

# SUBMISSIONS AND AMENDMENT REPORT

NEXTDC S4 Data Centre, Horsley Park  
(SSD-63741210)

## URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

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Project Code	P0033048
Report Number	Final



# Acknowledgement of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on.

We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years.

We pay our respects to First Nations Elders, past and present.

The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

Title: Sacred River Dreaming  
Artist Hayley Pigram  
Darug Nation  
Sydney, NSW

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# GLOSSARY AND ABBREVIATIONS

Reference	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACM	Asbestos Containing Material
AEP	Annual Exceedance Probability
AHD	Australia Height Datum
AHIMS	Aboriginal Heritage Information Management System
AIA	Arboricultural Impact Assessment
ANEF	Australian Noise Exposure Forecast
AQIA	Air Quality Impact Assessment
ASS	Acid Sulphate Soils
BAM	Biodiversity Assessment Method
BC Act	<i>Biodiversity Conservation Act 2016</i>
BC Reg	<i>Biodiversity Conservation Regulation 2017</i>
BDAR	Biodiversity Development Assessment Report
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
CMP	Construction Management Plan
COPC	Contaminants of Potential Concern
CTMP	Construction Traffic Management Plan
Data Centre Site	Lot 305 in Deposited Plan 1275011
DCP	Development Control Plan
Development Site	Lot 305 in Deposited Plan 1275011 (data centre site) Lot 22 in Deposited Plan 1246626 (TransGrid Sydney West Substation) Johnston Crescent (Public Road - SP2 zone) (HV route) Old Wallgrove Road SP2 zone (Public Road - SP2 zone) (HV route)
DP	Deposited Plan
DPHI	New South Wales Department of Planning, Housing and Infrastructure
DSI	Detailed Site Investigation

Reference	Description
EDC	Estimated Development Cost
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EIS	Environmental Impact Statement
EPA	New South Wales Environment Protection Authority
EPI	Environmental Planning Instrument
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
GFA	Gross Floor Area
GTP	Green Travel Plan
HIPAP	Hazardous Industry Planning Advisory Paper
HIS	Heritage Impact Statement
ICT	Information and Communication Technology
Kv	Kilovolt
LEC	Land Environment Court New South Wales
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
MW	Megawatts
MWe	Megawatts of Electricity
MNES	Matters of National Environmental Significance
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
NML	Noise Management Level
NSW	New South Wales
NVIA	Noise and Vibration Impact Assessment
OEMP	Operational Environmental Management Plan



Reference	Description
R&H SEPP	<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>
PAD	Potential Archaeological Deposit
PBP	Planning for Bushfire Protection
PMF	Probable Maximum Flood
POM	Plan of Management
PSI	Preliminary Site Investigation
Planning Systems SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
SAIL	Serious and Irreversible Impacts
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SIA	Social Impact Assessment
SSD	State Significant Development
SSDA	State Significant Development Application
T&I SEPP	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
TfNSW	Transport for New South Wales
TIA	Traffic Impact Assessment
VIA	Visual Impact Assessment
WCM	Water Cycle Management
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

# EXECUTIVE SUMMARY

This Submissions and Amendment Report has been prepared on behalf of NEXTDC Limited in association with a State Significant Development Application (**SSDA**) for a proposed data centre development at 16 Johnston Crescent, Horsley Park (**the data centre site**).

The report responds to matters raised by the Department of Planning, Housing and Infrastructure (**DPHI**), other State government authorities/agencies, Fairfield City Council, utility service providers and the community during public exhibition of SSD-63741210.

The report also assesses the proposed amendments to the original proposal, including changes to the layout and design of the data centre facility and the inclusion of the HV power connection as part of the proposal. The changes respond to feedback from key stakeholders, including detailed feedback from TransGrid/Lumea regarding the delivery of the required high-voltage (**HV**) power connection to the site.

The proposed changes extend beyond minor refinements which can be accommodated via a Submissions Report. Accordingly, a joint Submissions and Amendment Report has been prepared and consent sought from DPHI to amend the SSDA as per section 37 of the *Environmental Planning and Assessment Regulation 2021* (**the Regulation**).

It is understood the updated documentation package will be referred to authorities/agencies and other stakeholders for further review and comment. The amended application may also be publicly exhibited, enabling the community to make new or additional submission on the proposal. This report includes a detailed assessment of the economic, environmental and social impacts to provide a clear understanding of the amended project, including the merits of the proposed changes.

## Original Proposal

The original SSDA was formally lodged with DPHI on 20 June 2024 in accordance with section 24(2) of the Regulation. It sought consent for the following development under clause 25, Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**):

- Site preparation works including bulk earthworks and tree removal.
- Staged construction and operation of five data centre buildings comprising a total gross floor area (**GFA**) of 63,654m<sup>2</sup> including 52,916m<sup>2</sup> of technical data hall floor space and 10,738m<sup>2</sup> of ancillary office and innovation floor space, including 'front of house' meeting and function spaces, and a café.
- Associated ancillary on-site facilities on-site parking for 200 cars, business identification signage (pylon and elevation signage), civil and stormwater works and 9,900m<sup>2</sup> of deep soil landscaping.
- Delivery of 232 megawatts of power, including a 330kV on-site substation and a 33kV switching station, plus above ground diesel storage tanks and above ground water tanks for industrial water and fire water.

The Project was proposed to be delivered in three construction stages as follows:

- Stage 1 = Buildings A, B, C and substation.
- Stage 2 = Building D.
- Stage 3 = Building E.

The SSDA was placed on public exhibition between 26 July 2024 and 22 August 2024. It was also referred to other State government authorities/agencies, Fairfield City Council and utility service providers for review and comment.

## Analysis of Submissions

Detailed submissions were received from the following State government authorities/agencies and utility service providers in response to their review of the SSDA:

- Fairfield City Council
- Transport for NSW (**TfNSW**).
- NSW Department of Climate Change, Energy, the Environment and Water (**DCCEEW**)

- Water NSW
- NSW Environment Protection Authority (**EPA**)
- NSW Rural Fire Service (**RFS**)
- Sydney Water

Fire and Rescue NSW confirmed receipt of the SSDA referral, however, advised they did not have any further comments regarding the proposal and provided recommended conditions of consent. Two public submissions were also received from adjoining property owners and residents.

DPHI issued letters to the Applicant on 23 August 2024 and 6 September 2024 requesting a response to the submissions (**RTS**) received during the public exhibition and referral of the application. The key issues raised in the submissions can be broadly grouped as follows:

- **The Project**

- Project Description and Scope: Requests for clarification on cooling technologies, generator loading, and discrepancies between EIS and BDAR waiver.
- Design, Bulk and Scale: Concerns about excessive bulk, height (particularly Building D), and insufficient transition to adjoining rural residential areas.
- Landscape Design: Requests for clearer tree planting plans, integration with surrounding context (eg Cumberland Plain) and APZ interfaces.
- Traffic and Access: Concerns about traffic generation, site access design, queuing, loading management, and adequacy of parking.
- Servicing Infrastructure: Sydney Water identified shortfalls in water and wastewater capacity; hydraulic assessments are pending.
- Construction Impacts: Need for detailed Construction Traffic Management Plan and further mitigation of construction noise and vehicle impacts.
- Plan of Management: Several plans (e.g. loading, water, air quality, waste) must be approved prior to construction.

- **Procedural Matters**

- Inconsistencies in Documentation: Discrepancies between EIS and technical appendices (eg number of trees, generator specs, air quality modelling inputs).
- Statutory Compliance: Missing reference to specific SEPP clauses and modelling inputs in assessments.
- Referral Agency Coordination: Recommendations for re-referral to Sydney Water pending further information; no objection or comment from Heritage NSW, Fire & Rescue NSW or RFS.
- Approval Pathways: Clarification requested regarding ancillary infrastructure planning approvals (eg HV cabling, Warragamba Pipeline crossings).

- **Environmental Impacts**

- Air Quality: Concerns over modelling validity, generator emissions, omission of cumulative impacts, and storage emissions.
- Noise and Vibration: Construction and emergency operations may exceed thresholds; further assessment of feasible mitigation is required.
- Greenhouse Gas Emissions: Lack of quantification and evaluation of mitigation measures; further breakdown of operational emissions requested.
- ESD: Additional detail required on energy and water consumption, efficiency measures, and operational sustainability.
- Stormwater and Water Management: Requests for modelling verification, ongoing maintenance plans, and clarity on catchment impacts.

- Flooding: Site is not directly flood-affected but further modelling recommended due to indirect risks.
- Biodiversity: BDAR waiver and EIS inconsistencies regarding vegetation impacts require clarification.

## Action Taken Since Submission

The original data centre proposal has been amended to respond to the submissions received in response to the public exhibition and referral of the original SSDA.

Since the SSDA was publicly exhibited, the Applicant has undertaken further consultation with DPHI, Fairfield City Council and various other agencies to discuss the issues raised within the submissions. Following detailed feedback from TransGrid and Lumea, NEXTDC is now required to incorporate the HV connection works within the scope of the SSDA.

The original plans have been updated, with additional assessments and modelling (where relevant) prepared to respond to the issues raised within the submissions, as well as the modified proposal. A full list of the updated assessment reports is provided in **Table 2**.

## Response to Submissions and Proposed Amendments

A detailed response to the matters raised in the submissions accompanies this report at **Appendix A**. The Applicant has sought to refine the proposal in response to the issues raised, as well as other matters identified during and after the public exhibition of the SSDA, including:

- TransGrid advised that recent regulatory changes mean the proponent needs to obtain development consent for the HV connection from the site to the TransGrid Sydney West Substation. Accordingly, the original SSDA is to be amended to include the external HV connection works. These works include the construction of two 330kV underground transmission lines from the substation to the NEXTDC S4 site, along with associated works within the substation, including the installation of two new feeder bays.
- Building D is to be removed to minimise visual impacts from the adjoining RU4 zoned land. The four remaining buildings will be consolidated into two buildings to provide a more efficient footprint/layout and to minimise amenity impacts, such as noise and air quality concerns, for neighbouring residents.
- The water tanks are relocated to the northeastern corner. Other changes include relocating the main vehicle entrance, reconfiguring vehicle circulation and parking, and a new single-story security office at the consolidated vehicle entrance.

The proposed changes to the exhibited SSDA are described in further detail as follows:

- Construction of two 330kV transmission lines ;from the TransGrid Sydney West Substation site to the NEXTDC S4 site, utilising existing road reserves along Johnston Crescent and Old Wallgrove Road with a total route length of approximately 2.6 km.
- Additional works within the TransGrid Sydney West Substation site including extension of existing substation bench to enable installation of two new feeder 330kv bays, realignment of existing access road and fence, and construction of a new secondary systems building.
- Reconfiguration of the on-site 330kV substation and layout of High Voltage Switching Building (**HVSB**).
- Building A and Building B have been combined into a single building (Building AB). Building C and Building E have also been combined into a single building (Building CD).
- Building D which was originally proposed in the north-eastern corner is to be removed and replaced with water tanks, previously proposed within the buildings.
- Improvements to the façade design, including simplifying the cladding panels and glazing across each of the elevations.
- Construction of a new centralised Security Operations Centre (**SOC**) building at the entrance to the site.
- Main vehicle entrance is relocated from Johnston Crescent opposite Building A to the southern internal road south of Building AB.
- Vehicle circulation and parking spaces are to be reconfigured based on changes to the built form and layout.

- Reconfiguration and consolidation of plant layout for the data centre buildings.
- New pump house along north-eastern boundary.
- Changes to the proposed earthworks to accommodate the changes to the built form, including an increase in the required cut by approx. 9,960m<sup>3</sup>.
- Additional landscaping is to be provided along the eastern boundary setback to provide additional visual screening.
- Changes to construction staging.

The changes extend beyond minor refinements and accordingly, this report is divided into two parts: Part 1 being the Submissions Report and Part 2 containing the Amendment Report. A detailed justification of the project is provided having regard to both the response to submissions and the amended proposal. The report has been prepared to include all relevant matters in *State Significant Development Guidelines – Preparing a Submissions Report* and *State Significant Development Guidelines – Preparing an Amendment Report*.

## Justification of the Amended Project

This report assesses the amended development in accordance with the relevant planning instruments and policies and outlines the mitigation measures to be implemented to avoid unreasonable or adverse environmental effects. The key environmental matters identified for the amended proposal include:

- Urban design and built form.
- Visual impacts.
- Traffic and access.
- Noise impacts.
- Air quality impacts.
- Infrastructure requirements.
- Landscaping.
- Sustainability and greenhouse gas emissions.

It has been demonstrated that for each of the likely impacts identified in the assessment of key issues, the impact will either be positive or mitigation measures can be adopted to ensure the amended proposal is appropriate. The amended proposal represents a positive development outcome for the site and surrounding area for the following reasons:

- **The proposal is consistent with state and local strategic planning policies:** The amended proposal is consistent with the relevant goals and strategies contained in:
  - *Greater Sydney Region Plan: A Metropolis of Three Cities*
  - *Our Greater Sydney 2056: Western City District Plan*
  - *Fairfield City 2040 Local Strategic Planning Statement*
  - *GANSW Better Placed*
  - *Future Transport Strategy 2056*
- **The proposal satisfies the applicable local and state development controls:** The amended proposal meets the relevant statutory requirements of the relevant environmental planning instruments, including:
  - *State Environmental Planning Policy (Planning Systems) 2021*
  - *State Environmental Planning Policy (Resilience and Hazards) 2021*
  - *State Environmental Planning Policy (Industry and Employment) 2021*
  - *State Environmental Planning Policy (Transport and Infrastructure) 2021*

- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Sustainable Buildings) 2022*
- *Western Sydney Employment Area – Fairfield Development Control Plan 2016 (FDCP 2016)*
- **The design responds appropriately to the opportunities and constraints presented by the site:**
  - The proposed data centre use responds to the strategic location of the site within an emerging industrial and employment hub in Western Sydney.
  - The built form responds to both the functional and spatial requirements for the data centre use and is compatible with the existing and future character of the locality which predominantly consists of recently developed industrial warehouse developments.
  - The proposed design and landscape strategy delivers a generous green curtilage to the boundaries and provides pockets of amenity at ground and roof level throughout the site.
  - The built form has been designed to avoid unacceptable impacts on surrounding properties, through the positioning of the data centre buildings, fencing and deep-soil landscaping to deliver a conducive architectural and urban design outcome.
  - The proposal provides a significant component of ancillary office floor space positioned towards the primary frontage to activate the adjoining streetscape.
- **The proposal is highly suitable for the site:**
  - The proposal is consistent with the IN1 zone objectives, is permitted with consent and satisfactorily addresses the relevant provisions in the I&E SEPP and the WSEA Fairfield DCP.
  - The site is a large, consolidated land holding which is vacant and has been cleared of all structures and vegetation to accommodate future development.
  - There are no significant environment constraints that would limit the Project being developed at the site.
  - The character and scale of the development is compatible and consistent with its existing and likely future context. There are no significant environmental constraints that would limit the Project from being developed at the site.
  - The proposed development will optimise use of a vacant site and deliver strategic objectives located within a developing employment precinct with high amenity and employment outcomes and support business activity that occurs in other nearby established and emerging employment-generating precincts.
  - The site is highly accessible to the regional road network and all necessary infrastructure can be accommodated, allowing operations to commence at no cost to Government.
  - The data centre operations are suitable for the site and compatible with the residential boundary interface as the potential impacts are significantly reduced compared to traditional industrial land uses, ie warehousing and distribution, which have greater potential noise and traffic impacts.
- **The proposal is in the public interest:**
  - The proposal is consistent with relevant State and local strategic plans and complies with the relevant State and local planning controls including the relevant provisions in the I&E SEPP and WSEA Fairfield DCP.
  - Subject to the implementation of the recommended mitigation measures, no adverse social or environmental impacts result from the Proposal in terms of traffic, noise and vibration, air quality or views during construction and operation of the development.
  - The proposal directly contributes to the important role that the WSEA plays as an employment generating precinct within the broader Western Parkland City, as identified by the Greater Sydney Commission.
  - The proposal provides critical infrastructure which will support the growth for the digital economy within NSW and more broadly.

- The proposal will protect and enhance employment lands and increase job numbers.
- No major issues relating to the construction and operation of the development were raised during the pre-lodgement consultation with the local community, Council, Government and agency stakeholders.
- The site will facilitate the orderly and economic use and development of the land.

**In view of the above, it is considered that this SSDA has significant merit and should be approved subject to the implementation of the mitigation measures described in this report and supporting documents.**

# 1. INTRODUCTION

This Submissions and Amendment Report has been prepared on behalf of NEXTDC Limited in association with a SSDA for a proposed data centre development at 16 Johnston Crescent, Horsley Park. The report responds to matters raised in the authority referral responses and public submissions during its preliminary assessment. It also assesses the proposed amendments to the original proposal, including changes to the design and layout of the data centre and inclusion of the HV connection as part of the proposed works.

The SSDA was lodged with DPHI on 20 June 2024 (**SSD-63741210**). The SSDA was placed on public exhibition for 28 days between 26 July 2024 and 22 August 2024. It was also referred to key stakeholders for comment, including other State government authorities/agencies, Fairfield City Council and utility service providers. Each of the submissions received in response to the public exhibition and external referrals have been reviewed by the Applicant in detail.

The original proposal has been refined in response to the DPHI and stakeholder feedback. The proposed changes include consolidating the built form from five buildings into two and incorporating the delivery of the HV connection to the site. The updates extend beyond minor refinements which can be described in a Submissions Report and accordingly, an Amendment Report is also required to facilitate assessment of the revised proposal.

This report is divided into two parts: Part 1 being the Submissions Report and Part 2 containing the Amendment Report. A detailed justification of the project is provided having regard to both the response to submissions and the amended proposal. The report addresses all relevant matters in *State Significant Development Guidelines – Preparing a Submissions Report* and *State Significant Development Guidelines – Preparing an Amendment Report*.

## 1.1. APPLICANT DETAILS

The application details for the proposed development are listed in the following table.

Table 1 Applicant Details

Descriptor	Proponent Details
Full Name(s)	NEXTDC Limited c/o Urbis Pty Ltd
Postal Address	Level 8, 123 Pitt Street, Sydney NSW 2000
ABN	35 143 582 521
Nominated Contact	Christopher Croucamp

## 1.2. EXHIBITED PROPOSAL

The original SSDA applied to 16 Johnston Crescent, Horsley Park, which is legally described as Lot 305 in Deposited Plan (DP) 1275011. An aerial photograph of the site is provided at **Figure 1**. The exhibited proposal sought consent for:

- Site preparation works including bulk earthworks and tree removal.
- Staged construction and operation of five data centre buildings comprising a total gross floor area (GFA) of 63,654m<sup>2</sup> including 52,916m<sup>2</sup> of technical data hall floor space and 10,738m<sup>2</sup> of ancillary office and innovation floor space, including 'front of house' meeting and function spaces, and a café.
- Ancillary development including on-site parking for 200 cars, business identification signage (pylon and elevation signage), civil and stormwater works.
- Delivery of 232 megawatts of power, including a 330kV substation and a 33kV switching station, plus above ground diesel storage tanks and above ground water tanks for industrial water and fire water.



Figure 1 Local Context



Source: Urbis, 2024

- Total GFA of 63,654m<sup>2</sup>, broken down as follows:
  - Data halls/technical: 52,916m<sup>2</sup>.
  - Mission critical (**MCX**) office, innovation and admin floor space: 10,738m<sup>2</sup>.
  - Total number of data houses: 34 data houses.
- Other associated works including 9,900m<sup>2</sup> deep soil area, 200 car spaces including 6 DDA spaces and 10 EV space, 5 motorbike spaces and 24 bicycle spaces.
- Provision of the following required utilities
  - Diesel Fuel Tanks
    - Building A: Above ground diesel storage tanks (10 x 25kL each).
    - Buildings B-D: Above ground diesel storage tanks (10 x 65kL each).
    - Building E: Above ground diesel storage tanks (14 x 65kL each).
  - Industrial Water
    - Building A: Above ground water tanks for industrial water (4 x 170kL each).
    - Buildings B-D: Above ground water tanks for industrial water (4 x 580kL each).
    - Building E: Above ground water tanks for industrial water (6 x 580kL each).
  - Fire Water:
    - Above ground water tanks for fire water (6 x 340kL each).

- Substation:
  - 330kV substation plus a 33kV switching station on site.

The Amendment Report (Part 2) seeks changes to the exhibited proposal. The proposed amendments include the following changes to the development, for which consent is sought:

- Delivery of two 330kV transmission lines; from the TransGrid Sydney West Substation site to the NEXTDC S4 site, utilising existing road reserves along Johnston Crescent and Old Wallgrove Road with a total route length of approximately 2.6 km.
- Additional works within the TransGrid Sydney West Substation site including extension of existing substation bench to enable installation of two new feeder 330kv bays, realignment of existing access road and fence, and construction of a new secondary systems building.
- Reconfiguration of the on-site 330kV substation and layout of High Voltage Switching Building (**HVSB**).
- Building A and Building B have been combined into a single building (Building AB). Building C and Building E have also been combined into a single building (Building CD).
- Building D which was originally proposed in the north-eastern corner is to be removed and replaced with water tanks, previously proposed within the buildings.
- Improvements to the façade design, including simplifying the cladding panels and glazing across each of the elevations.
- Construction of a new centralised Security Operations Centre (**SOC**) building at the entrance to the site.
- Main vehicle entrance is relocated from Johnston Crescent opposite Building A to the southern internal road south of Building AB.
- Vehicle circulation and parking spaces are to be reconfigured based on changes to the built form and layout.
- Reconfiguration and consolidation of plant layout for the data centre buildings.
- New pump house along north-eastern boundary.
- Changes to the proposed earthworks to accommodate the changes to the built form, including an increase in the required cut by approx. 9,960m<sup>3</sup>.
- Additional landscaping is to be provided along the eastern boundary setback to provide additional visual screening.
- Changes to construction staging.

The Minister for Planning is the consent authority for the proposal in accordance with Section 4.36(2) of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*.

## 1.3. SUPPORTING DOCUMENTATION

This Submissions and Amendment Report is supported by the following technical reports and documentation which have been amended to reflect the amended application.

Table 2 Supporting Documents

Appendix	Report	Prepared By
Appendix A	Response to Submissions Table	Urbis
Appendix B	Revised Statutory Compliance Table	Urbis
Appendix C	Revised Mitigation Measures	Urbis
Appendix D	Revised Engagement Summary Table	Urbis

<b>Appendix</b>	<b>Report</b>	<b>Prepared By</b>
<b>Appendix E</b>	Revised Architectural Plans	HDR Architects
<b>Appendix F</b>	Revised Architectural Design Report	HDR Architects
<b>Appendix G</b>	Revised Estimated Development Cost Calculation	WT Partnership
<b>Appendix H</b>	Revised BCA Compliance Report	McKenzie Group
<b>Appendix I</b>	Revised Landscape Plans	Site Image
<b>Appendix J</b>	Revised Landscape Design Report	Site Image
<b>Appendix K</b>	Revised Visual Impact Assessment	Urbis
<b>Appendix L</b>	Revised Traffic Impact Assessment	TTW
<b>Appendix M</b>	Revised ESD Report	Aurecon
<b>Appendix N</b>	Revised Air Quality Impact Assessment	Northstar
<b>Appendix O</b>	Revised Noise and Vibration Impact Assessment	Aurecon
<b>Appendix P</b>	Revised Flood Risk Assessment	TTW
<b>Appendix Q</b>	Revised Civil Engineering Report	TTW
<b>Appendix R</b>	Revised Civil Plans	TTW
<b>Appendix S</b>	Revised Contamination and Remediation Status Letter	JK Environments
<b>Appendix T</b>	Aboriginal Cultural Heritage Assessment Addendum Letter	Urbis
<b>Appendix U</b>	Revised Heritage Impact Statement	Urbis
<b>Appendix V</b>	Revised Social Impact Assessment	Urbis
<b>Appendix W</b>	Revised Backup Power Report	Aurecon
<b>Appendix X</b>	Revised Geotechnical Assessment	JK Geotechnics
<b>Appendix Y</b>	Revised Waste Management Plan	Encycle
<b>Appendix Z</b>	Revised Bushfire Protection Assessment	ABPP
<b>Appendix AA</b>	Revised Access Review Report	MGAC
<b>Appendix BB</b>	Revised Green Travel Plan	TTW
<b>Appendix CC</b>	Revised Preliminary Construction Traffic Management Plan	TTW
<b>Appendix DD</b>	Revised BDAR Waiver Request	Narla Environmental

<b>Appendix</b>	<b>Report</b>	<b>Prepared By</b>
<b>Appendix EE</b>	Revised Preliminary Hazards Analysis	Aurecon
<b>Appendix FF</b>	Revised Infrastructure Requirements Report	Aurecon
<b>Appendix GG</b>	Revised Wayfinding Signage Plans	Diadem
<b>Appendix HH</b>	Revised Surface Water and Groundwater Condition Assessment	JK Environments
<b>Appendix II</b>	Revised Engagement Outcomes Report	Urbis
<b>Appendix JJ</b>	Revised Arboricultural Impact Assessment	CPS Planning
<b>Appendix KK</b>	Revised Dryland Salinity and Acid Sulfate Soil Assessment	JK Environments
<b>Appendix LL</b>	Climate Change Risk Assessment and Adaptation Plan	Aurecon
<b>Appendix MM</b>	Flood Emergency Response Plan	TransGrid
<b>Appendix NN</b>	Greenhouse Gas Emissions Assessment	Aurecon
<b>Appendix OO</b>	Loading Dock Management Plan	TTW
<b>Appendix PP</b>	External HV Works Plans	TransGrid
<b>Appendix QQ</b>	Supplementary Air Quality Assessment – External HV Works	Northstar
<b>Appendix RR</b>	Supplementary Arboricultural Impact Assessment – External HV Works	CPS Planning
<b>Appendix SS</b>	Supplementary Preliminary Construction Traffic Management Plan – External HV Works	TTW
<b>Appendix TT</b>	Supplementary Infrastructure Requirements Report – External HV Works	Aurecon
<b>Appendix UU</b>	Supplementary Noise and Vibration Assessment – External HV Works	Aurecon

## 2. PART 1: RESPONSE TO SUBMISSIONS

This part provides the information relevant to the Submissions Report, including responses to the agency advice/feedback and public submissions in response to the exhibition of the SSDA. It addresses all relevant matters in *State Significant Development Guidelines – Preparing a Submissions Report*.

### 2.1. ANALYSIS OF SUBMISSIONS

The SSDA was publicly exhibited between 26 July 2024 and 22 August 2024. It was also referred to other State government authorities/agencies, Fairfield City Council and utility service providers for comment.

The submissions included responses from the following State government authorities/agencies and utility service providers:

- Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) – Biodiversity, Conservation and Science Group (**BCS**)
- DCCEEW – Heritage Council
- DCCEEW – Heritage Council of NSW
- DCCEEW – Water Group
- NSW Environment Protection Authority (**EPA**)
- NSW Fire and Rescue
- NSW Rural Fire Service (**RFS**)
- Sydney Water
- Transport for NSW (**TfNSW**)
- Water NSW

The above submissions identified matters which required further assessment and/or recommended imposition of consent conditions should the application be approved. The key issues raised in submissions included concerns regarding visual impacts, air quality, statutory compliance, environmentally sustainable design (**ESD**) measures, and the overall bulk and scale of the proposed development.

The Heritage Council of NSW and NSW Fire and Rescue confirmed receipt of the SSDA referral, however, advised they did not have any further comments regarding the proposal. Fairfield City Council provided a detailed submission. Council's key concerns related to access and traffic, stormwater management and the bulk and scale of the development.

Two public submissions were also received from adjoining property owners and residents. These submissions primarily related to the potential impacts of the proposed development, particularly regarding its bulk and scale.

In accordance with the DPHI *State Significant Development Guidelines*, the key issues raised in the submissions have been categorised as outlined in **Table 3**. A Response to Submissions Summary Table is appended to this report at **Appendix A**.

Table 3 Categorising of Issues Raised

Category of Issue	Summary of Matters Raised
The Project	<ul style="list-style-type: none"><li>▪ Project Description &amp; Scope: Requests for clarification on cooling technologies, generator loading, and discrepancies between EIS and BDAR waiver.</li><li>▪ Design, Bulk and Scale: Concerns about excessive bulk, height (particularly Building D), and insufficient transition to adjoining rural residential areas.</li></ul>

Category of Issue	Summary of Matters Raised
	<ul style="list-style-type: none"> <li>▪ Landscape Design: Requests for clearer tree planting plans, integration with surrounding context (eg Cumberland Plain) and APZ interfaces.</li> <li>▪ Traffic &amp; Access: Concerns about traffic generation, site access design, queuing, loading management, and adequacy of parking.</li> <li>▪ Servicing Infrastructure: Sydney Water identified shortfalls in water and wastewater capacity; hydraulic assessments are pending.</li> <li>▪ Construction Impacts: Need for detailed Construction Traffic Management Plan and further mitigation of construction noise and vehicle impacts.</li> <li>▪ Plan of Management: Several plans (eg loading, water, air quality, waste) must be approved prior to construction.</li> </ul>
Procedural Matters	<ul style="list-style-type: none"> <li>▪ Inconsistencies in Documentation: Discrepancies between EIS and technical appendices (eg number of trees, generator specs, air quality modelling inputs).</li> <li>▪ Statutory Compliance: Missing reference to specific SEPP clauses and modelling inputs in assessments.</li> <li>▪ Referral Agency Coordination: Recommendations for re-referral to Sydney Water pending further information; no objection or comment from Heritage NSW, Fire &amp; Rescue NSW, or RFS.</li> <li>▪ Approval Pathways: Clarification requested regarding ancillary infrastructure planning approvals (eg external HV connection, Warragamba Pipeline crossings).</li> </ul>
Environmental Impacts	<ul style="list-style-type: none"> <li>▪ Air Quality: Concerns over modelling validity, generator emissions, omission of cumulative impacts, and storage emissions.</li> <li>▪ Noise &amp; Vibration: Construction and emergency operations may exceed thresholds; further assessment of feasible mitigation is required.</li> <li>▪ Greenhouse Gas Emissions: Lack of quantification and evaluation of mitigation measures; further breakdown of operational emissions requested.</li> <li>▪ ESD: Additional detail required on energy and water consumption, efficiency measures, and operational sustainability.</li> <li>▪ Stormwater &amp; Water Management: Requests for SQIDEP verification, ongoing maintenance plans, and clarity on catchment impacts.</li> <li>▪ Flooding: Site is not directly flood-affected but further modelling recommended due to indirect risks.</li> <li>▪ Biodiversity: BDAR waiver and EIS inconsistencies regarding vegetation impacts require clarification.</li> </ul>

## 2.2. ACTION TAKEN SINCE EXHIBITION

This section summarises the refinements that have been made to the project since its public exhibition. It also outlines the additional assessment undertaken to respond to the concerns raised by the public agencies and organisation.

### 2.2.1. Further Engagement

Since the SSDA was publicly exhibited, the Applicant has undertaken further consultation with DPHI, TransGrid, Lumea and Fairfield City Council to discuss the issues raised within their submissions. **Table 4** summarises the consultation undertaken since the public exhibition and the outcome of this engagement.

Table 4 Further Engagement Summary

Stakeholder	How this group was consulted	Project Response
DPHI	<p>A preliminary request for a Section 37 amendment was submitted to DPHI on 19 February 2025.</p> <p>Follow up discussions were held with NEXTDC, Urbis Planning and TransGrid/Lumea to resolve the planning approvals pathway for the external HV connection, including 14 March 2025 and 10 April 2025. A follow up request was submitted to DPHI on 24 April 2025 seeking confirmation that updated SEARs would not be required and any additional assessment requirements associated with the HV connection.</p> <p>An additional meeting was held with DPHI on 13 May 2025 which confirmed the external HV cable route should be included within the Amended SSDA and assessed in accordance with the existing SEARs.</p> <p>Subsequent correspondence received from TransGrid in June 2025 confirmed that NEXTDC must include all works within the TransGrid Sydney West Substation site related to delivering the power connection to the data centre site as part of the SSDA.</p>	<p>In response to the feedback received, the SSDA has been updated to include the external HV connection works. These works include the construction of two 330kV underground transmission lines from the substation to the NEXTDC S4 site, along with associated works within the substation, including the installation of two new feeder bays.</p> <p>NEXTDC will continue to consult and provide project updates to the Planning and Assessment Team and offer the opportunity to comment and provide feedback on plans.</p>
Environment and Heritage Team (E&H Branch)	<p>Urbis Planning provided information about the proposal to the Environment and Heritage Branch in February 2024 and issued a Biodiversity Development Assessment Report (<b>BDAR</b>) waiver request.</p>	<p>The Environment and Heritage Branch issued a BDAR waiver on 29 February 2024.</p> <p>A revised BDAR waiver request is submitted with the Amendment Report for the amended project.</p>

Stakeholder	How this group was consulted	Project Response
TransGrid/Lumea	NEXTDC has been engaging with TransGrid and Lumea (TransGrid's delivery arm) for over a year to secure a high-voltage power connection to the data centre site. TransGrid has advised that it is not able to deliver the works under Part 5 of the Act and has instead required the proponent to include the external HV connection works within the scope of the SSDA. This includes the delivery of two 330kV underground transmission lines from the data centre site to the TransGrid Sydney West Substation site and the required works within the TransGrid Sydney West Substation site.	In response to the feedback received, the SSDA has been updated to incorporate the HV cable route extending from the TransGrid site to the data centre site as well as the required works within the TransGrid site itself, including two new 330kv feeder bays.  Engagement with Lumea and TransGrid for planning, layout and design is ongoing. On 2 September 2025, TransGrid provided a letter providing consent to enable the lodgement of the Amendment Report.
Fairfield City Council (in relation to HV Cable Route)	Ongoing consultation has been undertaken by NEXTDC with Fairfield City Council regarding the proposed HV connection, including email advice dated 20 March 2025, follow up telephone discussions on 24 March 2025 and additional email advice dated 3 April 2025.  In response, Council confirmed they did not have any objections to the works associated within the road reserve to accommodate the required HV connection and provided detailed written advice regarding the relevant requirements to facilitate the work on Council owned land, including obtaining a Utility Works Permit under s138 of the Roads Act 1993.	On 16 June 2025, Fairfield City Council provided a letter providing consent to NEXTDC to enable the lodgement of the Amendment Report.  NEXTDC will continue to engage with Fairfield City Council regarding the proposed works within Johnston Crescent and Old Wallgrove Road to deliver the HV connection, including obtaining necessary approvals.
Blacktown City Council (in relation to HV Cable Route)	Ongoing consultation has been undertaken by NEXTDC with Blacktown City Council regarding the proposed HV connection, including telephone discussions on 19 March 2025 and a meeting on 25 March 2025.  A meeting was held with Blacktown City Council on 26 March 2025 to discuss the process for obtaining owner's consent. Council advised that further information on existing services within the proposed HV cable route is required before consent can be considered. The meeting concluded with NEXTDC	On 12 August 2025, Blacktown City Council provided a letter providing consent to NEXTDC to enable the lodgement of the Amendment Report.  NEXTDC will continue to engage with Blacktown City Council regarding the proposed works within Johnston Crescent and Old Wallgrove Road to deliver the HV connection, including obtaining necessary approvals.



Stakeholder	How this group was consulted	Project Response
	confirming that additional design work is needed and will be provided to Council once finalised. Additional information was submitted to Council for their review in May 2025.	
Sydney Water	<p>NEXTDC applied for a Section 73 Compliance Certificate from Sydney Water in July 2023. This Certificate certifies that there is adequate access to water and wastewater services for the proposal.</p> <p>Sydney Water advised current planned infrastructure could not accommodate peak load demands for water services.</p> <p>Sydney Water is completing further modelling of the network to evaluate options to enable final capacity of the proposal.</p>	NEXTDC has engaged water and hydraulic specialists, Warren Smith Consulting Engineers (WSce), who will coordinate further engagement with Sydney Water. WSce will work with Sydney Water to develop capacity solutions for the proposal.
Sydney Water (in relation to HV Cable Route)	NEXTDC has engaged WSCE as the Water Services Coordinator for the project. The proposed HV cable route will require an Out-of-Scope approval from Sydney Water, which in turn will necessitate a Specialist Engineering Assessment.	These assessments will be progressed as part of the design process, as they rely on detailed design inputs to be accurately prepared.
Water NSW (in relation to HV Cable Route)	On 3 July 2024, a meeting was held between NEXTDC, Lumea, and WaterNSW to discuss the proposed HV cable route crossing the Warragamba to Prospect Pipeline. During the meeting, WaterNSW provided Work-as-Executed drawings to assist in determining the required clearances to the pipeline.	Cross-sectional drawings were developed for the project to illustrate the clearances between the proposed HV route and the Warragamba to Prospect Pipeline. These drawings indicate that the separation distance exceeds 5.5 metres.
	Ongoing email correspondence with WaterNSW, including on 9 April 2025, has confirmed their awareness of the proposed HV cable route. WaterNSW has advised that they are undertaking further internal consultation to determine whether any additional requirements apply, following receipt of cross-sectional drawings demonstrating compliant clearances to the pipeline.	Further requirements and formal clearance are pending the outcome of WaterNSW's internal review and consultation process.
Jemena (in relation to HV Cable Route)	Engagement with Jemena has commenced via their Project Portal (Job No. 712656). In their initial response, Jemena has requested additional	As the design progresses, NEXTDC will continue to engage with Jemena to develop the required Electrical Hazard Assessment (EHA). The cross-sectional

Stakeholder	How this group was consulted	Project Response
	information regarding the proposed asset crossing and confirmed the need for an Electrical Hazard Assessment in accordance with AS/NZS 4853.	design is currently being finalised and will be provided to Jemena by the relevant design team upon completion.
Endeavour Energy (in relation to HV Cable Route)	Initial engagement with Endeavour Energy via email (since 8 April 2025) has not resulted in any further feedback or input to date. A formal application has also been lodged through Endeavour's project portal (ENL6890), where the status remains listed as 'Work in Progress'. As of 7 May 2025, no response has been received. However, no significant project concerns have been identified, as the design is being led by TransGrid/Lumea, who maintain an established working relationship with Endeavour Energy.	The project team will continue to monitor the portal for any further requests or queries from Endeavour Energy. Given that the works are being undertaken by Lumea/TransGrid, there is a high level of confidence that the evolving design will be able to meet Endeavour Energy's requirements.
Transport for NSW	A meeting was held with Transport for NSW (TfNSW) on 10 April 2025 to discuss potential conflicts between the project site and the future Southern Link Road. It was noted that the 80% concept design includes the partial acquisition of Lot 305; however, TfNSW advised this would be reconsidered during the preparation of the 100% concept design. TfNSW also indicated that previous turning circle calculations were undertaken using conservative assumptions, and that no finalised (100%) design documentation is currently available due to a pause in project funding.	NEXTDC has responded to TfNSW to maintain ongoing communication and has requested to be notified once the 100% concept design becomes available.
	In addition, the project team contacted TfNSW via email to clarify the assumptions regarding traffic generation rates referenced in their submission letter.	TfNSW subsequently confirmed the appropriate rate to be adopted in the TIA calculations.
Endeavour Energy	Initial engagement with Endeavour Energy via email (since 8 April 2025) and through their project portal (ENL6890) has not yielded any further input to date, with the application currently marked as 'Work in Progress'. No significant concerns have been	The project team will continue to monitor the portal for any further requests or queries from Endeavour Energy. Given that the works are being delivered by Lumea/TransGrid, there is strong confidence that the design will

Stakeholder	How this group was consulted	Project Response
	identified, as the design is being led by TransGrid/Lumea, who maintain an established working relationship with Endeavour.	meet Endeavour's requirements as it progresses.
EPA	A meeting was held with the EPA on 15 November 2024 to discuss their response to the SSDA submission. NEXTDC outlined data centre operations, clarified that most Scope 2 emissions are customer-driven, and noted the misalignment with current GHG reporting frameworks. The EPA acknowledged their limited familiarity with data centres and recommended that NEXTDC formally document the information shared to assist in their assessment.	A Greenhouse Gas Emissions Assessment has been prepared to address the EPA advice and respond to their letter dated 3 September 2024. The EPA confirmed that its recommendations are not currently enforceable and will not translate into development conditions or mandatory reporting requirements. However, future SEARs processes may incorporate these guidelines. The plan continues to emphasise the customer-driven nature of NEXTDC's emissions and the inherent challenges in forecasting long-term operational impacts and mitigation.

## 2.2.2. Refinements to the Project

The proposed changes respond to feedback received following the public exhibition and preliminary assessment of the SSDA, including further engagement with authorities/agencies.

The proposal has been amended to combine Buildings A and B into a single Building AB, and Buildings C and E into Building CD. It also includes a new 2.6 km HV cable route from the TransGrid Sydney West Substation to the data centre site, following Johnston Crescent and Old Wallgrove Road. In addition, the SSDA now includes associated works within the TransGrid site itself, including the extension of the existing substation bench to accommodate two new 330kV feeder bays.

Other updates include removal of Building D (replaced by water tanks), reconfigured plant and parking layouts, a new Security Operations Centre, updated façade treatments, and additional landscaping and earthworks to support the revised built form.

The proposed amendments to the application are discussed in more detail in **Part 2** of this report.

## 2.2.3. Additional Impact Assessment

Additional assessments have been prepared to respond to the issues raised within the submissions. These include the following updated reports and plans:

- Greenhouse Gas Assessment Report
- Loading Dock Management Plan
- Climate Change Risk Assessment and Adaptation Plan
- Flood Emergency Response Plan

Further, to address the inclusion of the HV cabling route from the data centre site to the TransGrid Sydney West Substation site and the required works within the TransGrid Sydney West Substation site, the following additional reports have been prepared:

- External HV Works Plans
- Supplementary Arborist Report

- Supplementary Air Quality Impact Assessment
- Supplementary Noise and Vibration Impact Assessment
- Supplementary Preliminary Construction Traffic Management Plan
- Supplementary Infrastructure Requirements Report
- Addendum to ACHAR

Further, the Geotechnical Assessment, Estimated Development Cost (**EDC**), Preliminary Hazards Analysis, and Waste Management Plan have all been updated to incorporate the external HV works. An updated BDAR waiver request has also been prepared to address the inclusion of additional land to accommodate the HV cable route and feeder bays.

A full list of the updated assessment reports is provided in **Table 2**. The findings and recommendations of the additional assessments are discussed in detail within **Section 3.8** of this report.

## 2.3. RESPONSE TO SUBMISSIONS

A total of 14 submissions were received in response to the public exhibition of the SSDA and its referral to key stakeholders, including other State government authorities/agencies, Fairfield City Council, utility services providers and the community.

A detailed response to each of the matters raised in the submissions accompanies this report at **Appendix A**. Further detailed discussion outlining the response to submissions is provided in the following part of the report, outlining the modified proposal, its compliance with strategic and statutory planning frameworks and the key issues for assessment.

**Section 3.8** includes a comprehensive assessment of the amended proposal, including the updated impact assessment reports prepared by relevant specialist consultants to assess the proposed changes, as well as responding to the detailed issues raised within the submissions.

## 3. PART 2: AMENDMENT REPORT

This section of the report describes the proposed amendments and provides a comparative analysis of the original development and amended proposal. It also includes an updated detailed description of the various components of the proposal, including the proposed amendments.

### 3.1. DESCRIPTION OF PROPOSED AMENDMENTS

The project description is to be updated to reflect the proposed amendments to the scheme as originally lodged with DPHI for assessment. The amended description is provided as follows:

- Site preparation works including bulk earthworks including tree removal.
- Staged construction and operation of two data centre buildings comprising a total gross floor area (GFA) of 61,695m<sup>2</sup> including 56,464m<sup>2</sup> of technical data hall floor space and 5,231m<sup>2</sup> of ancillary office floor space, including 'front of house' meeting and administrative spaces.
- Ancillary development including a centralised security office building at the main vehicle entrance, on-site parking for 200 cars, business identification signage (pylon and elevation signage), civil and stormwater works and 12,769m<sup>2</sup> of deep soil landscaping.
- Provision of a high-voltage (HV) power connection delivering 294 megawatts of power, including a 330kV on-site substation and a 33kV switching station, plus above ground diesel storage tanks and above ground water tanks for industrial water and fire water.
- The project will be delivered in four construction stages as follows:
  - Stage 1 = Building C, HV switching building, 330kV substation, HV external cabling route, entrance to site, centralised security office, and water tanks.
  - Stage 2 = Building D
  - Stage 3 = Building A
  - Stage 4 = Building B

During the public exhibition of the SSDA, the Applicant identified opportunities to amend the application as follows:

- Delivery of two 330kV transmission lines; from the TransGrid Sydney West Substation site to the NEXTDC S4 site, utilising existing road reserves along Johnston Crescent and Old Wallgrove Road with a total route length of approximately 2.6 km.
- Additional works within the TransGrid Sydney West Substation site including extension of existing substation bench to enable installation of two new feeder 330kv bays, realignment of existing access road and fence, and construction of a new secondary systems building.
- Reconfiguration of the on-site 330kV substation and layout of High Voltage Switching Building (**HVSB**).
- Building A and Building B have been combined into a single building (Building AB). Building C and Building E have also been combined into a single building (Building CD).
- Building D which was originally proposed in the north-eastern corner is to be removed and replaced with water tanks, previously proposed within the buildings.
- Improvements to the façade design, including simplifying the cladding panels and glazing across each of the elevations.
- Construction of a new centralised Security Operations Centre (**SOC**) building at the entrance to the site.
- Main vehicle entrance is relocated from Johnston Crescent opposite Building A to the southern internal road south of Building AB.
- Vehicle circulation and parking spaces are to be reconfigured based on changes to the built form and layout.

- Reconfiguration and consolidation of plant layout for the data centre buildings.
- New pump house along north-eastern boundary.
- Changes to the proposed earthworks to accommodate the changes to the built form, including an increase in the required cut by approx. 9,960m<sup>3</sup>.
- Additional landscaping is to be provided along the eastern boundary setback to provide additional visual screening.
- Changes to construction staging.

A comparative analysis has been undertaken of the proposed changes to the original development in accordance with the DPHI *State Significant Guidelines* and as shown in the following table.

Table 5 Comparative Analysis of Original and Proposed Developments

Element	Original Development	Amended Development	Change
Site area	8.206 ha	8.206 ha (site) plus land within HV route (1.1617 ha) and land within the TransGrid Sydney West Substation site (approximately 43.09 ha)	No change to data centre site  + 44.2517ha (external HV works)
Land Use Activity	Data centre with ancillary office, innovation floor space and café	Data centre with ancillary office, innovation floor space and café	Nil change
Total GFA	63,654m <sup>2</sup>	61,695m <sup>2</sup>	-1.959m <sup>2</sup>
Data Hall GFA	52,916m <sup>2</sup>	56,464m <sup>2</sup>	+ 1,548m <sup>2</sup>
Ancillary Office/ Admin GFA	10,738m <sup>2</sup>	5,231m <sup>2</sup>	-5,507m <sup>2</sup>
Data Houses	34	24	-10
Maximum Height	<ul style="list-style-type: none"> <li>▪ Building A – 32 metres, three storeys</li> <li>▪ Buildings B, C, D and E – 39 metres, four storeys</li> </ul>	<ul style="list-style-type: none"> <li>▪ Building AB – 38.67 metres, four storeys</li> <li>▪ Building CD – 38.67 metres, four storeys</li> </ul>	-0.33 metres
Floor Space Ratio	0.78:1	0.75:1	-0.03:1
Deep Soil Area	9,900m <sup>2</sup> (12.1% of site area)	12,769m <sup>2</sup> (15.6% of site area)	+2,869m <sup>2</sup>

Element	Original Development	Amended Development	Change
<b>Car Parking</b>	200 car spaces including 6 DDA spaces and 10 EV spaces	200 car spaces including 6 DDA spaces and 10 EV spaces	Nil change
<b>Motorbike Parking</b>	5 spaces	5 spaces	Nil change
<b>Bicycle Parking</b>	24 spaces	8 spaces	-16 spaces
<b>Cut and Fill Volume</b>	Net cut of 16,040m <sup>3</sup>	Net cut 26,000m <sup>3</sup>	+9,960m <sup>3</sup> cut
<b>Utilities</b>	<p><u>Diesel Fuel Tanks:</u></p> <ul style="list-style-type: none"> <li>Building A: Above ground diesel storage tanks (10 x 25kL each)</li> <li>Buildings B-D: Above ground diesel storage tanks (10 x 65kL each)</li> <li>Building E: Above ground diesel storage tanks (14 x 65kL each)</li> </ul> <p><u>Industrial Water:</u></p> <ul style="list-style-type: none"> <li>Building A: Above ground water tanks for industrial water (4 x 170kL each)</li> <li>Buildings B-D: Above ground water tanks for industrial water (4 x 580kL each)</li> <li>Building E: Above ground water tanks for industrial water (6 x 580kL each)</li> </ul> <p><u>Fire Water:</u></p> <ul style="list-style-type: none"> <li>Above ground water tanks for fire water (6 x 340kL each)</li> </ul> <p><u>Substation:</u></p>	<p><u>Diesel Tanks:</u></p> <p>Building AB: 16 x 136kL</p> <p>Building CD: 16 x 136kL</p> <p><u>Industrial Water Tanks:</u></p> <p>Building A+B: 3 x 2124kL</p> <p>Building C+D: 3 x 2124kL</p> <p><u>Fire Water Tanks:</u></p> <p>2 x 400kL</p> <p><u>Substation:</u></p> <p>330kV substation plus a 33kV switching station on site</p>	Reconfiguration of diesel storage tanks, industrial water tanks and fire water tanks to suite the amended layout.

Element	Original Development	Amended Development	Change
	<ul style="list-style-type: none"> <li>330kV substation plus a 33kV switching station on site.</li> </ul>		
External HV Works	Not proposed.	<p><u>TransGrid Sydney West Substation Site Works:</u></p> <ul style="list-style-type: none"> <li>The extension of the existing substation bench to enable the construction of two new 330KV feeder bays including:</li> <li>Relocation of internal access road.</li> <li>Relocation of the fence line.</li> <li>Installation of lightning rods (20m in height)</li> <li>Extension to 330KV Busbar-B Section-2 at Sydney West Substation.</li> <li>The construction of two new 330kV switch bays and associated primary and secondary equipment.</li> <li>The construction of a new secondary systems building.</li> <li>All required secondary systems work.</li> </ul> <p><u>External HV Cable Route Works:</u></p> <p>Installation of HV cables to connect the site to the TransGrid Sydney</p>	Inclusion of TransGrid Sydney West Substation Site Works and External HV Cable Route.



Element	Original Development	Amended Development	Change
		West Substation on Old Wallgrove Road via existing road reserves along Johnston Crescent and Old Wallgrove Road, over approximately 2.6 km. Within the Sydney West Substation, trenching will be up to 2 metres wide and up to 4 metres deep. Outside of the substation, along the road corridor, works will involve two separate trenches, each approximately 1 metre wide and up to 2 metres deep, spaced around 2 metres apart, to accommodate the two 330 kV transmission cables, followed by backfilling as a linear construction activity.	
<b>Number of generators</b>	98	120	+22
<b>Tree Removal</b>	Six trees (adjoining site on Council Street verge)	<p>Nil trees required to be removed for main data centre site.</p> <p>Six trees to be removed on Old Wallgrove Road at interface with TransGrid substation for the HV external cabling route.</p>	Nil change
<b>Power Consumption</b>	232 megawatts	294 megawatts	+62 megawatts
<b>Operations and Management</b>	The facility would be constructed and operated by NEXTDC. The site would be operated on a 24-hour, 7 day a week basis.	The facility would be constructed and operated by NEXTDC. The site would be operated on a 24-hour, 7 day a week basis.	Nil change

Element	Original Development	Amended Development	Change
<b>Estimated Development Cost (EDC)</b>	The Project has a total EDC of \$2,378,800,000 excluding GST.	The amended proposal has a total EDC of \$3,177,382,221 excluding GST.	+\$798,582,221
<b>Jobs</b>	<p>Construction: Approximately 1,111 full-time equivalent employees.</p> <p>Operation: Approximately 411 specialist and related full-time roles (maximum of 196 staff at any given time).</p>	<p>Construction: Approximately 1,111 full-time equivalent employees.</p> <p>Operation: Approximately 411 specialist and related full-time roles (maximum of 196 staff at any given time).</p>	Nil change

## 3.2. DETAILED DESCRIPTION

### 3.2.1. Project Area

The amended data centre proposal applies to the same primary site, comprising approximately 8.206 hectares at 16 Johnston Crescent, Horsley Park, legally described as Lot 305 in DP 1275011.

The amended development footprint also includes additional land to accommodate the high-voltage connection, specifically:

- Lot 22 in DP 1246626 (TransGrid Sydney West Substation)
- Johnston Crescent (public road zoned SP2 – Infrastructure)
- Old Wallgrove Road (public road zoned SP2 – Infrastructure)

### 3.2.2. Physical Layout and Design

The amended proposal refines the overall layout and design of the data centre campus to improve functionality, site efficiency, and integration of infrastructure. The built form has been consolidated through the combination of Buildings A and B into a single building (Building AB), and Buildings C and E into a second combined structure (Building CD). The proposal results in a modest reduction in the maximum building height by 0.33 metres, maintaining consistency with the original building envelope.

Building D has been removed and replaced with external water tanks, resulting in a reduced overall building footprint and increased separation to the eastern site boundary. The amended layout maintains generous setbacks on all sides of the development, with particular improvement along the eastern boundary where the setback has been further enhanced through additional landscaping and the removal of built form. This allows for improved visual screening and a softer transition to adjoining rural and environmental zoned land.

The site entry and internal circulation have been revised, with the main vehicle entry relocated to the southern internal road to support more efficient traffic flow. A new Security Operations Centre (**SOC**) is located at the entrance to improve access control and site security. Car parking and internal roads have been reconfigured in response to the revised building layout.

Substation infrastructure has been repositioned to align with the proposed high-voltage cable route, and ancillary plant areas have been consolidated to improve operational efficiency. A new pump house is also proposed along the north-eastern boundary.

The architectural treatment of the buildings has been refined to incorporate simplified cladding and glazing, improving the visual presentation of the development. The amended earthworks strategy responds to the updated layout, with an increase in site cut of approximately 9,960m<sup>3</sup> to accommodate revised levels and building platforms.

A comparison between the original and proposed site layout is provided at **Figure 2**. Overall, the amended layout results in a more integrated and functional site arrangement, with improved boundary treatments, landscape outcomes, and consistency with the surrounding context.

## Design and Built Form

The consolidation of the built form from five buildings to two larger, integrated buildings does not alter the nature of the approved land use. The amended proposal continues to deliver a high-performance data centre with ancillary office and innovation space, consistent with the original SSDA.

The revised design achieves a more efficient and integrated built form. By combining Buildings A and B into Building AB, and Buildings C and E into Building CD, the proposal simplifies the site layout, reduces structural duplication, and enhances operational efficiency. These changes support improved internal circulation, coordinated infrastructure servicing, and more flexible construction staging.

The maximum height of the built form has been slightly reduced from 39 metres to 38.67 metres, reflecting refinements to architectural and rooftop plant design. This change maintains compliance with the applicable height control and ensures the development remains in scale with its context.

The total gross floor area has decreased from 63,654 m<sup>2</sup> to 61,695 m<sup>2</sup>. This reflects a shift in internal layout, with data hall floor space increasing from 52,915 m<sup>2</sup> to 56,464 m<sup>2</sup>, and ancillary office space reducing from 10,738 m<sup>2</sup> to 5,231 m<sup>2</sup>. The amended layout provides more efficient technical space while consolidating and streamlining administrative functions.

Importantly, the removal of Building D and refinement of the overall layout has allowed for an increase in deep soil landscaping, particularly along the eastern boundary. This provides additional visual screening and strengthens the landscape interface with adjoining land. The architectural treatment has also been refined through simplified cladding and glazing, improving visual consistency across the built form and delivering a clean, contemporary appearance.

Overall, the amended built form presents a more coherent and functional development outcome, while retaining the intended use, scale, and character of the original proposal. Renders of the amended proposal is provided at **Figure 3** to **Figure 4**.

[illegible][illegible]

Source: HDR Architects, 2025



Figure 3 Photomontage – View from above



Picture 3 View from above – Original Proposal



Picture 4 View from above – Amended Proposal

Source: HDR Architects, 2025



Figure 4 Photomontage – View from corner of Jonston Crescent and Burley Road



Picture 5 View from above – Original Proposal



Picture 6 View from above – Amended Proposal

Source: HDR Architects, 2025

### 3.2.2.1. Materials and Finishes

Further refinements to the data centre facades have been made following additional design development. These changes adhere to the original design principles set by HDR Architects, including the use of a variety of concrete finishes, metal cladding, extensive glazed sections, and metal louvres.

The amended proposal adopts a refined and cohesive materials palette that reflects the contemporary, high-performance nature of the data centre, while introducing improved visual interest and articulation across the elevations.

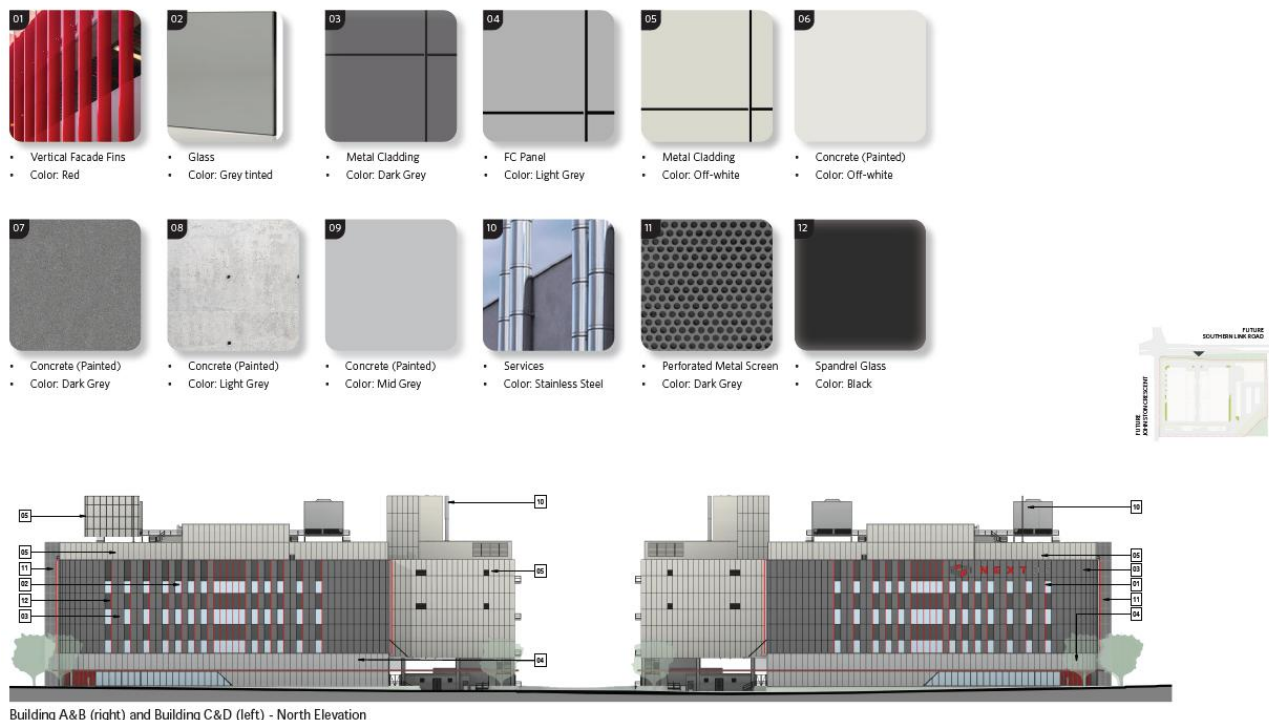
The facade features a combination of metal cladding, painted concrete, fibre cement panels, and glass, presented in a neutral and industrial colour scheme. Tones range from off-white and light grey to mid and dark grey, creating contrast and depth. Spandrel glass in black and grey-tinted glazing contribute to the clean, modern appearance.

Glazing is retained to the office elements, maintaining visual transparency and reinforcing the activation and legibility of the site's ancillary functions. These glazed areas also serve to distinguish the human-scale office spaces from the more enclosed data hall components.

Prominent vertical red fins add visual identity and branding along the front-of-house elevation, while perforated metal screening is used to screen services and add architectural detail. Service elements such as vertical ducts are treated in stainless steel, maintaining consistency with the technical character of the development.

A detailed materials and finishes schedule are included in the Architectural Plans, with extracts of the illustrated in **Figure 5**.

Figure 5 Materials and Finishes Schedule



Source: HDR Architects, 2025

### 3.2.2.2. Signage

The amended proposal retains signage associated with the NEXTDC branding. A summary of the signage details is provided below.

Table 6 Summary of Amended Signage

Sign Identification	Dimensions	Location	Contents
<b>ID1Aw</b>	High level building identification signage  19.163m x 2.607m	Northern façade of Building A&B	NEXTDC branding  Fabricated aluminium logo/letters fixed directly to building facade. Logo/letters internally illuminated through faces  Hours of illumination: 6pm - 6am
<b>ID7Df</b>	Site identification pylon signage  9.8m x 2.5m	Driveway entrance	NEXTDC branding  Logo/letters internally illuminated through faces  Hours of illumination: 6pm - 6am

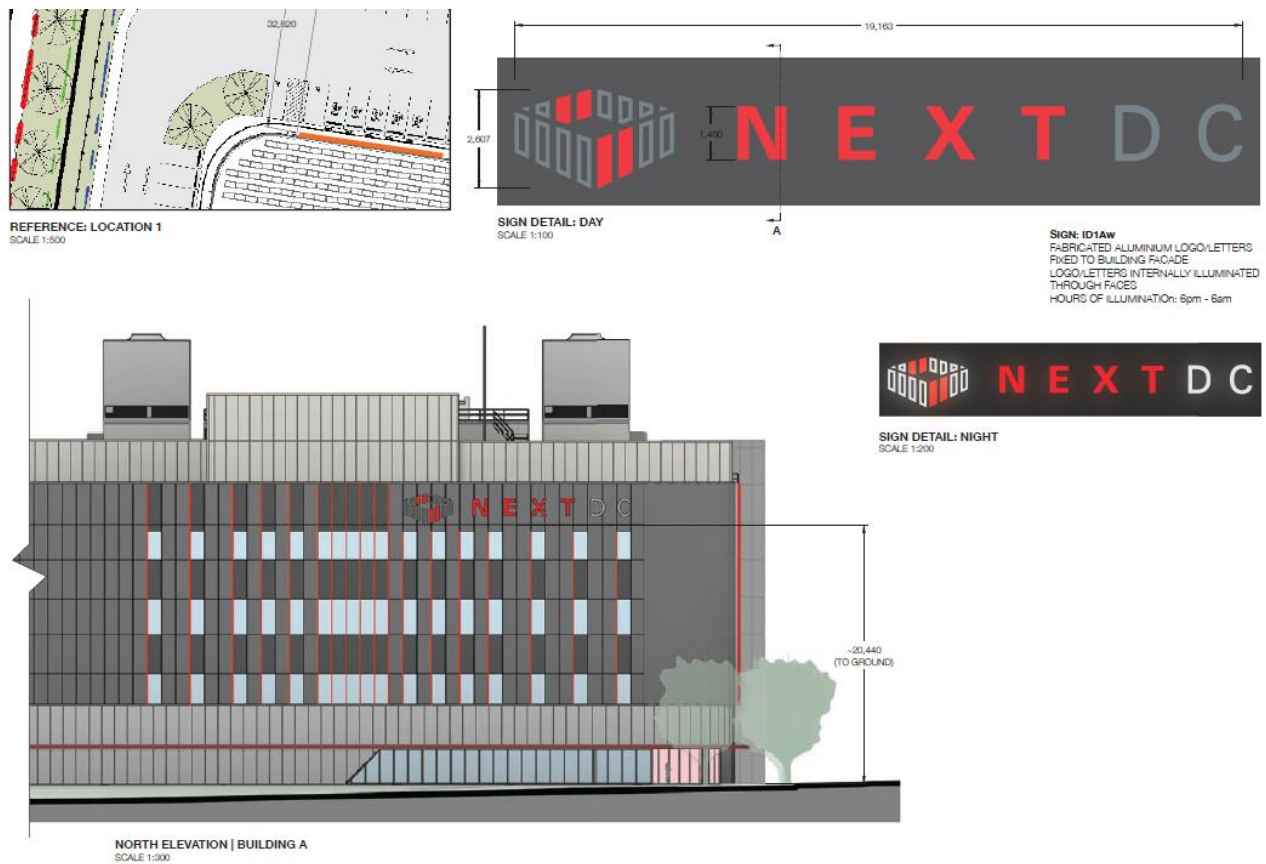
The signage will incorporate high-quality materials and finishes and provide a coherent and integrated colour scheme based on the branding, logo and colours of NEXTDC. The proposed signage will both comprise of signage affixed directly to the building facades or pylon signage and will comprise of a fabricated aluminium finish. The signage is commensurate with other development signage within the area.

The signage is proposed to be internally illuminated with illumination devices integrated into the design. The signage will be illuminated between 6pm and 6am daily. The illuminated signage is not anticipated to have any negative impacts in terms of glare. The intensity of the illumination will be able to be adjusted, if necessary.

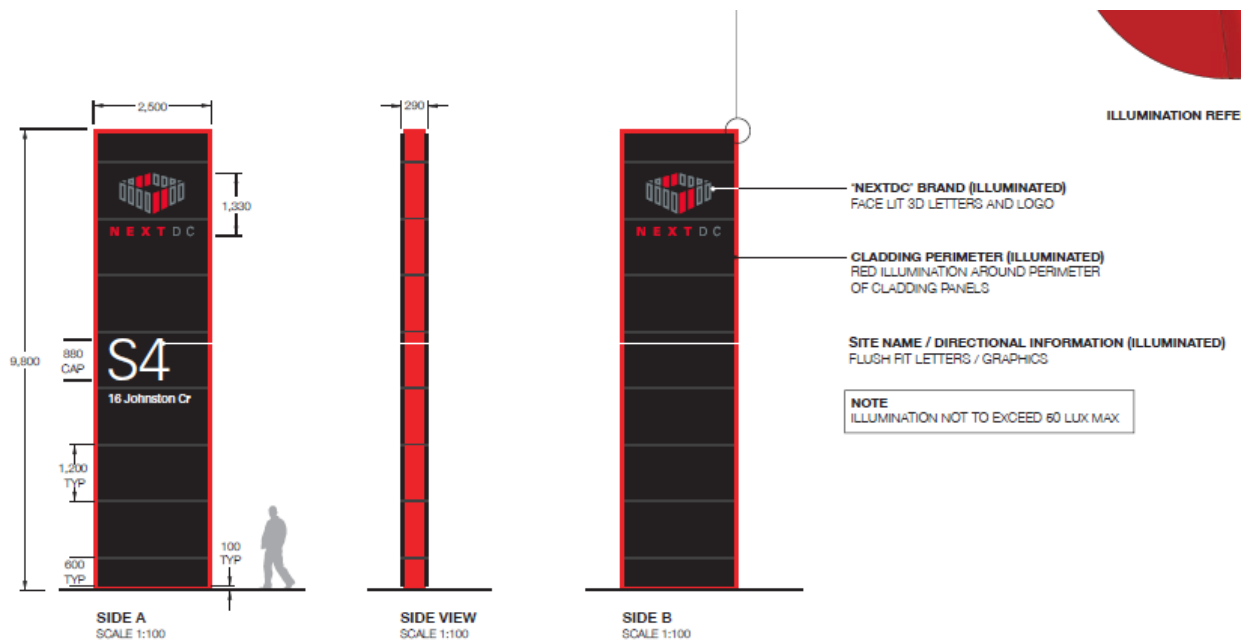
An extract of the proposed signage plans is provided at **Figure 6**.



Figure 6 Signage Plans



Picture 7 High level building identification signage



Picture 8 Site identification pylon signage

Source: HDR Architects, 2025

### 3.2.2.3. Landscaping

The amended proposal includes an updated landscaping plan that responds to the revised site layout and improves how the development sits within its surroundings, including nearby residential rural and environmental conservation zones.

By removing Building D and reducing the overall building footprint, the proposal allows for wider setbacks and an increase in deep soil planting, especially along the eastern boundary. This creates a stronger landscape buffer between the data centre and adjoining R5 Large Lot Residential and C2 Environmental Conservation zoned land, helping to soften views and reduce visual impact.

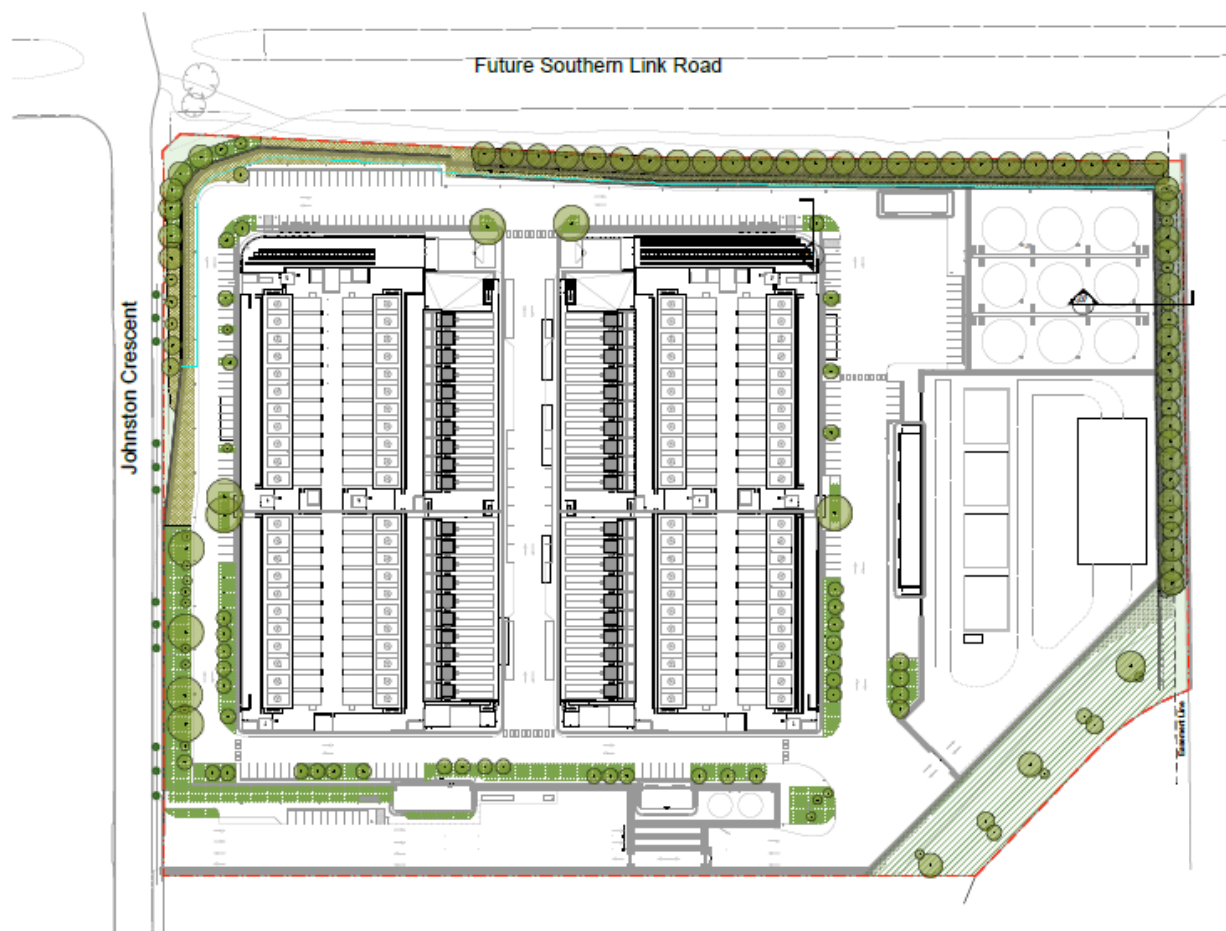
The landscape design uses hardy, low-maintenance native plants suited to the local environment. Planting is focused on key areas including the site entry, boundaries, and internal car park, with new trees and garden beds providing shade, visual relief, and improving the overall appearance of the site.

Along Johnston Crescent, new landscaping improves the entrance to the site and assists with wayfinding. Similar treatments are proposed along the southern boundary and near the future Southern Link Road, helping to screen built elements like retaining walls.

In areas near the E2 zone, planting has been designed to meet bushfire and ecological management requirements, with appropriate species selection and spacing to maintain safety and environmental performance.

Overall, the revised landscape plan provides better screening, more greenery, and a neater transition to surrounding properties, while supporting a functional and well-presented site.

Figure 7 Revised Landscape Master Plan



Source: Site Image, 2025

### 3.2.3. Uses and Activities

#### 3.2.3.1. Hours of Operations

The amended proposal will operate for 24-hours a day, seven days a week as per the original proposal. This allows for the critical nature of their operations and includes loading and unloading, data centre and office operations.

#### 3.2.3.2. Employment

The data centre will continue to generate approximately 411 full time employees once fully operational, having regard to 24- hour operations and three 8-hour typical shifts. A further 1,111 construction jobs will be generated during the construction phase of the project.

#### 3.2.3.3. Land use

The proposed amendments do not result in any changes to the proposed land use activities. However, there have been minor refinements to the proposed floorspace of individual components as outlined below.

##### Data Centre

The amended proposal includes 56,464m<sup>2</sup> of technical data hall floor space, representing a minor increase of 1,548m<sup>2</sup> of GFA when compared to the original proposal. The data hall floor space will accommodate 24 data houses spread across Building A&B and Building C&D.

##### Ancillary Office

The amended proposal includes 5,231m<sup>2</sup> of ancillary office and administration floor space, representing a reduction of 5,507m<sup>2</sup> compared to the original proposal. The office areas are located along the Burley Road frontage and are intended to accommodate NEXTDC staff, with the flexibility to also provide office space for NEXTDC clients as part of the broader data centre operations.

### 3.2.4. Utilities

The amended data centre will include the provision of the following utilities:

- 120 x diesel generators (3.1MWe) in total
- 32 x diesel tanks (136kL each)
- 6 x industrial water tanks (2124kL each)
- 2 x fire water tanks (400kL each)
- 330kV substation plus a 33kV switching station on site

#### 3.2.4.1. Backup Power System

The amended backup power system is similar to the original proposed system but incorporates minor changes to the size and capacity. The system is designed to ensure standby rated continuous power to enable critical data services to operate. It will comprise of 120 low-voltage 3.1MW generators rated to supply the data centre in the event of mains power failure. The amended backup power system will utilise the same testing regime as the original design as outlined below.

Table 7 Comparative Analysis of Original and Proposed Developments

Parameter	Value
Number of generators	120
Test frequency per generator	4 standard tests per year

Parameter	Value
Run time per test	2 tests run for 20 minutes, 1 test runs for 40 minutes, 1 test runs for 90 minutes. Total runtime of 170 minutes per year)
Number of generators per test	Up to 2 generators per standard test
Number of tests per day	Up to approximately 33 tests may be run in a single day. Dependant on the test, personnel efficiency, etc
Testing schedule	7am and 6pm (Monday to Saturday or Public Holidays) or 8am and 6pm on Sundays
Total testing time for all generators	170 hours per year

### 3.2.5. External HV Works

#### 3.2.5.1. Overview

The amended project includes the installation of two HV cables to connect the site to the TransGrid Sydney West Substation on Old Wallgrove Road primarily via existing road reserves along Johnston Crescent and Old Wallgrove Road, over approximately 2.6 km. The cable route extends across two LGAs – Fairfield City Council and Blacktown City Council.

Key components of the project include:

- cable works connecting TransGrid Sydney West Substation with the NEXTDC S4 onsite substation comprising:
  - Two x 330 kV underground transmission cable circuit comprising three cables installed in three conduits;
  - Two smaller conduits for carrying optical fibres;
  - Approx. 2-4 joint bays, per circuit, where sections of cable would be joined together, located approximately every 600-800 metres along the transmission cable route;
  - link boxes and sensor boxes associated with each joint bay to allow cable testing and maintenance;
- upgrade works at the TransGrid Sydney West substation to facilitate the new 330 kV transmission cable circuit including:
  - The extension of the existing substation bench to enable the construction of two new 330KV feeder bays including:
    - Relocation of internal access road.
    - Relocation of the fence line.
  - Installation of lightning rods (20m in height)
  - Extension to 330KV Busbar-B Section-2 at Sydney West Substation.
  - The construction of two new 330kV switch bays and associated primary and secondary equipment.
  - The construction of a new secondary systems building.
  - All required secondary systems work.

- Underground electrical and telecommunications cabling will be installed throughout the broader Sydney West 330kV switchyard as part of the connection of the new switch bay equipment.
- Four temporary construction laydown areas to facilitate construction of the project.

Associated works required to facilitate the construction of the project, such as potential utility relocations, have been considered. No major utility relocations are anticipated and where smaller services may need to be moved to accommodate the transmission cable circuit, this relocation would be restricted to within the project area assessed in this EIS.

**Figure 9** and **Figure 10** detail the proposed works within the TransGrid Sydney West Substation site. A typical trench configuration for two cable circuits is provided at **Figure 11**.

A summary of the external HV works is provided in **Table 8**.

Table 8 Project Summary – External HV Works

Project element	Summary of proposal
Excavation method	<p>Trenching – Within the Sydney West substation - up to 2 metres wide and up to 4 metres deep</p> <p>Trenching – outside of the substation along road corridor – two separate trenches 1 metre wide and up to 2 metres deep and 2 metres apart</p>
Cable life	Minimum of 40 years
Cable length	2.6 km
Key components	330 kV cables, conduits, joint bays, substation upgrades and temporary construction laydown areas.
Timing and duration	Around a 14-month construction period, proposed to commence in 2026 (subject to project approval). Operations to commence in 2028.
Workforce	Peak construction workforce of around 70 personnel (excludes traffic management personnel)
Estimated spoil volume	Approximately 7,500 cubic metres of spoil would be removed during excavation and trenching.
Hours of construction	<p>Standard construction hours would be adopted where reasonable and feasible:</p> <ul style="list-style-type: none"> <li>• Monday to Friday 7:00 am to 6:00 pm.</li> <li>• Saturday 8:00 am to 1:00 pm; and</li> <li>• No works on Sundays and public holidays.</li> </ul> <p>Works outside standard construction hours, including night works and 24-hour operations, may be required for activities along Old Wallgrove Road and Johnston Crescent, at cable jointing locations, and in other areas as necessary or as requested by relevant authorities.</p>
Capital investment for HV component (included in overall amended EDC)	\$155 million

### 3.2.5.2. The Project Area (HV works)

The project area for the HV works comprises the overall potential area of direct disturbance by the project, which may be temporary (for construction) or permanent (for operational infrastructure) and extend below the ground surface.

The project area includes the location of operational infrastructure and construction work sites for:

- the transmission cable route (including the entire road reserve of roads traversed);
- special crossings of infrastructure or watercourses;
- substation sites requiring upgrades (noting that all works would be contained within the existing site boundaries); and
- construction laydown areas.

The project area for the external HV component of the project is shown in **Figure 8**.

While the boundaries of the project area represent the physical extent of where project infrastructure may be located or construction works undertaken, it does not mean that this entire area would be physically disturbed or that indirect impacts would not be experienced beyond this area. Should the project be approved, the detailed design would aim to refine the location of project infrastructure and work sites within the boundaries of the project area assessed in this EIS.

The location of joint bays and the location of the transmission cable circuit within the road reserve (e.g. kerbside or non-kerbside) is yet to be determined and is subject to detailed design.



Figure 8 Project Area Map



Source: TransGrid, 2025

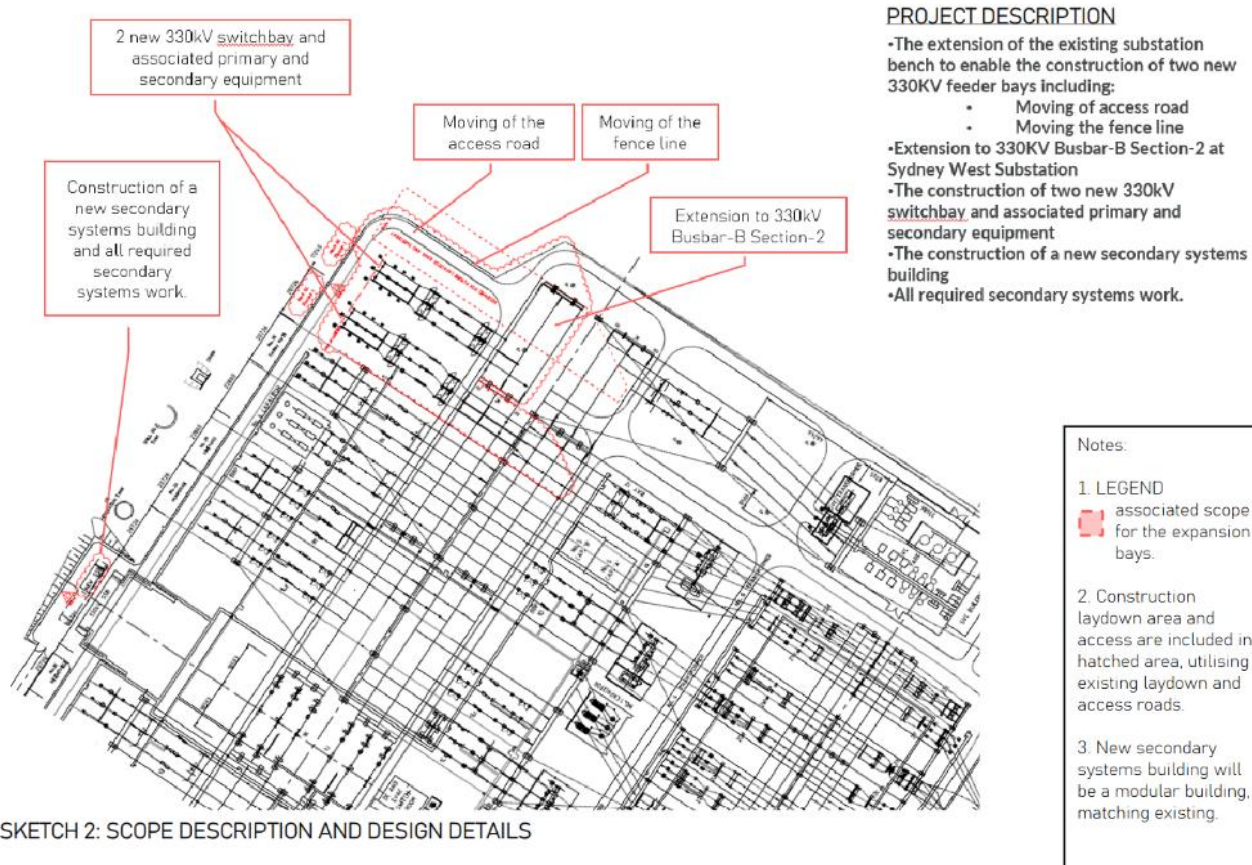


Figure 9 TransGrid Sydney West Substation – Extent of Works



Source: TransGrid, 2025

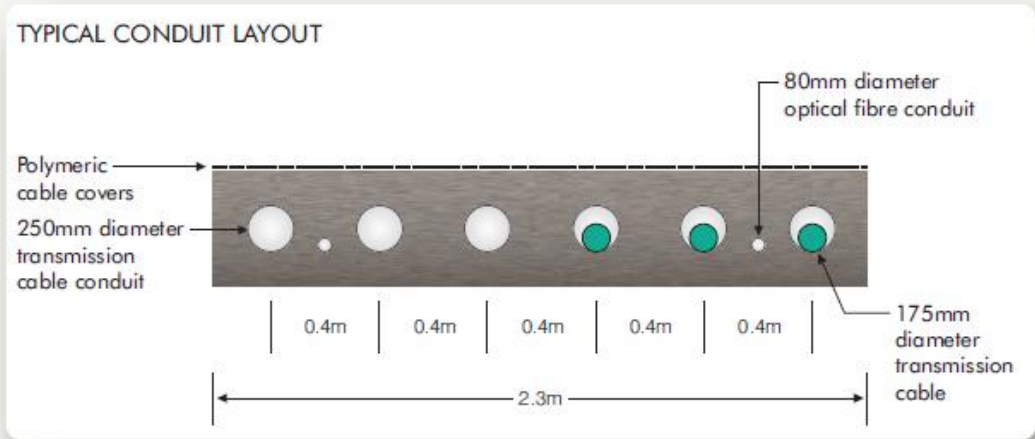
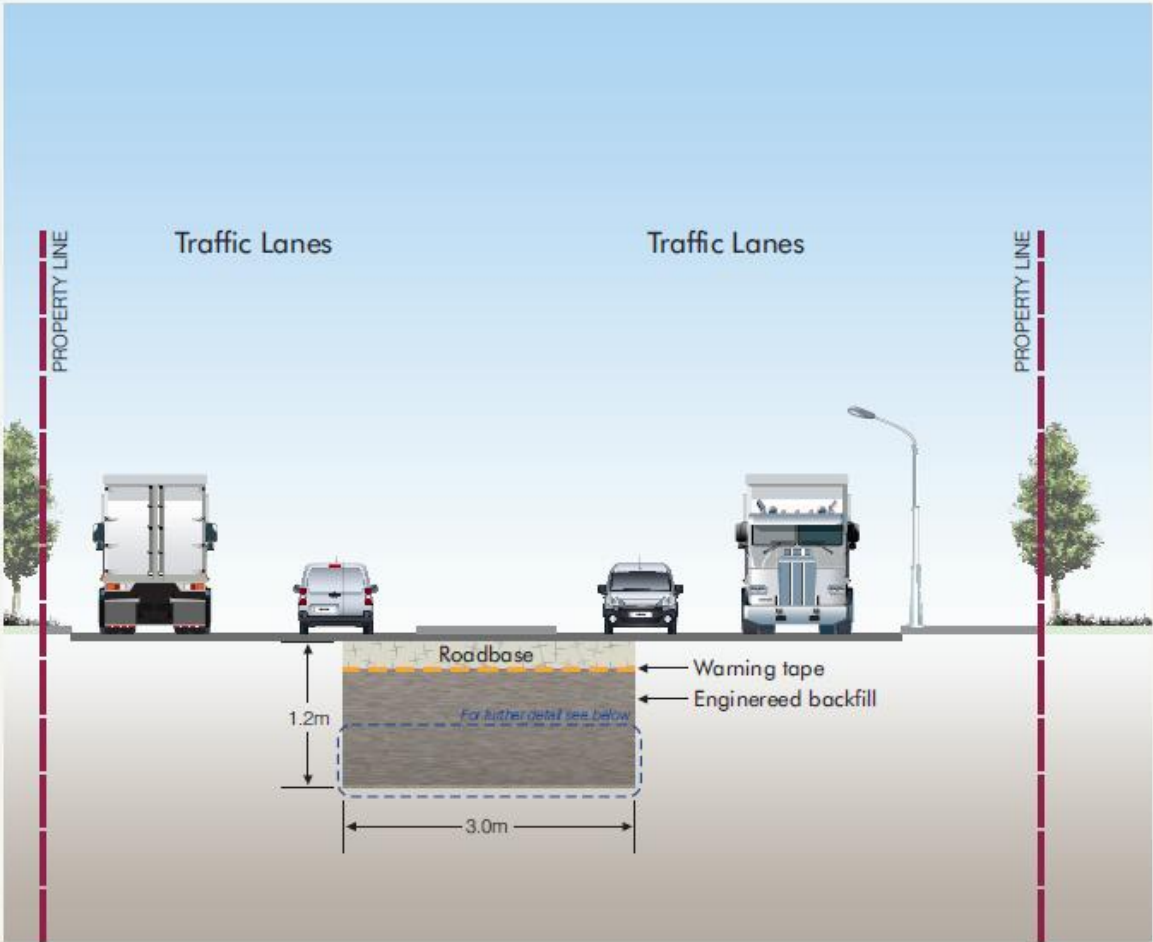
Figure 10 TransGrid Sydney West Substation – Site Plan



Source: TransGrid, 2025



Figure 11 Typical Flat Trench Configuration for Two Cable Circuits



Source: TransGrid (Powering Sydney's Future) 2025



- delivery and storage of plant and equipment at construction laydown areas and work sites.

Before excavation commences at each work site within the road reserve, the location of the trench would be marked (with chalk or spray paint) and if required, any surface vegetation would be cleared.

Non-destructive identification of utilities and services along the route would be undertaken. The recorded location of known existing services crossing the trench would be marked for reference.

### **Trenching and excavation**

In order to minimise impacts on the surrounding environment and to simplify the construction process, a substantial portion of the transmission cables would be installed using pre-laid conduits. Within the Sydney West Substation, the trench could be up to 2 metres wide and up to 4 metres deep. Outside of the substation, along the road corridor, two separate trenches would be excavated - each approximately 1 metre wide and up to 2 metres deep, positioned approximately 2 metres apart.

Conduit installation would only require the opening of short sections of trench at a time (on average around 20 metres at any one location), with backfilling occurring as soon as each section of the conduits has been installed.

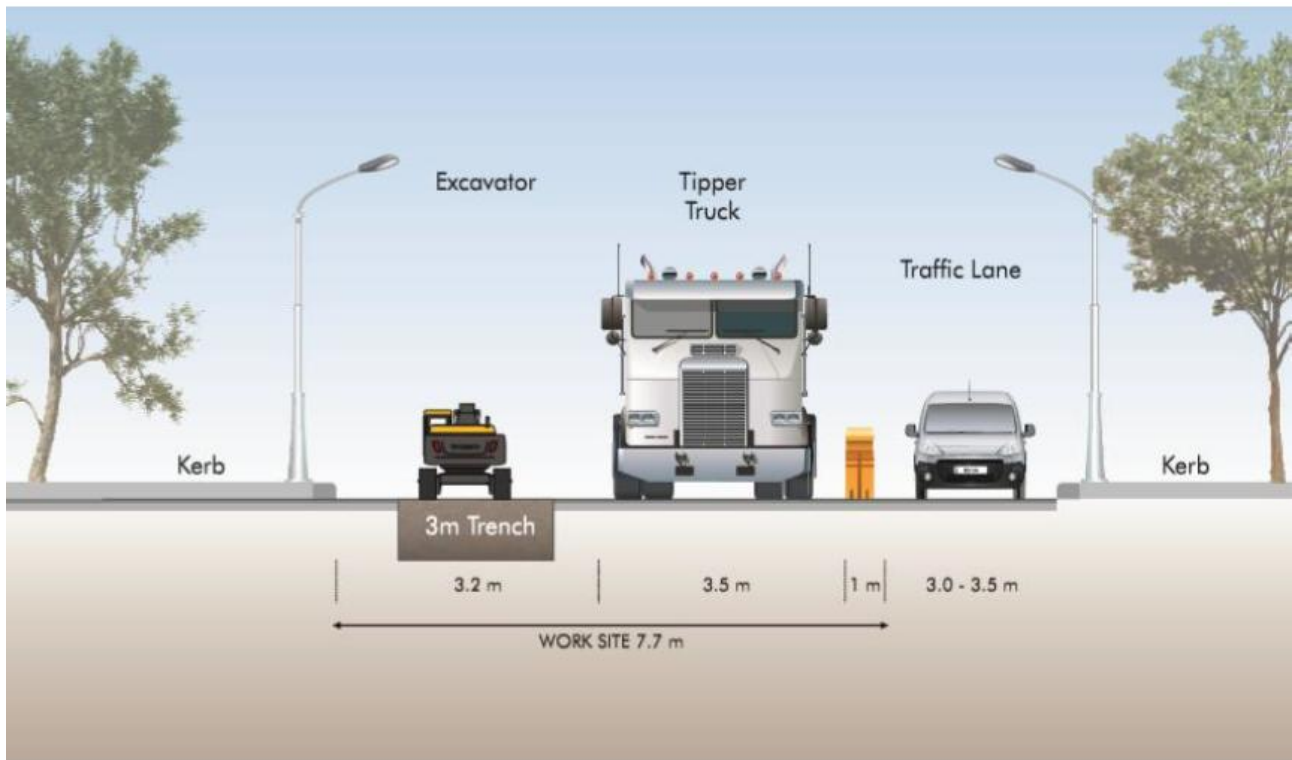
Prior to trenching commencing, saw cutting of the road surface/pavement would be undertaken to expose the underlying material. A backhoe/front end loader would be used to lift up these materials (generally asphalt or concrete) and to scoop up any topsoil or spilled spoil material. If hard material or rock is encountered, it may be loosened through use of a rock breaker.

Following the identification and relocation of services (if required), an excavator would be used to remove materials down to the base of the trench. Spoil would not be stockpiled at work sites but rather placed directly into trucks for transport to either the construction laydown areas for temporary storage or to an off-site appropriately licensed waste facility for disposal.

As the trench is excavated, an assessment would be made of the stability of the sides of the trench. Where necessary, shoring would be installed as a precaution against slump or collapse, particularly where deeper sections of trench are required, such as excavations deeper than 1.4 metres. Barricades would be placed around open excavations whenever work is not being carried out at that location for an extended period of time. Barricades and safety lights would be monitored and maintained, particularly during and following adverse weather conditions, to ensure adequate protection is provided to road users and the community.

Where feasible and reasonable, works would be undertaken during low traffic periods, to minimise traffic impacts. Traffic management measures during construction would be outlined in a traffic management plan as part of the overarching Construction Environmental Management Plan (**CEMP**) for the project.

Figure 13 Indicative schematic description of kerbside trenching and excavation construction methodology



Source: TransGrid (Powering Sydney's Future) 2025

### Service/utility relocation

Relevant service/utility providers within the project area have been engaged with regarding the possible interaction with and relocation of services and utilities during the construction of the project. Installation of the conduits for the proposed and possible future transmission cable circuits would generally involve:

- laying the conduits on plastic spacers to provide the required clearance from the side walls and bottom of the trench;
- placing the optic fibre communication cable conduits into position;
- covering the conduits and backfilling the trench with engineered backfill material. Backfilling would occur as soon as practicable following conduit installation to minimise the risk of erosion; and
- laying polymeric covers and warning tape (at various levels over the conduits) marked with appropriate warnings in case of accidental excavation.

### Conduit installation

Installation of the conduits for the proposed and possible future transmission cable circuits would generally involve:

- laying the conduits on plastic spacers to provide the required clearance from the side walls and bottom of the trench;
- placing the optic fibre communication cable conduits into position;
- covering the conduits and backfilling the trench with engineered backfill material. Backfilling would occur as soon as practicable following conduit installation to minimise the risk of erosion; and
- laying polymeric covers and warning tape (at various levels over the conduits) marked with appropriate warnings in case of accidental excavation.

### Road restoration works

Restoration activities within the road reserve would be:

- temporary, while trenching and cable pulling is still underway; and
- permanent, once cable pulling is complete.

The initial restoration of the road surface would include installing road base and a temporary road surface to allow vehicles and other road users to safely travel across the area. The temporary road surface can be used for a period of up to six months. Permanent restoration of the road surface would involve:

- removing the temporary road surface;
- backfilling with road base up to surface level, where required;
- reinstating the road surface; and
- reinstating the remaining areas with spoil or other fill material to pre-construction levels and final finishing as appropriate (including footpath and/or kerb and gutter).

### **Cable markers**

Once restoration activities have been completed, cable markers would be installed along the transmission cable route to provide warning of the presence of the cables and the need to make enquiries with TransGrid before undertaking any excavation. The location of the cable circuit will also be registered on Dial-Before-You-Dig prior to construction commencing. Markers may include:

- small signs attached to road kerbs;
- concrete marker posts (between 800-900 millimetres tall) along the transmission cable route in vegetated areas where surface markers would be difficult to see; or
- flush markers constructed of concrete that are around 50-100 millimetres thick

### **Cable pulling and jointing**

Joint bays would be excavated via open trenching. Erosion and stormwater flow controls would be installed around the work site to prevent inundation, while hard barriers would be installed to protect the work site from traffic movements and unauthorised pedestrian access. During detailed design, the exact location of joint bays would be determined, with the aim of avoiding driveways and other access points wherever possible. However, where this is not possible and vehicle access to adjacent properties is required across open joint bays, they would be temporarily covered with trafficable steel plates.

Once the joint bays have been established, the cables can be pulled through the conduits. The cables are fed from large cable drums holding around 600-800 metres of cable (refer to **Figure 14**). The sections of cable on either side of the joint bays are then connected at the joint bays.

### **Construction Hours**

These works will be short-term in duration at any one location. Activities within the TransGrid Sydney West Substation will be undertaken primarily during standard construction hours. As the external HV cable route along Old Wallgrove Road involves road works, installation will require sequential lane closures and will primarily be undertaken at night (subject to approvals) to minimise traffic disruption. The works are subject to further detailed design in consultation with TransGrid, which is anticipated to reduce the overall footprint and further minimise potential environmental impacts.



Figure 14 Example of cable pulling and cable joint works



Figure 4-26 Cable pulling



Source: TransGrid (Powering Sydney's Future) 2025

### 3.2.6. Stormwater Management

A revised Civil Engineering Report has been prepared by TTW and is provided at **Appendix Q**. The amended scheme will continue to provide an all-new gravity conveyed discharge system. Revised Civil Plans have been prepared which document the changes associated with the amended proposal.

The system incorporates three on-site detention (**OSD**) tanks to control discharge rates and reduce the risk of flooding, supported by a network of pits and pipes that collect and convey stormwater from roofs and hardstand areas. Overland flow paths and site grading ensure runoff is directed away from buildings during major storm events. Water quality is addressed through treatment measures including rainwater reuse tanks, filtration cartridges, and pit-insert baskets, which remove sediments, nutrients, and gross pollutants before discharge.

The stormwater system will be delivered in stages, aligned with the construction program. Initial works will include temporary drainage measures and sediment controls, with permanent infrastructure progressively

installed as site development advances. Erosion and sediment controls will be in place throughout construction to minimise off-site impacts.

Overall, the strategy ensures stormwater is effectively managed on-site, reducing discharge volumes and improving water quality outcomes across all stages of development.

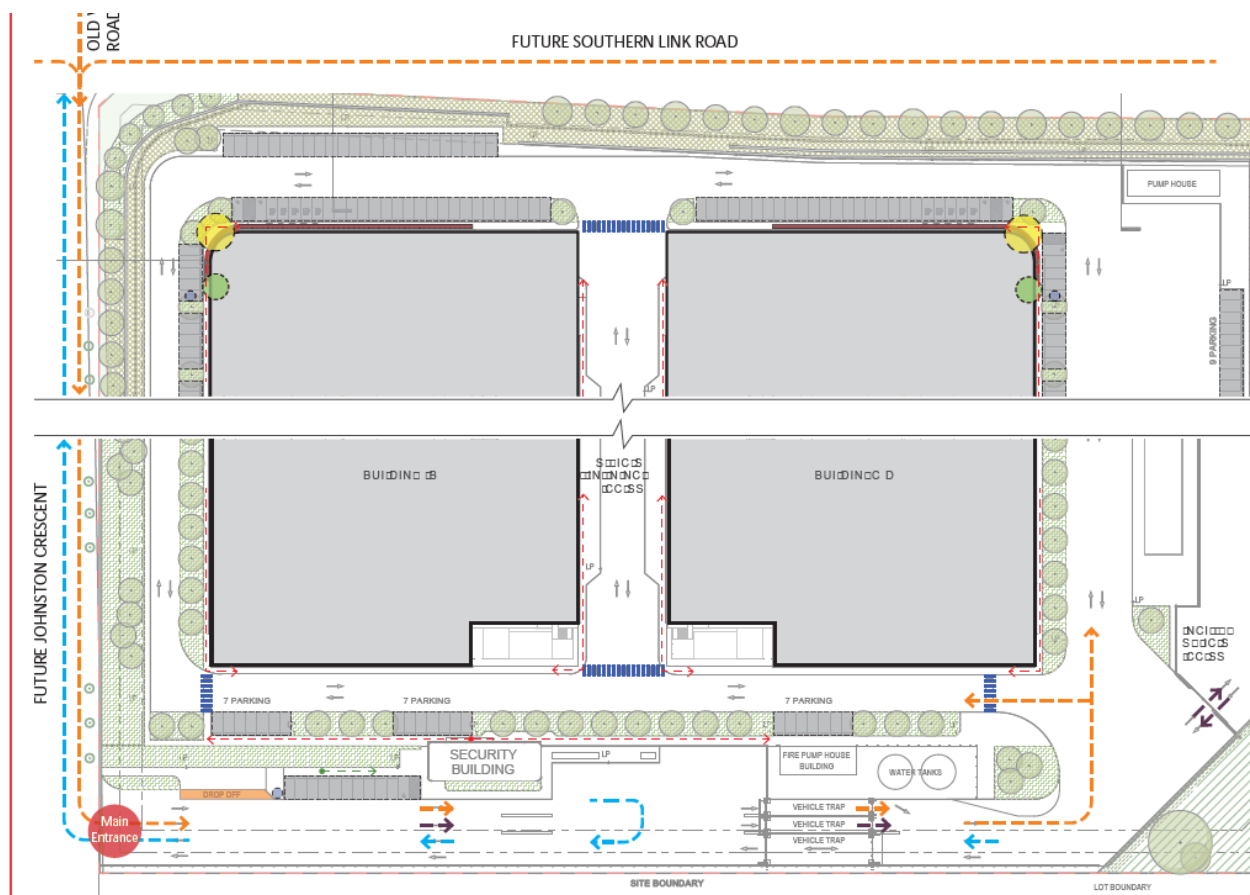
### 3.2.7. Parking and Access

The amended proposal includes a revised access arrangement that consolidates vehicle entry to a single driveway located at the south-western corner of the site. This change improves site legibility, simplifies circulation, and allows for more efficient traffic management within the site.

A total of 200 on-site parking spaces will be provided, consistent with the original proposal. These spaces have been relocated to a more centralised position within the site to better support operational needs and optimise internal circulation. The parking layout has been designed to safely accommodate staff, visitors, and service vehicles, with dedicated pedestrian paths and crossings linking parking areas to building entrances.

Access and internal movement have been designed to comply with relevant Australian Standards and have been verified through swept path analysis to support the range of expected vehicle types.

Figure 15 Revised Parking and Access Arrangements



Source: HDR Architects, 2025

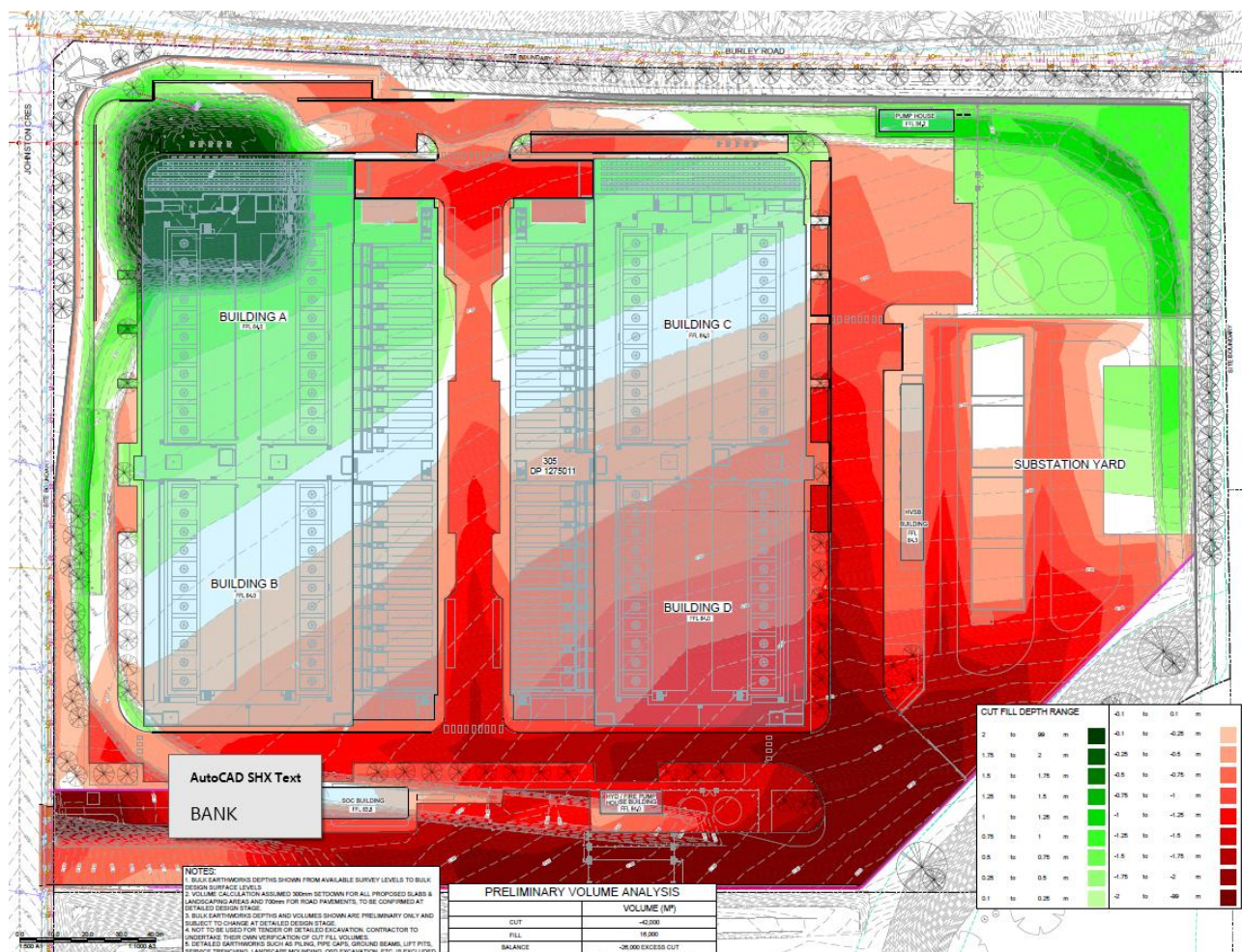
### 3.2.8. Bulk Earthworks

Site preparation works will include additional bulk earthworks to establish building pads with a total net cut (excavation) of approximately 26,000m<sup>3</sup>. As shown in **Figure 16** most of the cut is within the southern portion of the site, with a maximum cut level of between 1.75 metres to two metres.

All works will be undertaken in accordance with the Preliminary Construction Traffic Management Plan and Waste Management Plan lodged with the SSDA.



Figure 16 Revised Cut and Fill Plan



Source: TTW, 2025

### 3.2.8.1. Tree Removal and Retention

The original proposal involved the removal of six trees located on the street verge adjoining the site to accommodate the development footprint. Under the amended proposal, no tree removal is required on the main data centre site.

Six trees will need to be removed to facilitate the installation of the HV cable connection, which is located within the adjacent road reserve. No trees are required to be removed to facilitate the works within the TransGrid site.

### 3.2.8.2. Development Staging

The amended project will consist of four stages. The revised indicative construction staging and estimated duration of construction is summarised in **Table 10**.

Table 9 Revised Indicative Construction Program

Construction Activity	Duration
Stage 1 Building C, HV switching building, 330kV substation, HV external cabling route, entrance to site, centralised security office, and water tanks.	18 months
Stage 2 Building D	12 months
Stage 3 Building A	12 months



Construction Activity	Duration
Stage 4 Building B	12 months

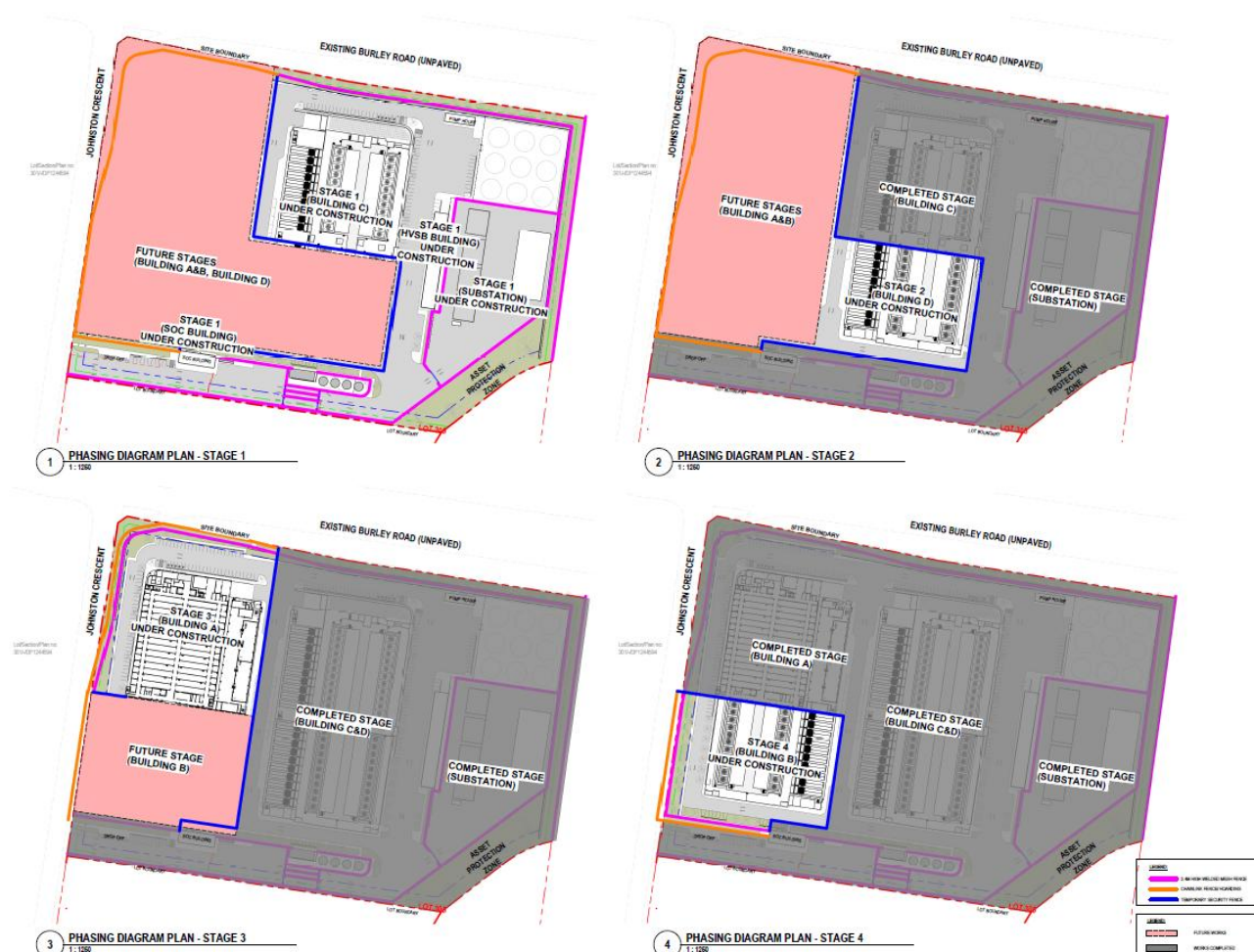
It is expected the standard construction work hours will apply for the main data centre site as follows:

- Monday to Friday: 7am – 5pm
- Saturday: 8am – 1pm
- Sunday and Public Holidays: No works

All construction works associated with the main data centre site are proposed to be in accordance with the original scheme and EIS.

Activities within the TransGrid Sydney West Substation will be undertaken primarily during standard construction hours. As the external HV cable route along Old Wallgrove Road involves road works, installation will require sequential lane closures and will primarily be undertaken at night (subject to approvals) to minimise traffic disruption.

Figure 17 Revised Staging Plan



Source: HDR Architects, 2025

### 3.3. STRATEGIC CONTEXT

This section describes the way in which the amended proposal addresses the strategic planning policies relevant to the site. It identifies the key strategic issues relevant to the assessment of the project.

The development as proposed to be amended remains aligned with the State, district and local strategic plans and policies applying to the site, as summarised below:

- **Greater Sydney Region Plan: A Metropolis of Three Cities:** The amended proposal remains consistent with the strategic directions and objectives identified in the Greater Sydney Region Plan. The S4 Proposal will deliver critical digital infrastructure to Horsley Park, supporting its growth as an emerging employment precinct within the Western Parkland City.

By providing cloud-based data storage, the development enhances operational efficiency for businesses and supports the expanding digital economy. Located on industrial-zoned land, the proposal aligns with strategic planning objectives to attract investment, integrate employment precincts with infrastructure, and drive economic growth. It will generate approximately 1,111 construction jobs and 411 ongoing operational roles. The Proposal reinforces WSEA's role as a hub for innovation and remote working through the co-location of advanced data infrastructure and technology-driven enterprises.

- **Our Greater Sydney 2056: Western City District Plan:** The amended proposal remains consistent with the objectives and outcomes identified in the District Plan and will address the plan's priorities. The S4 Proposal will deliver critical digital infrastructure to Horsley Park, providing both retail and hyperscale data centre services to support a range of businesses. Strategically located within the WSEA and less than 10km from the future Western Sydney International Airport, the Proposal enhances accessibility to digital storage and will attract local, national, and international investment. Co-location with key customers will further support business activity across the region.

The development will generate up to 1,111 full-time equivalent (FTE) construction jobs and 411 FTE operational roles, contributing to job creation and offering Western Sydney residents the opportunity to work locally. As the data centre industry evolves, the Proposal incorporates sustainable design, including LED lighting with smart controls, rooftop solar PV, energy-efficient systems and materials, water-saving fixtures, rainwater harvesting, and WSUD features such as raingardens. These initiatives reduce environmental impact while delivering essential infrastructure to support the region's economic and digital growth.

- **NSW Future Transport Strategy 2056:** The amended proposal remains consistent with the strategic outcomes of the Future Transport Strategy 2056, leveraging its location within a key transport and logistics corridor in Western Sydney. Strategically positioned within the Western Sydney Employment Area (WSEA) and in close proximity to the future Western Sydney International Airport and major arterial roads (including the M7 and future M12), the site is well-placed to support freight, logistics, and digital infrastructure connectivity.
- **Fairfield City 2040 Local Strategic Planning Statement:** The amended proposal will contribute to the identified strategic directions identified in the plan. The proposal delivers a high-quality data centre within the WSEA, designed to minimise environmental and amenity impacts on surrounding areas, including future residential land to the east. Appropriate mitigation measures and the retention of native vegetation—particularly the bushland zoned C2 Environmental Conservation—ensure environmental protection.

Located in a key industrial and employment precinct, the development will provide 56,464m<sup>2</sup> of data storage and 5,231m<sup>2</sup> of ancillary office space, supporting critical digital infrastructure for Western Sydney. The facility will generate approximately 1,111 construction jobs and 411 ongoing operational roles, with broader indirect employment benefits. By incorporating the latest technologies, the proposal supports innovation, reduces connectivity risks for local businesses, and contributes to the ongoing economic growth of Horsley Park as a strategic industry cluster.

- **Better Placed:** HDR Architects have provided a detailed response to the Better Placed framework which is summarised below:
  - **Objective 1 – Better Fit: Contextual, Local and of its Place**  
The proposal responds to the Horsley Park context by aligning with the area's employment focus and adopting a design that complements the surrounding rural residential grid. It features a campus-style layout with articulated building forms, appropriate scale and materiality, and generous green setbacks. Landscaping and sustainable design choices ensure visual integration and ecological sensitivity.
  - **Objective 2 – Better Performance: Sustainable, Adaptable and Durable**  
The development incorporates ESD measures including energy-efficient systems, renewable energy,

low embodied carbon materials, and waste reduction strategies. The infrastructure is designed to accommodate evolving digital technologies, ensuring long-term adaptability and resilience to operational demands, while minimising environmental impact.

- **Objective 3 – Better for Community: Inclusive, Connected and Diverse**  
By creating local job opportunities and supporting innovation in the data sector, the proposal contributes to regional economic inclusion. Educational and engagement opportunities related to digital infrastructure are also encouraged. Sustainability initiatives promote environmental stewardship, aligning with community health and wellbeing objectives.
- **Objective 4 – Better for People: Safe, Comfortable and Liveable**  
Safety is prioritised during both construction and operation through well-documented protocols. The internal environment supports staff wellbeing with attention to air quality, temperature regulation, and noise control. Landscaped outdoor spaces, including shaded walkways and seating areas, provide comfortable, functional areas for rest and interaction.
- **Objective 5 – Better Working: Functional, Efficient and Fit for Purpose**  
The facility layout is purpose-designed for data operations, optimising spatial organisation for servers, cooling systems, and power infrastructure. Ancillary office and innovation spaces are included to support staff and tenants. The design ensures operational efficiency, ease of maintenance, and scalability for future technology upgrades.
- **Objective 6 – Better Value: Creating and Adding Value**  
The use of durable, sustainable materials with low lifecycle impacts reduces operational costs over time. The proposal contributes significant value through a high-quality, strategically located development that supports innovation, employment, and infrastructure investment within the WSEA.
- **Objective 7 – Better Look and Feel: Engaging, Inviting and Attractive**  
The architectural and landscape design reduces visual bulk and enhances the site's presentation from public areas. Careful selection of finishes, boundary landscaping, and the integration of civic-style spaces create a visually cohesive and attractive development that uplifts the surrounding streetscape.

## 3.4. STATUTORY CONTEXT

This section of the report provides an overview of the key statutory requirements relevant to the site and the amended proposal, including:

- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *NSW Biodiversity Conservation Act 2016 (BC Act)*
- *Protection of the Environment Operations Act 1997 (POEO Act)*
- *Roads Act 1993 (Roads Act)*
- *Environmental Planning and Assessment Act 1979 (EP&A Act)*
- *Environmental Planning Assessment Regulation 2021 (EPA Regulation)*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021 (B&C SEPP)*
- *State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP)*
- *State Environmental Planning Policy (Resilience and Hazards) (R&H SEPP)*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP)*
- *State Environmental Planning Policy (Sustainable Buildings) 2022 (Sustainable Buildings SEPP)*
- *State Environmental Planning Policy (Industry and Employment) 2021 (I&E SEPP)*
- *Fairfield Local Environmental Plan 2013 (FLEP 2013)*

Consideration is also required to be given to the following non-statutory matters:

- Western Sydney Employment Area – Fairfield Development Control Plan 2016 (**WSEA Fairfield DCP**).

## 3.5. STATUTORY REQUIREMENTS

**Table 10** categorises and summarises the relevant requirements in accordance with the DPHI *State Significant Development Guidelines*.

The amended proposal does not change the previous consideration of key statutory matters, including the power to grant consent, permissibility, other approvals, pre-conditions and mandatory considerations. A revised statutory compliance table to reflect the amended proposal is provided at **Appendix B**.

Table 10 Identification of Statutory Requirements for the Project

Statutory Relevance	Action
Power to grant approval	<p>In accordance with Schedule 1, development for the purpose of a data centre that has a total power consumption greater than 15 megawatts is classified as SSD:</p> <p><i>25. Data Centres</i></p> <p><i>(1) Development for the purpose of storage premises used for the storage of data and related information technology hardware that has a total power consumption of more than the relevant amount.</i></p> <p><i>(2) In this clause—relevant amount means—</i></p> <p><i>(a) for development in relation to which the relevant environmental assessment requirements are notified under the Act on or before 31 May 2023—10 megawatts, or</i></p> <p><i>(b) for any other development—15 megawatts.”</i></p> <p>The proposed data centre as amended has a megawatt capacity of 294 megawatts and accordingly, the proposal is classified as SSD.</p>
Permissibility	<p>The site is zoned IN1 General Industrial in accordance with the I&amp;E SEPP. The proposed development constitutes a ‘data centre’ which is defined as following:</p> <p><i>data centre means a building or place the principal purpose of which is to collect, distribute, process or store electronic data using information technology.</i></p> <p>Data centres are a type of ‘high technology industry’ which in turn, is considered a type of ‘light industry’ which sits under the group term of ‘industry’. Industries (other than offensive or hazardous industries) are permitted with consent in the IN1 General Industrial zone.</p> <p>The proposal includes 5,231m<sup>2</sup> of ancillary office space. Planning Circular PS 21-008 (‘How to characterise development’) outlines that an ancillary use is a use that is subordinate or subservient to the dominant purpose on the land. Accordingly, the office component is permitted as being ancillary to the data centre as the primary land use.</p>
Other approvals	<p><i>Roads Act 1993</i></p> <p>The amended project proposes to connect a new driveway to the existing road network via Johnston Crescent. An approval under section 138 of the <i>Roads Act 1993</i> may be required.</p> <p><i>Protection of the Environment Operations Act 1997</i></p> <p>The <i>Protection of the Environment Operations Act 1997 (POEO Act)</i> sets out the scheduled activities for which a licence is required. Relevant to</p>

Statutory Relevance	Action
	<p>this project is clause 9 under schedule 1 of the POEO Act, which relates to 'chemical storage'.</p> <p>The amended project includes approximately 4,472 tonnes of diesel to be stored on-site. This is above the 2,000-tonne limit and so the diesel storage will be classified as a scheduled activity for which a license is required. As such, an Environmental Protection License (<b>EPL</b>) will be required as per the requirements of schedule 1 clause 9 of the POEO Act.</p> <p>Approximately 455 tonnes of lithium-ion batteries will be stored onsite. This is below the 2,000-tonne limit and so lithium-ion battery storage is not classified as a scheduled activity and a licence is not required.</p>
EPBC Act	<p>Under the EPBC Act any action (which includes a development, project or activity) that is considered likely to have a significant impact on Matters of National Environmental Significance (<b>MNES</b>) (including nationally threatened ecological communities and species and listed migratory species), must be referred to the Commonwealth Minister for the Environment. The purpose of the referral is to allow a decision to be made about whether an action requires approval on a Commonwealth level. If an action is considered likely to have significant impact on Matters of National Significance, it is declared a "Controlled Action" for which formal Commonwealth approval is required.</p> <p>Based on investigations, the project does not warrant referral to the Commonwealth Minister for Environment. The site has been cleared of all vegetation and no significant impacts on any MNES as a result of the project are expected to occur.</p>
No requirements for other approvals have been identified at this stage.	

## 3.6. PRE-CONDITIONS

**Table 11** outlines the pre-conditions to exercising the power to grant approval which are relevant to the amended project and the section where these matters are addressed.

Table 11 Pre-Conditions

Statutory Reference	Pre-Condition	Relevance	Section in Amendment Report
R&H SEPP - section 4.6(1)	A consent authority must be satisfied that the land is suitable in its contaminated state - or will be suitable, after remediation - for the purpose for which the development is proposed to be carried out.	<p>Remediation works were completed by the previous owner CSR prior to the purchase of the site by NEXTDC.</p> <p>A Contamination and Remediation Status Letter was prepared by JK Environments which confirms that the site has been satisfactorily remediated and is suitable for the proposed</p>	<b>Appendix S</b>

Statutory Reference	Pre-Condition	Relevance	Section in Amendment Report
		data centre (high tech industry land use).	
B&C SEPP section 8.8(1)	A consent authority must not grant consent to the carrying out of development under Part 4 of the Act on land in the Sydney drinking water catchment unless it is satisfied that the carrying out of the proposed development would have a neutral or beneficial effect on water quality	<p>The project is located on land within the Sydney drinking water catchment. The nature of this project and the location of the site are such that there are no specific controls which directly apply, with the exception of the objective of improved water quality.</p> <p>The amended proposal has been designed in accordance with the stormwater management scheme for the Council as outlined in the Civil Engineering Report and Civil Plans and is therefore unlikely to result in any significant environmental impacts.</p>	<b>Section 3.8.2.4</b>

## 3.7. MANDATORY CONSIDERATIONS

**Table 12** outlines the relevant mandatory considerations to exercising the power to grant approval and the section where these matters are addressed within the EIS.

Table 12 Mandatory Considerations

Statutory Reference	Mandatory Consideration	Section in Amendment Report
<b>Consideration under the EPA Regulation</b>		
Section 193	Consideration of the principles of ecologically sustainable development	<b>Section 3.8.2.2 and Appendix M</b>
<b>Consideration under the EP&amp;A Act</b>		
Section 1.3	Relevant objects of the EP&A Act	<b>Appendix B</b>
Section 4.15	Relevant environmental planning instruments	<b>Appendix B</b>
	Planning Systems SEPP	<b>Appendix B</b>
	I&E SEPP	<b>Appendix B</b>
	R&H SEPP	<b>Appendix B</b>

	T&I SEPP	Appendix B
	B&C SEPP	Appendix B
	Sustainable Buildings SEPP	Appendix B
	FLEP 2013	Appendix B
	Relevant draft environmental planning instruments <ul style="list-style-type: none"> <li>There are no draft EPIs relevant to the proposed development.</li> </ul>	N/A
	Relevant planning agreement or draft planning agreement <ul style="list-style-type: none"> <li>There are no planning agreements relevant to the proposed development.</li> </ul>	N/A
	Development control plans <ul style="list-style-type: none"> <li>Western Sydney Employment Area – Fairfield Development Control Plan 2016 (<b>WSEA Fairfield DCP</b>).</li> </ul>	Appendix B
	The likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	Section 3.9.5
	The suitability of the site for the development	Section 3.9.6
	The public interest	Section 3.9.7
<b>Mandatory relevant considerations under EPIs</b>		
R&H SEPP - section 3.7	Departmental guidelines: <ul style="list-style-type: none"> <li>Applying SEPP 33 (identify relevant requirements)</li> <li>HIPAP No.3 – Risk Assessment (identify relevant requirements)</li> <li>HIPAP No.12 – Hazards – related Conditions of Consent</li> </ul>	Section 3.8.1.7
R&H SEPP - section 4.6	(1) A consent authority must not consent to the carrying out of any development on land unless— <p>(a) it has considered whether the land is contaminated, and</p> <p>(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and</p> <p>(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.</p>	Section 3.8.2.8

B&C SEPP – sections 8.7 and 8.8	Water NSW's current recommended practices and standards. Development consent cannot be granted unless neutral or beneficial effect on water quality	<b>Section 3.8.2.4</b>
T&I SEPP – section 2.122	Section 2.122 and schedule 3 of the T&I SEPP identifies 'traffic generating development' which must be referred to the RMS for concurrence. The schedule includes development for the purposes of 'industry' with a site greater than 20,000m <sup>2</sup> or equivalent gross floor area ( <b>GFA</b> ).	<b>Section 3.8.1.5</b>
Sustainable Buildings SEPP – Chapter 3 – Standards for non-residential development	<p><u>Section 3.2 - Development consent for non-residential development</u></p> <p>The consent authority must consider whether the development has been designed to enable:</p> <ul style="list-style-type: none"> <li>▪ Minimisation of waste from demolition and construction, including by the choice and reuse of building materials</li> <li>▪ Reduction in peak demand for electricity, including through the use of energy efficient technology.</li> <li>▪ Reduction in reliance of artificial lighting and mechanical heating and cooling through passive design.</li> <li>▪ Generation and storage of renewable energy</li> <li>▪ Metering and monitoring of energy consumption.</li> <li>▪ Minimisation of consumption of potable water.</li> </ul> <p><u>Section 3.3 - Other considerations for large commercial development</u></p> <p>The consent authority must consider whether the development minimises the use of on-site fossil fuels, as part of the goal of achieving net zero emissions in New South Wales by 2050</p> <p>Development consent must not be granted to large commercial development unless the consent authority is satisfied the development is capable of achieving the standards for energy and water use specified in Schedule 3.</p> <p>Development is capable of achieving a standard specified in Schedule 3 if there is a NABERS commitment agreement in place to achieve the standard.</p>	<b>Section 3.8.2.2</b>
I&E SEPP – Chapter 2	<p>Chapter 2: Western Sydney Employment Area:</p> <ul style="list-style-type: none"> <li>▪ Part 2.2 Permitted or prohibited development</li> <li>▪ Part 2.3 Development Control Plans</li> <li>▪ Part 2.4 Principle Development Standards</li> <li>▪ Part 2.5 Miscellaneous provisions</li> </ul>	<b>Appendix B</b>



I&E SEPP – Chapter 3 and Schedule 5	A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied that the signage is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.	<b>Appendix B</b>
<b>Considerations under other legislation</b>		
BC Act – section 7.14	<p>The BC Act protects native vegetation, species of threatened flora and fauna, endangered populations and endangered ecological communities and their habitats in NSW. Section 7.9 requires a development application for SSD to be accompanied by a Biodiversity Development Assessment Report (<b>BDAR</b>), unless the Planning Agency Head and the Environment Agency Head determines that the proposed development is not likely to have any significant impact on biodiversity values.</p> <p>A request to waive the requirement for a Biodiversity Development BDAR for the original proposal site was prepared by Narla Environmental and submitted to DPHI on 29 January 2024. DPHI subsequently issued a BDAR waiver for the project on 29 February 2024.</p> <p>To address the amended proposal including the inclusion of additional land to accommodate the external HV cable route and substation works, an updated BDAR waiver request has been prepared. This updated request is provided at <b>Appendix DD</b>.</p>	<b>Appendix DD</b>
<b>Development Control Plans</b>		
WSEA Fairfield DCP	<p>Section 2.10 of the Planning Systems SEPP states that development control plans (whether made before or after the commencement of this Policy) do not apply to SSD.</p> <p>As such, there is no requirement to assessment of the Proposal against the WSEA Fairfield DCP for this SSDA. Notwithstanding this, consideration has been given to the following provisions:</p> <ul style="list-style-type: none"> <li>▪ Chapter 3 - Environmental Management</li> <li>▪ Chapter 4 – Development Controls</li> </ul>	<b>Appendix B</b>
<b>Development Contributions Plan</b>		
Fairfield City Council Indirect (Section 7.12) Development Contributions Plan 2011	<p>The proposed development will be subject to section 7.12 contributions.</p> <p>The proposed development will also be subject to the Housing and Productivity Contribution of \$15 per square metre of new GFA.</p>	<b>Appendix B</b>

## 3.8. ASSESSMENT OF IMPACTS

The following subsections provide a comprehensive description of the updated specialist technical studies undertaken to assess the potential impacts of the amended proposal. Where relevant, this includes the updated mitigation, minimisation and management measures recommended to avoid unacceptable impacts.

The detailed technical reports and plans appended to this report are individually referenced within the following sections. A summary of the updated mitigation measures is provided at **Appendix C**.

### 3.8.1. Detailed Assessment

#### 3.8.1.1. Built Form and Urban Design

##### Layout and Design

The amended proposal represents a more integrated and efficient layout for the data centre campus. Key changes include the consolidation of Buildings A and B into a single structure (Building AB), and Buildings C and E into another combined structure (Building CD). This rationalisation of built form reduces the number of primary structures, resulting in a more legible and cohesive campus arrangement.

The removal of Building D, previously located in the north-eastern corner of the site, and its replacement with at-grade infrastructure (water tanks) significantly reduces built form encroachment toward the adjoining residential interface. This change improves spatial separation from sensitive boundaries and enhances the transition between the industrial site and adjacent lower density uses.

Circulation and entry points have also been revised, with the main vehicle access relocated to the southern internal road, improving functional efficiency and internal traffic flow. The introduction of a centralised Security Operations Centre (SOC) at the site entrance provides a clear point of arrival and strengthens the legibility of the site's layout.

Refinements to façade treatments including simplified cladding and glazing support a more refined architectural language across the development and help reduce visual clutter. These changes contribute to a more consistent and subdued presentation to surrounding streetscapes and adjoining properties.

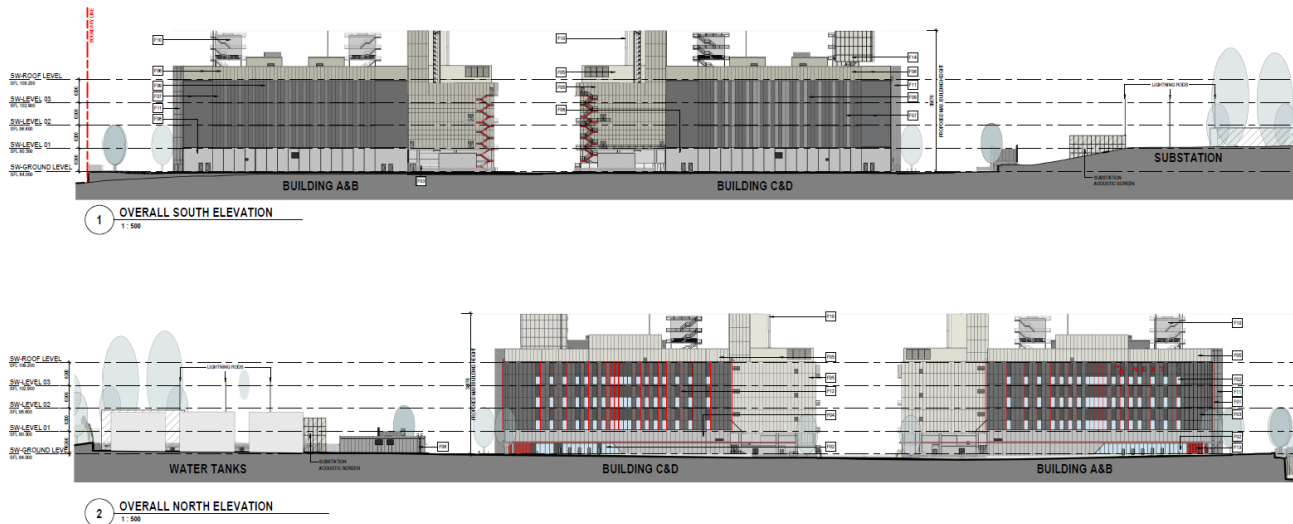
##### Height

The amended proposal results in a modest reduction in the maximum building height by 0.33 metres compared to the original scheme. While the built form has increased in footprint through the combination of buildings, the height reduction ensures the massing remains within the original envelope and does not exacerbate overshadowing or visual dominance.

The revised height, combined with increased landscaping along sensitive boundaries (particularly the eastern edge), improves the overall interface with the adjoining rural residential area. The amended built form achieves a more refined and context-responsive outcome in terms of scale and visual impact, while maintaining the functional requirements of a large-scale data centre campus.

Extracts of elevation drawings are provided below.

Figure 18 North and South Elevations



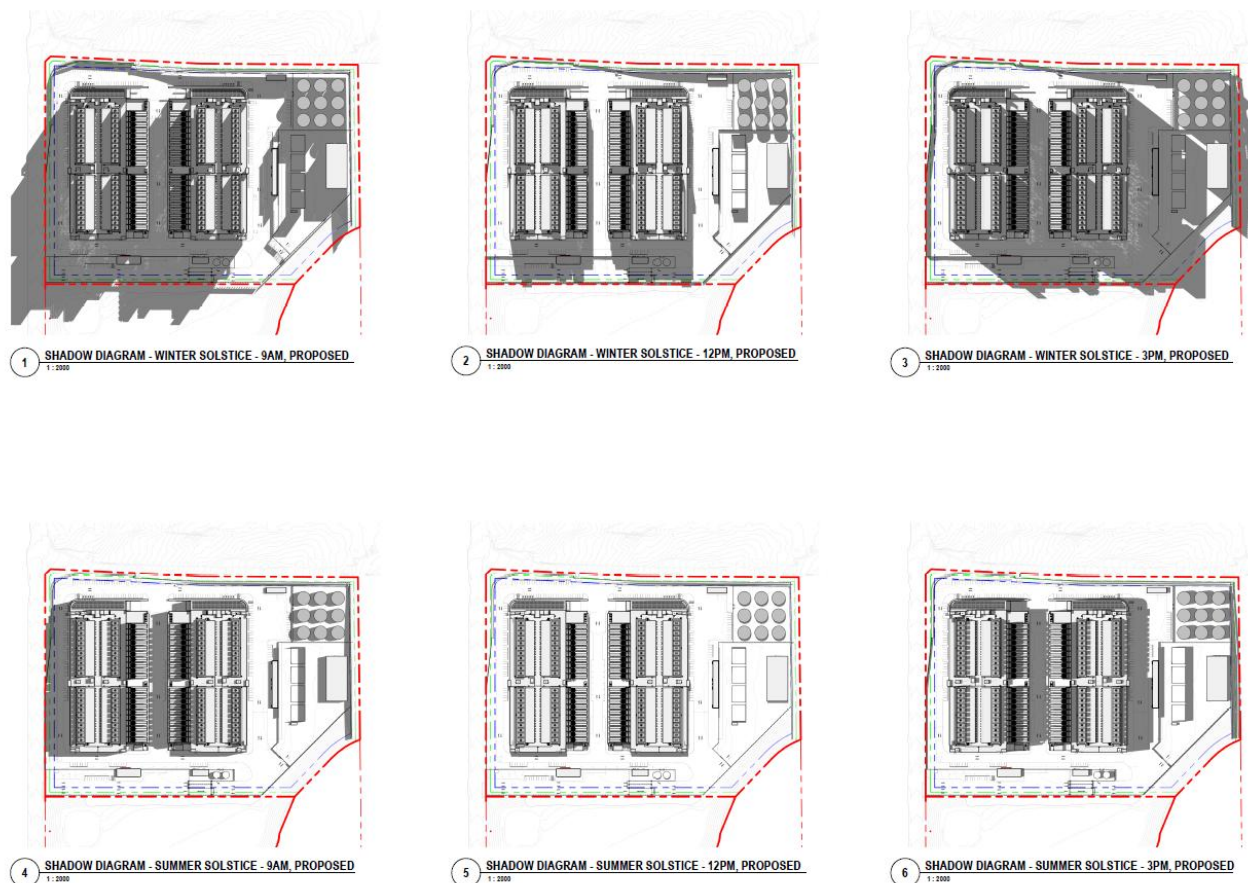
Source: HDR Architects, 2025

### Overshadowing

The amended proposal includes a maximum building height of 38.67 metres for the main data hall buildings, which is marginally lower than the maximum height proposed in the original scheme. Notably, Building D, previously located near the eastern boundary, has been removed, further reducing built form impacts on adjoining sensitive uses.

An updated overshadowing analysis, prepared by HDR (refer to **Figure 19**), confirms that the amended proposal will not result in any discernible shadow impacts on the adjoining RU4 zoned land to the east. While some overshadowing is expected to the south west during the winter solstice, it dissipates by 12pm. This area comprises existing roads and vacant industrial zoned land, and the overshadowing is considered acceptable given its limited duration and negligible impact between 10am and 2pm.

Figure 19 Shadow Diagrams



Source: HDR Architects, 2025

### 3.8.1.2. Landscaping and Tree Removal

The amended proposal improves the landscaping outcomes for the site. The deep soil provision has increased from 9,900m<sup>2</sup> in the original scheme to 12,769m<sup>2</sup>, enhancing permeability and contributing to greater ecological and visual benefits across the site.

Importantly, the revised layout facilitates the retention of six trees along the Council verge previously proposed for removal in the original application. This reflects a positive design change that reduces unnecessary vegetation loss and maintains existing urban canopy where possible.

Extensive new tree plantings are proposed along the perimeter of the site, particularly along the eastern boundary, to provide visual screening and a softer interface with adjoining land. These plantings will contribute to the establishment of a strong landscape buffer and improved site integration with the surrounding area.

In relation to the external HV cable route, six additional trees are now proposed to be removed to facilitate the connection between the data centre and the TransGrid substation. However, these trees are identified as having low retention value, and their removal is considered acceptable given the broader infrastructure requirements and minimal ecological impact. No trees are required to be removed to facilitate the works within the TransGrid site.

Overall, the amended proposal achieves a superior landscaping outcome through increased deep soil, improved boundary planting (particularly along the eastern interface), and a net reduction in overall tree loss on the main data centre site

The revised Arboricultural Impact Assessment (**Appendix JJ**) for the data centre site provides the following updated mitigation measures:

- Retain and protect six (6) trees (Trees 1, 2, 3, 4, 5 & 6) in accordance with the Tree Location Plan & Tree Protection Specifications held at Appendix 2 & 5, AS497-2009 Protection of trees on development sites and the specific recommendations below.

- A Project Arborist experienced in tree protection on construction sites should be engaged prior to the commencement of any works on site. The Project Arborist shall monitor and report regularly to the Principal Certifying Authority (PCA) and the Applicant on the condition and protection of the retained trees during the works. The Project Arborist is to supervise and monitor any excavation, machine trenching or compacted fill placement within the TPZ of retained trees throughout construction.
- Construction works within the TPZ of Tree 1 must be undertaken in a sensitive manner to minimise any disturbance to the tree canopy and root zone. Any excavation should be supervised by the Project Arborist and employ a method of hand digging with non-motorised hand tools or via pneumatic device (i.e. Air Spade) to ensure roots are maintained intact without damage.

In addition, the supplementary Arboricultural Impact Assessment (**Appendix RR**) prepared for the external HV works provides the following mitigation measures:

- Remove Trees 6, 7, 8, 28, 31 & 32 (6 trees) to facilitate the proposed development works. Relevant approvals and consent must be obtained prior to the removal or pruning of these trees. All tree removal work is to be carried out by an experienced Arborist with minimum AQF Level 3 qualifications in accordance with AS4373-2007 - Pruning of Amenity Trees, Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016) and other applicable legislation.
- Retain and protect Trees 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29 & 30 (26 trees) in accordance with the Tree Location Plan & Tree Protection Specifications held in Appendix 2 & 5, AS4970-2009 Protection of Trees on Development sites.
- Tree protection measures including trunk protection outlined in Appendix 2 & Appendix 5 shall be implemented to prevent damage to the root system, trunk and canopy of trees nominated for retention and protection on site.

### 3.8.1.3. Visual Impact

A revised Visual Impact Assessment (**VIA**) has been prepared by Urbis to assess the amended proposal and is provided at **Appendix J**. The amended VIA analyses the visual effects of the amended built form on nearby sensitive visual receivers and public domain views from key locations surrounding the site.

As demonstrated within the revised VIA, the combining of the buildings do not have a significant impact on views in comparison to the original proposal. This is demonstrated from **Figure 20** to **Figure 27**. The amended scheme delivers an improved outcome in terms of bulk and scale, with a more cohesive built form, reduced maximum building height by 0.33 metres, and enhanced visual integration with the surrounding context.

The revised VIA makes the following conclusions regarding the potential visual impacts:

- The site is located within IN1 (General Industrial) zoned land which is intended for a wide range of industrial and warehouse land uses. As such, the proposal is visually compatible with the anticipated likely visual character of the site and surrounding area.
- Views from the public domain are limited to transport corridors and as such, visual effects of the proposal with regard to viewing periods from the public domain are low, typically from moving viewing situations, and experienced for short periods.
- Views of the proposal from significant public recreation space are not possible.
- Analysis of nine public domain photomontages found that:
  - The visual impact for the assessed viewpoints ranges from Nil to Medium.
  - The proposal does not block views to any heritage items or areas of unique scenic quality.
- Views to the site and proposal from private domain dwellings in the wider visual catchment are limited due to intervening built form and vegetation.
- Clear views of the proposal are possible from dwellings immediately east of the site along a residential access road off Burley Road.
- Visibility of the proposal from dwelling further east decrease due to intervening vegetation and topography.

- Where views from dwellings east of the site are possible, they do not include the proposal and scenic or highly valued features in the same composition.
- On balance when all relevant matters are considered, the visual effects and view impacts caused by the proposed development are considered to be reasonable and acceptable and as such the proposal can be supported on visual impact grounds.

In relation to the additional HV works within the TransGrid Sydney West Substation site, the proposed infrastructure, including the new feeder bays, secondary systems building and lightning rods, is commensurate in scale with the existing infrastructure. These works are also located toward the rear of the substation site, away from the street frontage, which ensures there will be no visual impact.

The revised VIA did not identify any additional mitigation measures beyond those previously outlined in the EIS.



Figure 20 Original Proposal (Viewpoint 1)



Source: Urbis, 2024

Figure 21 Amended Proposal (Viewpoint 1)



Source: Urbis, 2025

Figure 22 Original Proposal (Viewpoint 4)



Source: Urbis, 2024

Figure 23 Amended Proposal (Viewpoint 4)



Source: Urbis, 2024



Figure 24 Original Proposal (Viewpoint 5)



Source: Urbis, 2025

Figure 25 Amended Proposal (Viewpoint 5)



Source: Urbis, 2025

Figure 26 Original Proposal (Viewpoint 9)



Source: Urbis, 2025

Figure 27 Amended Proposal (Viewpoint 9)



Source: Urbis, 2025



### 3.8.1.4. Noise and Vibration

A revised Noise and Vibration Impact Assessment (**NVIA**) has been prepared by Aurecon (refer **Appendix O**) to respond to the submissions received and to assess the amended proposal.

In addition to the above, a Supplementary Noise and Vibration Assessment has been prepared by Aurecon (refer **Appendix UU**) to address construction noise and vibration impacts associated with the inclusion of the external HV works.

#### **Construction Noise and Vibration (Data Centre Site)**

Construction works will occur over multiple stages and include site establishment, earthworks, structural construction, and installation of services and plant. Construction noise levels were assessed in accordance with the NSW EPA *Interim Construction Noise Guideline (ICNG)*.

Project-specific Noise Management Levels (**NMLs**) were derived for nearby residential receivers based on measured background levels. For residential receivers in Noise Catchment Area 1 (**NCA1**) along Burley Road, the applicable NML is 47 dB(A) LAeq(15min) during standard construction hours (based on an RBL of 37 dB plus 10 dB). Key findings of the assessment include:

- Predicted worst-case construction noise levels at the nearest receiver (R1, 21 m from site boundary) reach up to 63 dB(A) LAeq(15min), exceeding the NML by up to 16 dB.
- Other nearby receivers (R2–R5) are predicted to experience exceedances of 8–14 dB depending on distance and activity.
- No receivers exceed the ICNG “highly noise-affected” threshold of 75 dB(A), which would otherwise trigger mandatory respite periods or construction hour restrictions.
- All works are proposed during standard hours (7am–6pm weekdays, 7am–5pm Saturdays), and no night works are planned. Accordingly, sleep disturbance criteria do not apply.
- Predicted impacts are short-term and intermittent, with the highest levels occurring during intensive activities such as earthworks, plant installation, or structural steel erection.

Construction vibration impacts were also assessed using empirical modelling for typical vibration-generating equipment such as vibratory rollers, rock breakers, and compactors. The findings confirm:

- Vibration levels are not expected to exceed the structural damage thresholds for any nearby buildings.
- Some equipment, particularly rollers and rock breakers, may approach or slightly exceed human comfort criteria at the nearest dwellings.
- Recommended safe buffer distances may not always be achievable at R1; in such cases, less vibration-intensive methods and monitoring are advised.
- Where high-vibration works are required close to receivers, condition surveys and real-time monitoring should be considered to manage risks.

Together, these measures will be formalised through the CNVMP and implemented by the appointed contractor to ensure construction impacts remain within acceptable limits and in line with EPA expectations.

#### **Construction Noise and Vibration (External HV Works)**

Construction activities will involve trenching, cable installation, and backfilling along Johnston Crescent and Old Wallgrove Road. These works will be linear, short-term in nature at any one location.

Activities within the TransGrid Sydney West Substation will generally occur during standard construction hours. However, installation of the external HV cable route along Old Wallgrove Road will require sequential lane closures and is expected to be undertaken predominantly at night (subject to approvals) to minimise traffic impacts. As certain works will occur outside standard construction hours, an Out-of-Hours Protocol will be developed and incorporated into the CNVMP.

Noise impacts are expected to vary depending on proximity to receivers and the type of equipment in use. Predicted levels exceed the relevant NMLs for some residential and industrial receptors when works occur nearby. However, no exceedance of the 75 dBA ‘highly noise-affected’ threshold is predicted. As the cable

works move progressively along the route, noise exposure at any single receiver will be temporary and of limited duration.

Vibration impacts are considered negligible for nearby buildings, given separation distances and the nature of the construction equipment. However, buried infrastructure, particularly Sydney Water and Water NSW pipelines, may be sensitive to vibration if construction activities occur too close. Equipment-induced ground movement has the potential to affect shallow or poorly protected pipes if not managed appropriately.

### **Operational Noise and Vibration (Data Centre Site)**

Three operational scenarios were modelled using SoundPLAN (v9.0) with conservative worst-case assumptions:

- Standard operations – routine running of chillers, air-handling units (**AHUs**), rooftop condensers, and cooling towers.
- Back-up power testing – routine testing of generators during daytime hours.
- Emergency critical power failure – simultaneous operation of all backup generators and supporting systems.

Each scenario was assessed across four development stages (Stages 1 to 4) with all plant assumed to operate simultaneously and continuously during a 15-minute worst-case period.

The key findings of the assessment are outlined below:

- Noise predictions at all nearest residential and industrial receivers comply with the Project Noise Trigger Levels (**PNTLs**) under each stage and scenario. These levels were derived in accordance with the EPA's *Noise Policy for Industry (NPfi)*.
- LA<sub>max</sub> levels under the emergency critical power failure and generator testing scenarios are below the 52 dB screening threshold for all residential receivers, confirming no risk of sleep disturbance.
- A screening assessment was undertaken for low-frequency noise using octave band analysis. Results confirmed no exceedance of low-frequency criteria, and no adjustments for tonal or intermittent noise characteristics are required.
- Cumulative operational noise, including other known and approved surrounding developments, was found to be within the recommended amenity levels for all nearby receivers, including rural residential dwellings to the east and south.
- The assessment applied conservative assumptions, including noise-enhancing meteorological conditions and simultaneous operation of all plant, to ensure robust worst-case scenario modelling.

**Figure 28** outlines the predicted LA<sub>eq</sub>(15min) noise levels at the nearest residential and industrial receivers under Stage 4 operational conditions, which include standard operations and back-up generator testing.

The assessment confirms that with all recommended mitigation measures in place, predicted noise levels remain below the PNTLs at all identified receivers at full capacity. This includes rural-residential dwellings along Burley Road (R1–R5), more distant receivers to the north-east (R6–R8), and nearby industrial properties (I1–I3).

Figure 28 Predicted noise levels at receivers - with mitigation - Stage 4

Receiver ID	Criteria LAeq 15min dB			Back-up power testing LAeq15min dB		Standard operations LAeq15min dB			
	Day	Evening	Night	Day 3m/s winds D Class Temperature inversions	Compliant?	Evening 3 m/s winds D Class Temperature inversions	Compliant?	Night 2m/s winds F Class Temperature inversions	Compliant?
I1	68	68	68	46	yes	45	yes	43	yes
I2	68	68	68	42	yes	42	yes	42	yes
I3	68	68	68	47	yes	45	yes	43	yes
R1	42	42	38	40	yes	38	yes	38	yes
R2	42	42	38	42	yes	37	yes	37	yes
R3	42	42	38	41	yes	38	yes	38	yes
R4	42	42	38	41	yes	39	yes	38	yes
R5	42	42	38	40	yes	39	yes	37	yes
R6	42	42	38	36	yes	34	yes	35	yes
R7	40	40	38	35	yes	35	yes	35	yes
R8	40	40	38	36	yes	36	yes	36	yes

Source: Aurecon, 2025

Although detailed vibration modelling was not required for the operational phase, Aurecon assessed the likely risk of ground-borne vibration transmission from operational plant. The key findings included:

- All operational equipment (e.g. generators, chillers, cooling towers, AHUs) will be mounted on purpose-designed supports and foundations incorporating vibration isolation systems (e.g. spring mounts, neoprene pads, inertia bases).
- Operational plant is located a substantial distance (>20 m) from the nearest off-site receptors.
- Equipment types used are not associated with significant vibration emissions (unlike piling or compaction equipment).
- As a result, vibration levels from operation are expected to be well below the thresholds for both:
  - Human comfort (EPA guideline: <0.3 mm/s RMS continuous); and
  - Structural damage (DIN 4150-3 thresholds: >5 mm/s PPV for residential structures).

Therefore, no operational vibration impacts are anticipated.

## **Revised Mitigation Measures**

### **Operational Noise and Vibration (Data Centre Site)**

The revised NVIA for the data centre proposal provides a range of update mitigation measures including:

- Substation Transformers:
  - Enclosed by fire-rated acoustic barriers at least 10 m in height, installed on the southern, south-western, and north-eastern sides.
  - Additional sound-absorbing panel (6.85 m high) on the HVSB building façade, facing the transformer yard.
  - Acoustic material such as Megasorber P100 (100 mm thick, NRC  $\geq$  1.0) is recommended on internal surfaces to enhance low-frequency performance.
  - Transformer sound power levels must be no greater than those listed in Table 9-2 of the report to maintain compliance.
- Cooling Towers:
  - Installation of 8.5 m tall noise barriers beginning 0.5 m below the cooling tower base on the eastern side of Buildings C and D.
  - Barriers must be continuous and lined with sound-absorbing material to block direct line of sight to residential receivers.
- Generator Enclosures:
  - Custom-designed acoustic generator enclosures with internally lined, sound-absorbing finishes and attenuators at all air intake and exhaust points.
- Mechanical Plant:
  - Attenuators at louvres for all chiller plant intake/exhaust and FOH AHU units.
  - Quieter rooftop condenser units to be selected during procurement phase.
- Operational Controls:
  - Avoidance of heavy vehicle movements at night within the site boundary to mitigate incidental traffic noise.

### **Construction Noise and Vibration (External HV works)**

The supplementary NVIA prepared for the external HV works identified the following additional mitigation measures:

- All workers must be inducted on the sensitivities of the work site and relevant mitigation measures.
- A Construction Environmental Management Plan (**CEMP**) must be prepared in consultation with relevant authorities.
- A Construction Noise Management Plan (**CNVMP**) must be prepared in consultation with relevant authorities.
- A noise monitoring program must be implemented for the duration of the works in accordance with the CNVMP and will focus on the use of high noise generating plant (e.g. rock breaking, and concrete saws) and works outside of standard construction hours.
- A noise and vibration monitoring report must be prepared by a suitably qualified and experienced acoustic and vibration engineer.
- Where feasible and reasonable, construction will be carried out during standard construction hours. However, given that some works will be undertaken outside of standard construction hours, an 'Out-of-hours Protocol' will be prepared as part of the CNVMP.

- This will evaluate the potential noise impacts of specific out-of-hours works and recommend appropriate mitigation measures such as:
  - community consultation with highly noise affected receivers;
  - procedures to determine negotiated outcomes in consultation with affected receivers;
  - specific mitigation measures such as respite periods; and
  - a monitoring program.
- For any work that is performed outside normal work hours or on Sunday or public holidays, the contractor must seek an Out of Hours Work (**OOHW**) Approval.
  - Provide 14 days' notice to nearby residents prior to commencing works.
  - A complaint management procedure must be developed.
  - All vehicles and plant must be turned off when not in use.
  - Avoid vehicle queuing and use broadband reverse alarms.
  - Deploy temporary noise barriers if needed.
  - Use quieter alternative construction methods.
  - Offer respite periods to residents for prolonged works.
  - Provide specific notifications for high-noise activities.
  - Additional noise mitigation measures including:
- Vibration Mitigation for Pipelines:
  - Maintain equipment outside the zone of influence (typically 1–9m, depending on pipeline type).
  - Do not place heavy machinery above or adjacent to shallow pipes (<0.45m cover).
  - Undertake trial vibration monitoring to confirm safe working distances.
  - Implement real-time monitoring and alarms if required.

### 3.8.1.5. Access, Traffic and Parking

An amended Traffic Impact Assessment (**TIA**) has been prepared by TTW as is provided at **Appendix L**. The TIA assesses the amended proposal and the anticipated transport implications of the project during operation.

#### Traffic Generation and Intersection Performance

The amended proposal is expected to result in manageable operational traffic impacts. Based on updated traffic modelling and TfNSW-adopted industrial land use rates, the development is anticipated to generate up to 155 vehicle trips during the AM and PM peak hours. This level of traffic is considered minor and is not projected to materially affect the performance of nearby intersections.

Key intersections, including Old Wallgrove Road / Johnston Crescent, are expected to continue operating at acceptable levels of service (LoS A–C) following development. While long-term modelling indicates a drop to Level of Service F at the Johnston Crescent intersection under the future Southern Link Road (**SLR**) scenario, this is attributable to broader network pressures rather than the proposed development itself.

#### Car Parking

The amended proposal provides 200 at-grade car parking spaces, consistent with the original proposal. While this is below the number required under Council's DCP (between 881 and 938 spaces), the proposed provision is considered appropriate and fit for purpose given the operational characteristics of the development.

Data centres are highly specialised facilities with limited public interface and significantly lower staff-to-floor area ratios than conventional industrial or commercial developments. At full operational capacity, the site is



expected to accommodate a maximum of 196 staff across multiple shifts, with limited visitor or client presence.

The DCP parking rates, which are typically based on general industrial or warehouse uses, do not reflect the unique employment densities or operational model of hyperscale data centres. Application of the DCP rates in this context would result in an oversupply of car parking, leading to inefficient use of land and unnecessary hardstand areas, contrary to broader planning objectives related to environmental performance and site permeability.

To ensure that operational needs are met, a first-principles approach has been adopted, supported by a detailed staff roster and assessment of shift patterns. The parking provision is supported by end-of-trip facilities for active transport users, accessible parking spaces, and electric vehicle charging points, all designed in accordance with AS2890 standards.

### **Access and Internal Circulation**

Vehicle access arrangements have been consolidated and improved, with all passenger vehicle access now provided via a single driveway at the south-western corner of the site. This rationalisation reduces vehicle conflict points and facilitates more efficient site circulation. Internal roads have been designed to accommodate safe two-way movement, including for 20-metre articulated vehicles (**AVs**). While infrequent servicing by larger vehicles may occur, appropriate permits would be obtained where required.

To support safe and efficient operation of service vehicles, a Loading Dock Management Plan has been prepared (refer **Appendix OO**) in response to submissions received. This plan outlines delivery protocols, management responsibilities, and time-of-day controls to ensure heavy vehicle activity does not adversely impact surrounding traffic conditions or internal site functionality.

### **Pedestrian Access and Queuing**

Pedestrian access across the site has also been enhanced. Dedicated footpaths and marked pedestrian crossings have been provided to enable safe movement between car parking areas and building entrances. Furthermore, a queuing zone of approximately 107 metres has been incorporated between the site boundary and the access control point, ensuring sufficient on-site vehicle storage and avoiding queuing impacts on Johnston Crescent. This provision exceeds the minimum requirements set out in AS2890.1.

### **Construction Traffic (Data Centre site)**

TTW have prepared a revised Preliminary Construction Traffic Management Plan (**CTMP**) which can be found at **Appendix CC**. The CTMP assesses and provide management for the anticipated traffic impacts during construction.

Construction of the development will occur in four stages over several years, with Stage 1 (including the HV substation and Building C) expected to span approximately 18 months. During peak construction, the site will generate an estimated 75 heavy vehicle movements per day, with up to 16 truck movements (8 in / 8 out) expected during peak hours. Additionally, around 250–300 construction workers will access the site daily, with up to 150 light vehicle trips anticipated during morning and afternoon peak periods.

All construction traffic will access the site via Johnston Crescent, with designated haul routes connected to the M4 and M7 motorways to avoid local roads and minimise impact on sensitive areas such as school zones. All loading, unloading, and parking will be accommodated within the site or on adjacent land owned by NEXTDC, avoiding the need for kerbside parking or work zones. No lane closures or detours are proposed.

Traffic flows on surrounding roads are expected to remain largely unaffected, with the CTMP concluding that impacts to the local and regional road network will be minimal. Measures such as staggered vehicle arrivals, off-peak deliveries, and communication with concrete batching plants will be implemented to manage peak construction activity.

Pedestrian and cyclist impacts will be negligible, with low baseline volumes and limited active transport infrastructure in the area. Site fencing, signage, and traffic controllers will ensure safety for any passing pedestrians or cyclists. Emergency vehicle access will be maintained throughout the construction period.

A final CTMP will be prepared and approved once a contractor is appointed, incorporating staging-specific traffic volumes, detailed site logistics, and Traffic Guidance Schemes in line with RMS and Australian Standards.

## **Green Travel Plan**

A revised Green Travel has been prepared by TTW and is provided at **Appendix BB**. This plan has been updated to include the updated project description. However, the proposed amendments made do not alter the previous assessment or mitigation measures outlined in the EIS.

## **Construction Traffic (External HV Works)**

In addition to the above, a supplementary Preliminary Construction Traffic Management Plan (**CTMP**) has been prepared by TTW (refer **Appendix SS**) to address the impacts associated with the delivery of the HV connection to the site.

The external HV connection will involve trenching works along Johnston Crescent and Old Wallgrove Road, linking the S4 Data Centre site with the TransGrid Sydney West Substation. These works will require sequential lane closures and are expected to occur primarily at night, subject to relevant approvals, to minimise disruption to traffic.

During peak periods, the HV cable works will generate:

- 8-12 heavy vehicle movements per day (6 trucks in/out),
- 60 oversized vehicle deliveries across all stages (subject to permits), and
- 45 workers on-site, with negligible impact on peak-hour traffic as most movements occur outside commuter periods.

Lane closures will involve contra-flow arrangements with appropriate traffic control. All construction vehicle parking will be managed on-site or on adjacent land owned by NEXTDC, ensuring no reliance on on-street parking.

Traffic impacts are expected to be localised and minor, with no anticipated delays or disruption to adjoining properties, and emergency access maintained at all times.

## **Revised Mitigation Measures**

The revised TIA and CTMP for the data centre proposal did not identify any additional mitigation measures beyond those previously outlined in the EIS.

The supplementary CTMP prepared for the HV works identified the following additional mitigation measures:

- A Traffic Guidance Scheme (**TGS**) must be prepared in accordance with AS 1742.3, detailing lane closures, contra-flow arrangements and cabling routes.
- The Contractor must install and remove signage daily and review/update the TGS as required.
- All required permits (e.g. road occupancy, hoarding, oversized vehicle use) must be obtained from TfNSW, Council and relevant authorities before works.
- Only certified personnel must implement and monitor the TGS.
- Wheel-wash facilities must be provided, with all vehicles cleaned before leaving site.
- Loads must be covered/sealed and all loading/unloading confined to within the site.
- A CTMP must be prepared by the Contractor covering staging, vehicle volumes, workforce numbers, access/egress points and traffic guidance schemes.
- Emergency services will be notified immediately in the event of an incident and at least one week prior to any planned access restrictions.
- The Site Manager must implement and monitor the CTMP and TGS, brief contractors, maintain signage, report incidents and ensure all approvals remain current.

### **3.8.1.6. Air Quality**

A revised Air Quality Impact Assessment (**AQIA**) has been prepared by Northstar and is included at **Appendix N**. The assessment provides an analysis of the air quality impact of the amended proposal on surrounding sensitive receivers during the construction and operation of the proposed development.

## **Operational Air Quality**

The primary source of air emissions during the operational phase are the standby generators required to guarantee ongoing operations if there is a failure of both the primary and secondary power supply. This is considered highly unlikely, meaning back-up power generation using the standby generators is unlikely to be required.

### **Routine Operations and Maintenance Testing (Scenario 2)**

Under normal operating conditions, the data centre is not expected to generate material air emissions. The primary source of operational emissions is periodic maintenance testing of diesel-fuelled back-up generators. For assessment purposes, the modelling assumes two generators operating simultaneously each day between 7:00am and 6:00pm, with total annual use not exceeding 200 hours per generator.

Dispersion modelling confirms that under this scenario, ambient concentrations of all key pollutants — including PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PAHs, formaldehyde, and VOCs — remain well below the applicable short-term and annual average air quality criteria outlined in the *NSW EPA Approved Methods* and the *National Environment Protection (Ambient Air Quality) Measure*.

Accordingly, the amended proposal's routine operations are not expected to result in any adverse impacts to local air quality or human health.

### **Emergency Generator Operation (Scenario 1 – Justified Worst Case)**

Scenario 1 models a conservative, worst-case event involving the simultaneous operation of all 120 diesel back-up generators during a full-site power outage. This scenario represents the highest potential emission event and was assessed to understand maximum off-site air quality impacts.

Modelling indicates that under this scenario, short-term exceedances of the 1-hour NO<sub>2</sub> impact assessment criterion (164 µg/m<sup>3</sup>) may occur at a small number of nearby sensitive receptors, notably residences along Burley Road and Delaware Road. There is also potential for PM<sub>10</sub> and PM<sub>2.5</sub> levels to approach or slightly exceed criteria depending on background conditions, though this is considered less likely.

However, this scenario is extremely rare. The dual power supply system has been designed to prevent total outage, and the probability of a simultaneous failure of both feeders triggering full generator operation is estimated at 0.0002% per year — equating to a 1 in 500,000 annual chance. This makes it highly improbable that such an event would coincide with meteorological conditions required to generate material off-site air quality impacts.

### **Cumulative Impacts with Nearby Data Centres**

The assessment also considered the potential for cumulative impacts with nearby data centres, including CDC Roberts Road, Kemps Creek, and several Digital Realty facilities. A probability-based screening approach was adopted, factoring in source proximity, prevailing wind directions, and concurrent generator use.

The likelihood of simultaneous emissions from the S4 site and neighbouring facilities occurring under conditions that would contribute to cumulative impacts at common sensitive receptors was estimated at approximately 9.2%. However, even in these rare overlap conditions, significant cumulative exceedances are not anticipated, particularly given the conservative modelling assumptions already applied.

## **Construction Air Quality – Data Centre Site**

The construction of the data centre will involve significant bulk earthworks, excavation, vehicle movement, and material handling, which are expected to generate short-term emissions primarily in the form of fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>). No demolition activities are proposed.

The assessment conservatively assumes all buildings are constructed concurrently, maximising potential emissions for modelling purposes. In reality, the works will be staged, and actual emissions are likely to be lower, making the adopted assessment a worst-case scenario.

The site is located within an industrial precinct (IN1 General Industrial), with the nearest residential receptor located approximately 26 metres east of the site. These receptors were included in the modelling to assess potential human health and amenity impacts from construction dust.

The risk of dust soiling and human health impacts during construction was assessed as low to medium (unmitigated), due to the scale of works and proximity of sensitive land uses. However, with the recommended control measures in place, the residual risk is considered negligible.

### **Construction Air Quality Impacts – External HV Works**

In addition to the above, a Supplementary AQIA has been prepared by Northstar (refer **Appendix QQ**) to address the air quality impacts associated with the delivery of the HV connection to the site.

Construction of the HV works involve earthworks such as trenching, cable installation, and backfilling over a 14-month period. These activities have the potential to generate short-term emissions of particulate matter (PM10 and PM2.5), predominantly from fugitive dust during excavation and soil handling.

A risk-based assessment identified the unmitigated risk of air quality impacts to be negligible to medium, with the majority of the alignment intersecting land uses with low to medium sensitivity. No high-sensitivity receptors (e.g. residential zones) are located within 250 metres of the alignment, though some dwellings in RU4-zoned land and potential IN1-zoned facilities were noted.

The dominant air quality concern is dust soiling and amenity impacts at nearby land uses rather than health-based impacts, as PM exposure durations and background levels are not expected to exceed national standards.

### **Revised Mitigation Measures**

The revised AQIA for the data centre proposal did not identify any additional mitigation measures beyond those previously outlined in the EIS.

The supplementary AQIA prepared for the HV route identified the following additional mitigation measures:

- Dust Management Plan (**DMP**) to guide daily dust control practices
- Use of water carts, soil compaction, and covering of stockpiles
- No on-site burning of materials
- Ensuring vehicles are covered during transport and use wheel washing facilities
- Engines off when idle, and minimisation of drop heights during material handling
- Signage and complaints registers, with contact details for site personnel prominently displayed
- Daily site inspections during high-risk conditions (e.g. dry/windy weather)

### **3.8.1.7. Hazards and Risks**

A revised Preliminary Hazards Analysis has been prepared by Aurecon and can be found at **Appendix EE**. The revised report addresses the submissions and assesses the amended proposal.

The report has reviewed the quantity of hazardous goods stored on site associated with the amended proposal under the threshold criteria outlined in the R&H SEPP, including:

- 120 diesel generators;
- Total diesel fuel storage: 4,472kL
- Lithium-ion Batteries: 777.6 tonnes

### **Resilience and Hazards SEPP Screening Results**

To support the operation of the site and power supply remains uninterrupted and consistent, both lithium-ion batteries and diesel generators will be located on the site. While diesel is not classified as a dangerous good by the Australian Dangerous Goods Codes (**ADGC**), it is a Class C1 combustible liquid. Lithium-ion batteries have the potential for thermal runaway and are identified as Class 9 dangerous goods. The classes and quantities of dangerous good to be stored on the site is summarised in **Table 13**.

Table 13 Quantities of dangerous good stored within the site

Material	UN number	Dangerous goods class	Proposed Quantity	Storage Threshold	Transport Threshold
Lithium-ion Batteries	3480/3481	Class 9	777.6 tonnes	N/A	>1000 movements annually
Diesel Fuel	1202	C1/C2 - combustible liquid)	4,472 kL	N/A	N/A

A screening assessment was undertaken by Aurecon in accordance with the provisions of the R&H SEPP. As Class 9 dangerous goods and C1 & C2 combustible liquids are excluded, no storage screening is required.

The SEPP screening for transportation only applies to the movement of lithium-ion batteries. The movement of lithium-ion batteries is only expected during the commissioning stage with no movement of lithium-ion batteries expected during operation.

#### POEO Act

General chemical storage is defined to include all chemical substances classified as DGs by the ADGC. As lithium-ion batteries are classified as Class 9 DGs by the ADGC, a licence would be required if more than 2,000 tonnes of lithium-ion batteries are to be stored at the Facility.

There are approximately 777.6 tonnes of lithium-ion batteries proposed to be stored on-site. This is below the 2,000-tonne limit and so lithium-ion battery storage is not classified as a scheduled activity and a licence is not required.

There are approximately 4,472 tonnes of diesel proposed to be stored on-site. This is above the 2,000-tonne limit and so diesel storage is classified as a scheduled activity and a licence is required.

#### **Revised Mitigation Measures**

The revised Preliminary Hazards Analysis did not identify any additional mitigation measures beyond those previously outlined in the EIS.

#### **3.8.1.8. Infrastructure Requirements and Utilities**

A revised Infrastructure Requirements Report has been prepared by Aurecon and can be found at **Appendix FF**. The report assessed the existing and required infrastructure needed to service the site and future data centre. The potential impacts associated with the amended data centre are consistent with the existing proposal. A summary of the potential impacts associated with the demand for utilities is provided below.

#### **Construction Impacts (Data Centre Site)**

##### Electricity:

No existing electrical services are present on the site. Underground electrical infrastructure will be installed as part of Stage 1. Measures will be implemented to protect new infrastructure during subsequent stages.

##### Water and Sewer:

Sydney Water connections will be established via live connections, with minimal disruption due to the ring main configuration. Sewer impacts are also minimal, as a sewer access chamber is already installed on site.

##### Telecommunications:

Telecommunications infrastructure will be expanded in Stage 1 to service the site. These works will be protected and staged to avoid damage during later phases.

##### Gas:

No gas connections are proposed. However, a high-pressure gas main runs along the site's northern boundary. Contractors will be required to comply with Jemena's safety protocols, including preparation of a management plan and onsite supervision during works near the pipeline.

### **Operational Impacts (Data Centre site)**

#### **Electricity:**

Key operational risks include noise and emissions from backup generators, and fire risk associated with high-voltage infrastructure. These are mitigated through:

- Enclosed, acoustically treated generators
- Spill control measures for fuel
- Fire suppression systems
- Redundancy and separation in electrical supply design

#### **Water and Sewer:**

The site will rely on Sydney Water services. Minor impacts include pump noise. Rainwater reuse, metering, and water-efficient fixtures reduce overall demand.

#### **Telecommunications:**

Substantial telecom upgrades will enhance site connectivity and may also benefit surrounding businesses. No adverse impacts expected.

#### **Gas:**

No gas is used or connected to the development. No operational impacts.

### **External HV Works**

A supplementary Infrastructure Requirements Report has been prepared by Aurecon to address the additional external HV works and is included at **Appendix TT**.

The report assesses potential impacts associated with the installation and operation of the proposed 2.6 km high-voltage (330kV) dual feeder connection between the NEXTDC S4 Data Centre and the TransGrid Sydney West Substation site. The HV cable route traverses multiple public utility corridors, primarily within road reserves, and intersects with existing infrastructure including:

- **Electrical Services:** Existing Endeavour Energy assets are present; appropriate clearances will be ensured in coordination with Lumea (TransGrid subsidiary).
- **Water Services:** Crossings of potable water mains (including 450mm and 200mm assets) and a WaterNSW bulk supply pipeline (2.5–3.0 m diameter). Impacts are low due to burial depths >5.5 m, subject to vibration controls.
- **Sewer and Stormwater:** Crossings include encased Sydney Water sewer mains. Coordination is ongoing with Blacktown Council for stormwater management.
- **Gas Services:** A Jemena high-pressure pipeline runs along the northern boundary. While a pipeline hazard assessment is not required, an Electrical Hazard Assessment will be prepared in accordance with AS4853.
- **Telecommunications:** Impacts to local services are anticipated and will be managed through utility engagement during detailed design.

### **Revised Mitigation Measures**

Aurecon have not recommended any additional mitigation measure beyond what was provided in the EIS. The supplementary Infrastructure Requirements Report prepared for the external HV works identified the following additional mitigation measures:

- Utility crossing designs to be approved by each affected utility provider.
- Construction vibration and noise controls as outlined in respective management plans.

- Air quality mitigation for dust suppression during trenching and backfilling.
- Site-specific protocols for works near high-pressure gas mains, including development of Jemena-approved plans, on-site spotters, and pipeline monitoring.
- Use of licensed waste contractors for temporary effluent storage and disposal.
- Coordination of all construction activities with service authorities and incorporation of utility requirements into final design documentation.

### 3.8.1.9. Greenhouse Gas Emissions

A Greenhouse Gas Assessment Report has been prepared by Aurecon in response to comments from the NSW EPA and is provided at **Appendix NN**. The assessment was undertaken in accordance with the EPA's *Guide for Large Emitters* and evaluates emissions associated with the amended proposal, including construction and 50 years of operation.

The key findings of the report include:

- The project is expected to generate approximately 1.72 million tonnes of CO<sub>2</sub>-e over its 50-year operational life (pre-offset). This includes 192,212 t CO<sub>2</sub>-e from Scope 1, 752,144 t CO<sub>2</sub>-e from NEXTDC Scope 2, and 778,826 t CO<sub>2</sub>-e from Scope 3 sources.
- Projected peak annual emissions are 119,768 t CO<sub>2</sub>-e in 2032.
- NEXTDC will fully offset all Scope 1 and Scope 2 emissions, reducing post-offset emissions to 778,826 t CO<sub>2</sub>-e (Scope 3 only).
- The proposal exceeds National Greenhouse and Energy Reporting (**NGER**) thresholds for GHG emissions and energy consumption. However, it does not trigger Safeguard Mechanism obligations.

#### Revised Mitigation Measures:

The project incorporates a suite of embedded and future mitigation measures aligned to the avoid-reduce-substitute-offset hierarchy:

- Design for hyperscale customers that procure 100% renewable electricity (Scope 2 avoidance); efficient HVAC and architectural design.
- Operational energy efficiency measures including real-time system tuning and modular infrastructure upgrades.
- Use of low-GWP refrigerants (R-513A); future integration of alternative fuels for backup power (e.g., renewable diesel).
- NEXTDC offsets all residual Scope 1 and 2 emissions under Climate Active certification via Qantas Future Planet and other accredited carbon programs.

#### Residual Emissions:

Unavoidable emissions post-2050 are mainly from:

- Diesel generator use for backup power.
- Fugitive emissions (refrigerant and SF leakage).
- Periodic replacement of capital infrastructure (Scope 3).

These are considered hard-to-abate and will be reassessed as low-carbon technologies mature.

The assessment confirms the project's alignment with NSW and Commonwealth net zero targets and demonstrates a clear commitment to emissions accountability and ongoing reduction efforts.

### 3.8.1.10. Ground and Water Conditions

#### Geotechnical



A revised Geotechnical Investigation has been prepared by JK Geotechnics having regard to the amended proposal including the HV cabling route and is provided at **Appendix X**.

Key findings confirm that excavations will encounter fill and low to high strength siltstone bedrock, requiring hard rock equipment in some areas. Retention systems will be needed, though most cuts are shallow and can be temporarily battered or permanently sloped where space permits.

Groundwater is not expected, though minor seepage may occur and will be managed during construction. Structures will require either piled or pad footings founded in siltstone, subject to geotechnical inspection and testing. Ground slabs will mostly overlie fill, requiring appropriate subgrade preparation and consideration of differential movement. Where suspended slabs are proposed, void formers may be needed over non-bedrock areas. Pavement areas will also require subgrade treatment.

For the HV cable trench, excavations are expected to encounter fill, residual soils, and possibly weathered siltstone at greater depths (up to 3 m). Shallow trenches (<1.5 m) may be excavated without support, though minor trench wall instability may occur. Deeper trenches will require temporary support such as shoring boxes, and surcharging within the excavation zone of influence must be avoided.

Further investigations, including borehole and resistivity testing, will be undertaken to inform detailed HV cable design and assess potential conflicts with existing services.

### **Surface Water and Groundwater**

A revised Surface Water and Groundwater Condition Assessment has been prepared by JK Environments and is provided at **Appendix HH**. This report has been updated to include the updated project description. However, the proposed amendments made do not alter the previous assessment or mitigation measures outlined in the EIS.

#### **3.8.1.11. Flooding**

A revised Flood Risk Assessment Report has been prepared by TTW and can be found at **Appendix P**. The report examined the flooding behaviour of the site and proximate context as well as the applicable statutory and non-statutory planning controls and development standards. Key findings of the flood assessment are as follows:

- The site is located between the Reedy Creek and Ropes Creek floodplains and is elevated above surrounding flood-affected areas.
- The site itself is not subject to direct flooding under any modelled event, including the PMF.
- While adjacent access roads, including Wallgrove Road, Old Wallgrove Road, and Burley Road, may be inundated during significant flood events, safe evacuation remains feasible via the Westlink M7.
- The Westlink M7 has been confirmed as a flood-free evacuation route during all events up to and including the 1% AEP event and remains viable during the PMF event.

A Flood Emergency Response Plan (**FERP**) has been prepared (refer **Appendix MM**) alongside this assessment to detail evacuation strategies, and site-specific response actions during a flood event.

#### **3.8.1.12. Aboriginal Cultural Heritage**

An Addendum to the original Aboriginal Cultural Heritage Assessment Report (**ACHAR**) has been prepared by Urbis and can be found at **Appendix T**.

The purpose of the Addendum is to consider the potential impacts of the amended proposal and the additional HV works now proposed to be undertaken under SSD-63741210 that were not previously addressed in the ACHA. This includes the HV connection route to the TransGrid Sydney West Substation and works within the TransGrid substation site itself.

The assessment applied the same predictive model and methodology used in the original ACHAR to determine whether Aboriginal cultural heritage could be impacted by the updated scope. A desktop review and site inspection confirmed that there are no registered Aboriginal sites within the HV connection route or the TransGrid site, and that no new Aboriginal sites have been recorded within the original subject area.

While a portion of the substation site is located within 200 metres of a natural waterway (a feature generally associated with past Aboriginal land use), the entire area including Johnston Crescent, Old Wallgrove Road and the TransGrid site is highly disturbed due to past infrastructure works. The underlying Blacktown soil

landscape is shallow and highly susceptible to disturbance, further reducing the likelihood of archaeological material being present.

As a result, the archaeological potential across the HV connection route and TransGrid substation site is assessed to be very low. These findings are consistent with the original ACHAR, which concluded that the subject area also holds very low potential due to extensive historical disturbance and limited cultural value.

Accordingly, any physical works within the original subject area, the HV connection route, or the TransGrid substation site are unlikely to harm Aboriginal objects or declared Aboriginal places. The recommendations of the original ACHAR remain valid and applicable to the updated development footprint.

A copy of the Addendum was provided to all Registered Aboriginal Parties (RAPs) in July 2025 to ensure they remain informed and are given the opportunity to comment.

### 3.8.2. Standard Assessments

#### 3.8.2.1. Non-Aboriginal Cultural Heritage

The original Heritage Impact Statement (**HIS**) concluded that due to the considerable separation between the site and heritage items, there is no risk that the proposed development will physically or visually impact any heritage item.

The amended building envelope and overall design is considered appropriate based on the surrounding industrial context, with no changes required to the original HIS. However, the HIS has been updated to include the updated project description (refer **Appendix U**).

#### 3.8.2.2. Ecologically Sustainable Development (ESD)

A revised ESD report (inclusive of NABERS Embodied Emissions Material Form) has been prepared by Aurecon and is available at **Appendix M**. The report outlines the energy efficiency measures which can be adopted for the project to minimise greenhouse gas and carbon emissions.

The ESD report has undertaken a detailed analysis of the potential impacts, including the following:

- Energy and greenhouse gas emissions
- Water usage
- Materials and waste

The revised report includes ESD initiatives as outlined in the table below.

Table 14 ESD Initiatives

Category	Initiative
Energy and Greenhouse Gas emissions - Energy use	<ul style="list-style-type: none"><li>▪ It is proposed that new lighting provided will be LED type luminaire fittings which provide efficient lighting along with motion sensor controls for occupied spaces.</li><li>▪ The mechanical system is proposed to utilise high efficiency chillers supplying high temperature chilled water to data hall cooling plant to maximise energy efficiency when chillers run, reducing energy consumption. When conditions allow the chilled water system will utilise heat exchangers to bypass the chillers and reject heat directly to the cooling towers.</li></ul>
Integrated Water Management – Water use	<ul style="list-style-type: none"><li>▪ It is proposed that fixture selection in future design stages must adhere to Green Star requirements for flow efficiency.</li><li>▪ Rainwater from the roof will be collected in rainwater harvesting tanks and to provide tanks to collect cooling tower discharge water for reuse.</li></ul>

Category	Initiative
Resources – Sustainable materials and Construction Waste	<ul style="list-style-type: none"> <li>Strategies to reduce embodied carbon as discussed in the integrated design workshop to be implemented in the design.</li> <li>A construction and demolition waste management plan to be developed in the next phase to inform regarding major waste streams generated, including disposal and diversion rates</li> </ul>
Climate Change	<ul style="list-style-type: none"> <li>Plant selection will be based off the energy modelling analysis with climate change factors incorporated in the design.</li> <li>High SRI Roofing materials in accordance with Green Star Urban heat island requirements will help lower the heat effect.</li> <li>Increased HVAC monitoring schedule to ensure filters are replaced frequently to maintain fresh airflow in conditioned areas as a measure for bushfire smoke</li> </ul>

The above measures will reduce the impacts of the proposal, particularly with regards to energy and water consumption as summarised below:

- Energy use and Greenhouse Gas emissions – Designing to a Power Usage Effectiveness (PUE) of 1.2, compared to an industry standard of 1.6, can result in a 20% reduction in energy consumption for cooling and other non-IT infrastructure. This improvement in energy efficiency directly translates to lower greenhouse gas emissions. Additionally, the development is targeting a 5-star NABERS Energy for Data Centre Infrastructure rating, demonstrating a commitment to sustainable design and operation.
- Water use - Designing to a Water Usage Effectiveness (WUE) of 1.5 litres per kilowatt-hour (L/kWh), compared to the industry standard of 1.8 L/kWh, can result in a significant 17% reduction in water consumption.

### 3.8.2.3. Climate Change

A Climate Change Risk Assessment and Adaptation Plan (refer **Appendix LL**) has been prepared in response to the submissions received and to evaluate the potential impacts of climate-related hazards on the NEXTDC S4 Data Centre. The assessment identifies key risks under a high emissions scenario for both 2050 and 2090 timeframes, including increased temperatures, more frequent extreme weather events, bushfire conditions, and atmospheric CO<sub>2</sub> impacts.

Of the 22 climate-related risks assessed, two risks reached a high initial rating for 2090:

- Equipment overheating and failure, and
- Hail damage to buildings.

Adaptation measures have been integrated into the project design to reduce these risks. These include:

- Enhanced HVAC systems,
- Localised and redundant cooling infrastructure,
- Space-proofing and rooftop shading,
- Hail-resistant materials and covered walkways,
- Backup generators and battery storage, and
- Flood-safe site selection and enhanced stormwater infrastructure.

Implementation of these measures reduces all high risks to medium or low by 2090, with most medium risks also reduced to low.

The report recommends:

- Continued integration of adaptation measures during detailed design,
- Further testing of HVAC performance under extreme heat,
- Modelling drainage under intensified rainfall conditions, and
- Ongoing review and operational consideration of risks beyond the design phase.

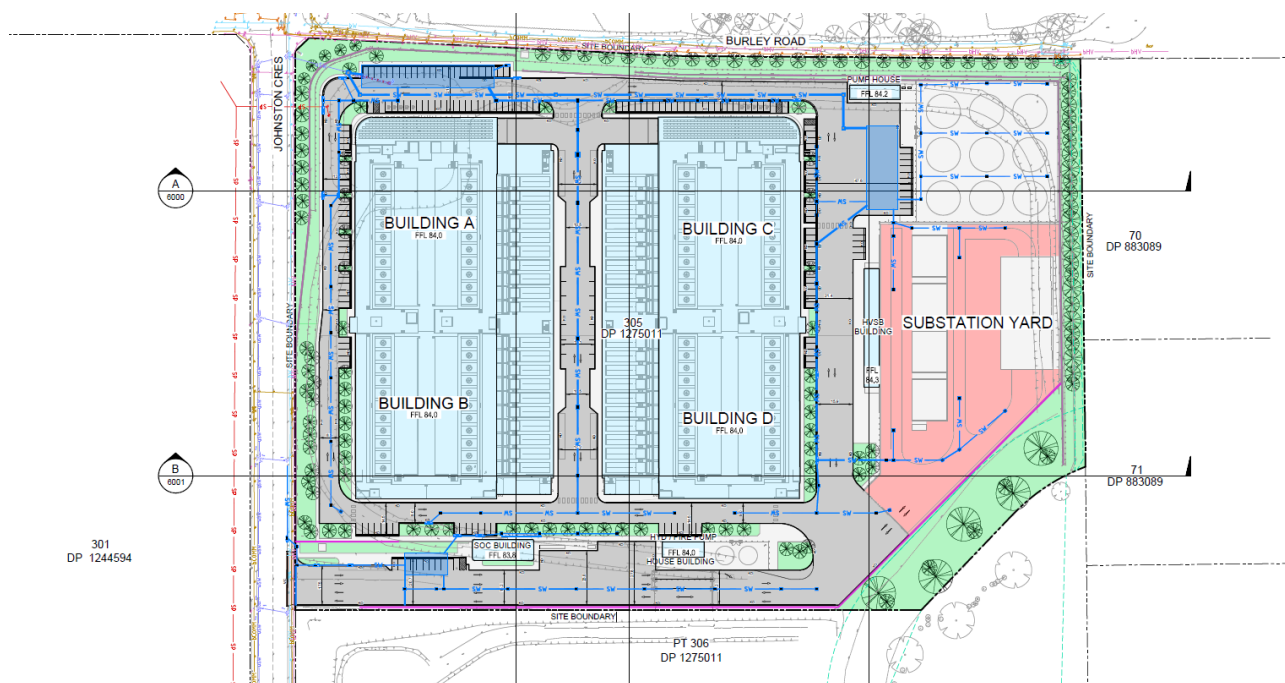
The assessment confirms that the project incorporates best-practice resilience planning and is designed to operate effectively under projected future climate conditions.

### 3.8.2.4. Water Management

A revised Civil Engineering Report has been prepared by TTW and is provided at **Appendix Q**. The report provides a summary of the civil engineering design for the proposed amended data centre.

Minor design amendments have been introduced to respond to the changed building siting. The amended stormwater drainage design is shown in **Figure 29**.

Figure 29 Revised Stormwater and Drainage Plan



Source: TTW, 2025

The amended proposal adopts a comprehensive water management strategy that aligns with the 327–335 Burley Road, Horsley Park DCP 2016, and ensures minimal downstream impacts.

Stormwater runoff will be captured and managed through a gravity-based sitewide pit and pipe network that discharges into existing public infrastructure. Three on-site detention (**OSD**) tanks designed with a combined capacity of 2,390m<sup>3</sup> will manage flows from roof and hardstand areas, ensuring discharge remains below the permissible site discharge (PSD) thresholds for both 20% and 1% AEP events. These tanks include orifices and emergency overflow weirs sized to manage major storm events, while limited bypass areas (7.6% of the site) drain to adjacent road infrastructure without exceeding cumulative flow allowances.

Water quality is addressed via a treatment train comprising rainwater reuse tanks, Oceanguard filter baskets, and proprietary filter cartridges within OSD chambers. Modelling demonstrates full compliance with DCP pollutant reduction targets.

During construction, an erosion and sediment control plan will be implemented in accordance with the “Blue Book” to prevent discharge of sediment-laden water. Collectively, the stormwater quantity and quality measures ensure the proposal meets Council’s requirements, avoids adverse off-site impacts, and contributes to sustainable site management.

### 3.8.2.5. Accessibility

A revised Accessibility Report has been prepared by MGAC and is available at **Appendix AA**. The review of the amended proposal showed that the development can comply with the relevant accessibility requirements at the detailed construction stage.

### 3.8.2.6. BCA

A revised BCA Compliance Report has been prepared by McKenzie Group and is available at **Appendix H**. The BCA report confirms that compliance can be achieved via performance solutions or amendments prior to the relevant Construction Certificate stage.

### 3.8.2.7. Bushfire

A revised Bushfire Protection Assessment has been prepared by ABPP and is provided at **Appendix Z**. The report has been updated to include the updated project description and to assess the amended proposal.

The amended proposal satisfies the relevant provisions of PBP 2019 and demonstrates that the bushfire risk to people, property and the environment can be effectively managed. Key bushfire protection measures include:

- **Setbacks and Asset Protection Zones:** The proposed buildings provide generous setbacks to the bushfire hazard, significantly exceeding the minimum defendable space requirements. A separation of over 75–85 metres is provided to forest vegetation to the southeast, and over 30 metres to the north, far exceeding the minimum 22 metres and 8 metres defendable space distances required under PBP 2019.
- **Construction Standards:** Buildings will be constructed to comply with AS 3959:2018, incorporating BAL-12.5 and BAL-19 construction measures to provide appropriate ember and radiant heat protection.
- **Access and Water Supply:** The internal road layout provides full perimeter access for emergency vehicles in accordance with the access design standards of PBP 2019. A dedicated fire water supply system, including water tanks, will be provided and designed in accordance with AS 2419.1–2021.
- **Ongoing Management:** The asset protection zones will be maintained in accordance with PBP 2019. A positive covenant will be registered on title to secure ongoing management and compliance.

Given the nature of the use and the low residual risk, a bushfire evacuation plan is not required. The proposal meets all relevant bushfire safety objectives, and no further mitigation measures are considered necessary.

#### **Revised Mitigation Measures**

The revised Bushfire Report recommends the following mitigation measures:

- The southern and eastern elevations of Building No. D shall be constructed to comply with Section 3 and Section 5 (BAL12.5) of A.S. 3959 – 2018 – ‘Construction of Buildings in Bushfire Prone Areas’.
- BAL 12.5 construction shall apply to Building D for a distance of 100 metres from the C2 zone boundary.
- BAL 12.5 construction shall also apply to the HVSB building for a distance of 100 metres from the C2 zone boundary.
- The BAL 12.5 construction standards to the northern elevation of Building No. A & No. C shall be constructed to comply with Section 3 and Section 6 (BAL19) of A.S. 3959 – 2018 – ‘Construction of Buildings in Bushfire Prone Areas’.
- The remaining elevations of Building No. A & No. C shall be constructed to comply with Section 3 and Section 5 (BAL12.5) of A.S. 3959 – 2018 – ‘Construction of Buildings in Bushfire Prone Areas’.
- The following additional measures also apply to Building No. D:
  - Access doors [PA and Vehicle] to the building shall be fitted with seals that seal the bottom, stiles and head of the door against the opening/frame to prevent the entry of embers into the building.
  - Particular attention shall be given to the gap at the head of the curtain of the roller doors, where mohair type seals shall be used.

- Any external vents, grilles and ventilation louvres shall have stainless steel mesh with a maximum aperture of 2mm square fitted to prevent the entry of embers into the building or be fitted with a louvre system which can be closed in order to maintain a maximum aperture or gap of no more than 2mm.
- Appendix 3 “Access” of Planning for Bushfire Protection 2019 provides specifications on the access provisions for fire-fighting operations within developments which are subject to bushfire attack.
- Vehicular access to the proposed Data Centre will be provided from Johnston Crescent, via the new internal road network.
- The proposed internal access roads will be constructed to provide heavy rigid and articulated vehicle access to each of the proposed buildings. This internal road network will provide suitable access for fire-fighting appliances similar to NSW Rural Fire Service Category 1 Tankers and Fire & Rescue NSW Composite and Aerial Appliances.
- The fire-fighting water supply to the proposed complex shall comply with the Building Code of Australia [BCA] and Australian Standard A.S. 2419.1 – 2021. Electricity supplies will be laid underground and therefore address the performance standard of Chapter 4 of Planning for Bushfire Protection 2019.
- The Data Centre is unlikely to be subject to a fire event that will create the need for the evacuation of the Centre. Due to the low bushfire risk there is no requirement for the preparation of a specific Bushfire Evacuation Plan or a Bushfire Management Plan for the Data Centre complex.
- The management of the Defendable Spaces within the site shall comply with the recommendations of Appendix 4 of Planning for Bushfire Protection 2019 and Standards for Asset Protection Zones.
- Management of the Defendable Spaces within the development shall comply with the following:
  - Maintain a clear area of low-cut lawn or pavement adjacent to the buildings; Utilise non-flammable materials such as Scoria, pebbles and recycled crushed bricks as ground cover to landscaped gardens in close proximity to building.
  - Keep areas under shrubs and trees raked and clear of combustible fuels.
  - Trees and shrubs should be maintained in such a manner that tree canopies are separated by 2 metres and understorey vegetation is not continuous [retained as clumps].

### 3.8.2.8. Contamination

A revised Contamination and Remediation Status Letter has been prepared by JK Environments and is provided at **Appendix S**. This letter has been updated to include the updated project description. However, the proposed amendments made do not alter the previous assessment or mitigation measures outlined in the EIS.

### 3.8.2.9. Salinity and Acid Sulfate Soils

A revised Dryland Salinity and Acid Sulfate Soils Assessment has been prepared by JK Environments and is provided at **Appendix KK**. This report has been updated to include the updated project description. However, the proposed amendments made do not alter the previous assessment or mitigation measures outlined in the EIS.

### 3.8.2.10. Social Impact

A revised Social Impact Assessment (refer **Appendix V**) has been provided to reflect the amended proposal, however the previous assessment of impacts and mitigation measures outlined in the EIS have not changed.

### 3.8.2.11. Waste Management

A revised Waste Management Plan (**WMP**) has been prepared by Encycle to address the amended proposal and is provided at **Appendix Y**. The plan addresses both construction and operational waste associated with the amended proposal, including the installation of the HV cable connection.

#### **Construction Waste (External HV Works)**

The external HV cabling works and works within the TransGrid substation site will generate approximately 7,500 cubic metres of spoil from trenching over the route. No other significant waste types (e.g. timber,

plastics, metals) are expected. Of the excavated soil, over 99% is forecast to be diverted for on-site or off-site reuse, exceeding diversion targets set in the NSW Waste and Sustainable Materials Strategy.

#### **Construction Waste (Data Centre Site)**

50,000 tonnes of mixed construction waste is expected from data centre, substation, and switching station works. A 93% resource recovery rate is targeted, based on similar NEXTDC projects, through contractor-led sorting and recovery off-site.

#### **Operational Waste**

Waste generation during operations will be relatively low and mainly arise from office functions, staff amenities, packaging from server equipment, and periodic fit-out works. Waste streams include:

- General waste, commingled recycling, paper/cardboard, organics, soft plastics, and e-waste.
- Server packaging materials will be generated intermittently and managed through bulk recycling processes.
- E-waste and batteries will be managed via dedicated storage and collected by certified recycling contractors.
- No hazardous or regulated liquid wastes are expected during routine operations.

Separate, enclosed bin stores will be provided for each building cluster (A&B and C&D), designed to meet Council waste codes and facilitate flexible collection. Waste volumes and frequency will be monitored post-commissioning and adjusted through private waste service agreements to avoid over-servicing or under-capacity.

#### **Revised Mitigation Measures**

The WMP recommends the following mitigation measures:

##### **Construction Phase:**

- Licensed contractors will manage waste handling, with sorting at recovery facilities to maximise diversion.
- Temporary laydown and waste storage areas will be designated for each construction stage.
- A detailed construction waste management plan will be prepared by the contractor before works commence, covering skip placement, personnel inductions, and minimisation of packaging waste.

##### **External HV Works-Specific Measures:**

- Trench waste (excavated soil) will be reused or recycled where feasible to minimise landfill disposal.
- No hazardous or hard waste types are expected; if uncovered, these will be managed in accordance with regulatory requirements.
- Waste storage and access routes will be designed to minimise impacts to nearby premises and public areas.

##### **Operational Phase:**

- Bin stores are fully enclosed, ventilated, and compliant with Council and Australian Standards.
- Waste collection routes avoid steep grades and ensure safe, efficient access for servicing vehicles.
- A building user waste guide will be developed and issued during occupation, detailing waste systems, collection protocols, and recycling targets.

## **3.9. JUSTIFICATION OF AMENDED PROJECT**

This section of the report provides a comprehensive evaluation of the amended proposal having regard to its economic, environmental and social impacts, including the principles of ecologically sustainable development.



It assesses the potential benefits and impacts of the proposed amendments, considering the interaction between the findings in the detailed assessments and the compliance of the proposal within the relevant controls and policies.

### 3.9.1. Project Design

The amended proposal has been designed to improve operational efficiency while minimising potential environmental and amenity impacts. It continues to deliver on the strategic objective of facilitating the development of critical digital infrastructure to support growing demand from surrounding employment precincts.

The revised layout provides a more consolidated and functional site arrangement. The combination of the data hall buildings allows for a reduced overall building footprint, improved site efficiency, and a more centralised road and parking network. This consolidation has enabled an increase in deep soil planting zones and improved tree retention across the site, enhancing the landscape outcome and supporting on-site biodiversity.

The built form has been carefully modulated and incorporates complementary materials and finishes that respond to the character of the surrounding precinct. The architectural and landscape design have been developed to minimise impacts on adjoining properties, including the RU4-zoned land to the east, and contribute positively to the visual amenity of the Burley Road streetscape.

Overall, the amended proposal achieves a balanced and sustainable development outcome that aligns with the site's strategic role while ensuring an improved interface with the surrounding context.

### 3.9.2. Strategic Context

This amendment report has demonstrated that the project is consistent with the strategic framework and has been considered against key Government and Council documents including the following:

- *Greater Sydney Region Plan: A Metropolis of Three Cities*
- *Our Greater Sydney 2056: Western City District Plan*
- *Fairfield City 2040 Local Strategic Planning Statement*
- *GANSW Better Placed*
- *Future Transport Strategy 2056*

The proposal is consistent with the State and local strategic planning policies. Consistency is achieved through the provision of employment, and implementation of ESD measures that contribute to create a new and leading-edge form of development, for the purposes of a data centre. The proposed development complements significant government investment in infrastructure.

### 3.9.3. Statutory Context

The relevant State and local environmental planning instruments are listed and assessed in **Section 3.4** and the Statutory Compliance Table in **Appendix B**. The assessment findings remain unchanged from those assessed under the EIS. The assessment concludes that the proposal complies with the relevant provisions within the relevant instruments as summarised below:

- The proposed development has been assessed and designed in respect to the relevant Objects of the EP&A Act as defined in section 1.3 the Act and addressed in **Appendix B**.
- This EIS has been prepared in accordance with the SEARs as required by sections 190-192 of the EPA Regulation.
- Consideration is given to the relevant matters for consideration as required under the BC Act and the proposal is supported by a BDAR Waiver and a relevant environmental assessment.
- This SSDA pathway has been undertaken in accordance with the Planning Systems SEPP as the proposed development is classified as SSD.
- An EPL will be required as per the requirements of Schedule 1 clause 9 of the POEO Act.

- Concurrence from TfNSW will be required as per the T&I SEPP for 'traffic generating development'.
- The proposal complies with all the relevant provisions under the I&E SEPP as detailed in **Appendix B**. The proposed development is consistent with the objectives of the IN1 zone.
- The proposed development has been assessed in accordance with the R&H SEPP and the development complies with the relevant clauses.
- The proposal generally accords with the relevant provisions of the WSEA Fairfield DCP as outlined in **Appendix B**.

### 3.9.4. Consultation

As set out in **Part 1** of this report, feedback received during the public exhibition period has informed the design refinements made to the proposal. Consultation feedback received during the refinement of the amended proposal has also been considered. A detailed breakdown of submissions and response can be found at **Appendix A**.

### 3.9.5. Likely Impacts of the Proposal

The proposed development has been assessed considering the potential environmental, economic and social impacts as outlined below:

- **Natural Environment:** The amended proposal addresses the principles of ecologically sustainable development (**ESD**) in accordance with the requirements at section 194 of the EPA Regulation and as outlined below:
  - Precautionary principle: The precautionary principle relates to uncertainty around potential environmental impacts and where a threat of serious or irreversible environmental damage exists, lack of scientific certainty should not be a reason for preventing measures to prevent environmental degradation.  
  
This Amendment Report has not identified any serious threats of environmental damage that cannot be adequately mitigated or addressed based on current scientific standards and best practices. In this regard, the proposed development can be considered generally consistent with the precautionary principle.
  - Intergenerational equity: The needs of future generations are considered in decision making and that environmental values are maintained or improved for the benefit of future generations by:
    - Providing new local employment opportunities during the construction and operational phases.
    - Delivering a development that will assist in providing key technology infrastructure that will ensure the economic vitality of a key employment generating corridor and area of Sydney.
  - Conservation of biological diversity and ecological integrity: As demonstrated throughout the Amendment Report, the proposed development will not result in any significant impacts on biological and ecological integrity of surrounding land, subject to the implementation of mitigation measures. The planting of native vegetation will facilitate a development that will conserve and support local ecological diversity and integrity.
  - Improved valuation, pricing and incentive mechanisms: This requires the holistic consideration of environmental resources that may be affected as a result of the development including air, water and the biological realm. It places a high importance on the economic cost to environmental impacts and places a value on waste generation and environmental degradation.

The development will not have any unacceptable impacts on the natural environment in relation to air quality, water quality or waste management. The effects of the development will be acceptable and managed accordingly by the proposed mitigation measures as required.

Overall, the amended proposal will not have any unacceptable impacts on the natural environment. The revised ESD report (**Appendix M**) identifies sustainability measures including energy savings, energy efficiency and waste minimisation.

- **Built Environment:** The amended proposal has been assessed in relation to the following key built environment impacts:

- **Built form:** The amended proposal is compatible with the existing and planned future context and provides a scale that is appropriate for the site and the current planning controls. The design of the development reflects a well-articulated design which provides high amenity, and the delivery of significant public domain improvements.
- **Trees and Landscaping:** No tree removal is proposed to the main data centre site, six trees required to be removed for HV cable route. The proposal includes new tree plantings to be provided within the site and along the street frontages of Burley Road and Johnston Crescent.
- **Visual Impacts:** The amended proposal is visually compatible with the desired future character and land uses within the locality. The visual impacts range from nil to medium-low. The proposal does not impact on views to any heritage items or areas of unique scenic quality. The proposal can therefore be supported on visual impact grounds as highlighted in **Section 3.8.1.2**.
- **Traffic:** The proposal is projected to generate up to 155 peak hour vehicle trips in the morning and afternoon peak hours. The TIA concludes the surrounding intersections are expected to continue to operate under satisfactory condition as outlined in **Section 3.8.1.5**.
- **Noise and Vibration:** The construction and operational noise impacts are generally below the relevant noise criteria. Any exceedances will be temporary during construction and appropriate mitigation measures have been recommended to manage construction noise. Overall, the amended proposal has been assessed as appropriate from an acoustic perspective as outlined in **Section 3.8.1.4**.
- **Air Quality:** The construction and operational air quality associated with the development is generally below the relevant criteria. Overall, the amended proposal has been assessed as being appropriate from an air quality perspective as outlined in **Section 3.8.1.6**.
- **Social:** The amended proposal will have the following positive social impacts:
  - The proposal includes amenities and design outcomes for a healthy work environment, including landscaping treatments, onsite amenity, natural light and ventilation etc.
  - The proposal will contribute to the delivery of economic opportunities for the Western Sydney community.
  - The proposal will provide employment and training opportunities during construction and operation.
  - The proposal will deliver improvements to the surrounding public domain and streetscape.
- **Economic:** The amended proposal will have positive economic impacts as follows:
  - It will facilitate the orderly and economic development of a highly strategic site.
  - The proposal will provide employment opportunities during both the construction and operational phases of the development.
  - The proposal will meet the growing demand for data storage space in a highly suitable location.

The potential impacts can be mitigated, minimised or managed through the measures summarised in **Appendix C** to this Amendment Report.

### 3.9.6. Suitability of the Site

- The proposal is consistent with the IN1 zone objectives, is permitted with consent and satisfactorily addresses the relevant provisions in the I&E SEPP and the WSEA Fairfield DCP.
- The site is a large, consolidated land holding which is vacant and has been cleared of all structures and vegetation to accommodate future development.
- There are no significant environment constraints that would limit the Project being developed at the site.
- The character and scale of the development is compatible and consistent with its existing and likely future context. There are no significant environmental constraints that would limit the Project from being developed at the site.
- The proposed development will optimise use of a vacant site and deliver strategic objectives located within a developing employment precinct with high amenity and employment outcomes and support

business activity that occurs in other nearby established and emerging employment-generating precincts.

- The site is highly accessible to the regional road network and all necessary infrastructure can be accommodated, allowing operations to commence at no cost to Government.
- Given the proximity to residential receivers and the benign nature pertaining to the data centre operations, the site is highly suitable as opposed to traditional industrial land uses, i.e. warehousing and distribution, which would emit much greater noise and traffic output than the Proposal.

### **3.9.7. Public Interest**

The proposed development is considered in the public interest for the following reasons:

- The proposal is consistent with relevant State and local strategic plans and complies with the relevant State and local planning controls including the relevant provisions in the I&E SEPP and WSEA Fairfield DCP.
- Subject to the implementation of the recommended mitigation measures, no adverse social or environmental impacts result from the Proposal in terms of traffic, noise and vibration, air quality or views during construction and operation of the development.
- The proposal directly contributes to the important role that the WSEA plays as an employment generating precinct within the broader Western Parkland City, as identified by the Greater Sydney Commission.
- The proposal provides critical infrastructure which will support the growth for the digital economy within NSW and more broadly.
- The proposal will protect and enhance employment lands and increase job numbers.
- No major issues relating to the construction and operation of the development were raised during the pre-lodgement consultation with the local community, Council, Government and agency stakeholders.
- The site will facilitate the orderly and economic use and development of the land.

Having considered all relevant matters, we conclude that the proposed development is appropriate for the site and approval is recommended, subject to appropriate conditions of consent.

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