impacts, the amended proposal incorporates a suite of mitigation measures addressing noise at source, along the transmission path and through site layout and building design (see **Figure 16**). These include selection of equipment to specified sound power levels, air-cooled chiller discharge and intake attenuators, screening and noise walls around rooftop and external plant, use of the generator building to provide acoustic shielding, and installation of acoustically-rated louvres, attenuators and exhaust silencers to generator building enclosure.

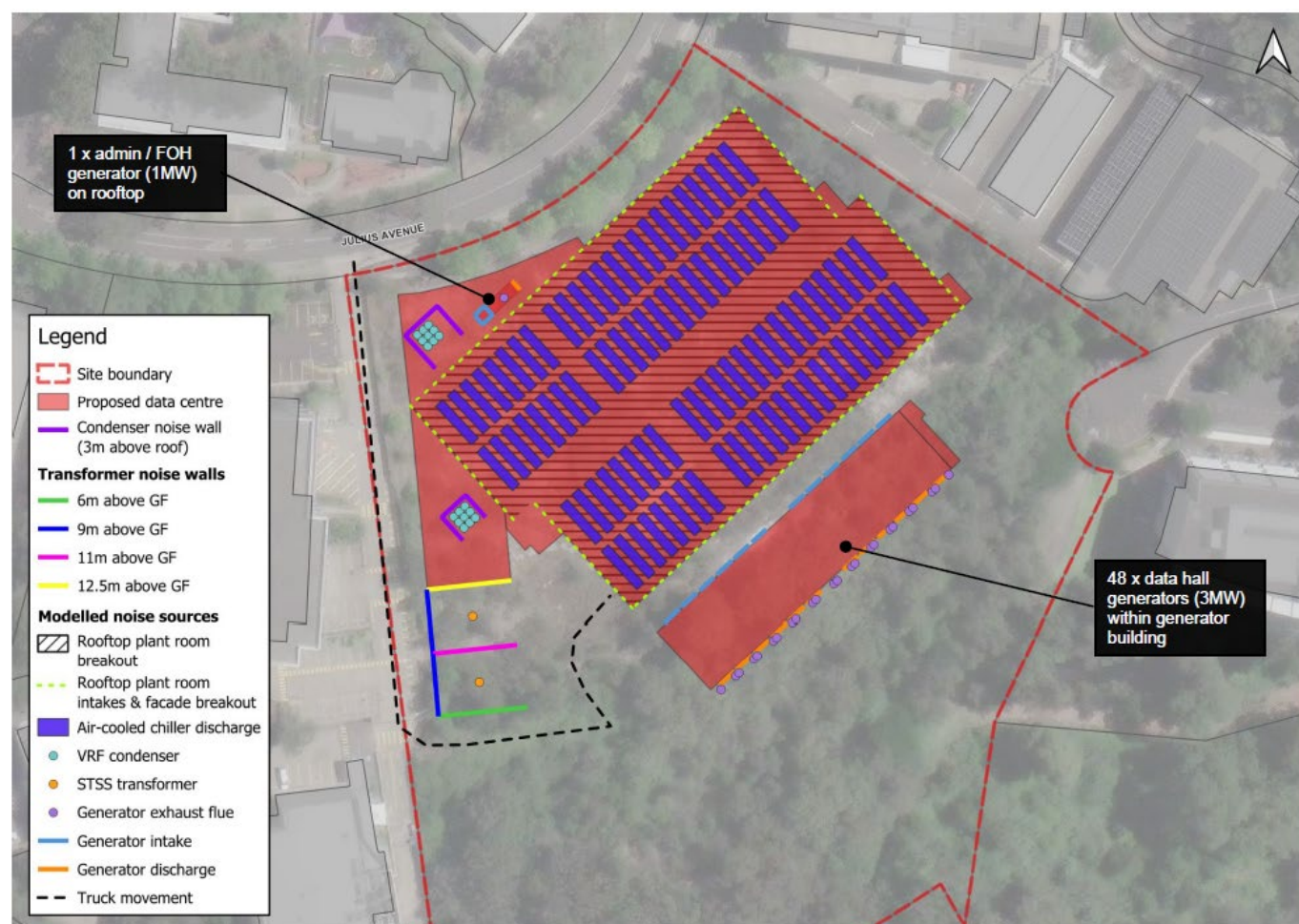


Figure 16 | Noise Sources and Mitigation Measures

141. Back-up generator testing has been limited to daytime hours, with up to two generators tested concurrently to limit impacts.
142. Further, in response to queries from the Department and EPA regarding generator operation, the Applicant confirmed that the redundancy of the electrical network and on-site infrastructure avoids interruption to supply during maintenance. Accordingly, no provision is

required for the use of back-up generators during scheduled or unscheduled electrical infrastructure maintenance activities.

143. The operational noise assessment considered both normal, routine generator operations (refer to **Table 2**) and emergency outage scenarios involving the concurrent operation of multiple generators. The Applicant confirmed that generator operation would be limited to unplanned grid outages and defined testing events. Accordingly, any other use of generators does not form part of the assessed proposal. **Figure 17** to **Figure 19** illustrate the predicted operational noise impacts at surrounding sensitive receivers.
144. The assessment predicts that operational noise would not contain any audible tonal characteristics or dominant low-frequency content at surrounding receivers.

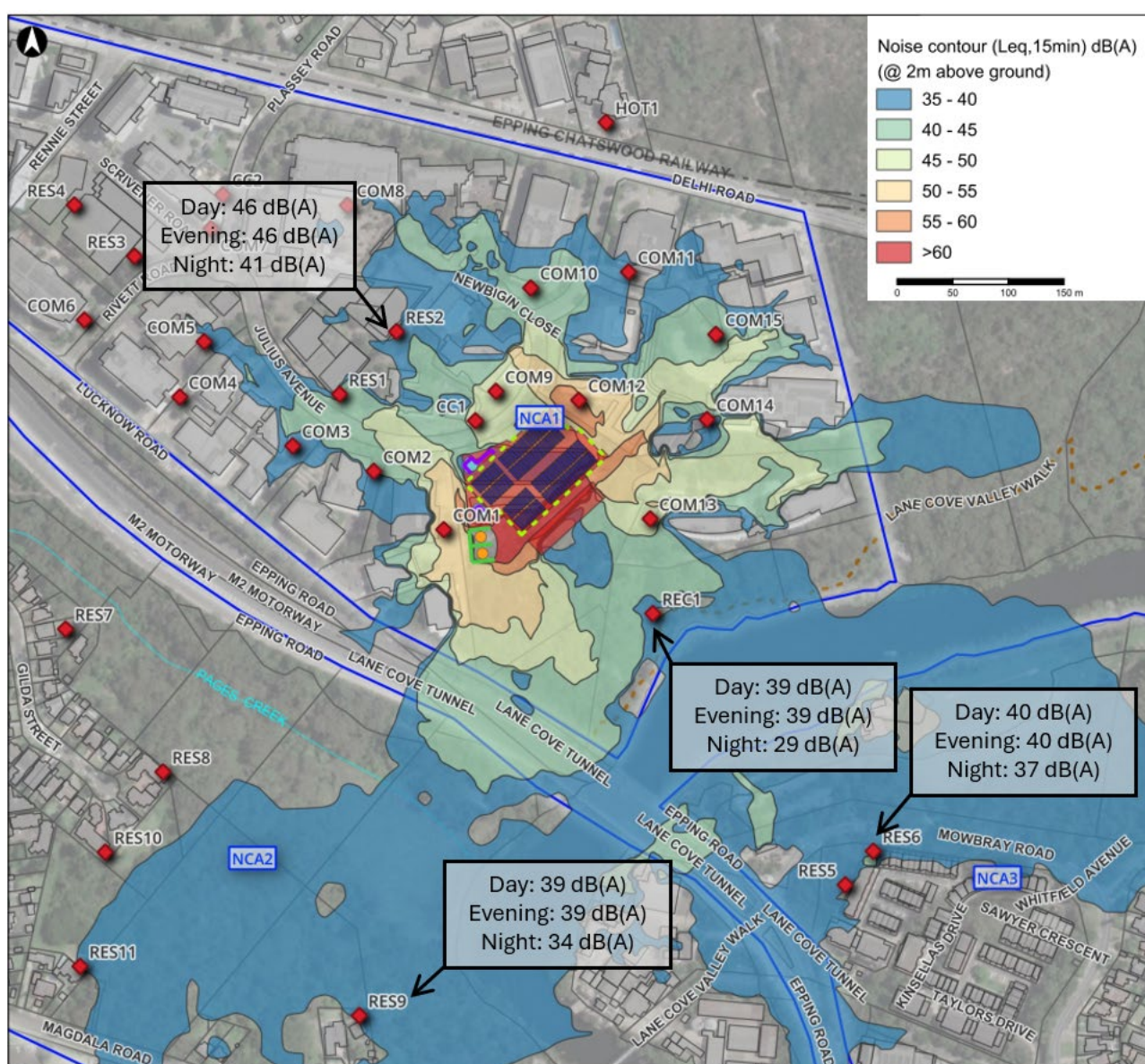


Figure 17 | Daytime and Evening Noise Contours (Normal Operation Without Generators)

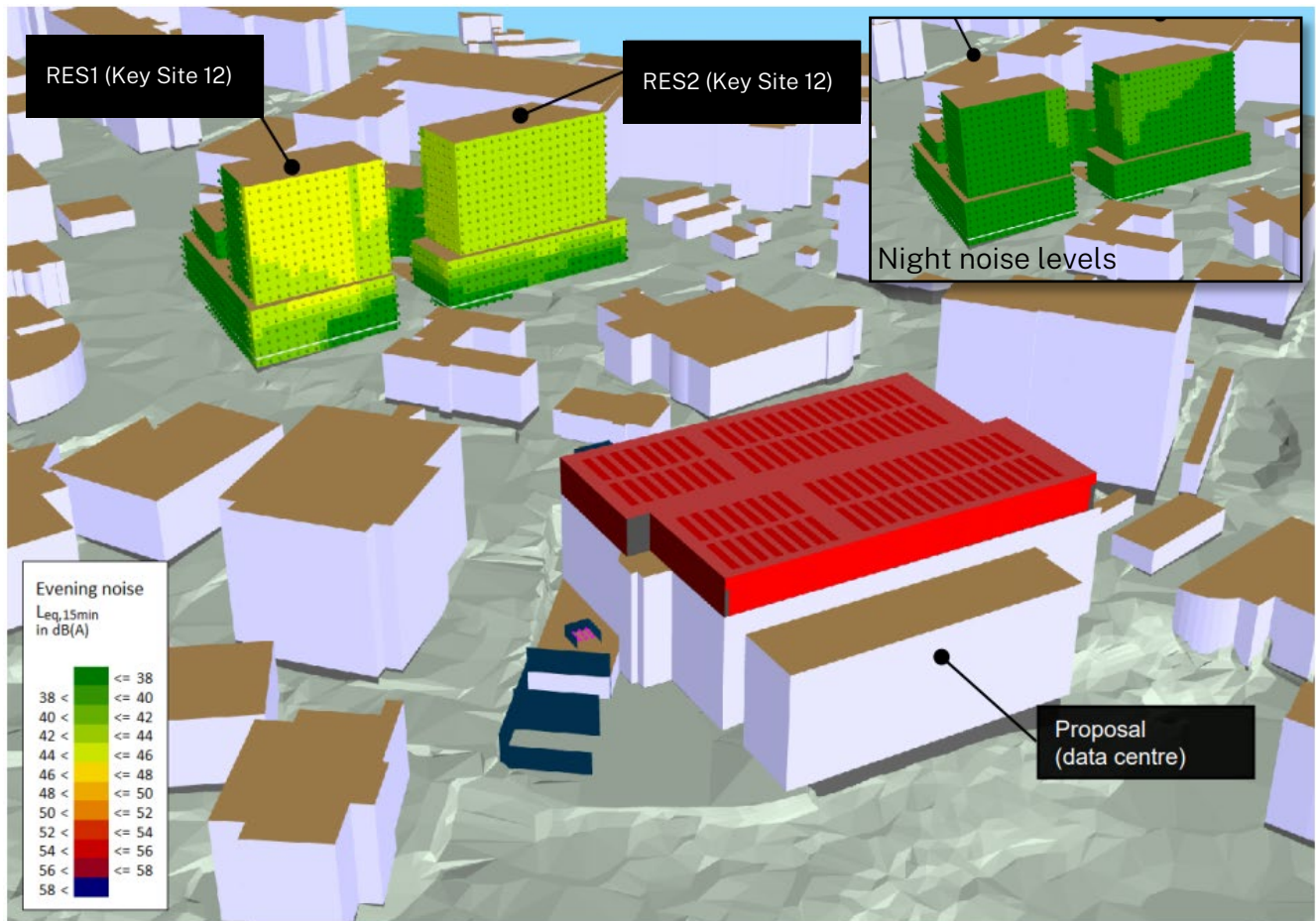


Figure 18 | Façade Noise Contours at Key Site 12 (Assumed Built Form) (Without Generators)

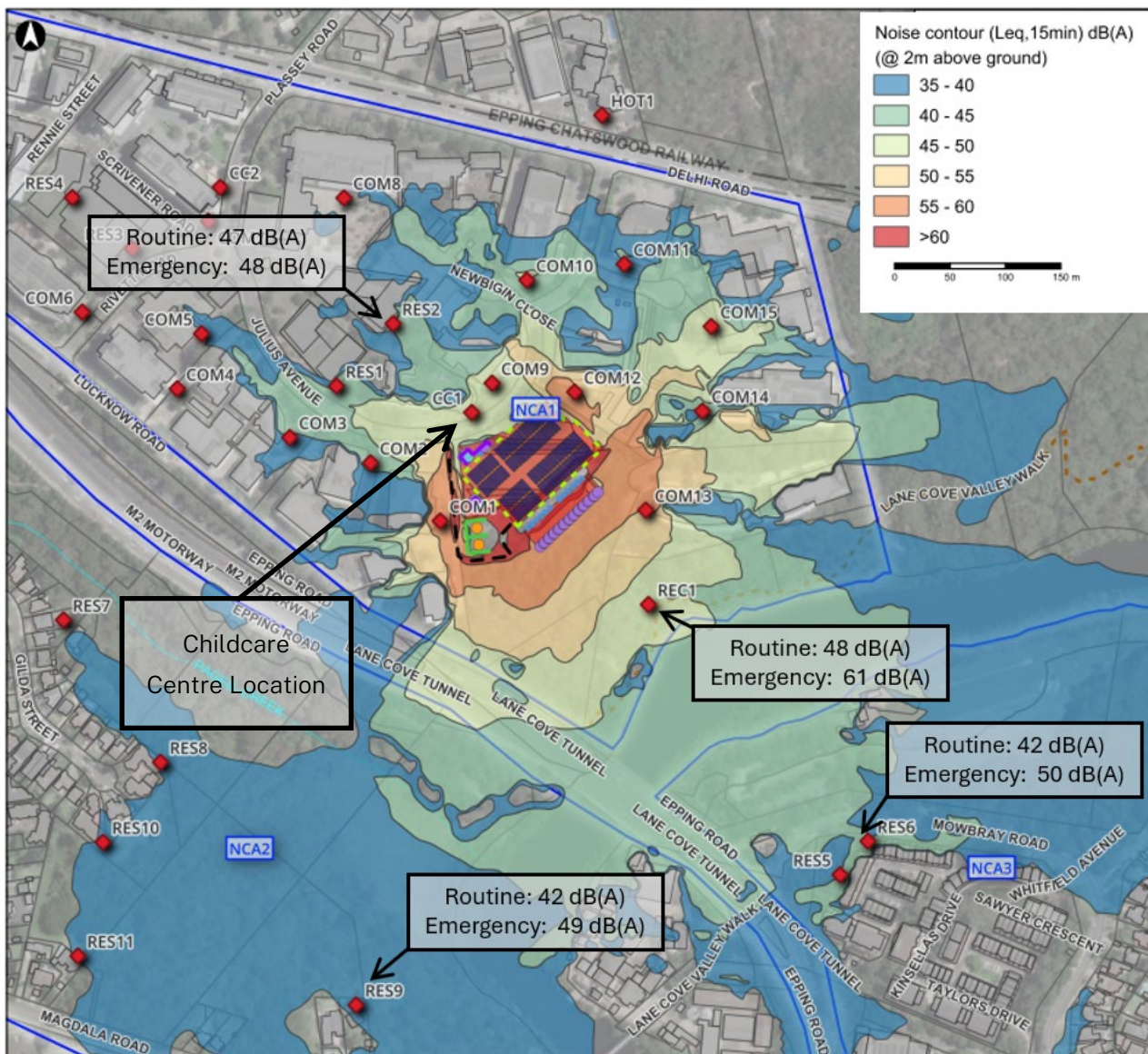


Figure 19 | Noise Contours (Routine Generator Operation)

145. With the proposed mitigation in place, the operational noise assessment for normal/routine operating conditions identifies the childcare centre at 5A Julius Avenue (CC1) as the only receiver with the potential to exceed the project amenity noise level of 25 dB(A) LAeq,1hour indoors. The assessment predicts an exceedance of up to 4 dB during the noisiest 1-hour period, assuming windows are closed (with an outside-to-inside attenuation of 20 dB). The Applicant notes, however, that operational noise would not occur continuously throughout the assessment period. Applying duration adjustments to account for these assumptions, the Applicant considers that operational noise would comply with the applicable project amenity noise level at the childcare centre.
146. At all other surrounding receivers, the operational noise assessment identifies compliance with the relevant project noise trigger levels during day, evening and night-time periods under

normal/routine operating conditions. As can be seen in the noise contour maps presented in **Figure 17** to **Figure 19**, this includes predicted compliance with the relevant:

- project amenity noise level of 48 dB(A) LAeq,15min at outdoor passive recreation areas (i.e. REC1, representing the Lane Cove Valley walking trail)
 - project suburban amenity levels of 53 dB(A) LAeq,15min (day), 43 dB(A) LAeq,15min (evening) and 38 dB(A) LAeq,15min (night) at existing residences in Lane Cove North (RES5 and RES6) and North Ryde (RES7 to RES11)
 - project urban amenity noise levels of 58 dB(A) LAeq,15min (day), 48 dB(A) LAeq,15min (evening) and 43 dB(A) LAeq,15min (night) at future residential receivers at Key Site Area 12 in North Ryde (RES 1 and RES2).
147. Under normal operating conditions, the most affected receivers (other than the childcare centre) are predicted to be residential properties, reflecting the contribution of rooftop mechanical plant and general operational activities, including routine generator testing (see **Figure 17**). In contrast, during emergency outage scenarios, the most affected receiver shifts to the Lane Cove Valley walking trail (REC1) (see **Figure 19**). This is primarily attributable to the site layout, whereby the generator building is located along the bushland interface, providing shielding of the bushland area from rooftop plant noise, but resulting in a more direct noise pathway to the adjacent bushland when generators are operational.
148. The BDAR also considered the potential for operational noise to indirectly affect native fauna, including threatened microbat species such as the Large-eared Pied Bat, Little Bent-winged Bat and Large Bent-winged Bat. The BDAR notes that these species occur within an environment already influenced by existing traffic noise from Epping Road and considers that operational noise under normal/routine operating conditions is unlikely to result in significant additional impacts to resident fauna within or adjacent to the site.
149. During emergency outage scenarios, where a higher number of generators may operate concurrently, operational noise would generally be below the relevant project amenity noise levels but could reach:
- 50 dB(A) outside the nearest childcare centre, exceeding the project amenity noise level of 45 dB(A) LAeq,1hour (assuming windows are closed)
 - 61 dB(A) at the Lane Cove Valley walking trail as can be seen in **Figure 19**, exceeding the project amenity noise level of 48 dB(A) LAeq,15min
 - 64 dB(A) at 2 Richardson Place (COM14) and 67 dB(A) at 3 Richardson Place (COM13), exceeding the project amenity noise level of 63 dB(A) LAeq,15min for commercial premises.

150. In this regard, the Applicant considers that requiring all generators to comply with the NPfl mitigation trigger levels would be unreasonable given the low likelihood of emergency operation. The Applicant notes that Ausgrid's network reliability statistics indicate that unplanned outages occur for only a very small proportion of the year and submits that the proposed development's connection to a new STSS, in close proximity to the 132 kV transmission network, would further reduce the likelihood and duration of outage events requiring generator operation. Accordingly, emergency operation of the generators is expected to occur infrequently.

6.2.2 The Department's Considerations

151. The Department has reviewed the operational noise assessment and is satisfied that the Applicant has undertaken a robust and conservative assessment of operational noise impacts. The Department notes that compliance with the applicable project noise trigger levels is generally predicted under normal operating scenarios, subject to the assumptions adopted in the assessment regarding the heat rejection load and generator operations.
152. In relation to concerns raised by submitters regarding disturbance to fauna within the adjoining habitat corridor, the Department notes that, under normal operating conditions, the generator building provides shielding of the adjoining bushland interface from rooftop mechanical plant noise. While higher noise levels are predicted during emergency outage scenarios, these events would occur infrequently and are not representative of normal operating conditions. Having regard to the existing road traffic noise environment, the assessed operational noise outcomes and the conclusions of the BDAR, the Department considers that operational noise impacts on native fauna within and adjacent to the site are unlikely to be material.
153. While it may not be reasonable or practicable to strictly limit noise emissions during unplanned emergency outage scenarios, the Department notes that operation of the back-up generators beyond the proposed operating envelope could result in unacceptable noise impacts. However, should an emergency outage scenario occur, directly surrounding receivers primarily comprise commercial uses, and modelling indicates no predicted exceedances of the noise criteria at residential receivers. Consequently, the concurrent operation of the 49 generators associated with the development is unlikely to result in significant impacts on local amenity.
154. The Department has therefore recommended conditions of consent to limit the operation of the back-up generators in line with the proposed operating envelope, including restrictions on total operating hours, limits on non-emergency use, and annual reporting requirements for generator operation and fuel consumption. These conditions are intended to ensure that any potential impacts arising from the proposal that have not been specifically assessed do not adversely

affect nearby sensitive receivers, particularly in relation to noise, air quality, and greenhouse gas emissions (refer to **Table 6** for other issues).

155. The Department has also recommended that routine generator testing be limited to weekdays only. While the Applicant sought approval to undertake routine testing on both weekdays and weekends, the Department considers that restricting testing to weekdays would further minimise potential noise impacts on users of the Lane Cove National Park and Great North Walk, where recreational use is generally highest on weekends.
156. Further, to maintain consistency with the worst-case assessment assumptions, the Department recommends that operational noise limits be set at the Applicant's predicted LAeq,15min noise levels. This approach provides a precautionary control by limiting operational headroom and reducing the risk of cumulative noise impacts arising from surrounding industrial and data centre developments, particularly at more distant receivers that are more susceptible to cumulative impacts from nearby data centres.
157. Notwithstanding the above, the Department notes that the Applicant's conclusion of compliance with the project amenity noise level at the childcare centre relies on the assumptions that operational noise would not occur continuously throughout the 1-hour assessment period. As such, compliance is contingent on the assumptions adopted in the assessment regarding the continuity of operational noise. Accordingly, the Department considers it necessary that operational noise limits be set at the applicable project amenity noise level of 30 dB(A) LAeq,1hour indoors for this receiver and that scheduling and management measures be implemented to ensure sensitive receivers are provided with respite from continuous operational noise.
158. To verify the operational noise performance of the development, the Department also considers it necessary to require post-construction operational noise monitoring and operation noise verification reporting to ensure the operational noise limits are met. Monitoring would be undertaken at locations adjacent to the rooftop noise barriers and at representative receiver locations to verify that noise emissions remain consistent with the assessment predictions and do not exhibit adverse tonal or low frequency characteristics. Monitoring would also verify compliance with the applicable project amenity noise level at the childcare centre and the operational assumptions underpinning the assessment. The operational noise verification reporting will also require the Applicant to detail any further mitigation measures to be implemented in the event any exceedances to noise limits occur. In addition, ongoing monitoring would support the timely investigation of any noise complaints and assist in managing cumulative data centre noise impacts within the locality.

159. On this basis, the Department’s assessment concludes that operational noise impacts associated with the development can be managed appropriately, subject to the implementation of the recommended mitigation measures and conditions of consent.

6.3 Other issues

160. The Department’s consideration of other issues is summarised in **Table 8** below.

Table 8 | Assessment of Other Issues

Findings and conclusions	Recommended conditions
Urban Design	
• The site presents a sensitive urban design context, with a prominent Julius Avenue frontage, proximity to future redevelopment areas and an interface with Lane Cove National Park and the Great North Walk. • Council initially raised concerns regarding the proposal’s bulk and scale, façade treatment, security fencing, visual impacts associated with the STSS, and the relationship of the built form to the adjoining bushland setting. • Following substantial amendments to the proposal, including a reduction in the building scale, increased setbacks, revised façade treatments and relocation of the STSS adjacent to the building, Council advised that its concerns regarding bulk and scale, façade design and materiality, visual mass reduction, and the location of the STSS had been resolved. Council’s remaining urban design concern relates to the detailed treatment of security fencing, which can be addressed through conditions of consent. • The Department notes that the proposal adopts a site-responsive design approach, locating the primary building mass within the previously excavated northern portion of the site. This retains the southern vegetated area, maintains a landscaped interface with the adjoining bushland and reduces the perceived bulk of the development. The building generally complies with the setback framework of the MPDG and contributes positively to the Julius Avenue streetscape. • The proposal incorporates a number of measures to improve architectural quality and reduce visual dominance, including an articulated built form, clear differentiation between the office and data hall components, extensive glazing to the front-of-house element, and a varied façade treatment comprising angled metal panels, textured concrete and	Require the Applicant to carry out the development in accordance with the proposed design as illustrated in the architectural and landscaping plans

Findings and conclusions	Recommended conditions
contrasting materials. The Department considers these measures assist in breaking down the scale of the building and improving its presentation to Julius Avenue. • The proposal also incorporates a publicly accessible forecourt and new pedestrian connections linking Julius Avenue, Richardson Place and the Great North Walk. These elements are complemented by landscaping, seating areas, native planting and Designing with Country principles, including opportunities for Indigenous interpretation, which reinforce the site's relationship with its bushland setting and improve pedestrian amenity. • The Department further notes that the revised design has increased tree retention outcomes (an additional 175 trees) and maintains substantial deep soil planting areas across approximately 50% of the site. These measures support the site's long-term landscape character and assist in softening views of the development from the public domain and adjoining bushland areas. Security fencing is generally setback behind landscape planting and incorporates more visually permeable treatments along Julius Avenue. • Other MPDG matters relating to urban heat mitigation, climate resilience, environmental management and sustainability are considered in Appendix D. • On balance, while the proposal is a large-format development by virtue of its function, the Department considers the built form, architectural articulation, landscaping and public domain interface appropriately respond to the site's constraints and context. • Subject to conditions, the Department's assessment concludes that urban design outcome is acceptable and is consistent with the objectives of the MPDG.	
Operational Air Quality	
• The operation of the proposed back-up generators, with emission release heights of up to 32.5 m above ground, has the potential to result in short-term air quality impacts on sensitive receivers during emergency power outage events and routine testing. • The EPA noted in its advice that emergency operation scenarios may result in short-term exceedances of air quality criteria and that cumulative	Require the Applicant to: • install and operate equipment in line with best practice • prepare and implement a site-specific AQMP

Findings and conclusions	Recommended conditions
impacts with nearby data centre developments required careful consideration. • The EPA also advised that generator start-up and cool-down periods should be included when calculating total annual operating hours for emergency standby plant. • In response, the Applicant revised the generator testing regime and updated the Air Quality Impact Assessment (AQIA) to explicitly include start-up and cool-down periods, confirming that cumulative annual generator operation would remain below the applicable regulatory threshold. • The amended AQIA indicates that, under routine generator testing scenarios, predicted pollutant concentrations at surrounding sensitive receivers would remain below the relevant air quality criteria, having regard to background concentrations. On this basis, the Department is satisfied that routine testing of the back-up generators would not give rise to unacceptable operational air quality impacts. • The amended AQIA demonstrated that, under a worst-case emergency operations scenario, no exceedances to the nitrogen dioxide (NO₂) cumulative criterion over a 1-hour averaging period are predicted to occur at any receiver locations including the adjacent childcare and residential receivers. Furthermore, incremental concentrations of particulate matter was also predicted to be under the relevant criterion. • In particular, it is noted that assessed receiver locations within the adjoining national park including the walking track, are predicted to comply with the relevant pollutant criteria under worst-case emergency operations scenario. • While worst-case conditions could result in elevated cumulative pollutant concentrations, the potential impacts are not expected to be adverse or significant. This assessment considers the reliability of the local electricity network, the presence of 49 back-up generators, and the fact that the surrounding receivers are predominantly commercial uses. Accordingly, even in the unlikely event that the modelled emergency operation scenario occurs, adverse or significant impacts are not anticipated. • To manage residual risks, the Department recommends conditions requiring a site-specific Air Quality Management Plan (AQMP). This should include pollutant monitoring during outages, a Power Outage Notification	• prepare a Back-up Generator Notification Report should the back-up generators be used during a power outage event.

Findings and conclusions	Recommended conditions
Protocol, emissions controls, and performance verification against EPA guidelines. • In line with the recommendations made under the Department's assessment of operational noise, the Applicant would also be required to report any generator use during normal operation to the Planning Secretary, enabling review and adjustment of mitigation measures if necessary. • Subject to strict operational limits and implementation of management measures, the Department considers that operational air quality impacts can be appropriately managed.	
Electricity and Water Use Efficiency	
• For a given IT load, the mechanical system by which heat is ultimately rejected to the atmosphere is a primary determinant of both non-IT electricity consumption and operational water demand. • The Applicant has committed to a worst-case annualised PUE of 1.39, consistent with a 4.5-star NABERS Energy rating, alongside an indicative worst-case WUE of approximately 0.01 L/kWh, reflecting the use of waterless heat rejection systems (air-cooled chillers). • DCCEEW ECCS sought further information on the measures and innovation pathways that would enable the development to achieve a PUE of 1.3 and support continuous improvement in operational energy efficiency. • In response, the Applicant noted that the operation of the development would also be supported by high-efficiency mechanical and electrical plant, elevated data hall operating temperatures, and a centralised Building Management System (BMS). The BMS would enable real-time monitoring and optimisation of major energy-consuming infrastructure, including cooling and ancillary services. In this regard, the Applicant notes that detailed energy modelling and control optimisation could reduce PUE to as low as 1.31 (5-star NABERS energy rating). • Notwithstanding the above, the Department notes that the estimated electricity demand is based on conservative assumptions reflecting air-cooled chillers with fan wall units under a worst-case IT and data hall configuration. The ultimate tenant mix, rack level cooling approach and data hall operating parameters have not been finalised at this stage.	Require the Applicant to prepare and implement a Sustainability Management Plan for the life of the development.

Findings and conclusions	Recommended conditions
• The Applicant further acknowledges that the development is capable of improving PUE to below 1.31, subject to future tenant requirements, alternative or supplementary cooling approaches may be adopted, including direct-to-chip liquid cooling and higher operating temperatures. The Department understands these approaches have the potential to materially reduce electricity demand relative to the worst-case assumptions assessed under this application. • The Department recognises the Guidelines were published after the SSD application was amended, nonetheless the Department considers the proposed PUE and WUE of the development as a waterless air-cooled facility, to be generally aligned with the principles and performance measures of the Guidelines. • To support transparency and continuous improvement in operational performance, the Department considers it reasonable to require ongoing reporting of electricity and water efficiency outcomes, including PUE and WUE, once the development is operational. This is to be implemented through a Sustainability Management Plan. • The Department considers that annual reporting will enable monitoring of performance trends over time and the identification of measures implemented, or proposed to be implemented, to progressively improve the environmental performance of the development including electricity and water efficiency, to the extent reasonably practicable within the approved operating envelope. • Subject to these conditions, the Department's assessment concludes that the operational efficiency of the development is acceptable.	
Electricity Servicing • The Applicant's Submissions Report identifies that updated planning advice from Ausgrid confirms the preferred connection arrangement involving connection to the existing 132 kV transmission lines (92A and 92B) within an established easement, with connection works proposed within the Delhi Road verge area. • The Department notes that this arrangement avoids works within land managed by NPWS, addressing earlier concerns regarding potential impacts on National Park land.	No conditions required

Findings and conclusions	Recommended conditions
The Department is satisfied that Ausgrid has not raised any concerns to the proposed electricity servicing arrangement, and a feasible connection pathway has been identified.	
Greenhouse Gas Emissions	
- Greenhouse gas emissions warrant careful consideration for data centre developments due to their high and continuous electricity demand, which can result in substantial operational emissions. - The Applicant has committed to a high-efficiency design with a maximum annualised PUE of 1.39, which is indicative of a 4.5-star NABERS Energy rating. - Once fully operational, the development is projected to generate up to approximately 148,000 tonnes of CO₂-e per year, predominantly from electricity consumption. - In the absence of active mitigation measures, emissions would remain largely location-based (i.e. grid average) and would only decline progressively over time in line with forecast grid decarbonisation toward net zero by 2050. - Scope 1 emissions would continue to occur from the combustion of diesel fuel associated with the operation of the back-up generators. While these generators are capable of operating on biodiesel, the Applicant indicated that the availability of a suitable supply in Sydney remains uncertain at this time. - The EPA recommended that high energy users consider the principles of the NSW Large Emitters Guide and reduce their emissions as much as practicable, such as entering into green power purchase agreements. Council similarly noted that green power purchasing arrangements can assist in reducing emissions associated with the operation of the development. - Similarly, DCCEEW ECCS advised that the development minimise emissions through energy efficiency measures and the procurement of sufficient firming renewable energy to meet operational electricity demand. - In response, the Applicant advised that it has been purchasing 100% renewable electricity for electricity under their operational control.	Require the Applicant to: - demonstrate the development's operational electricity demand is matched with renewable supply at all times - prepare and implement a Sustainability Management Plan for the life of the development - provide evidence that PPA and firming agreements have been processed and/or entered into for NSW-based renewable supply.

Findings and conclusions

Recommended conditions

- The Department notes that, based on the Applicant's commitments, with the implementation of active mitigation measures, including power purchase agreements, the development could achieve a materially lower emissions profile, with net zero targeted earlier than reliance on grid decarbonisation alone.
- However, the Department considers that emissions outcomes remain materially dependent on the successful securing and performance of renewable energy procurement. In the absence of such arrangements, the development would be subject to higher location-based emissions for an extended period.
- To manage this risk and minimise greenhouse gas emissions to the greatest practicable extent, the Department recommends conditions requiring that, prior to the commencement of operation of the development, the Applicant offset all GHG emissions associated with operational electricity demand for the data centre with firmed renewable energy supply at all times including the entering into PPA(s) and firming agreements for NSW based supply, supported by ongoing emissions reporting and periodic auditing.
- The Applicant will also be required to provide evidence that PPA and firming agreement processes have commenced within six months of construction and continued updates on the status of any PPA and firming agreement until finalised.
- The Department considers that, with the implementation of these measures, the residual greenhouse gas emissions from the operation of the development would be appropriately minimised, having regard to the scale of the development, the availability of mitigation measures, and current policy settings for emissions reduction.
- The Department further considers that, through the implementation of a Sustainability Management Plan to manage and minimise operational emissions, the development would not result in discernible climate change impacts at the local level.
- Subject to the implementation of these conditions, the Department is satisfied that the greenhouse gas impacts can be adequately minimised and managed.

Findings and conclusions	Recommended conditions
Hazards and Risk	
• The development includes approximately 282 tonnes of lithium-ion batteries and storage of up to 955 kL of diesel fuel (812 tonnes) as part of its back-up power system. • The amended dangerous goods risk screening report included a preliminary risk screening in accordance with the Department's Applying SEPP 33 guidelines. • The report noted the quantities of dangerous goods stored would be below the SEPP 33 screening thresholds and therefore the development would not be considered 'potentially hazardous' under State Environmental Planning Policy (Hazards and Resilience) 2021 (Hazards and Resilience SEPP). • The Department has reviewed the dangerous goods risk screening report and is satisfied the risk screening was appropriate and that adequate information has been provided regarding compliance with the Australian Standards for storing and handling flammable and combustible liquids. • With regard to the back-up power system more broadly, the Department notes the storage and handling of lithium-ion batteries and diesel presents special hazards which much be addressed in the detailed design of the development. • In its advice, FRNSW recommended the Applicant prepare a FSS prior to construction and an ERP and Emergency Services Information Package (ESIP) for operation. The FSS will help verify the final design of all fire safety systems complies with the relevant Australian Standards and all associated requirements for data centres. • The Department considers the hazards and risks associated with the development have been adequately considered and concurs with the advice provided by FRNSW. The Department has recommended conditions requiring the preparation of a FSS, ERP and ESIP for the development. • The Department's assessment concludes the development is consistent with the aims of the Resilience and Hazards SEPP and would not be considered a 'potentially hazardous' industry.	Require the Applicant to: • prepare a FSS prior to construction • prepare an Emergency Plan and ESIP prior to operation • store chemicals, fuels and oils in accordance with the relevant standards • ensure the storage and transport of dangerous goods on site does not exceed the threshold quantities in <i>Applying SEPP 33</i>.

Findings and conclusions	Recommended conditions
Construction Noise and Vibration	
• The construction of the development over a period of up to 238 weeks has the potential to cause noise and vibration impacts at surrounding sensitive receivers. • Construction would be carried out during the recommended standard working hours, consistent with best practice noise management principle identified in the EPA Interim Construction Noise Guideline. • The Applicant indicated noise management is required as it predicted construction noise at all surrounding receivers with direct line-of-sight to the site would marginally exceed the relevant management levels during earthworks, site establishment, pavement works and building construction. • However, no residence is expected to exceed the highly noise affected management level of 75 dB(A) LAeq,15min, although construction noise at the nearest childcare centre (5A Julius Avenue) and commercial premises (3 Richardson Place) could approach 80 dB(A) at times during earthworks and site establishment (up to 30 weeks) when hydraulic/jack hammers are being used. • Regarding vibration impacts, the Applicant predicted that while vibration may be perceived at times by nearby commercial premises when vibratory rollers or rock breakers are in use, all receivers are sufficiently distant from the site to avoid cosmetic damage. • To manage construction noise and vibration impacts, the Applicant has indicated its commitment to implement all reasonable and feasible measures such as implementing respite periods and carrying out vibration survey to aid the development of site-specific vibration mitigation strategies. • The Department considers construction noise would be largely minimised by undertaking works during standard working hours only. The Department is therefore satisfied that high noise intensity works (hard rock excavation) that would occur temporarily or near surrounding receivers can be managed by implementing feasible and reasonable work practices and provision of respite periods. • The Department has recommended the Applicant implement all practicable measures such as respite periods, established in consultation with the affected neighbours including the nearest childcare centre, to	Require the Applicant to: • undertake works during the standard construction hours specified in the EPA Interim Construction Noise Guideline • implement feasible and reasonable measures to minimise construction noise • prepare a construction noise and vibration management plan prior to construction

Findings and conclusions	Recommended conditions
reduce noise as part of a Construction Noise and Vibration Management Plan. • This plan will need to include a complaints management system, summarise the outcome of consultation with the surrounding community, detail all feasible and reasonable work practices and physical barriers to reduce noise, and identify a specific set of strategies to manage any residual high noise impact works. • The Department's assessment concludes the potential noise and vibration impacts during construction of the development can be managed, subject to recommended conditions.	
Construction Air Quality	
• The development has the potential to generate air quality impacts, primarily in the form of fugitive emissions of suspended particulate matter and nuisance dust, to nearby sensitive receptors during construction, over a period of up to 238 weeks. • The amended AQIA found that, subject to the implementation of standard construction mitigation measures as part of a Construction Environmental Management Plan (CEMP), the development would have minimal dust soiling impacts to surrounding receivers. • Typical mitigation measures would include the use of dust suppression methods (e.g. watering), stockpile management (e.g. cover stockpiles to prevent wind erosion) and implementation of trackout measures (e.g. wheel washing system) for trucks accessing the site. • The Department has reviewed the amended AQIA and is satisfied air emissions associated with the construction of the development would be manageable, subject to the preparation and implementation of a CEMP detailing these construction mitigation measures. • The Department has recommended conditions of consent requiring the Applicant to prepare and implement a CEMP for the duration of construction and to take all reasonable steps to minimise dust generation. • The Department's assessment concludes the construction of the development would not result in adverse air quality impacts, subject to the recommended conditions of consent.	Require the Applicant to: • prepare and implement a CEMP for the duration of construction • take all reasonable steps to minimise dust emissions during construction.

Findings and conclusions	Recommended conditions
Construction Traffic - Construction of the development is expected to generate approximately 164 vehicle movements per day, comprising around 144 light vehicle movements associated with construction workers and contractors and approximately 20 heavy vehicle movements associated with the delivery of plant, equipment and construction materials. Construction traffic would access the site via the existing shared driveway on Julius Avenue. - Construction vehicles are expected to comprise medium rigid vehicles, heavy rigid vehicles and articulated vehicles, with occasional oversized deliveries managed under controlled conditions. Pedestrian access along Julius Avenue would be maintained except for short-term controlled closures associated with specific activities such as crane lifts or oversized equipment deliveries. - Construction worker parking would be managed through a combination of limited on-site parking for essential personnel, off-site parking arrangements where required, and measures to encourage public transport use given the site's proximity to North Ryde Metro Station. The Applicant indicated that construction workers would not be permitted to park on Julius Avenue or surrounding streets, with parking controls to be reinforced through induction, monitoring and enforcement procedures. - Council reviewed the construction traffic arrangements and recommended conditions requiring the preparation and implementation of a Construction Traffic Management Plan (CTMP). Council also recommended truck movements be managed to minimise impacts during peak commuter periods. - The Department considers that the predicted construction traffic volumes are temporary and relatively low and can be appropriately managed through the site's access arrangements, parking management measures and the implementation of a detailed CTMP. The recommended conditions provide an appropriate framework to manage potential impacts on the surrounding road network, pedestrian movements and parking availability during construction. - Accordingly, the Department recommends that a detailed CTMP be prepared prior to the commencement of construction works, in consultation with Council, to manage construction vehicle access, parking, delivery scheduling and safety impacts on the surrounding road network.	Require the Applicant to prepare and implement a CTMP for the duration of construction

Findings and conclusions	Recommended conditions
The Department's assessment concludes that construction traffic impacts would be temporary and manageable, subject to the recommended conditions of consent.	
Access	
- The development would be accessed via a single consolidated driveway from Julius Avenue, utilising the existing shared driveway with 10 Julius Avenue. - The amended proposal removes the previously proposed connection to Richardson Place and no longer requires any road access works, parking relocation or vehicle movements through the Richardson Place cul-de-sac. This amendment addresses concerns raised by Council regarding traffic operations, parking impacts and land ownership matters associated with the original DA. - Council's only remaining access-related matter concerned confirmation of legal access rights associated with the shared driveway arrangement adjoining 10 Julius Avenue. In response, the Applicant confirmed that reciprocal Rights of Carriageway exist over the shared access arrangement for the benefit of both properties and that no works requiring owner's consent are proposed outside the subject site boundary. The Department is satisfied that the proposal would have lawful access to the public road network. - The development is expected to generate relatively low traffic volumes during operation and is not expected to adversely affect the operation or safety of the surrounding road network. - The Department has reviewed the proposed access arrangements and is satisfied that the development would be serviced by a safe and efficient access arrangement appropriate to the operational characteristics of a data centre. Council recommended conditions requiring the detailed design of vehicle access, parking areas, loading facilities and internal circulation to comply with the relevant provisions of AS 2890, which the Department considers appropriate. - In addition to vehicle access, the development also incorporates pedestrian access connections through the site, consistent with broader objectives for improved connectivity within the Macquarie Park Precinct. In line with Council's advice, a condition requiring public access easement over the	Require the Applicant to ensure vehicle access, loading facilities and internal circulation are constructed in accordance with relevant Australian Standards

Findings and conclusions	Recommended conditions
pedestrian accessway is recommended to ensure ongoing public pedestrian access. The Department's assessment concludes that the proposed vehicular and pedestrian access arrangements would provide safe and effective access to the site, maintain connectivity within the locality and would not adversely impact the surrounding road network.	
Parking	
- The development would provide 38 on-site car parking spaces, including two accessible parking spaces, to support the operational requirements of the data centre. Bicycle parking and end-of-trip facilities are also proposed to encourage active transport and reduce reliance on private vehicles. - Council requested additional justification for the proposed parking provision and parking demand assumptions. - In response, the Applicant undertook a first-principles parking demand assessment based on the anticipated operational characteristics of the facility. The assessment was based on a maximum operational workforce personnel and adopted a conservative assumption that all staff would travel to the site by private vehicle. On this basis, the assessment concluded that the proposed parking supply would adequately accommodate anticipated operational demand, with visitor and contractor parking expected to be infrequent and capable of being accommodated within the available parking supply. - Following review of the additional information, Council advised that parking matters had been resolved. - The Department notes that the site is located within walking distance of North Ryde Metro Station and is also well-served by surrounding bus services and active transport infrastructure. This level of accessibility provides opportunities for staff and visitors to access the site without reliance on private vehicles. - Council recommended conditions requiring the preparation and implementation of a Green Travel Plan to encourage sustainable travel choices and minimise private vehicle dependency. The Department considers that matters relating to travel demand management can be appropriately addressed through the recommended conditions of consent.	Require the Applicant to: - ensure parking is constructed in accordance with relevant Australian Standards - implement a green travel plan to reduce reliance on single-occupancy cars

Findings and conclusions	Recommended conditions
- The Department is satisfied that the number, location and configuration of parking spaces are appropriate having regard to the operational characteristics of the development, expected staffing levels and accessibility to public transport. - The Department's assessment concludes that the proposed parking arrangements are appropriate for the nature and scale of the development at the site.	
Flood Risk	
- The site is affected by overland flow flooding associated with the Macquarie Park catchment and is not impacted by mainstream flooding from the Lane Cove River. The Applicant prepared a Flood Impact and Risk Assessment (FIRA) and Flood Emergency Response Plan (FERP) to assess flood behaviour, flood risk and emergency response arrangements. - Council advised that flooding matters had been satisfactorily addressed through the amended design and supporting documentation. In contrast, CPHR raised concerns regarding the flood modelling methodology, flood planning levels, treatment of building openings, flood mitigation measures and emergency management arrangements. - In response to CPHR's comments, the Applicant revised the FIRA and provided additional modelling, flood planning level assessments and emergency response measures. - The revised FIRA concludes that flooding across the site would generally be shallow and low hazard during both the 1% annual exceedance probability flood event and the probable maximum flood event. The development incorporates flood mitigation measures to direct floodwaters away from building entrances and maintain safe floor levels. Flood modelling demonstrates that the proposal would not result in unacceptable increases in flood levels on surrounding properties. - The FERP identifies that surrounding roads may become temporarily inundated during extreme flash flood events and adopts pre-emptive site closure where sufficient warning is available and shelter-in-place where warning times are insufficient. The plan includes procedures for flood monitoring, communication, emergency response and staff training. - Following further review, CPHR recommended conditions requiring floor levels and openings to remain above the adopted flood planning levels.	Require the Applicant to: - ensure all finished floor levels are no lower than the 1% AEP flood level plus 0.5 m - prepare and implement a Flood Emergency Response Plan

Findings and conclusions	Recommended conditions
Council's recommended conditions similarly require implementation of the approved flood protection measures, flood-compatible design and ongoing flood emergency management. The Department has incorporated conditions to these effects into the recommended conditions of consent. The Department is satisfied that the Applicant's flood assessment demonstrates that the development would not result in unacceptable flood impacts on surrounding properties and that appropriate measures are in place to protect future occupants during extreme flood events. Subject to the recommended conditions of consent, the Department's assessment concludes that flood risks can be appropriately managed.	
Stormwater	
- The development has the potential to alter stormwater runoff characteristics through the introduction of building footprints, hardstand areas and associated drainage infrastructure on a currently undeveloped site. - Council provided early advice on the proposed stormwater strategy, including the design of the on-site detention system, discharge arrangements and opportunities to maintain natural drainage characteristics. Following refinement of the design and provision of additional stormwater modelling, Council advised that stormwater matters had been satisfactorily resolved. - The Applicant's Water Management Plan proposes a site-wide stormwater management system comprising in-ground pits and pipes, a 230 kL rainwater reuse tank, water quality treatment devices and a 450 m³ on-site stormwater detention (OSD) tank. Stormwater runoff would be collected, treated and detained on site prior to discharge via level spreaders designed to mimic natural sheet flow conditions, ultimately draining to the Lane Cove River catchment. - DRAINS modelling demonstrates that the proposed OSD system would limit post-development peak discharge rates to approximately 231 L/s, below Council's permissible site discharge rate of 294 L/s. MUSIC modelling also demonstrates compliance with Council's water quality targets for gross pollutants, total suspended solids, total phosphorus and total nitrogen. - The Department is satisfied that the proposed stormwater management system would appropriately manage stormwater quantity and quality and	Require the Applicant to prepare a detailed stormwater system design in consultation with Council

Findings and conclusions	Recommended conditions
would not result in unacceptable impacts on downstream drainage systems or receiving environments. • In line with Council's advice, conditions requiring detailed design and certification of the stormwater management system, implementation and ongoing maintenance of the OSD and water quality treatment infrastructure, and registration of positive covenants over key stormwater assets have been incorporated into the recommended conditions of consent. • The Department's assessment concludes that stormwater impacts can be appropriately managed, subject to the recommended conditions of consent.	
Geotechnical, Groundwater and Contamination	
• The Amended DA included a geotechnical investigation, groundwater impact assessment and detailed site contamination investigation to assess the suitability of the site for the proposed development. • The investigations found the site is predominantly underlain by medium to high strength Hawkesbury Sandstone and is suitable for the proposed basement excavation (up to 6 m depth) and building foundations. • The groundwater assessment identified that the proposed basement would partially intersect groundwater. Modelling predicted low groundwater inflows and concluded that a drained basement is feasible without significant impacts on surrounding properties, groundwater users or groundwater dependent ecosystems. • The contamination investigation found no contamination in soils that would constrain the proposed development and no asbestos was identified. • Elevated concentrations of some metals and total recoverable hydrocarbons, a measure of fuel and oil-related contaminants, were identified in groundwater. The investigations concluded that these concentrations would not pose an unacceptable risk to future site users but may require management during basement dewatering to avoid potential impacts on receiving environments, including the Lane Cove River. • The investigations recommend ongoing groundwater monitoring and water quality testing during dewatering activities, together with treatment of extracted groundwater where required prior to discharge. An unexpected	Require the Applicant to prepare and implement a Groundwater Management Plan

Findings and conclusions	Recommended conditions
finds protocol is also recommended to manage any previously unidentified contamination encountered during construction. • DCCEEW Water Group advised that groundwater intercepted during construction and operation may require a Water Access Licence under the <i>Water Management Act 2000</i> unless an exemption applies. • The Department has reviewed the geotechnical, groundwater and contamination investigations and is satisfied that potential impacts can be appropriately managed through the proposed mitigation measures, the recommended conditions of consent and any required approvals under the <i>Water Management Act 2000</i>. • Subject to conditions, the Department's assessment concludes that the site is suitable for the proposed development and that geotechnical, groundwater and contamination impacts are acceptable.	
Cultural Heritage	
• The Amended DA was accompanied by an Aboriginal Cultural Heritage Assessment Report (ACHAR), which concluded that the site has low Aboriginal archaeological potential and that no Aboriginal objects, sites, rock art, engravings or archaeological deposits were identified. Additional survey work was undertaken as part of the Amended DA in response to Heritage NSW comments to confirm these findings. • The site has been subject to extensive disturbance from previous CSIRO and commercial development, including significant excavation and earthworks. The historical heritage assessment concluded that the site has low to nil potential to contain historical archaeological remains and does not contain any heritage items. • The site is not listed on the State Heritage Register and is not located near any SHR-listed items. While a locally listed heritage item (the Cottage at 2 Richardson Place) is located nearby, the assessment concluded that the proposal would not result in direct or indirect heritage impacts. • Heritage NSW and the Heritage Council of NSW raised no concerns with the proposal, subject to standard unexpected finds provisions during construction. • The Department is satisfied that the Applicant's heritage assessments have been prepared in accordance with relevant guidelines and demonstrate that the proposal is unlikely to adversely affect Aboriginal or	Require the Applicant to prepare and implement an unexpected finds protocol

Findings and conclusions	Recommended conditions
non-Aboriginal heritage. The Department has recommended conditions requiring the implementation of Aboriginal and historical heritage unexpected finds protocols during construction works. On balance, the Department considers that the proposal would not result in unacceptable impacts on Aboriginal or non-Aboriginal heritage and that any residual risk can be appropriately managed through the recommended conditions of consent.	
Contributions	
- Council's Macquarie Park Corridor Section 7.12 Contributions Plan applies to the SSD application. Under the Plan, contributions are calculated as a percentage levy based on the estimated cost of development. As advised by Council, the proposal is subject to a 1.5% levy, equating to approximately \$19.9 million based on an indexed development cost of approximately \$1.306 billion. - The Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2023 also requires that a Housing and Productivity Contribution (HPC) be paid to assist in funding the delivery of State infrastructure. - The Department has recommended conditions requiring the Applicant to pay the applicable section 7.12 contribution and Housing and Productivity Contribution prior to the issue of a Construction Certificate.	Require the Applicant to pay all relevant development contributions, prior to the issue of a construction certificate.

7 Evaluation

161. The Department's assessment of the application has fully considered all relevant matters under section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ESD.
162. The development involves the construction and operation of a data centre with a total power consumption of up to 120 MW, including an IT load of up to 76 MW, intended to respond to demand for digital infrastructure within Greater Sydney.
163. The Department has considered the development on its merits, taking into consideration the strategic planning framework for Macquarie Park, the relevant environmental planning instruments, MPDG, advice received from public authorities, including Council, CPHR, NPWS, FRNSW and the RFS, and issues raised during public exhibition.
164. Biodiversity impacts, the development footprint at the southern bushland interface, encroachment into the landscaped setback area identified in the MPDG and associated bushfire risk were the key issues raised during the assessment of the application. CPHR and NPWS expressed concerns regarding vegetation clearing, habitat loss, impacts on ecological connectivity and the extent to which the proposal had applied biodiversity avoidance and minimisation principles.
165. Over the course of the assessment, the Applicant revised the proposal to:
 - reduce the IT load (from 115 MW to 76 MW) and overall scale of the development
 - consolidate the development footprint within the more disturbed and previously excavated northern portion of the site
 - relocate and reconfigure key infrastructure, including the STSS
 - remove the previously proposed Richardson Place connection
 - reduce vegetation clearing and increase the retention of existing trees
 - increase deep soil area and strengthen the landscape response along the bushland interface.
166. The Department is satisfied that these refinements have resulted in a materially improved outcome when compared to the original proposal. In particular, the amended design has reduced direct biodiversity impacts, improved vegetation retention outcomes, reduced biodiversity offset requirements and limited the extent of encroachment into the southern bushland interface.
167. However, the Department notes that the amended proposal does not fully avoid the landscaped setback area identified in the MPDG. Elements of the development, including the generator

building and associated infrastructure, remain within the southern portion of the site and would continue to result in some modification of the bushland edge, including residual direct and indirect biodiversity impacts.

168. Nevertheless, the Department accepts that the site is subject to operational, topographical and bushfire constraints that limit opportunities for further redistribution of built form and infrastructure. The Department considers that the Applicant has undertaken a genuine and substantive redesign process and that the amended footprint represents a reasonable and largely minimised outcome having regard to the operational requirements of the development and the physical characteristics of the site.
169. The Department's assessment has also considered bushfire and fire safety matters associated with the siting of the generator building within the most bushfire-exposed part of the site. The proposal adopts a performance-based bushfire response that seeks to minimise additional vegetation clearing while managing bushfire risk through building design and construction measures. The Department notes that the RFS raised no residual concerns with the amended proposal and considers that the implementation of the Bush Fire Assessment Report and preparation of a Fire Safety Study provide an appropriate framework for managing bushfire and fire safety risks.
170. The Department has further considered the potential environmental impacts associated with the operation of the data centre, including operational noise, traffic and transport, air quality, water resources, contamination, geotechnical constraints and groundwater management. The Department is satisfied that these impacts can be appropriately mitigated and managed and would not result in unacceptable impacts on surrounding land uses or the adjoining Lane Cove National Park.
171. In this context, the acceptability of the proposal turns not only on the extent of vegetation removal and residual impacts at the southern bushland interface, but also on whether the impacts arising from the retained operational scale of the data centre can be appropriately managed through design measures, operational commitments and enforceable conditions of consent.
172. To this end, the Department's assessment has placed emphasis on defining and constraining an appropriate operational envelope for the development. This includes limits on the operation of the back-up power system, compliance-based noise and air quality limits supported by commissioning and post-construction verification, restrictions on non-emergency generator use, and requirements for ongoing monitoring and reporting, together with commitments relating to energy and water efficiency, greenhouse gas mitigation and transparency in operational performance over time.

173. Collectively, these measures are intended to ensure that the environmental and amenity impacts associated with the retained functional scale of the data centre are avoided or minimised to the greatest extent reasonably practicable, such that the development can operate in a manner compatible with its surroundings and consistent with the principles of ecologically sustainable development.
174. On balance and having regard to the Applicant's commitments and the recommended conditions of consent, the Department is satisfied that the residual environmental and amenity impacts associated with the development can be adequately mitigated and managed without giving rise to unacceptable impacts on surrounding land uses.
175. Overall, the Department's assessment has concluded the development would:
- provide additional data centre capacity within Greater Sydney in an established commercial enterprise area
 - provide for an increase in productivity and employment within the Ryde LGA by investing \$1.267 billion and provide up to 380 full-time equivalent construction jobs and 50 operational jobs
 - be consistent with NSW Government policies including, the Greater Sydney Region Plan, North District Plan and Ryde Local Strategic Planning Statement, which aim to increase productivity and local knowledge intensive jobs within the Macquarie Park precinct.
176. The Department considers these benefits can be realised without any significant amenity or environmental impacts and therefore, considers the development is in the public interest and could be approved, subject to the recommended conditions (see **Appendix E**).
177. This assessment report is hereby presented to the Independent Planning Commission for determination.

Prepared by:

Jeffrey Peng, Principal Planning Officer

Recommended by:



14/10/2026

Joanna Bakopanos

Director

Industry Assessments



14/10/2026

Chris Ritchie

Executive Director

Energy, Resources and Industry

Glossary

Abbreviation	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
Applicant	ISPT Pty Limited
Council	City of Ryde
CPHR	Conservation Programs, Heritage and Regulation of the NSW Department of Climate Change, Energy, the Environment and Water
DCCEEW	NSW Government Department of Climate Change, Energy, the Environment and Water
Department	Department of Planning, Housing and Infrastructure
ECCS	Energy, Climate Change and Sustainability of the NSW Department of Climate Change, Energy, the Environment and Water
EIS	Environmental impact statement
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental planning instrument
ESD	Ecologically sustainable development
FRNSW	Fire and Rescue NSW
Guidelines	NSW Data Centre Guidelines
Heritage NSW	Heritage NSW, within the NSW Department of Climate Change, Energy, the Environment and Water

Abbreviation	Definition
IPC	Independent Planning Commission
LEP	Local environmental plan
Minister	Minister for Planning and Public Spaces
MPDG	Macquarie Park Design Guide
Planning Secretary	Secretary of the Department of Planning, Housing and Infrastructure
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
PUE	Power Usage Effectiveness (dimensionless)
RFS	Rural Fire Service
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State significant development
TfNSW	Transport for NSW
WUE	Water Usage Effectiveness (L/kWh)

Appendices

Appendix A – Summary of key amendments to the project

Since lodgement, some key aspects of the development have been amended in response to public submissions and matters raised by City of Ryde, CPHR and the via an Amendment Report.

A summary of the key amendments is provided in **Table 9** below.

Table 9 | Key amendments

Aspect	Original project in EIS	Amended project
Total power consumption	169 MW (including 115 MW IT load)	120 MW (including 76 MW IT load)
Annualised PUE and WUE	PUE: up to 1.27 WUE: 1.55 L/kWh (potable water consumption of 1,329,558 kL/year)	PUE: up to 1.39 WUE: 0.01 L/kWh (potable water consumption of 7,242 kL/year)
Generator testing regime	73 back-up generators, with 197.1 total testing hours per year	48 back-up generators, with 132.3 hours total testing hours per year
Diesel storage capacity	1,272 kL	955 kL
Gross floor area	26,076 m ²	16,647 m ²
Max building height	50.93 m	40 m
Tree removal	509 trees	334 trees
Deep soil area	9,196 m ² (32.12% of the Site area)	14,264 m ² (49.8% of the Site area)
Access	Via Julius Avenue and Richardson Place	Via Julius Avenue only

Appendix B - List of Referenced Documents

The Department has relied upon the following key documents during its assessment of the development:

Environmental Impact Statement

- ‘Environmental Impact Statement titled Environmental Impact Statement: Julius Avenue Data Centre’, prepared by Willilowtree Planning Pty Ltd and dated 24 June 2025

Submissions

- All submissions received from relevant public authorities and the general public

Amendment Report

- ‘Amendment Report Julius Avenue Data Centre SSD-80018208’, prepared by Willowtree Planning Pty Ltd and dated 9 February 2026

Submissions Report

- ‘Second RTS, SSD-90018208 – Proposed Data Centre Property at 6-8 Julius Avenue, North Ryde (Lot 89 DP1082131)’, prepared by Willowtree Planning Pty Ltd and dated 8 May 2026

Additional Information

- ‘Response to Request for Additional Information June 2026, SSD-90018208 – Proposed Data Centre Property at 6-8 Julius Avenue, North Ryde (Lot 89 DP1082131)’, prepared by Willowtree Planning Pty Ltd and dated 19 June 2026

Appendix C – Submissions and Government Authority Advice

All submissions and government agency advice can be found here:

<https://www.planningportal.nsw.gov.au/major-projects/projects/julius-avenue-data-centre>

Appendix D – Statutory considerations

Table 10 | Mandatory Matters for Consideration

Matter for Consideration	Department's Assessment
Environmental planning instruments, proposed instruments and development control plans	The Department's consideration of the relevant EPIs (including draft instruments subject to public consultation under the EP&A Act) is provided in Appendix D .
Planning agreements	The Applicant has not entered into any planning agreement under section 7.4 of the EP&A Act.
EP&A Regulation	The Department has assessed the development in accordance with all relevant matters prescribed by the EP&A Regulation, the findings of which are contained in this report.
Likely impacts	The Department has considered the likely impacts of the development in detail in Section 6 of this report. The Department concludes that all environmental impacts can be appropriately managed and mitigated through the recommended conditions of consent.
Suitability of the site	The site is suitable for the development as it involves the construction and operation of a data centre on E3 Business Productivity zoned land, nearby other data centre developments. The development is permissible with consent.
Public submissions	All matters raised in submissions have been summarised in Section 5 of this report and given due consideration as part of the assessment of the development in Section 6 of this report.
Public interest	The development would generate up to 380 jobs during construction, 50 jobs during operation and direct \$1.267 billion in capital investment in the City of Ryde local government area. The environmental impacts of the development would be appropriately managed via the recommended conditions. The Department considers to the development is in the public interest.

Objects of the EP&A Act

A summary of the Department's consideration of the relevant objects (found in section 1.3 of the EP&A Act) are provided in **Table 11** below.

Table 11 | Objects of the EP&A Act and how they have been considered

Object	Consideration
(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,	The development would: • ensure the proper management and development of E3 Productivity Support zoned land • promote social and economic welfare by creating approximately 380 construction jobs and 50 operational jobs • appropriately manage and mitigate the consumption of water and energy for the operation of the development.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The development presents a design targeting a maximum annualised PUE of 1.39, with the potential of achieving lower operational PUE to minimise electricity use. It also incorporates environmentally sustainable measures including waterless heat rejection systems, energy-efficient IT equipment, and rainwater capture.
(c) to promote the orderly and economic use and development of land,	The development would meet the objectives of the zone by supporting and protecting existing industrial land. The development promotes the orderly and economic use of land as it is providing digital infrastructure that is in high demand on a site that is suitable for the proposed use.

Object	Consideration
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The development footprint has been optimised to minimise direct impacts on native vegetation, fauna habitat and the bushland interface to the extent practicable. Residual biodiversity impacts would be offset through biodiversity credits. The Department's assessment in Section 6 concludes that, subject to the recommended conditions of consent, environmental impacts can be appropriately mitigated, managed and offset to ensure an acceptable level of environmental performance.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The development is not anticipated to result in any significant impacts upon built and cultural heritage, including Aboriginal cultural heritage.
(g) to promote good design and amenity of the built environment,	The development provides good design and amenity of the built environment, acceptable within the E3 Productivity Support zone. It achieves design excellence through high-quality architectural detailing and façade recesses, varied articulation and changes in materiality.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The Department has recommended a number of conditions of consent to ensure the construction and operation of the development is undertaken in accordance with the Building Code of Australia and relevant legislation, guidelines, policies and procedures
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Department referred the development to the relevant State agencies and Council during the exhibition period and invited them to comment. The Department has given due consideration to their advice in its assessment of the SSD application (see sections 5 and 6).

Object	Consideration
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the original and amended DAs as outlined in Section 5 of this report, which included notifying Council, adjoining landowners, submitters, as well as displaying the SSD application on the NSW planning portal.

EP&A Regulation

Part 4, Division 1 of the EP&A Regulation requires the consent authority to consider additional matters for certain developments as part of the matters for consideration under section 4.15 of the EP&A Act.

For the purposes of this development, the Department has considered section 61(1) of the EP&A Regulation and recommended a condition requiring that all demolition works be carried out in accordance with the Australian Standard AS 2601-2025: The Demolition of Structures.

Environmental Planning Instruments (EPIs)

State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP)

The Planning Systems SEPP identifies certain classes of development as SSD. The proposal is SSD pursuant to section 4.36 of Environmental Planning and Assessment Act 1979 (EP&A Act) because it involves the construction and operation of a data centre with a total power consumption of more than 15 megawatts, which meets the criteria in Clause 25 of Schedule 1 in the Planning Systems SEPP.

State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP)

Chapter 2 of the T&I SEPP aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to certain types of infrastructure development, and providing for consultation with relevant public authorities about certain types of development during the assessment process.

Vehicular access to the site is proposed via the existing shared driveway with 10 Julius Avenue. Julius Avenue is a local road and is not a classified road for the purposes of the *Roads Act 1993*. Accordingly, Clauses 2.119 and 2.122 of the T&I SEPP do not apply to the development. Notwithstanding, the Department consulted with TfNSW as part of its assessment of the application. TfNSW's comments are detailed in **Section 5**. TfNSW did not raise any concerns regarding the potential traffic, access or safety impacts of the development.

Having regard to TfNSW's advice and the low nature, volume and frequency of vehicle movements associated with the development, the Department is satisfied that the proposal would not adversely

affect the safety, efficiency or ongoing operation of the surrounding road network. The Department also notes that the data centre is not a land use sensitive to traffic noise or vehicle emissions.

State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)

Chapter 3 – Hazards and risk

Chapter 3 of the Resilience and Hazards SEPP aims to identify developments with the potential for significant off-site impacts, in terms of risk and/or offence. A development is defined as potentially hazardous and/or potentially offensive if, without mitigating measures in place, the development would have significant risk and/or adverse impact on off-site receptors.

The development would involve the on-site storage of up to 955,000 litres of diesel (approximately 812 tonnes) and 282 tonnes of lithium-ion batteries as part of its back-up power system. These quantities would be below the screening thresholds outlined in *Applying SEPP 33* (DoP, 2011) and therefore the development would not be considered ‘potentially hazardous’ under the Resilience and Hazards SEPP.

However, the Department notes the significant storage and handling of these materials present special hazards which are to be addressed in the design stage of the development. Therefore, the Department has recommended conditions of consent requiring the Applicant to prepare a FSS, an Emergency Plan and an ESIP for the development, and to ensure all dangerous goods stored or transported to and from the development remain below the screening thresholds outlined in *Applying SEPP 33*.

Chapter 4 – Remediation of contaminated land

Chapter 4 of the Resilience and Hazards SEPP aims to provide a State-wide approach to the remediation of contaminated land.

The site was historically used by the Commonwealth Government and CSIRO for research purposes, with buildings formerly located in the northern portion of the site before their demolition and subsequent bulk excavation works. A Detailed Site Investigation (DSI) was undertaken to assess potential contamination associated with the site's historical uses, including metals, hydrocarbons, PFAS and asbestos.

The DSI found that soil contaminant concentrations were below the adopted assessment criteria and no asbestos was detected. While some metals and hydrocarbons were identified in groundwater, the investigation concluded that contamination does not pose an unacceptable risk to future site users and that the site is suitable for the proposed development, subject to further groundwater monitoring and implementation of an Unexpected Finds Protocol during construction.

The Department is satisfied, having considered whether the land is contaminated, that the land is suitable in its current state for the proposed development, as the site investigations demonstrate that contamination does not pose an unacceptable risk to future users of the site and no remediation or containment measures are required.

State Environmental Planning Policy (Sustainable Buildings) 2022 (Sustainable Buildings SEPP)

The Sustainable Buildings SEPP encourages the design and construction of more sustainable buildings across NSW. The Department's assessment of the development against the relevant provisions of the Sustainable Buildings SEPP is provided in **Table 12** below.

The Department is satisfied the development achieves the standards for non-residential development outlined in the Sustainable Buildings SEPP.

Table 12 | Compliance with relevant provisions of Sustainable Buildings SEPP

Clause	Consideration
3.2 Development consent for non-residential development	
(1) In deciding whether to grant development consent to non-residential development, the consent authority must consider whether the development is designed to enable the following –	The Department is satisfied the development's Waste Management Plan (Appendix DD25 of the Amendment Report) includes suitable measures to minimise the generation of waste during demolition and construction.
(a) the minimisation of waste from associated demolition and construction, including by the choice and reuse of building materials	
(b) a reduction in peak demand for electricity, including through the use of energy efficient technology,	The Department is satisfied the development incorporates measures to reduce peak electricity demand, including an energy-efficient data centre design targeting a maximum annualised PUE of 1.39. High-efficiency cooling systems, variable speed drives and an adaptive building management system would enable real-time monitoring and optimisation of electrical loads.
(c) a reduction in the reliance on artificial lighting and mechanical heating and cooling through passive design,	The Department is satisfied the development reduces reliance on artificial lighting and mechanical conditioning through passive design measures, including high-performance glazing, insulation and

Clause	Consideration
	external shading that reduce thermal loads and maximise daylight to office areas, complemented by high-efficiency cooling system design.
(d) the generation and storage of renewable energy	The Department is satisfied the development has included suitable provision for the generation and storage of renewable energy, with space allocated for future installation of energy storage systems (such as batteries).
(e) the metering and monitoring of energy consumption,	The Department is satisfied the development includes robust metering and monitoring of energy consumption through comprehensive sub-metering of major end uses integrated with a building management system. These measures support ongoing performance monitoring, optimisation of energy efficiency, and future verification against NABERS energy performance benchmarks.
(f) the minimisation of the consumption of potable water.	The Department is satisfied that potable water consumption has been minimised using air-cooled chillers, reflecting an indicative worst-case WUE of approximately 0.01 L/kWh
(2) Development consent must not be granted to non-residential development unless the consent authority is satisfied the embodied emissions attributable to the development have been quantified	The DA was supported by a form quantifying the embodied emissions attributable to the development.

State Environmental Planning Policy (Industry and Employment) 2021 (I&E SEPP)

Chapter 3 of the I&E SEPP aims to ensure that outdoor signage is compatible with the desired amenity and visual character of an area, and provides effective communication in suitable locations, that is of a high-quality design and finish.

No signage is proposed as part of this development.

Ryde Local Environmental Plan 2014

The Ryde LEP 2014 aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the City of Ryde LGA. It also aims to conserve and protect natural resources and foster economic, environmental and social well-being.

The development is located on land zoned as E3 – Productivity Support under the Ryde LEP 2014. As discussed in **Section 4** of this report, the use of the site as a data storage premises is permissible with consent. The Department is satisfied the development is consistent with the aims of the Ryde LEP 2014 and the objectives of the E3 Productivity Support zone.

The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of the LEP and those matters raised by Council in its assessment of the development.

Part 7 of the Ryde LEP 2014 relates to development within the Macquarie Park Transport Oriented Development Precinct. Section 7.3 requires the consent authority to be satisfied that the development is consistent with the Macquarie Park Design Guide (MPDG). The Department is satisfied the development is consistent with the MPDG and has provided its consideration against the relevant sections of the MPDG in **Table 13** below. Certain provisions, such as new public open space and through-site links are not applicable due to site constraints and the data centre typology. The data centre proposal demonstrates consistency with the MPDG's objectives through appropriately landscaped setbacks, integration with existing and planned streets, improved urban amenity, reduced car dependence, and meaningful planting and public art opportunities. As such, the development achieves the intended outcomes for bulk, scale, streetscape, and connectivity outlined in the MPDG.

Table 13 | Consideration against Section 7.3 of the Ryde LEP 2014

Objective Summary	Consideration
2.4 Structure Plan Establish a clear, Country-informed spatial framework that coordinates land use, density, streets, movement networks and open space	The site is located within Neighbourhood 7 (Narrami Badu-Gumada) on the eastern edge of the Macquarie Park Precinct. The Structure Plan identifies this neighbourhood as a secondary employment area that is to retain a diversity of non-residential uses while responding to its unique

Objective Summary	Consideration
to deliver a legible, walkable and adaptable precinct with strong transit integration, green connections and identifiable neighbourhood structure.	relationship with the adjoining bushland, Lane Cove River corridor and National Park. The site is not located within an identified activity hub, commercial centre, community core or major public open space precinct. Accordingly, the proposal does not trigger Structure Plan requirements relating to mixed-use activation, residential intensification, new public open spaces or major street network connections. The Department is satisfied that the proposal is consistent with the Structure Plan as it reinforces the employment function of the neighbourhood, maintains the site's landscape setting and does not prejudice the future delivery of identified movement, open space and public domain outcomes elsewhere within Macquarie Park.
3.1 Designing with Country Embed Aboriginal knowledge, custodianship and cultural values into planning and design to ensure development respects, reveals and supports the ongoing cultural, ecological and social health of Wallumattagal Country.	The Department is satisfied that the development addresses the objectives of Designing with Country through a range of consultation-informed architectural and landscape responses. Key elements include the retention and framing of the Grandmother Tree as a living expression of Country, facade materiality and textural patterning informed by the bark and grain of on-site gum trees, and the integration of an Indigenous cultural shed and place-keeping space within the landscape. These elements operate alongside indigenous planting, water-sensitive design and pedestrian circulation to reflect broader principles of walking on Country, connection, landform and environmental systems, rather than representing an exhaustive or symbolic interpretation.
3.2 Woven Ways Recognise and express historic and underlying creek systems that inform urban structure, movement, landscape design, water management and cultural storytelling across the precinct.	The site is not located on an identified Woven Way corridor and does not contain a mapped creek line. Accordingly, the provisions relating to creek restoration, re-naturalisation or dedicated Woven Way connections are not applicable. The proposal nonetheless retains substantial vegetated areas adjoining Lane Cove National Park and incorporates landscape improvements that support the MPDG's broader objectives for biodiversity, connectivity and connection to Country. The Department is satisfied that the proposal does

Objective Summary	Consideration
	not prejudice the future delivery of Woven Way outcomes elsewhere within Macquarie Park.
3.3 Waterloo Road Corridor Convert Waterloo Road into a continuous, green, people-focused corridor that prioritises pedestrian comfort, landscape character and connectivity between open spaces and neighbourhoods.	The site is not located within or adjacent to the Waterloo Road Corridor.
4.1 Street Network Deliver a low-speed street network that prioritises walking, cycling and public transport, improves pedestrian permeability, supports active street edges, and reduces reliance on private vehicles.	The Department is satisfied that the proposal appropriately responds to the Street Network objectives. The development utilises the existing street network, with vehicular access provided from Julius Avenue. Council has accepted the proposed approach of not extending a vehicular connection to Richardson Place, having regard to the site's constraints and the adjoining environmental lands. The proposal also provides improved pedestrian permeability, including a publicly accessible pedestrian link between Julius Avenue and Richardson Place. The development does not prejudice the future delivery of the broader street and movement network envisaged by the MPDG.
4.2 Through-site Links Increase pedestrian permeability across large sites by requiring safe, legible, publicly accessible connections that operate at all times and extend the public realm.	The development provides a publicly accessible pedestrian connection between Julius Avenue and Richardson Place, improving pedestrian permeability across the site and extending connectivity to the surrounding movement network. The link will provide a safe, legible and accessible route for pedestrians while maintaining the site's function. The Department is satisfied that the proposal is consistent with the intent of the MPDG to improve walkability and public access across large landholdings.
4.3 Open Space Network Provide an integrated and accessible network of public open spaces that supports recreation, ecological function, pedestrian movement, water management and connection to Country	The site is not identified for the delivery of a public open space under the Structure Plan and does not contain any nominated future parklands. Notwithstanding, the proposal retains and enhances substantial landscaped areas adjoining Lane Cove National Park, supports ecological

Objective Summary	Consideration
	values and provides a publicly accessible pedestrian connection that strengthens links to the surrounding open space and walking network.
5.1 Site Planning Ensure development is structured around streets and public spaces, prioritises pedestrian amenity, accommodates servicing and access functions appropriately, and avoids inward-looking or car-centric site layouts.	The development is organised around Julius Avenue, with the building, landscaped setbacks and publicly accessible pedestrian link forming the primary interface with the public domain. Vehicular access, loading and servicing areas are accommodated within the site and are designed so that they do not dominate the streetscape. The retention of substantial landscaped areas and vegetation adjoining Lane Cove National Park further enhances the site's landscape setting and pedestrian amenity. The Department is satisfied that the proposal responds appropriately to the Site Planning objectives of the MPDG.
5.2 Building Line Setbacks Use building setbacks to define high-quality streets and open spaces, protect public domain amenity, support tree canopy growth, maintain appropriate building separation, and optimise solar access and wind conditions.	The proposed setbacks maintain a landscaped interface to Julius Avenue and reinforce the site's bushland setting adjacent to Lane Cove National Park. The development is concentrated within the northern portion of the site, minimising encroachment into the vegetated southern portion and allowing for the retention of extensive bushland/landscape areas. The building's separation from site boundaries, together with the extent of surrounding landscaped areas, supports an appropriate relationship with adjoining development and public spaces while maintaining pedestrian amenity. The Department is satisfied that the proposed setbacks contribute positively to the streetscape and landscape character of the precinct without resulting in adverse amenity impacts.
5.3 Building Envelopes Regulate building height, scale and massing to limit perceived bulk, maintain appropriate separation, protect amenity and deliver a coherent, human-scaled skyline.	The building envelope consolidates development within the northern portion of the site, minimising encroachment into the vegetated southern portion and reinforcing the site's transition to the adjoining bushland landscape. The envelope is moderated through setbacks, articulated facades and variations in building form, reducing the perception of bulk and providing visual interest when viewed from Julius Avenue and surrounding areas. The substantial landscape setting and separation to site

Objective Summary	Consideration
	boundaries provide adequate space around the building and contribute to a coherent built form outcome within Neighbourhood 7. The Department is satisfied that the proposal achieves an appropriate balance between development capacity, landscape character and amenity outcomes.
5.4 Building Frontages Require building interfaces to positively address streets and public spaces through active edges, visual interest, passive surveillance and appropriate concealment of servicing functions.	The development presents a clear and legible address to Julius Avenue through the location of the office component and main entry, complemented by an outdoor seating area that contributes to activation and pedestrian amenity along the street frontage. Building facades incorporate articulation, material variation and glazing to provide visual interest and reduce the perceived scale of the development. Loading, servicing and other operational functions are integrated within the site and are appropriately screened from the public domain. Together with the landscaped setbacks and publicly accessible pedestrian link, the proposal provides an attractive frontage to Julius Avenue that supports passive surveillance and is consistent with the intended character of Neighbourhood 7.
6.1 Climate Risk and Resilience Incorporate design responses that reduce exposure to climate-related hazards, manage flooding and heat, and support long-term adaptability and resilience.	The development has been designed to respond to the site's environmental constraints and long-term operational requirements through resilient building design, stormwater management measures and extensive landscape retention. Given the site's proximity to Lane Cove National Park, the proposal incorporates suitable bushfire protection measures and maintains appropriate asset protection outcomes. The development also minimises encroachment into the vegetated southern portion of the site, helping to retain canopy cover and support local ecological resilience. Stormwater infrastructure has been designed to manage runoff from the development and maintain acceptable downstream impacts, while increased deep soil and planting areas assist in mitigating urban heat effects. The proposed heat rejection plant is located at roof level and, given the separation to sensitive receivers, is not expected to result in adverse heat rejection impacts on habitable rooms or

Objective Summary	Consideration
	communal open spaces. The Department is satisfied that the proposal incorporates appropriate measures to support climate resilience and long-term adaptability within the context of Neighbourhood 7.
6.2 Greenhouse Gas Emissions and Energy Reduce operational greenhouse gas emissions through all-electric, energy-efficient design that support a transition toward net-zero outcomes.	The development has been designed as an energy-efficient facility with a target Power Usage Effectiveness (PUE) of 1.39 or better, supported by high-efficiency mechanical and electrical systems, advanced monitoring and optimisation measures, and extensive sub-metering. The facility is capable of operating as an all-electric development, with fossil fuel use limited to emergency backup power and routine testing. The proposal also incorporates measures to enable renewable electricity procurement, support tenant decarbonisation and facilitate ongoing energy performance improvements over the life of the development. Collectively, these measures reduce operational greenhouse gas emissions and support the transition towards net-zero outcomes in accordance with the objectives of the MPDG.
6.3 Circular Economy, Materials and Waste Management Minimise lifecycle environmental impacts by reducing material consumption, enabling reuse and adaptability, and diverting construction and operational waste from landfill	The Department is satisfied the assessment identifies appropriate construction and operational waste management measures, including dedicated plans for waste management, along with waste stream segregation. The building is also designed to support adaptive reuse into the future due to its construction and floorplate reconfiguration and flexible adaption.
6.4 Water Quality, Flooding and Stormwater Manage water resources to minimise potable water demand, mitigate flood risk, treat stormwater and protect downstream waterways through integrated WSUD.	The development incorporates a stormwater management system and water quality treatment measures designed to manage runoff, maintain acceptable downstream impacts and protect receiving waterways. Water efficiency measures are also incorporated to minimise potable water demand, including the use of an air-cooled mechanical system that substantially reduces operational water consumption. The Department is satisfied that the proposal appropriately manages water resources and stormwater outcomes and does not result in unacceptable flooding or water quality impacts.

Objective Summary	Consideration
6.5 Canopy Coverage and Biodiversity Enhance urban canopy, habitat connectivity and ecological function to improve microclimate, biodiversity outcomes and human wellbeing.	The Department is satisfied that the proposal responds appropriately to the Canopy Coverage and Biodiversity objectives of the MPDG. The development consolidates built form within the northern portion of the site, minimising impacts on the vegetated southern portion adjoining Lane Cove National Park. The proposal retains substantial existing vegetation and deep soil zones capable of supporting medium to large canopy trees at maturity. Vegetation is consolidated within substantial landscape areas that enhance habitat connectivity, ecological function and the bushland character of the site. The Department is satisfied that these outcomes support urban canopy growth, biodiversity and local microclimate benefits and are consistent with the intent of Section 6.5 of the MPDG.
6.6 Smart Places Enable data-enabled, flexible development that supports innovation, efficient infrastructure management and future technological change.	The development incorporates smart technologies that support efficient operation, sustainability and long-term adaptability, including a Building Management System, extensive energy sub-metering and monitoring systems to optimise facility performance. The design also enables ongoing operational improvements and future technological upgrades, supporting efficient infrastructure management and the evolving requirements of a modern data centre. The Department is satisfied that the proposal provides an appropriate framework for innovation and adaptive operation over the life of the development.
7 Public Art and Culture Integrate public art and cultural expression to strengthen place identity, reflect Country and enrich the experience of public spaces.	The site is not identified as a major public space, civic destination or cultural hub within the Macquarie Park Structure Plan. Notwithstanding, the proposal incorporates high-quality landscape design and a publicly accessible pedestrian link that contribute positively to the public domain and reinforce the site's connection to its bushland setting adjacent to Lane Cove National Park. The Department is satisfied that the proposal is consistent with the intent of the Public Art and Culture objectives and does not prejudice the future delivery of broader cultural and public art initiatives elsewhere within Macquarie Park.

Clause 7.4 of the Ryde LEP 2014 requires the consent authority to be satisfied that development will not reduce the development potential of neighbouring land having regard to its size, shape, or location. The Department is satisfied the proposal would not introduce physical, environmental, or operational constraints that would limit the reasonable redevelopment or consolidation of adjoining sites. The built form, setbacks, and servicing arrangements are compatible with surrounding land, and technical assessments, including operational noise, demonstrate that impacts at neighbouring land would remain within acceptable standards. Accordingly, the development would not preclude or unreasonably constrain the future development of neighbouring sites for their permissible or anticipated uses.

Appendix E – Recommended Instrument of Consent

The recommended instrument of consent for the development may be viewed on the NSW planning portal at: <https://www.planningportal.nsw.gov.au/major-projects/projects/julius-avenue-data-centre>