



Response to Submissions Report

Marsden Park Data Centre SSD-70889211
105-113 Hollinsworth Road, Marsden Park

ON BEHALF OF

CANBERRA DATA CENTRES PTY LTD

MARCH 2025

Project

Marsden Park Data Centre SSD-70889211

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1 Introduction

This Response to Submissions Response Report (Submissions Report) has been prepared for the Department of Planning, Housing and Infrastructure (the Department) on behalf of Canberra Data Centres Pty Ltd (the Proponent) in response to the submissions received during exhibition of State Significant Development (SSD) SSD-70889211 (the Proposal).

The Proposal seeks approval for the construction and operation of a data centre on land known as 105 and 113 Hollinsworth Road, Marsden Park (the site) legally referred to as Lots 10 and 11 of Deposited Plan (DP) 1262052. The Proposal also seeks consent for the construction of a gravity sewer main across the adjacent Castlereagh Freeway corridor (Lot 481 DP634363).

The Proposal was publicly exhibited between Thursday 14 November 2024 and Wednesday 11 December 2024. During the exhibition period, a total of 11 submissions were received. This constituted one (1) local government submission, nine (9) state government and agency submissions, and one (1) community submission.

In addition to the submissions received, one (1) Request for Information has also been received from the Department requesting additional information and the drafting of this Submissions Report. For clarity the Department's request has henceforth been referred to as a submission in this report.

This Submissions Report has been prepared having regard to the Department's *State significant development guidelines – preparing a submissions report (Appendix C)* and is structured as follows:

- **Chapter 1** – Introduction (this chapter): Provides an overview of the Proposal and the assessment carried out to date;
- **Chapter 2** – Analysis of Submissions: Summarises and categorises the submissions received;
- **Chapter 3** – Actions Taken Since Exhibition: Outlines further consultation that has taken place since public exhibition and proposed amendments to the Proposal;
- **Chapter 4** – Response to the Department's Submission: Provides a detailed summary of the response to the issues raised in the Department's submission;
- **Chapter 5** – Response to Submissions: Provides a detailed summary of the response to the issues raised in submissions;
- **Chapter 6** – Updated Project Justification: Provides an updated justification and evaluation of the Proposal as a whole; and
- **Chapter 7** – Conclusion: Provides a summary of the amended Proposal as a whole.

Where the previous Interim Submissions Report addressed matters raised in submissions, this has been carried through into this Submissions Report.

1.1 Project Description

The SSDA seeks approval for the construction and operation of a data centre campus with an operational capacity of 504 megawatts (MW), comprising six (6) four (4) storey data centre buildings, ancillary office space, generators, substation, diesel storage, hardstand and landscaping. The facility will operate 24 hours a day, 7 days a week. In summary, approval for the following is sought:

- Minor site preparation works and the installation of services to enable the construction of the data centre campus;
- Staged construction of six (6) x four (4) storey data centre buildings, each containing: 12 data halls, 12 battery rooms, 40 generators (20 double stacked), loading docks, ancillary office space and associated mechanical, electrical and water infrastructure;
- The proposed development will have a typical height of 35m above ground and a maximum height of 37.515m;
- Construction of eight (8) two-storey skybridges linking the front-of-house components of the data centres;
- Approval of a spatial envelope to facilitate the provision for a dedicated 720MVA substation at the northern boundary with direct access to Hollinsworth Road, to serve the data centre campus in its entirety, subject to future detailed design;
- Initially and prior to the establishment of the proposed onsite 132/11kV Zone Substation, the site shall be supplied from South Marsden Park Zone Substation at 11kV. Approval is sought for this connections and associated works.
- Construction of an internal road network to enable vehicular circulation around the campus, loading areas and on-site car parking;
- No tree removal is proposed as part of the SSDA;
- Landscaping works, including the retention of a landscaped buffer along the southern and eastern boundary of the site and the introduction of a landscaped buffer along the northern and western boundaries of the site;
- Construction of a 3m high security fence along the perimeter of the site; and
- Construction of a gravity sewer main across the adjacent Castlereagh Freeway corridor (Lot 481 DP634363), subject to future detailed design.

1.2 Supporting Documents

The following documents have been prepared to support the additional information and amendments in response to the submissions received. The Submissions Report should be read in conjunction with the following information:

- **Appendix 1** – Amended Greenhouse Gas Assessment
- **Appendix 2** – Amended Greenhouse Gas Mitigation Plan
- **Appendix 3** – Amended ESD Report
- **Appendix 4** – Revised BDAR Waiver Request
- **Appendix 5** – Car Parking Reuse Plan
- **Appendix 6** – Amended Civil Plans
- **Appendix 7** – Amended Integrated Water Management Strategy
- **Appendix 8** – Amended Infrastructure Report
- **Appendix 9** – Updated MUSIC and DRAINS Model
- **Appendix 10** – TfNSW Owner’s Consent
- **Appendix 11** – Amended Landscape Plans

- **Appendix 12** – Preliminary Risk Screening Assessment
- **Appendix 13** – Preliminary Risk Screen Memorandum
- **Appendix 14** – Validation Report
- **Appendix 15** – Updated Arboricultural Impact Assessment
- **Appendix 16** – Site Audit Report
- **Appendix 17** – Amended Air Quality Impact Assessment
- **Appendix 18** – Amended Operational Noise and Vibration Impact Assessment
- **Appendix 19** – Amended Construction Noise and Vibration Impact Assessment
- **Appendix 20** – Amended Architectural Plans
- **Appendix 21** – Facade Articulation Design Report
- **Appendix 22** – Amended Visual Impact Assessment
- **Appendix 23** – Updated Mitigation Measures
- **Appendix 24** – Submissions Register

2 Analysis of Submissions

2.1 Submissions

A total of 11 submissions were received throughout the public exhibition period. This comprised:

- Nine (9) State government and agency submissions;
- One (1) local government submission; and
- One (1) public submission.

Of the 11 submissions, one (1) objected to the proposal and one (1) was strongly in support of the SSDA. All submissions, with the exception of the public submission, provide comment on the proposal or request additional information.

A summary of the submissions received is provided in Table 1.

Table 1. Categorisation of submissions	
Submitter	Submission summary
Blacktown City Council	<p>Objects</p> <p>Council objected to the proposal for several reasons including:</p> <ul style="list-style-type: none"> • Engineering matters including: <ul style="list-style-type: none"> ○ Stormwater; ○ Retaining walls and Earthworks; and ○ Water Sensitive Urban Design. • Landscape design; • Car parking in the event of a future adaptive reuse of the building; and • Bulk and scale impacts arising from the acoustic treatments, building height, materials and finishes.
Transport for NSW	<p>During the public exhibition period the application was referred to Transport for New South Wales (TfNSW) for comment. TfNSW provided advisory comments and suggested conditions. Matters raised were primarily in relation to the:</p> <ul style="list-style-type: none"> • Sewer connection across TfNSW owned land; and • Capacity of Richmond Road/Hollinsworth Road/Townson Road Intersection.
Sydney Water	<p>During the public exhibition period, the application was referred to Sydney Water for comment. Matters raised were primarily in relation to the:</p> <ul style="list-style-type: none"> • General Servicing; and • Protection of the existing terminal maintenance shaft. <p>Detailed requirements, including any potential extensions or amplifications, will be provided once the development is referred to Sydney Water for a Section 73 application.</p>
DCCEEW Biodiversity, Conservation and Science	<p>During the public exhibition period, the application was referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) - Conservation and Science (BCS) Group.</p> <p>BCS provided a commentary and recommendations in relation to the Biodiversity Development Assessment Report (BDAR) Waiver Request that was initially submitted and refused. Their submission prompted the submission of an amended BDAR Waiver Request which was re-refused on 24 March 2025 (DOC25/118079). However it is noted that a meeting is scheduled to occur on Tuesday 1 April 2025 with representatives of BCS and the Department.</p>
DCCEEW Heritage NSW	<p>During the public exhibition period the application was referred to Heritage NSW for comment.</p>

Table 1. Categorisation of submissions	
Submitter	Submission summary
	<p>Heritage NSW request additional information to inform the Department on whether the Aboriginal Cultural Heritage Assessment Report (ACHAR) adequately addresses the SEARs. Heritage NSW in relation to:</p> <ul style="list-style-type: none"> • Addressing consultation requirements; and • Providing further details regarding management and mitigation measures. <p>Recommended draft conditions of consent were also provided.</p>
Fire and Rescue NSW (FRNSW)	<p>During the public exhibition period Fire and Rescue NSW (FRNSW) were consulted with. In the submission received, matters raised were in relation to the following aspects of the proposal:</p> <ul style="list-style-type: none"> • Emergency service access/egress; <p>FRNSW also requested the following being prepared:</p> <ul style="list-style-type: none"> • Preparation of a Fire Safety Study; • Preparation of an Emergency Plan prior to occupation; and • Preparation of an Emergency Services Information Package prior to occupation.
NSW Environmental Protection Authority	<p>During the public exhibition period the application was referred to NSW Environmental Protection Authority (EPA) for comment. The EPA requested additional information relating to:</p> <ul style="list-style-type: none"> • Air quality - specifically regarding worst case and probabilistic worst-case emergency scenario; the testing scenario of diesel generators; in stack emission concentration; principal toxics; and modelled stack pollutants. • Greenhouse Gasses - specifically, the classification of indirect emissions, emissions results, and further justification of the input data and assumptions made as part of the assessment. • Operational noise - relating to the issues identified concerning the background noise monitoring, consideration of annoying characteristics, assessment location, noise modelling inputs and the assessment of impacts.
Western Sydney Local Health District (WSLHD)	<p>During the public exhibition period, the application was referred to the Western Sydney Local Health District. The WSLHD raised concerns in regard to the risk of the proposal on human health in relation to:</p> <ul style="list-style-type: none"> • Heat; • Noise; • Air Quality; and • Emissions.
Endeavor Energy	<p>During the public exhibition period, the application was referred to Endeavour Energy for comment. Endeavour Energy did not object to the proposal and requested that their Standard Conditions of Consent be referenced.</p>
Public Submissions	<p>One public submission, strongly in support of the application, was received in relation to the proposal.</p>

2.2 Department's Request for Information

This Submissions Report has been prepared on the basis of the Request for Information (RFI) received from the Department. The Department's request is detailed and addressed in Section 4 of this response.

3 Actions Taken Since Exhibition

In response to the key issues raised within the submissions, design refinements, project clarifications, and additional studies have been undertaken. This section summarises the changes that have been made to the project since its public exhibition.

The following activities have been undertaken by the project team since the lodgement of the SSDA and in response to submissions:

- Additional engagement has been undertaken with multiple stakeholders including the Department, the EPA, NSW DCCEEW Heritage, Blacktown City Council, and Western Sydney Local Health District;
- Revised BDAR Waiver Request lodged with the Department on 11 February 2025 for circulation to BCS. BCS refused the Waiver on 24 March 2025 (DOC25/118079).

A meeting is scheduled on 1 April 2025 with representatives of BCS and the Department;

- Ongoing engagement with representatives of the Baitul Huda Mosque;
- Refinements have been made to the proposed development, including: increased landscaping, refined civil design, introduction of a turning head to allow possible future connection to Langford Drive, removal of tree removal; revised OSD tank design; amended façade designs, modified acoustic treatments and mitigations, removal of southern skybridges from design, amended construction staging and methodology, additional details of proposed substation design and updated technical reports and assessments;
- A modification application is in the process of being prepared and submitted to the Early Works DA (DA-24-00386) to include removal of four (4) additional trees, to reduce confusion between approvals. Subsequently, no tree removal is proposed as part of the SSDA;
- A modification application is in the process of being prepared and submitted to the 5MW DA (DA-24-00542) to revise the OSD tank details and acoustic mitigations to reflect the proposed SSDA design; and
- Further assessment and additional information have been provided by the project team.

The following section describes the additional stakeholder engagement activities and refinements made to the proposed modification.

3.1 Further Stakeholder Engagement

Patch has undertaken ongoing engagement and consultation with the Department in the time since the original submission in relation to a range of matters pertaining to the proposal.

Additional engagement has occurred with the NSW Environmental Protection Authority, Western Sydney Local Health District (WSLHD), NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) Heritage NSW in relation to a range of matters pertaining to the proposal.

Patch has engaged further with the Blacktown City Council in the time since their submission, including:

- A modification application is in the process of being prepared and submitted to the Early Works DA (DA-24-00386) to include removal of four (4) additional trees, to reduce confusion between approvals. No tree removal is proposed as part of the SSDA.

- A modification application is in the process of being prepared and submitted to the 5MW DA (DA-24-00542) to revise the OSD tank details and acoustic mitigations to reflect the proposed SSDA design.

In addition, Council representatives were emailed a copy of the proposed responses to their submission on 20 March 2025 for feedback. No response has been received as of the date of this report.

The Proponent has been in active discussions with the Baitul Huda Mosque in an effort to facilitate alternative access through to Langford Drive. Negotiations are ongoing however to date, owners' consent, easements, and plans have not been prepared. It appears unlikely that an outcome can be achieved to facilitate alternative access for the purposes of this SSDA.

The project team have further engaged with Registered Aboriginal Parties (RAP) and NSW DCCEEW Heritage NSW regarding the finalisation of the Aboriginal Heritage Impact Permit (AHIP) that is tied to the Early Works DA (DA-24-00386). All impacts to Potential Archaeological Deposits (PADs) will be covered by the Early Works DA AHIP. Once this AHIP is finalised and approved, the SSDA will not require an additional AHIP.

In addition, Patch also made attempts to engage with the Biodiversity, Conservation and Science Group (BCS) in the NSW DCCEEW throughout the post-exhibition period in order to clarify commentary in relation to biodiversity and their refusal of the BDAR Waiver Requests. A meeting is currently scheduled to occur on 1 April 2025.

Feedback received through the aforementioned engagement activities has been incorporated into the Submissions Report.

3.2 Design Amendments

In response to the matters raised during the public exhibition of the application and by the Department, a number of design amendments and clarifications have been implemented.

Table 2 summarises the amendments that have been made to the design of the proposal as part of the ongoing design development and in response to comments received, which are detailed in the various technical reports appended to this response.

These refinements do not change what the application is seeking consent for, and are only minor changes to the design in response to submissions received. Therefore an amendment to the proposal is not required.

Table 2. Design Amendments	
Level	Summary of Amendment
OSD Tank	Revised OSD tank design and location to allow for increased canopy coverage and consistency between Local DAs and SSDA design. OSD details, calculations and reports updated to suit.
Vehicular Turning Head	Introduction of a turning head to facilitate possible future connection to Langford Drive, subject to resolution with the adjoining landowner.
General Civil Design	Minor other refinements to the civil design include: <ul style="list-style-type: none"> • Overland Swale – Outfall design updated to show more detailed documentation (changes captured in drawing “0526-04”); • Oil separator specification updated and re-sized; and • Stormwater in-ground design – Pit and pipe network updated following co-ordination with other consultants.
Southern Bridges	Sky Removal of southern skybridges from design to resolve potential privacy concerns and reduce bulk and scale.
Typical Building Design	A number of refinements to the typical building design have been made including: <ul style="list-style-type: none"> • MP2-MP6 - Chiller Deck amended to suit MP1.S2 • Link Bridge Design reduced. • Screen added to MP1.S2, MP2 & MP3 at BOH

Table 2. Design Amendments	
	<ul style="list-style-type: none"> • BOH Loading Dock design amended. • Acoustic Screen Amended for MP1.S2 to MP6 at Chiller Deck Level • BOH Link Bridges deleted from Scope • Fire Stairs extended to Chiller Deck & Roof Level • Lift extended to Chiller Deck level
Revised Substation Area	The extent of the proposed substation area has been revised and a concept envelope specified that identifies maximum spatial requirements for the substation. The identified substation design is still being finalised, however the extent of acoustic mitigation from acoustic walls will remain.
Fencing	The extent of fences and gates has been reviewed and refined.
Construction Staging and Methodology	Revised construction noise mitigation measures as a result of the updated construction staging and methodology. Indicative construction noise barriers have been included in the noise mitigation strategy.
Façade	Southern facades of MP1.S2, MP2 & MP3 at BOH have been revised to include panelised perforated metal screens in a 'burnt gold' effect, which has also been utilised within the interior design selections. This layer between the light grey building and mixed native green and brown landscaping will assist the layering of the building mass among the various contextual elements.
Landscape Area	Landscape areas increased at the eastern end of the site where the OSD tank has been relocated in order to allow for more canopy planting along the eastern boundary.
Landscaping	Tree selection has been revised to introduce additional trees and trees of a greater height along the northern boundary to further screen the development.
Retaining Walls	Details of all proposed retaining walls have been included in the relevant plans.
Tree Removal	The previously proposed removal of four (4) trees has been removed from the proposal. No tree removal is proposed as part of SSDA.
Deep Soil	Deep Soil has reduced by 2.2% as a result of new/updated service layouts which have altered where we initially believed we had the opportunities for deep rooted tree plantings. Some locations such as the OSD tank have been modified to allow for low to mid level shrub plantings to help offset this decrease in deep soil planting.
Canopy Coverage	Total proposed canopy coverage across the site has been increased by 3% as a result of maximising tree layout within and outside of asset protection zones, while adhering to the bushfire requirements outlined by the bushfire consultant. The revised canopy coverage has been curated in conjunction with service layout in order to get the most possible canopy coverage across the SSDA site where bushfire and site restrictions allow. The increased canopy coverage is not only a positive outcome for the site in terms of ecology and amenity but will also help in reducing the urban heat island effects of the proposal.

3.3 Additional Environmental Impact Assessment

Since the exhibition of the proposal, a number of technical assessments and reports have been revised, or additional clarifications provided in relation to submissions received on noise, air quality, visual impacts., hazardous goods, greenhouse gases, sustainability, biodiversity, aboriginal cultural heritage, stormwater management, preliminary risk screening, contamination, construction methodology, operational details and architectural design.

Details of the additional technical reports are outlined in Section 1.2 of this report. The information and findings of the aforementioned technical reports are discussed within Section 4 and Section 5 of this report with regard to matters raised in the submissions.

The revised assessments considered the refinements to the proposed scheme outlined above and are included as appendices to this report.

4 Response to the Department's RFI

4.1 Data Centre Operations

In the request for additional information (RFI) received from the Department dated 14 January 2025, a number of queries were raised in relation to data centre operations. Specifically, the following commentary was provided:

Power consumption

1. *The Department notes that there are several inconsistencies with total power consumption and IT equipment power consumption quoted in the EIS, with the most common figures referenced being 720 megawatts (MW) and 504 MW, respectively. Given this discrepancy, please clarify the total power consumption and IT equipment power consumption for the development.*
2. *The figures quoted in item 0 above appear to result in an overall power usage effectiveness (PUE) of 1.43, which is above the target PUE of 1.3 referenced in the EIS. Accordingly, please provide additional information (including additional mitigation measures if necessary) to confirm that the development can reach the target PUE of 1.3, and confirm when this PUE will be achieved (i.e. from Day 1 of the development or at a later date).*

Cooling System

3. *Please provide an options analysis to demonstrate the development's proposed cooling system utilises best-available technology, particularly with regard to its performance in minimising energy consumption and noise emissions.*
4. *Section 6.5.4 of the EIS suggests that the proposed data centre is designed with a high level of cooling redundancy but provides limited information on the level of redundancy proposed or the reason/s for this requirement. In this regard, please provide additional details on the following:*
 - a. *the redundancy configuration for the cooling system (e.g. N, N+1, 2N+1, etc)*
 - b. *the number of units and their capacity, including any back-up units*
 - c. *the failover process and the duration for maintaining cooling during system failures or maintenance*
 - d. *the testing and maintenance procedures for the cooling system to ensure ongoing reliability.*

Back-up generator system

5. *The EIS does not appear to have provided a comprehensive options analysis/justification for the proposed back-up generator system. Please provide additional information which:*
 - a. *justifies the proposed scale and capacity of the proposed back-up generator system, with regard to its associated redundancy and available/upcoming alternative energy storage technologies*
 - b. *confirms the indicative back-up generator model used to inform the accompanying technical reports represents best available technology/practice, with regard to its associated noise/air quality impacts and the commercial availability of higher tier solutions.*
6. *Please provide further information regarding the proposed testing regime, including:*
 - a. *proposed load/s for each test*

b. confirmation regarding whether ramp up/cool down times have been factored into the proposed test durations

c. confirmation whether commissioning tests would be undertaken for each back-up generator.

Note: Where necessary, information relating to data centre operations may be supplied under separate cover as 'commercial in confidence'.

PROPONENT RESPONSE

Due to the commercially sensitive nature of the requested information, a response has been provided under separate cover marked as 'commercial in confidence.'

4.2 Operational Noise

In the request for additional information (RFI) received from the Department dated 14 January 2025, a number of queries were raised in relation to operational noise.

PROPONENT RESPONSE

The Operational Noise and Vibration Impact Assessment (ONVIA) (**Appendix 17**) has been updated to include and address all matters raised by the Department and the EPA in relation to operational noise.

Given the detailed and specific technical nature of the Department's commentary regarding operational noise, Table 3 provides the specific location within the ONVIA where each matter has been addressed and resolved, and a response from Stantec (the consultants).

Table 3. DPHI Operational Noise Submission Responses	
Matter raised	Response
Assessment Location/s	
<p>7. <i>Predicted operational noise levels must be identified at all receivers potentially affected by the development in accordance with Section 3.3 of the Noise Policy for Industry (NPfI). Given the large number of residences surrounding the site, the noise assessment must include noise contour maps at selected heights of 1.5 and 4.5 metres above ground level to report noise levels at all receivers and validate the location of the potentially most-affected residence. Note that the 'nearest' noise affected receivers identified in Figure 2-1 of the Operational Noise and Vibration Report (ONVR) do not appear to correspond to the 'most-affected' locations based on a review of the limited extent noise contour maps provided in Appendix B.</i></p>	<p>Grid Noise Maps have been extended and run at 1.5m and 4.5m to demonstrate the effect on 2 storey receivers. Refer to Sections 5.5.1 and Appendix B of the ONVIA at Appendix 18.</p>
Background Noise Monitoring	
<p>8. <i>The reporting of the background noise monitoring procedure and results in Section 3 of the ONVR does not appear to have satisfied the requirements identified in Fact Sheets A and B of the NPfI or the Environment Protection Authority's (EPA's) advice on the Planning Secretary's Environmental Assessment Requirements (SEARs). In this regard, please provide additional details on the following:</i></p> <p><i>a. a statement justifying the selection of each monitoring site, including the procedure used to choose each site, with reference to the definition of the "reasonably most-affected location(s)"</i></p>	<p>Justification of monitoring positions have been provided in Section 3.2.1 of the ONVIA at Appendix 18.</p> <p>Daily Logger Graphs for 4 McCann Place (Northrop's monitoring) have been provided in Appendix C of the ONVIA at Appendix 18.</p> <p>Detailed graphics showing logger locations included.</p> <p>Dominant background noise sources have been described with additional attended monitoring conducted during various periods to demonstrate change in the noise environment associated with Day Evening and Night.</p>

Table 3. DPHI Operational Noise Submission Responses

Matter raised	Response
<p>b. daily logger graphs for the long-term monitoring site at 4 McCann Place (L01)</p> <p>c. detailed information on the exact location of each monitoring site, including the specific positioning of the equipment</p> <p>d. a description of the dominant and background noise sources observed, along with the procedure used to identify noise sources (e.g. audio capture or operator-attended measurements conducted during unattended data logging), as well as the range of measured sound pressure levels for each identified source</p> <p>e. a statement confirming that short-term noise monitoring was conducted during periods when maximum impact would likely occur, having regard to the variability observed across the long-term noise monitoring site(s)</p> <p>f. a record of any periods with affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data, and a statement regarding the need for any re-monitoring.</p>	<p>More detailed images of logger locations presented in Section 3.2 of the ONVIA at Appendix 18.</p> <p>Data of short term monitoring was conducted across multiple seasons and time periods to characterise the noise level. All periods of excluded data have been identified in the daily logger graphs in Appendix C of the ONVIA at Appendix 18.</p>
<p>9. The noise monitoring records indicate that night-time background noise levels are 36 dB(A) at 4 McCann Place (approximately 250 metres from Richmond Road) and 37-39 dB(A) at M02 (exact location not specified, over 900 metres from Richmond Road), whereby both sites are said to be influenced by distant traffic noise from Richmond Road. Further clarification is needed to explain why the measured background noise is higher at M02 compared to 4 McCann Place, despite M02 being located a further distance away from Richmond Road.</p>	<p>Northrop's data has been incorporated into the ONVIA to corroborate the data and provide further justification of Stantec's measured results. Noting that this monitoring was not conducted by Stantec, they cannot comment on the specific observations captured in the Northrop Monitoring. Monitoring conducted by Stantec suggests that this contribution is from Industrial Developments to the northwest which Stantec observed in their attended monitoring. Refer to Section 3.4.1 of the ONVIA at Appendix 18.</p>
<p>10. Further information is required to clarify why the long-term noise monitoring dataset from Stantec was used instead of the dataset from Northrop to derive the relevant intrusiveness noise levels at assessment location R2 (Ingenia Lifestyle – Stoney Creek).</p>	<p>Due to project timeframes, it was initially decided to conduct the ONVIA independent and separate to the CNVIA.</p> <p>Originally Stantec intended to conduct this assessment completely independently of Northrop, and so their data was not used. However, later it was determined that the additional monitoring conducted by Northrop would be beneficial to include and provide a fuller picture.</p> <p>Stantec have since aligned the criteria within the ONVIA to be consistent with the CNVIA, by adopting the more stringent Intrusiveness criteria for R2. Refer to Section 4.1.3.1 of the ONVIA at Appendix 18.</p>
<p>Operational Noise Model</p>	

Table 3. DPHI Operational Noise Submission Responses

Matter raised	Response
<p>11. The Department is concerned the 'worst-case' operational noise scenarios considered in the ONVR do not accurately reflect the potential impacts associated with the operation of the development (and as per the SEARs).</p> <p>As an example, the Bait-ul-Huda Mosque should be exposed to greater noise impacts associated with the testing of back-up generators associated with Stage 3. However, Table 5-4 of the ONVR suggests that operational noise at this location would reduce once Stage 3 is operational. It is also unclear whether the proposed substation and other sources (such as load bank/s, transformer/s, flue stacks, etc) have been included in the noise assessment, as Section 5.2 of the ONVR has only listed equipment sound power levels for chillers, PAC units and generators.</p> <p>In this regard, please provide additional details on the following:</p> <p>a. all internal and external noise sources and emission parameters related to the proposed development must be clearly identified in the ONVR in accordance with Section 3.3 of the NPfl</p> <p>b. a plan showing the assumed location of each noise source for each modelled scenario must be provided</p> <p>c. the 'worst-case' operational noise scenarios relevant to the Bait-ul-Huda Mosque, the potentially most-affected double-storey residences in Hassall Grove and Ingenia Lifestyle – Stoney Creek must be identified and justified via a sensitivity analysis (i.e. by varying input variables such as the location and load of back-up generators being tested).</p>	<p>The proponent is yet to commit to a specific substation design, hence the proposal seeks consent for a substation zone that identifies maximum spatial requirements for the substation. Stantec have provided CDC with the noise level requirements for the 6 x transformers which have been incorporated into the ONVIA model. The supplier will be contracted to meet the provided noise level requirements and to demonstrate compliance. Refer to Section 5.2.3 of the ONVIA at Appendix 18.</p> <p>Discussion of discrete generator sources has been provided justifying a single point source per generator. The generators flues have been modelled as separate sources as this is proposed to be at a height in line with the top of the acoustic barriers on the chiller deck. Refer to Section 5.2 of the ONVIA at Appendix 18. Data sheets which detail the discrete sources of the generators can be found in Appendix D of the ONVIA at Appendix 18.</p> <p>Stantec has provided a markup of all noise sources operational in the modelling scenarios in Section 5.4.1 of the ONVIA at Appendix 18.</p>
<p>12. Please clarify the assumptions made in the ONVR for the approved 5MW data centre (DA-24-00542). In this regard, please provide additional details on the following:</p> <p>a. the number of chiller units identified in Section 5.1 of the ONVR appears to be less than the number indicated on the approved architectural plans</p> <p>b. the assumed chiller emission levels in the ONVR appear to be lower than those assessed in the Northrop Acoustic Report dated 13 May 2024</p> <p>c. the noise mitigation measures for the approved data centre chillers, as modelled in the ONVR, appear to differ from those approved under DA-24-00542.</p>	<p>The approved plans for the 5MW facility (MPI.S1) detail 22 chillers.</p> <p>Section 5.1 of the ONVIA (Appendix 18) also identifies 22 chillers.</p> <p>The assumed chiller emission noise levels in Section 5.2 of the ONVIA (Appendix 18) are lower than what Northrop previously assessed, as a different chiller manufacturer has been engaged to reduce noise emissions.</p> <p>Similarly, the noise mitigation measures detailed in Section 5.3 of the ONVIA (Appendix 18) have changed from the DA-24-00542, as more mitigation was required in order to meet the noise emission criteria from the development as a whole (Stantec have proposed additional treatments).</p>

Table 3. DPHI Operational Noise Submission Responses

Matter raised	Response
<p>13. Cooling equipment specifications must be provided to confirm that the assumed operational parameters identified in Section 5.2 of the ONVR account for realistic heatwave conditions, including higher temperatures and/or humidity levels during evening and night. Local weather data must be referenced to support the specified worst-case temperature of 28°C during the night-time period and to clarify the humidity level considered in the design conditions for the air-cooled chillers. Additionally, please clarify how the data centre will be operated to guarantee that the number of concurrently operated chillers does not exceed the quantities specified in Section 5.1 of the ONVR.</p>	<p>Stantec reviewed the climate data for the past five years to determine the 99th percentile over the summer months. The data supports the operating conditions of the chillers. Information was provided to chiller manufacturer to enable them to supply data during the evening period for unique assessment.</p> <p>Refer to Section 5.2 and 5.2.1 of the ONVIA at Appendix 18.</p>
<p>14. Back-up generator specifications must be provided to confirm that the assumed operational parameters identified in Section 5.2 of the ONVR account for the anticipated testing loads as per the monthly and annual testing regimes.</p>	<p>Data Sheets for the generators have been provided in Appendix D of the ONVIA at Appendix 18. The Data Sheets detail each discrete source as well as attenuation of individual elements applied to the source.</p> <p>Section 5.5.1 of the ONVIA (Appendix 18) discusses the expected timeframes of maintenance of the generators and how often short-term exceedances would occur.</p>
<p>15. Evidence of the suitability of the selected sound propagation calculation method for accurately predicting noise under local conditions must be provided in accordance with Section 3.3 of the NPfI. Furthermore, all user-adjusted variables in the noise model must be identified and justified, including, but not limited to, settings for the geometric representation of noise sources, building reflection, noise-enhancing meteorological conditions and any modification applied to account for the effects of wind and temperature inversion on barrier attenuation (as outlined in the 1981 CONCAWE report no. 4/81).</p>	<p>Added additional assumptions included within the modelling have been detailed in Section 5.4 of the ONVIA (Appendix 18), including: reflection loss of buildings; wind direction; meteorological conditions including wind direction; and calculation method.</p>
<p>Annoying Noise Characteristics</p>	
<p>16. As required by the EPA's advice on the SEARs, cumulative data centre operational noise must be evaluated for any potential annoying noise characteristics such as tonality, intermittency and dominant low-frequency content in accordance with Fact Sheet C of the NPfI. There is insufficient quantitative evidence provided in the ONVR to demonstrate that cumulative data centre operational noise will not exhibit any annoying noise characteristics. Specifically, for the low-frequency noise assessment, all frequencies from 10 to 160 Hz must be evaluated (see An example approach to consider low frequency noise in the context of the NSW noise policy for industry, Acoustics Australia Vol. 48, No. 2, August 2020, pages 170-172 for further guidance). The tonality assessment must evaluate all one-third octave band frequencies from 25 to 10,000 Hz as per Table C1 of the NPfI. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).</p>	<p>Section 4.1.3.4 of the ONVIA (Appendix 18), details the additional measurements undertaken by Stantec of a similar industry and similar environment as per the AAS Paper provided and the NPfI. Noting that the equipment selected is not currently available for testing.</p>
<p>Noise Mitigation Measures</p>	

Table 3. DPHI Operational Noise Submission Responses	
Matter raised	Response
<p>17. All viable source and pathway noise mitigation measures that can effectively address any exceedances of the relevant project noise trigger levels must be identified in the ONVR in accordance with Section 4 of the Noise Policy for Industry.</p>	<p>All Reasonable and feasible mitigation measures have been applied and summarised in Section 5.3 of the ONVIA (Appendix 18).</p> <p>Table 5-4 of the ONVIA (Appendix 18) presents a feasible and reasonable matrix in line with the NPfl.</p> <p>Attenuation elements to the generators have been presented in the data sheet from the manufacturer and provided in Appendix D of the ONVIA (Appendix 18).</p>

4.3 Air Quality

In the request for additional information (RFI) received from the Department dated 14 January 2025, the Department raised a number of matters in relation to air quality.

PROPONENT RESPONSE

The Air Quality Impact Assessment (AQIA) (**Appendix 17**) has been updated to include and address all matters raised by the Department and the EPA in relation to air quality.

Given the detailed and specific technical nature of the Department's commentary regarding air quality, Table 4 provides the specific location within the AQIA where each matter has been addressed and resolved.

Table 4. Department's Air Quality Submission Responses	
Matter raised	Response
<p>18. The air quality assessment must be updated to include consideration of potential impacts to the following sensitive receptor locations:</p> <p>a. the retirement village located to the direct north-west of the site (Ingenia Lifestyle – Stoney Creek)</p> <p>b. the residence located at the Bait-ul-Huda Mosque site (used for visiting religious dignitaries, approved and constructed under DA-19-01227).</p>	<p>Refer to Sections 2 and 9 of the AQIA at Appendix 17.</p>
<p>19. Given the scale of earthworks proposed at the site and the significant construction timeframe for all three stages, Section 7 of the air quality assessment must be updated to identify additional, project-specific mitigation measures that would be implemented during construction, with particular consideration given to how these measures would be applied/alterd as each stage of the development is delivered.</p>	<p>Refer to Section 7 of the AQIA at Appendix 17.</p>
<p>20. Based on Figure 8-4, it is unclear whether the back-up generators associated with the Council-approved 5 MW data centre have been considered as part of the 'worst-case' emissions scenario. Please review and update accordingly.</p>	<p>Refer to Section 8.3 of the AQIA at Appendix 17.</p>
<p>21. Based on Section 8.4.1 of the air quality assessment, the Department understands the modelling for the 'worst-case' emergency operations scenario has been based on 216 back-up generators operating at 50% of their prime rating power (PRP). Please provide additional commentary regarding why the adopted PRP can be considered to reflect a realistic 'worst-case' assessment for this scenario, noting that the emission performance of oxides of nitrogen would be poorest at 100% of their PRP.</p>	<p>Refer to Section 9.1.1 of the AQIA at Appendix 17.</p>
<p>22. Please update the air quality assessment to include consideration of non-criteria pollutants, including, but not limited to, polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs).</p>	<p>Refer to Section 9.1.3 of the AQIA at Appendix 17.</p>

Table 4. Department's Air Quality Submission Responses	
Matter raised	Response
23. Please update the air quality assessment to clarify the modelled stack emission rates and concentrations for the proposed back-up generator system.	Refer to Section 8.4 of the AQIA at Appendix 17 .
24. The Department notes it is unclear which back-up generator/s were modelled as part of the generator testing scenario. Accordingly, please provide a figure (similar to Figure 8-4) which identifies those back-up generator/s which were modelled as part of this scenario, along with detailed justification for why the chosen location/s can be considered to reflect a realistic 'worst-case' assessment of day-to-day operations at all nearby sensitive receptors.	Refer to Section 8.4.2 of the AQIA at Appendix 17 .
Note: The Department recommends the generator testing scenario be altered to ensure the predicted levels at each sensitive receptor are based on the air quality impacts which are associated with the closest back-up generator/s (i.e. predicted levels at R1 are based on the closest back-up generator test to R1, predicted levels at Wor1 are based on the closest back-up generator test to Wor1, etc).	Refer to Section 8.4.2 of the AQIA at Appendix 17 .

4.4 Construction Impacts

In the request for additional information (RFI) received from the Department dated 14 January 2025, the Department raised a number of matters in relation to construction impacts.

PROPONENT RESPONSE

The Construction Noise and Vibration Impact Assessment (CNVIA) (**Appendix 19**) has been updated to include and address all matters raised by the Department and the EPA in relation to construction impacts.

Given the detailed and specific technical nature of the Department's commentary regarding construction impacts, Table 5 provides the specific location within the CNVIA where each matter has been addressed and resolved.

Table 5. Department Construction Impacts Submission Responses	
Matter raised	Response
25. Based on the information provided in the EIS, the Department understands construction of the six data centre buildings will take approximately five years to complete. For each stage of the development, please provide a further breakdown of key phases (e.g. civil works, piling, structural works, fit-out, building services and testing/commissioning) and their associated duration. Additionally, please clarify whether any overlapping works would occur between stages.	The construction of the Project will be undertaken in stages as detailed in Table 2 of the CNVIA (provided at Appendix 19). The proposed works undertaken in each stage have been further broken into separate construction phases and are presented in Table 3 of the CNVIA. The construction staging is subject to change as it will depend on tenant demands. Nevertheless, indicative construction staging is presented in Figure 1 to Figure 5 of the CNVIA. The Project is predicted to be completed by 2033.
26. The Department notes the construction of the 5 MW data centre (under separate consent), the six data centre buildings and the associated substation may lead to cumulative impacts and construction fatigue for nearby residents and businesses. In this regard, the Submissions Report must include a framework for managing cumulative impacts and construction fatigue. The framework should include outcomes of consultation with the surrounding community,	Cumulative noise impacts and the potential for construction fatigue has been considered in Sections 4.6 and 4.7 of the CNVIA. These sections identify the impacts from cumulative noise and construction fatigue and provide an approach on how to mitigate and manage these issues.

Table 5. Department Construction Impacts Submission Responses

Matter raised	Response
<p><i>details of the likely construction duration and project-specific analysis of the high-level mitigation measures identified in the EIS.</i></p>	
<p><i>27. The quantitative assessment presented in the Construction Noise and Vibration Report does not appear to address the relevant provisions of the EPA's Interim Construction Noise Guideline (ICNG) (refer to sections 4.5, 4.6 and 7.2 of the ICNG for further guidance). For example, there is no description of the total duration of noise exposure at the identified assessment locations. Additionally, the quantitative assessment does not appear to have identified the relevant stages of the proposed construction works, all related noise sources (e.g. no piling noise source in the piling scenario), concurrent construction/partial operation of the development and/or other concurrent construction work in the vicinity that may contribute to additional noise impact.</i></p>	<p>The quantitative assessment has been updated to reflect the updated staging and proposed plant and equipment for each stage.</p> <p>The duration of construction is shown in the construction staging in Figure 1 to Figure 5 of the CNVIA (Appendix 19).</p> <p>The cumulative noise impacts were calculated at each receiver and are presented in Appendix C of the CNVIA (Appendix 19). This shows how the noise will vary over the entire construction period. This is discussed in more detail in Section 4.6.1 of the CNVIA.</p> <p>The impacts from partial operation on the predicted construction noise levels are discussed in Section 4.6.2 of the CNVIA.</p> <p>It was noted that there were no nearby active construction sites at the time of writing the CNVIA.</p>

4.5 Building Design

In the request for additional information received, the following commentary was provided in relation to building design:

28. Given the proposed acoustic barrier treatments differ across each building, please provide detailed architectural plans for each of the six data centre buildings proposed under the subject SSD application.

29. The Department has concerns regarding the design of the development's southern and eastern façades, particularly when viewed from residences to the south of the site. In this regard, consideration should be given to improving the design of the development's southern and eastern facades so as to demonstrate design excellence and further soften the appearance of each data centre building. Such improvements could include, but are not limited to, the use of additional articulation and/or an alternative colour palette.

30. The Department notes the skybridges located adjacent to the southern boundary of the site may result in privacy concerns for residences to the south. In this regard, please provide further information to confirm what privacy impacts (if any) the skybridges will have on residences in this area and, if necessary, identify suitable management and mitigation measures (i.e. the use of frosted/opaque glass).

31. The Department notes that the photographs which informed the preparation of the development's visual impact assessment were taken in March 2024, and the site has since been cleared as part of the works approved under DA-24-00386.

Given most on-site vegetation has now been cleared in the vicinity of Viewpoint 6, the photomontage from this location should be updated to include an updated photograph from this viewpoint, to provide a more accurate representation of how the development will appear when viewed from nearby residences in Year 1 (i.e. when on-site vegetation is young).

PROPONENT RESPONSE

Following the RFI being received, the design team have refined the proposal to further minimise and mitigate impacts. This has included: additional acoustic barriers; revised southern façade design; removal of some skybridges; and increased landscaping to be delivered. A number of refinements to the typical building design have also been made including:

- MP2-MP6 - Chiller Deck amended to suit MP1.S2
- Link Bridge Design reduced
- Screen added to MP1.S2, MP2 & MP3 at BOH
- BOH Loading Dock design amended
- Acoustic Screen Amended for MP1.S2 to MP6 at Chiller Deck Level
- BOH Link Bridges deleted from Scope
- Fire Stairs extended to Chiller Deck & Roof Level
- Lift extended to Chiller Deck level

ACOUSTIC BARRIERS

In response to Query 28 detailed architectural plans of the six data centre buildings have been provided in the updated Architectural Plans (**Appendix 20**).

SOUTHERN & EASTERN FAÇADE TREATMENTS

In response to the Department's request for higher quality architectural façade treatments along the southern and eastern façades (Query 29), the design team have investigated ways to improve the design of the development's southern and eastern facades so as to demonstrate design excellence and further soften the appearance of each data centre building.

The proposed façade treatment have been fully detailed in updated Architectural Plans (**Appendix 20**); Façade Articulation Design Report (**Appendix 21**); and the updated Visual Impact Assessment (**Appendix 22**).

The neighbouring lots to the north and west present industrial, pragmatic, squared buildings, that are reflective of their use and zoning context. The CDC Marsden Park Data Centre buildings design are largely reflective of this context, with utility as their primary design outlay, with exception to the areas as noted by the Department queries, for the eastern and southern facades. Regardless of the design being driven by functional and spatial requirements, the proposal demonstrates design excellence commensurate with its industrial context.

Southern Façade Treatments

The relationship of the CDC Marsden Park Data Centre site to surrounding sites is one of a development which will be experienced from a macro-scale viewpoint, rather than a fine-grained human-scale close interface. This is true both of the visual interface of the site to nearby residential lots, separated by the buffer of the future Castlereagh Motorway route reservation, and also in the future to users of this motorway, whose experience of the development will be an impression which is obtained in passing, at motorway travel speeds. Any fine-grained approach to building design articulation will be largely lost in this context.

In response to the Department's request for higher quality architectural façade treatments along the southern and eastern façades (Query 29), the design team have investigated ways to improve the design of the development's southern facades through an options analysis contained within the Façade Articulation Design Report (**Appendix 21**).

Three Options were considered, however Option B was considered to be the option that best balanced the functional requirements of the buildings with the desire to provide additional

articulation of the southern and eastern facades of these buildings, to soften their appearance and provide an appropriate degree of visual activation. Figure 2 and Figure 1 demonstrate how the façade screens will serve to provide additional façade articulation and visual interest from both a macro-scale viewpoint and a fine-grained human-scale close interface without adding to the visual bulk and scale of the development.

Option B consists of creating additional articulation in the buildings at the southern site edge through the inclusion of additional façade layering using panelised perforated metal screens to create planes with angled edge profiles, as shown in Figure 3.

As per the Façade Articulation Design Report:

The feature screens sitting relatively tight to the building envelope provides additional material and form layering, without relying on articulation elements which project too far forward off the building face. This arrangement was considered to provide a good balance between articulation created through layering and depth, and approximately maintaining the current building mass envelope, without it growing through the application of extravagant articulation features.

The angular forms created by the negative space areas between the screens on each building provides an abstract reference to a smaller scale, traditional roof form, in contrast to the broader width, minimal pitch roof form of typical large scale industrial development. The application of this treatment in a consistent method to each of the three buildings along the southern edge of the site creates a rhythm of forms with a nostalgic allusion to a traditional saw-tooth industrial typology roof form, when the development is viewed from a distance from this aspect.

We believe that the proposed outcome balances the nature of the site as a secure industrial facility, with the desire for an improved architectural façade treatment along the southern site edge to soften the appearance of the proposal as it is experienced from the residential area of Hassel Grove to the south of the site beyond the buffer of the future Castlereagh Motorway corridor reservation.

Coupled with the landscape changes detailed below, the façade changes made, satisfactorily respond to concerns regarding visual impact raised.



Figure 1: Visualisation of Amended Southern Façade Elevation showing Feature Screens From Close Up
Source: EJE Architecture



Figure 2: Visualisation of Amended Southern Façade Elevation showing Feature Screens From A Distance
 Source: EJE Architecture

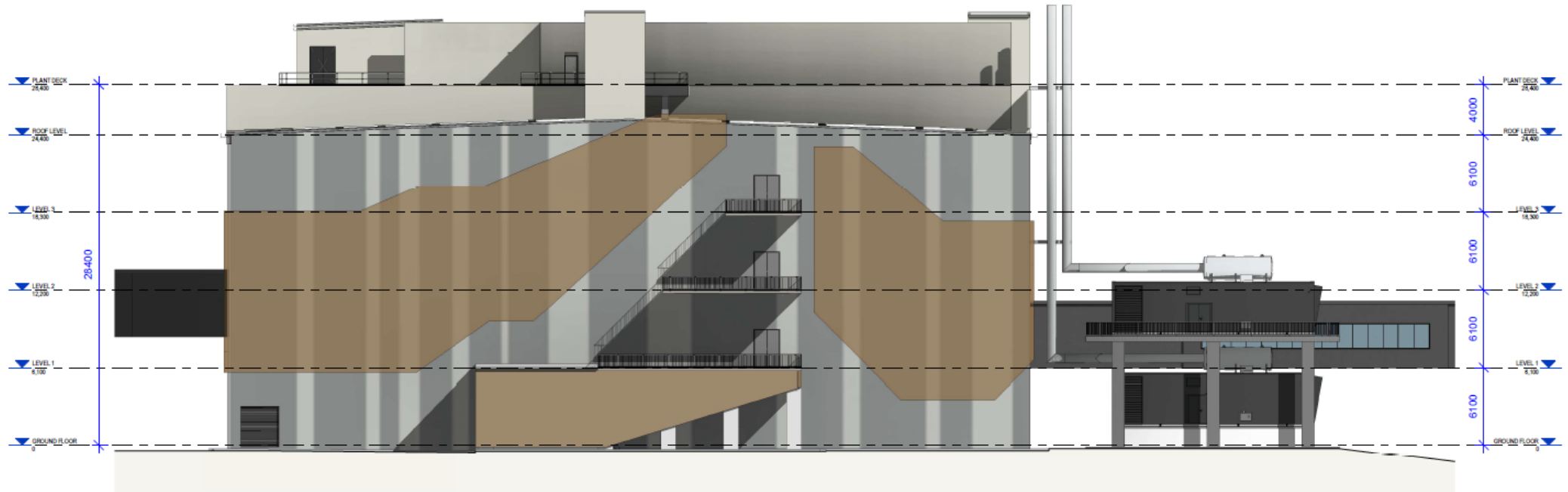


Figure 3: Amended Southern Façade Elevation showing Feature Screens
 Source: EJE Architecture

Eastern Façade Treatments

The Visual Impact Assessment (**Appendix 22**), covers various perspective viewpoints from which this project may be engaged from, including the eastern elevations. The eastern elevations from within the Mosque area and from the street view are mostly obscured by tree cover, with the vertical generator flues and acoustic screening providing layered and segmented proportions. The vertical flues provide a rhythmic break, and the acoustic screens are layered further back to the plant deck beyond. These items are each placed to suit their noise and air quality assessment requirements, and any additional treatments would add volume and further visual bulk to these views. The eastern elevations are a pure expression of the utilitarian function of the buildings and provide a visual expression of the campus primary function. This is considered to be consistent with *Objective 5: Better working – functional, efficient and fit for purpose* of the NSW Government Architect's *NSW Better Placed – an integrated design policy for New South Wales*.

As such, additional façade treatments (beyond that already incorporated in the revised design) are not proposed as they would not serve to visually soften the perceived bulk and scale of the building when experienced from the east. Further any additional facade treatments to the eastern facade have the potential to create visual clutter and confusion which would serve to increase the perception of bulk and scale.

SKYBRIDGES

The southern skybridges located adjacent to the southern boundary have been removed from the design to resolve the Department's concern that they may result in privacy concerns (Query 30). The removal of the skybridges also goes some way in minimising the apparent bulk and scale of the proposal when viewed from the south.

The removal of the relevant skybridges has been detailed in updated Architectural Plans (**Appendix 20**); and the updated Visual Impact Assessment (**Appendix 22**).

VISUAL IMPACT ASSESSMENT

Updated photography of existing site conditions has been undertaken to inform the updated Visual Impact Assessment (VIA) (**Appendix 22**). The photomontage for Viewpoint 6 has been updated to reflect that most on-site vegetation has now been cleared in its vicinity, as per Figure 4. The VIA has also been updated to reflect the proposed façade changes discussed above.

Regardless, the findings of the updated VIA, remain unchanged; with the proposal being found to result in a **low to moderate cumulative visual impact** as it protrudes over the line of existing vegetation, it will also be partially screened by existing and proposed vegetation. It is noted that the proposal sits within light industrial zoning (IN2) and is consistent with the existing and expected built forms.



Image 48 Viewpoint 6, existing view.



Figure 4: Revised Viewpoint 6 Photomontage

Source: Terras Landscape Architects

4.6 Landscaping

In the request for additional information received, the following commentary was provided in relation to landscaping:

32. The Department has concerns regarding the extent of the landscaping buffer provided adjacent to the site's southern boundary, particularly given the encroachment of each data centre building's Asset Protection Zone (APZ) upon the landscaping and the associated restrictions around tree planting and ground cover species.

The Department recommends the landscaping scheme be revised and the southern landscaped buffer area increased (where possible) to prevent the development's APZs from impacting on these areas, and to subsequently provide further opportunities to soften and alleviate the significant size and scale of the proposed data centre buildings when viewed from residences to the south of the site. These changes may also help to negate the need for a Biodiversity Development Assessment Report (BDAR) to be prepared for the development (see relevant section below).

PROPONENT RESPONSE

Updated landscaping plans have been provided as **Appendix 11**. The revised plans depict an increase in landscaping across the site. However, as identified in Drawing L113, the landscaping opportunities for certain areas of the site are constrained by underground servicing requirements and the need to provide an Asset Protection Zone (APZ) along the southern boundary.

Furthermore, there is limited opportunity to provide additional landscaping around the proposed substation due to the vegetation management requirements of Endeavour Energy. These requirements restrict the planting of trees that exceed 3 meters in mature height under powerlines, the planting of trees closer than their mature height to the closest conductor, the planting of trees within 5 meters of a power pole, and the planting of plants with significant root systems that grow greater than 400mm below ground level near underground cables.

4.7 Urban Heat Island Effect

In the request for additional information received, the following commentary was provided in relation to the urban heat island effect:

33. While Table 21 of the EIS acknowledges concerns raised by nearby residents regarding the development's urban heat effects, it lacks specific information on the urban heat island mitigation measures which would be implemented as part of the development. Further analysis is needed to substantiate the effectiveness of the proposed measures, as mitigating urban heat is a priority outlined in Blacktown City Council's Local Strategic Planning Statement. The analysis must also address potential localised heat rejection impacts from rooftop cooling equipment and ground-level generators on residences south of the site in Hassall Grove.

PROPONENT RESPONSE

Following the RFI being received, we have been in correspondence with the Department in relation to our intended response to the above matters.

An assessment of urban heat island effects is currently in the process of being undertaken by Enrisk, and will be submitted under separate cover.

4.8 Biodiversity Development Assessment Report (BDAR)

In the request for additional information received, the following commentary was provided in relation to the BDAR:

34. In accordance with the advice provided by the Department of Climate Change, Energy, the Environment and Water's Biodiversity, Conservation and Science Group (BCS), please provided a BDAR for the development, prepared in accordance with the Biodiversity Conservation Act 2016 and the Biodiversity Assessment Method 2020.

35. Should you wish to seek an amended BDAR waiver request, accurate reporting of area measurements, vegetation species (for canopy, mid or understorey where relevant) and habitat that will be both directly and indirectly affected by the proposed clearing works must be provided.

PROPONENT RESPONSE

A revised BDAR waiver request has been prepared by Abel Ecology and is provided at **Appendix 3**. The BDAR waiver request has been updated to be consistent with the information presented in the AIA prepared by Travers Bushfire and Ecology (**Appendix 15**) and was submitted to the Department on 11 February 2025. BCS refused the updated BDAR waiver request (dated 11 February 2025) on 24 March 2025 (DOC25/118079).

It is noted that the SSDA no longer proposes removal of any trees, a reduction of the four (4x) trees proposed for removal in the original lodgement. The Council Early Works DA (DA-24-00386) is in the process of being modified to consolidate all tree removal components of the development into a singular consent.

A BDAR has been commissioned and is in the process of being prepared for the site, which will be submitted under separate cover as soon as possible. Notwithstanding, further engagement with BCS is planned to better understand the BDAR Waiver rejection.

4.9 Greenhouse Gas Emissions

In the request for additional information received, the following commentary was provided in relation to Greenhouse Gas Emissions:

36. In accordance with the advice provided by the EPA, the greenhouse gas assessment should be updated to:

- a. ensure all indirect greenhouse gas (GHG) emissions associated with IT electricity use are considered as Scope 2 emissions*
- b. identify and justify all input data and assumptions used to estimate Scope 1 emissions, and demonstrate how these values adequately reflect the proposed number of back-up generators and their associated fuel consumption rates/testing regime*
- c. clearly identify the total estimated indirect emissions associated with the development's annual electricity consumption.*

PROPONENT RESPONSE

As discussed in Section 5.1.2 of this response, the Greenhouse Gas Assessment (**Appendix 1**) has been amended to address all matters raised by the EPA.

The Greenhouse Gas Mitigation Plan (**Appendix 2**) and ESD Report (**Appendix 3**) have also been updated to address the matters raised within the EPA's submission.

4.10 Ecologically Sustainable Development (ESD)

In the request for additional information received, the following commentary was provided in relation to ESD:

37. The ESD report should be updated to include any additional measures/changes required as a result of the changes made to the greenhouse gas assessment and clarification of the development's total power consumption and associated PUE (see relevant sections above).

PROPONENT RESPONSE

As discussed in Section 5.1.2 of this response, the Amended ESD Report (**Appendix 3**) has been updated to incorporate the additional measures/changes required as a result of the changes made to the Greenhouse Gas Assessment.

The following clarifications have been provided within Table 2 of the Amended ESD Report:

- The development will have a total power consumption of 648.8MW (5,683,574,212 kWh/yr), of that the development will have an IT-load of 504MW; and
- The development will have PUE of 1.3.

4.11 Proposed Substation

In the request for additional information received, the following commentary was provided in relation to the proposed substation:

38. Please provide further details regarding the intended design of the proposed substation.

39. Please clarify how potential impacts associated with the proposed substation (e.g. construction, operational noise, hazards and risk, etc) have been considered under the subject SSD application.

PROPONENT RESPONSE

The proponent is yet to commit to a specific substation design, hence the proposal seeks consent for a substation zone that identifies maximum spatial requirements for the substation. The proposed substation zone is as per Figure 5.

The detail of the specific substation layout within the defined zone will be confirmed during the detailed design process prior to issuance of the relevant construction certificate.

Stantec have provided the proponent with the noise level requirements for the 6 x transformers which have been incorporated into the ONVIA modelling (provided at **Appendix 18**). The supplier will be contracted to meet the provided noise level requirements and to demonstrate compliance with the aforementioned noise levels.

Notwithstanding this, all relevant technical reports have been, revised to incorporate an assessment of the potential impacts associated with the proposed substation. This includes the following:

- Air Quality Impact Assessment (**Appendix 17**);
- Visual Impact Assessment (**Appendix 22**);
- Construction Noise and Vibration Impact Assessment (**Appendix 19**);
- Operational Noise and Vibration Impact Assessment (**Appendix 18**); and
- Hazards and Risks Assessment (**Appendix 12** and **Appendix 13**).

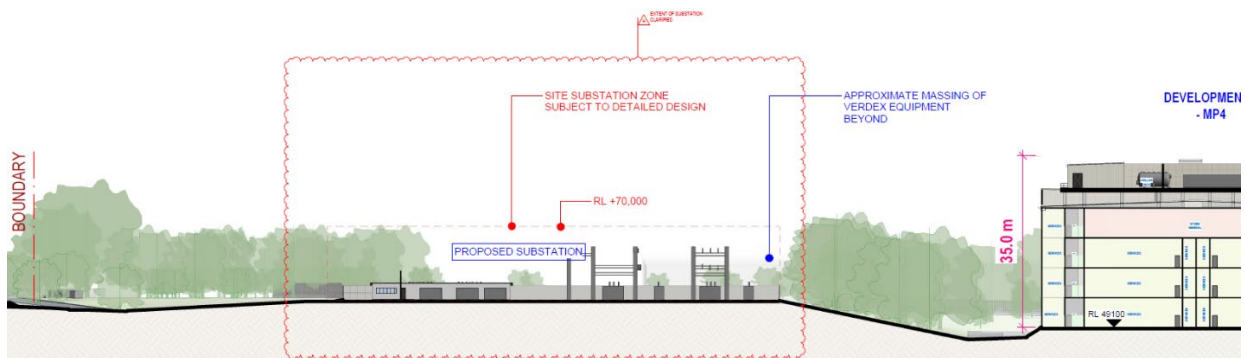


Figure 5: Proposed Substation Zone

Source: EJE Architecture

4.12 Proposed Gravity Sewer Main

The RFI requests the following in relation to the proposed gravity sewer main:

40. Please clarify the proposed planning pathway for the proposed gravity sewer main across the adjacent Castlereagh Freeway corridor and, if necessary, confirm whether land owner's consent is required from Transport for NSW to facilitate these works.

PROPONENT RESPONSE

Development consent for the proposed gravity sewer main across the adjacent Castlereagh Freeway corridor (Lot 481 DP634363) is sought as part of SSD-70889211.

Owner's consent from Transport for New South Wales to undertake these works is provided as **Appendix 10**.

4.13 Remediation Action Plan

The RFI requests the following in relation to the Remediation Action Plan:

41. Please provide an update on the status of the remediation works at the site, including confirmation that the intended remediation approach (excavation/off-site disposal) remains the preferred approach for the management of contaminated material at the site.

PROPONENT RESPONSE

The Proponent has confirmed that the remediation works have been completed onsite, in which material was disposed offsite as per the Remediation Action Plan. Stantec have provided a Validation Report to that effect which is provided as **Appendix 14**.

Ramboll are the NSW EPA Auditor and finalised their Site Audit Report on 10 March 2025 (**Appendix 16**) which states “the Auditor concludes that the site is suitable for the purposes of ‘commercial/industrial’ land uses.”

4.14 Community and Public Authority Engagement

In the request for additional information received, the following commentary was provided in relation to the RAP:

7. Details and outcomes of ongoing engagement throughout the approval process with public authorities and the community must be described in the Submissions Report. It is requested that you engage directly with Council and the EPA to resolve the issues raised.

PROPONENT RESPONSE

Full details of additional engagement undertaken since lodgement will be provided in Section 3 of this Submissions Report.

5 Response to Submissions

5.1 Response to the Environment Protection Authority

The submission received from the Environment Protection Authority (EPA) identified that further information is required in order to determine the impact of the development on air quality, greenhouse gas emissions, operational noise, construction noise and vibration and dangerous goods.

It is noted that the proposal is subject to an environment protection licence (EPL) under clause 9 of Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) for Chemical Storage - petroleum products storage.

5.1.1 Air Quality

The EPA requested further information regarding worst-case emergency scenario, testing scenario of diesel generators, probabilistic worst-case scenario, in-stack emission concentrations, principal toxics and modelled stack pollutants.

PROPONENT RESPONSE

The Air Quality Impact Assessment (AQIA) (**Appendix 17**) has been updated to include and address all matters raised by the Department and the EPA in relation to air quality.

Given the detailed and specific technical nature of the EPA's commentary regarding air quality, Table 6 provides the specific location within the AQIA where each matter has been addressed and resolved.

Table 6. EPA Air Quality Submission Responses	
Matter raised	Response
<i>The Air Quality Impact Assessment (AQIA) does not provide enough information to understand the potential risk and impacts of the project. The EPA recommends that the Department of Planning, Housing and Infrastructure (DPHI) requests that the applicant provides further information regarding worst-case emergency scenario, testing scenario of diesel generators, probabilistic worst-case scenario, in-stack emission concentrations, principal toxics and modelled stack pollutants. The EPA's detailed comments are as follows.</i>	Refer to Sections 3 and 8.4 of the AQIA at Appendix 17 .
1. Worst-case emergency scenario	
<i>The AQIA states that the data centre will have an operational capacity of 504 MW however, 240 generators with 3307 kW power provides 793 MW. A 50 % generator load was used for the modelled emergency scenario (216 generators running = 357 MW). The AQIA states that during an event that requires emergency power, varying loads of power would be required. It does not appear that the emergency scenario has been properly modelled to consider actual requirements or the maximum power capacity available that could be used. Emission performance of oxides of nitrogen of the proposed generators is already poor, and poorest at 100 % load (Table 8.3 of the AQIA). The management of loads is also identified as a mitigation and management measure of emissions. The justification that emission performance is going to be managed through generator load, particularly in an emergency scenario, is not suitable and questions the need for the number of generators proposed. The Environmental Impact Statement and Greenhouse Gas Assessment provide conflicting information that there will be only 20 standby generators per data centre. The EPA recommends that DPHI requests the following: a) Further information and justification of the requirements for the number and size of the diesel generators for the premises. b) The Applicant assesses a worst-case emergency scenario that considers the maximum loads the diesel generators could operate at.</i>	Refer to clarifications in Sections 3, 8.4 and 9 of the AQIA at Appendix 17 .
2. Testing scenario of diesel generators	
<i>The AQIA has identified that the testing regime will include both annual testing and</i>	Refer to

Table 6. EPA Air Quality Submission Responses

Matter raised	Response
<p>monthly testing with a different number of generators, durations and loads for each. However, the AQIA has not provided information on how the monthly 15-minute testing has been modelled to evaluate hourly impacts (i.e. only 15-minute set per hour, or 4x 15-minute sets per hour).</p> <p>No information has been provided on the location of the generators in the modelling for testing, including if the testing will be done for generators that are exhausted through the same stack or different stacks.</p> <p>The AQIA has also not provided enough information on how the annual hourly testing aligns with the monthly testing. As the exemption of NOx in-stack concentrations is based on the hours of operation (including testing), clarity on the testing regime is essential. Further, the testing regime should be evaluated as a single scenario, accounting for worst-case testing emissions.</p> <p>The EPA recommends that DPHI requests more information regarding how the monthly and annual testing will align and model a single testing scenario. The single testing scenario should include:</p> <ul style="list-style-type: none"> i. information on the location of the generators modelled ii. justification that the locations are representative of worst-case locations iii. the number of stacks used iv. the emission rates of each modelled point source for the whole hour of modelling 	<p>Section 8.4 of the AQIA at Appendix 17.</p>
<p>3. Probabilistic worst-case scenario</p>	
<p>The emergency worst-case scenario was modelled for every hour of the year, as it is possible it may occur at any hour of the year. The AQIA has undertaken some additional analysis on the probability and duration of a power outage. However, the AQIA has then adjusted the predicted hourly NO2 impacts without any explanation or justification.</p> <p>The AQIA states that the average duration of a power outage is 60.1 minutes, therefore the hourly modelling and hourly impacts represent the worst-case impacts and adjusting the predicted impacts is potentially misleading.</p> <p>a) The EPA considers that the probabilistic scenario is unjustified and recommends to DPHI that it should be not included in the AQIA.</p>	<p>Refer to Section 9 of the AQIA at Appendix 17.</p>
<p>4. In-stack emission concentrations</p>	
<p>The proposed facility will be classed as a scheduled premise due to the volume of diesel that will be stored. While the generators are exempt from NOx limits (c73, POEO Clean Air Regulation 2022), the generators are required to meet all other scheduled premises emission limits. While the AQIA has provided engine emissions data (Appendix B), no reference conditions have been provided and were often presented at different oxygen reference conditions than the POEO Clean Air Regulation 2022.</p> <p>a) The EPA recommends that DPHI requests from the Applicant expected in-stack emission concentrations for the generators and demonstrate compliance with Group 6 POEO Clean Air Regulation limits.</p>	<p>Refer to Section 8.4 of the AQIA at Appendix 17.</p>
<p>5. Principal toxics</p>	
<p>Diesel generators can emit toxics such as polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs) which have not been considered in the AQIA. Given the large number and size of proposed generators and poor engine performance for NOx (similar to US Tier 1), consideration of non-criteria pollutants should also be included in the AQIA.</p> <p>a) The EPA recommends that DPHI requests the Applicant to update the AQIA to include information regarding the impacts of relevant principal toxics in the emergency and testing modelling scenarios.</p>	<p>Refer to Section 9.1.3 of the AQIA at Appendix 17.</p>
<p>6. Modelled stack pollutants</p>	
<p>The AQIA states that to improve dispersion, the exhaust from four generators will be consolidated into a single flue stack. Generator emissions rates and stack flow rates have been provided, but modelled emission rates have not been included.</p> <p>a) The EPA recommends that DPHI requests the Applicant to provide information regarding the modelled stack pollutant emission rates and concentrations.</p>	<p>Refer to Section 8.4 of the AQIA at Appendix 17.</p>

5.1.2 Greenhouse Gas Assessment

The EPA submission requests that the Greenhouse Gas Assessment be revised to address the classification of indirect emissions, update emissions results, provide robust justification of the input data and assumptions made for assessment purposes.

PROPONENT RESPONSE

The following have been amended and are resubmitted alongside this RtS:

- Greenhouse Gas Assessment (**Appendix 1**) ;
- Greenhouse Gas Mitigation Plan (**Appendix 2**); and
- ESD Report (**Appendix 3**).

The Greenhouse Gas Assessment has been amended to meet the requirements of *NSW EPA Draft Large Emitters Guide*, and has been through an Independent Expert Review process.

Table 7 provides a summary of how each topic raised by the EPA in relation to the Greenhouse Gas Assessment have been addressed and resolved.

Table 7. EPA Submission Response RE: Greenhouse Gas Assessment	
Subject	Proponent Response
Greenhouse Gas Assessment	<p>Actioned.</p> <p>The Greenhouse Gas Assessment has been amended to meet the requirements of <i>NSW EPA Draft Large Emitters Guide</i>, and has been through an Independent Expert Review process.</p> <p>The Greenhouse Gas Mitigation Plan and ESD Report have also been updated to address the matters raised within the EPA's submission.</p>
Scope 2 emissions	<p>Actioned.</p> <p>Emissions from customer/lessee IT electricity use have been included as Scope 2 emissions in the amended Greenhouse Gas Assessment and the Greenhouse Gas Mitigation Plan.</p>
Input data and assumptions made to estimate GHG emissions	<p>Actioned.</p> <p>Detailed information to transparently demonstrate that the annual quantities used are reflective of the proposed number of generators (240), their fuel consumption and the proposed testing regime are included in Section 5.3.1 of the Greenhouse Gas Assessment and Section 2.3.1 of the Greenhouse Gas Mitigation Plan.</p>
Indirect emissions due to electricity usage	<p>Actioned.</p> <p>The total GHG emissions due to electricity use within the premises are included in Appendix D of the Greenhouse Gas Assessment.</p> <p>All other indirect emissions (Scope 3) are separately shown in Appendix C of the Greenhouse Gas Assessment.</p> <p>An additional table to show the estimated indirect emissions due to electricity use based on the maximum throughput is provided in Appendix D of the Greenhouse Gas Assessment.</p> <p>Also actioned which the EPA recommends:</p> <p>a) Appendix A, Appendix B and Appendix C of the GHG assessment to nominate the planned and maximum operational energy quantities used to estimate indirect emissions due to electricity use within the premises are revised and updated.</p> <p>B) Tables showing the total estimated indirect emissions due to electricity use within the premises for the planned and maximum throughput are included in Appendix D of the Greenhouse Gas Assessment.</p> <p>C) CDC's commitment to purchase electricity that is 100% backed by renewable sources from 2031 and onwards are confirmed in Section 1.3.1 and Appendix D of the Greenhouse Gas Mitigation Plan.</p>

Table 7. EPA Submission Response RE: Greenhouse Gas Assessment

Subject	Proponent Response
	D) The likely availability of the Large-Scale Certificates (LGCs) at the time when it is proposed they will be acquired is discussed in Section 1.3.1 and Section 7.1 of the Greenhouse Gas Mitigation Plan.

5.1.3 Operational Noise

In relation to operational noise, the EPA notes that operational noise impact assessment (ONIA) does not appear to fulfill the requirements of the Noise Policy for Industry (EPA 2017, NPfI) with issues identified concerning the background noise monitoring, consideration of annoying characteristics, assessment locations, noise modelling inputs and the assessment of impacts.

PROPONENT RESPONSE

The Operational Noise and Vibration Impact Assessment (ONVIA) (**Appendix 18**) has been updated to include and address all matters raised by the Department and the EPA in relation to operational noise.

Given the detailed and specific technical nature of the EPA's commentary regarding operational noise, Table 8 provides the specific location within the ONVIA where each matter has been addressed and resolved, and a response from Stantec (the consultants).

Table 8. EPA Operational Noise Submission Responses

Matter raised	Response
<i>The operational noise impact assessment (ONIA) did not appear to fulfill the requirements of the Noise Policy for Industry (EPA 2017, NPfI) with issues identified concerning the background noise monitoring, consideration of annoying characteristics, assessment locations, noise modelling inputs and the assessment of impacts.</i>	<p>The ONVIA (provided at Appendix 18) has been updated to address all the matters raised by the Department and the EPA.</p> <p>Section 3.3 of the ONVIA (provided at Appendix 18) details the Additional Background noise monitoring that has been conducted.</p> <p>Section 4.1.3.4 of the ONVIA (provided at Appendix 18) details Additional Assessment of Low Frequency Noise that has been conducted.</p> <p>As per Section 5.5.1 of the ONVIA (provided at Appendix 18), Grid Noise Maps have been extended and also assessed to 1.5m and 4.5m, sensitive receivers have been selected on focused grid noise maps around receiver locations to identify most affected locations.</p> <p>All Noise modelling inputs and the assessment of impacts have been presented in Section 5 of the ONVIA (provided at Appendix 18).</p>
1. Background noise monitoring	
<i>The noise monitoring conducted at location L1 (Thursday 25 July) did not appear to record similar levels to other night periods. The noise level appears relatively constant from the evening on 24 July and remains elevated until it starts to rise in the morning of the 25 July. This does not appear to follow the same pattern as all other weekday nights, and may have been impacted by extraneous noise, or may be atypical of long term background noise levels in the area. The Northrop attended measurement notes indicated that background noise levels were controlled by frog noise at the location M01, which is close to receivers near to the proposed</i>	<p>Stantec rereviewed the data, and cancelled out the evening and night periods (5:45pm to 7:00am) on the 24th-25th of July. This does not affect the Laeq values of the overall data, however the evening RBL for the overall monitoring period does decrease by 1dB (more stringent) which results in an intrusiveness level of 42dB(A) for the evening; which has been adopted.</p>

Table 8. EPA Operational Noise Submission Responses

Matter raised	Response
<p><i>development. Attended measurements were not conducted by Stantec during the night period to characterise the noise sources which contribute to the measured background noise levels.</i></p> <p><i>Therefore, it is unclear if the background noise levels measured by Stantec also included frog noise and if the frog noise is extraneous noise that is unrepresentative of long term repeatable background noise levels. There is potential risk that both sets of measurements were affected by seasonal and unrepresentative extraneous noise, which may affect the measured background noise levels during the critical night time period.</i></p> <p><i>The EPA recommends that DPHI request:</i></p> <p><i>a) The noise sources which contribute to the noise environment during the night periods in the Stantec measurements be described and quantified.</i></p> <p><i>b) Evidence and justification that noise measurements are representative of long term background noise level at the potentially worst affected receivers in the absence of extraneous noise should be provided, or additional measurements supplied.</i></p>	<p>Sections 3.2.1, 4.1.3, 4.1.4 and 5.5 of the ONVIA (provided at Appendix 18) have been revised to include updated criteria for evening to 42dB(A) (excluded the evening and night periods of 24th-25th July from the calculations due to extraneous noise events).</p> <p>Stantec conducted additional measurements during the Night-time period (2:00am - 3:00am) in the summer months to confirm any seasonal and unrepresentative extraneous noise. The measurements noted the presence of frogs and crickets.</p> <p>Section 3.3 of the ONVIA has been updated with a discussion of the additional attended noise monitoring.</p>
<p>2. Northrop measurement results</p>	
<p><i>The Northrop measurement results have lower background noise levels than those conducted by Stantec at the retirement village. Therefore, it's not clear why the Northrop measurements were not adopted as the basis for determining the project noise trigger levels for the retirement village.</i></p> <p><i>a) The EPA recommends that DPHI requests the applicant justify the use of the higher background noise levels for the retirement village in the assessment or amend the assessment accordingly.</i></p>	<p>Due to tight project timeframes, it was initially decided to conduct the ONVIA independent and separate to the CNVIA being undertaken by Northrop.</p> <p>At the time of establishing criteria, the Northrop data was not a part of the ONVIA. The Northrop data was later added to support Stantec's data within the ONVIA i.e. similar noise levels at similar locations. Stantec were unable to conduct monitoring at the same location as Northrop due to construction noise along Hollinsworth Rd.</p> <p>Northrop's RBLs have been adopted, however this will not change the PNTL's as they are driven by Amenity (evening). The Day time will reduce the intrusiveness criteria to 46dB(A) which is 1dB more stringent, but will not result in any exceedances based on the assessment conducted within the ONVIA (provided at Appendix 18).</p> <p>Sections 3.2.1, 4.1.3, 4.1.4 and 5.5 of the ONVIA (provided at Appendix 18) have been updated to include updated criteria for Day at R2 to 46dB(A) in line with Northrop's data within the CNVIA.</p>
<p>3. Adjustment of Amenity Noise Level</p>	
<p><i>Section 4.1.3.2 of the ONIA states the following: -"A meeting with NSW EPA was held on the 18th of September 2024 to discuss the determination of criteria for the project. From this meeting, Stantec inquired for clarity surrounding the +3dB adjustment to amenity criteria to convert from a period level to a 15min and whether it was applicable to a project of this nature. The NSW EPA confirmed that the +3dBA correction is to be upheld for establishing the criteria for the development. As such, the project teams subsequently concluded to adopt a 38dB(A) criteria for the night time as the most stringent relevant project noise trigger level."</i></p>	<p>Section 4.1.3.2 of the ONVIA (provided at Appendix 18) has been updated to adopt the +3dB with justification based on performance of the chillers is dictated by ambient temperature and previous projects.</p>

Table 8. EPA Operational Noise Submission Responses	
Matter raised	Response
<p>The EPA's comments in the meeting were to confirm the Noise Policy for Industry (NPfI) position on the correction to the amenity criteria is an addition of +3dB to the Leq,period to convert it to Leq,15min with alternative corrections possible provided they are supported with robust evidence. It is the responsibility of the applicant to provide justification for the project noise trigger levels applied to the project.</p> <p>a) The EPA recommends that DPHI takes note of the EPA's position regarding corrections to the Leq,period to convert it to Leq,15min.</p>	
<p>4. Annoying Characteristics</p>	
<p>Table 4-3 does not appear consistent with Fact Sheet C of the Noise Policy for Industry (NPfI). The assessment requirements for low frequency noise are incomplete, and Fact Sheet C does not include a correction for impulsive noise.</p> <p>a) The EPA recommends that DPHI request the Applicant to amend the noise assessment and any applicable corrections to consider Fact Sheet C from the NSW EPA's NPfI (2017).</p>	<p>Section 4.1.3.3 of the ONVIA (provided at Appendix 18) has been updated to address Modifying Factors.</p> <p>Section 4.1.3.4 of the ONVIA (Appendix 18), details the additional measurements undertaken by Stantec of a similar industry and similar environment as per the AAS Paper provided and the NPfI. Noting that the equipment selected is not currently available for testing.</p>
<p>5. Protection of the Environment Operations Act</p>	
<p>The EPA understands that the premises will require an environment protection licence due to the capacity to store diesel fuel, and not electricity generation. Operational noise associated with all activities carried out on the premises are to be assessed and will be regulated through an environment protection licence.</p> <p>a) The EPA recommends that DPHI notes that as the premises will be required to be licensed under the POEO Act, operational noise associated with all activities on the premises are required to be assessed.</p>	<p>The proponent is yet to commit to a specific substation design, hence the proposal seeks consent for a substation zone that identifies maximum spatial requirements for the substation. Stantec have provided CDC with the noise level requirements for the 6 x transformers which have been incorporated into the ONVIA model. The supplier will be contracted to meet the provided noise level requirements and to demonstrate compliance. Refer to Section 5.2.3 of the ONVIA at Appendix 18.</p> <p>The operational noise impact associated with the generators has been assessed and does not change the outcomes of the assessment within the ONVIA.</p> <p>Operation of generators across the campus in emergency scenarios has been assessed. The ONVIA assessed the impact of two scenarios (30% of generators operating in a power outage, and 75% of generators operating during a catastrophic event.) Section 5.4.2 of the ONVIA (provided at Appendix 18) discusses the scenarios and likelihood of events occurring. Results are presented in Section 5.51 of the ONVIA at Appendix 18.</p> <p>Stantec has provided a markup of all noise sources operational in the modelling scenarios in Section 5.4.1 of the ONVIA at Appendix 18.</p>

Table 8. EPA Operational Noise Submission Responses

Matter raised	Response
	Section 4.2 of the ONVIA (provided at Appendix 18) has been updated to remove comment above the license threshold. However comments about the likelihood of power failure have been retained for context.
6. Assessment locations	
<p><i>The assessment appears to have only considered the closest sensitive receivers. However, the assessment location according to the NPfl is potentially most affected location, which depends on a number of site-specific factors and therefore may not be the closest to the development. This is particularly relevant where topography or receiver height may affect the propagation of noise including where receivers located further away from the development receive higher noise levels due to the effect of topography reducing the screening effect of other objects.</i></p> <p><i>A review of the noise contour plots appears to show yellow markers where receivers are located in the model. However other residences appear to have potentially higher contour values than those residences marked with the receiver location. This effect may also be increased at the two storey dwellings in the residential area.</i></p> <p><i>The assessment has not provided evidence that the reasonably most affected locations have been assessed, therefore additional information is required to establish if the potentially most affected receiver has been considered in the assessment.</i></p> <p><i>a) The EPA recommends that DPHI requests the Applicant demonstrates the potentially most affected locations have been assessed and amend the assessment as required.</i></p>	<p>Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map have been run at both 1.5 and 4.5 meters high to show impacts to any two storey developments. Refer to Sections 5.5.1 and Appendix B of the ONVIA at Appendix 18.</p> <p>Section 5.5.1 of the ONVIA (provided at Appendix 18) presents detailed grid noise maps at higher resolution around receivers which has informed the locations of point receivers.</p>
7. Internal noise levels and potential audibility of the development	
<p><i>Section 5.5 of the ONIA states the following: Further to the above, the acoustic assessment has been conducted to the boundary or the most affected point on a property as per the requirements of the NSW EPA NPI. When considering the noise intrusion into a habitable area of a residential property, it is expected to be significantly reduced due to the attenuation provided by the building's façade. This means that while boundary levels might be higher, the actual impact on indoor noise levels is considerably lower and likely to be inaudible</i></p> <p><i>The NPfl applies to external noise levels only for residential receivers and does not provide for an assessment of internal noise levels, nor audibility of noise sources. Therefore, whilst there is no requirement to assess internal noise levels or audibility, the EPA notes that there is not sufficient evidence within the assessment to support the statement that the data centre would likely be inaudible within residential properties. The EPA notes that where noise levels are below the project noise trigger levels, this does not necessarily mean the development will be inaudible to residents.</i></p> <p><i>a) The EPA recommends that DPHI notes the EPA's comments regarding internal noise levels and potential audibility of the development.</i></p>	<p>It is understood that the NPfl does not assess internal noise levels, however this statement was included to provide support that the development would not impact the residents during the night time period (internally). Regardless, the statement has been removed from Section 5.5 of the ONVIA (provided at Appendix 18).</p>
8. Low frequency noise assessment	
<p><i>The frequency spectra used for the noise sources in Table 5-2 of the ONIA appear to be limited to 63Hz as the lowest frequency band. This does not meet the frequency spectrum requirements for the low frequency screening test in NPfl Fact</i></p>	<p>Section 4.1.3.4 of the ONVIA (Appendix 18), details the additional measurements undertaken by Stantec of a similar industry and similar environment as per</p>

Table 8. EPA Operational Noise Submission Responses	
Matter raised	Response
<p><i>Sheet C and it misses potentially critical parts of the spectrum below 63Hz. These frequency bands can substantially contribute to the difference between C weighted and A weighted noise levels. There is an unknown level of risk associated with not assessing the noise levels across a sufficient spectral range.</i></p> <p>a) <i>The EPA recommends that DPHI requests the Applicant amend the noise assessment to consider frequency bands below 63Hz as part of the noise assessment and low frequency characteristics test and meets the requirements of NPfl Fact Sheet C.</i></p>	<p>the AAS Paper provided and the NPfl. Noting that the equipment selected is not currently available for testing.</p>
<p>9. Ambient temperature assumptions</p>	
<p><i>The assumed worst-case evening and night period temperature is 28 degrees. The applicant should provide evidence such as climatic data or projections that this temperature is representative of a worst-case scenario and provide a consideration of how the temperature and relative humidity affects the duty on the chillers.</i></p> <p><i>Worst-case evening period temperatures would be expected to be higher than night periods, especially during daylight savings when the sun does not set until well after 6pm which is when the evening period begins. As a result its not clear if its appropriate to assume that chillers would operate at the same duty during the evening and night period when there is potential for evening period temperatures to be higher than during the night.</i></p> <p>a) <i>The EPA recommends that DPHI requests the Applicant clarify and amend where required the assumptions used for ambient temperatures, relative humidity and chiller duty levels during the evening and night periods.</i></p>	<p>Stantec reviewed the climate data for the past five years to determine the 99th percentile over the summer months. The data supports the operating conditions of the chillers. Information was provided to chiller manufacturer to enable them to supply data during the evening period for unique assessment.</p> <p>Refer to Section 5.2 and 5.2.1 of the ONVIA at Appendix 18.</p>
<p>10. Substation</p>	
<p><i>The substation proposed as part of the development does not appear to have been included in the assessment. Substations have the potential to generate low frequency noise as well as general industrial noise and should be accounted for in the assessment.</i></p> <p>a) <i>The EPA recommends that DPHI requests the Applicant to consider the risk and noise impacts the substation will have as part of the ONIA.</i></p>	<p>The proponent is yet to commit to a specific substation design, hence the proposal seeks consent for a substation zone that identifies maximum spatial requirements for the substation. Stantec have provided CDC with the noise level requirements for the 6 x transformers which have been incorporated into the ONVIA model. The supplier will be contracted to meet the provided noise level requirements and to demonstrate compliance. Refer to Sections 5.2 and 5.2.3 of the ONVIA at Appendix 18.</p> <p>Sections 5.1.1 and 5.3.2 of the ONVIA (Appendix 18) presents additional potential noise sources from the substation and the expected impact from the operation of these sources.</p>
<p>11. Noise contour plots</p>	
<p><i>The noise contour plots supplied with the ONIA do not appear to cover sufficient areas of the residential receivers to the south of the development and the retirement village. The plots only appear to cover the first row of residential receivers and in some areas, the plots appear to show higher noise levels towards the second row of houses compared with the first. This implies that receivers further back from the development, and potentially at a higher elevation may have higher noise levels than those closer in.</i></p> <p>a) <i>The EPA recommends that DPHI requests from the</i></p>	<p>Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map have been run at both 1.5 and 4.5 meters high to show impacts to any two storey developments. Refer to Sections 5.5.1 and Appendix B of the ONVIA at Appendix 18.</p>

Table 8. EPA Operational Noise Submission Responses

Matter raised	Response
<p><i>Applicant amended noise contour plots that cover a sufficient area of residential receivers (including the retirement village) to demonstrate the assessment has considered how noise propagates through the area and considers the potentially most-affected receivers.</i></p>	<p>Section 5.5.1 of the ONVIA (provided at Appendix 18) presents detailed grid noise maps at higher resolution around receivers which has informed the locations of point receivers.</p>
<p>12. Generator testing assessment scenario</p>	
<p><i>Section 5.5 of the ONIA states the following: Based on the results above for typical operation scenario (Scenario 1) and maintenance scenario (Scenario 2), the noise impact to all surrounding receivers are expected to comply with the established noise criteria for all time periods and stability categories.</i></p> <p><i>This statement is not supported by the results as the assessment indicated a 1 dB exceedance at receiver R1 117 Stockholm Avenue during the day period under Scenario 2 stage 3. The note to table 5-4 refers to this exceedance as follows: 1-2dB(A) is not deemed a perceptible change in noise level. Furthermore, this scenario is descriptive of the worst-case testing scenario and is expected to be short-term impact and therefore not expected to cause any adverse impact to the receiver.</i></p> <p><i>The NPfl requires that if predicted noise levels are above the project noise trigger level, all feasible and reasonable mitigation is applied prior to assessment of residual impacts. There does not appear to be any discussion to demonstrate that all feasible and reasonable mitigation measures have been applied for the generator testing scenario. The assumptions in Section 5.4 mention that no more than 10 generators at a time would be tested, however there is no mention of generator mitigation in Section 5.3.1. As a result its not clear how testing schemes or other mitigation has been investigated to reduce noise levels below the project noise trigger levels.</i></p> <p><i>The assessment does not provide sufficient detail to understand which generators are active during the assessment of generator testing schemes, or how the worst-case scenario was determined. For example, the worst case for receivers in the south, the retirement village and the place of worship are likely to be different due to their different orientations to the premises. Therefore, it is difficult to understand if the scenario is a representative assessment.</i></p> <p><i>The sound power levels appear to only include one sound power level to characterise the generators. However, generators can have several noise sources that make up the total noise emission and cause directivity of noise emissions. Generators typically have noise sources associated with inlets, exhausts, and enclosures and the sound emission can vary depending on the orientation towards receivers. In some cases, generators may have common exhausts as outlined in the AQIA.</i></p> <p><i>The testing of generators is a routine operation at the premises and presently the information provided in the assessment indicates an unknown level of risk, which should be addressed by further information.</i></p> <p><i>The EPA recommends that DPHI requests from the Applicant the following additional information:</i></p> <p><i>a) The assumptions used, and design of, generator testing scenarios including the location of the generators assumed to be on</i></p> <p><i>b) How the location of each group of sensitive receivers</i></p>	<p>Section 5.4.1 and Appendix F of the ONVIA (provided at Appendix 18) provided Markup of Source locations assumed for each of the operational scenarios, including worst case for the residential receivers and the mosque during generator testing (Scenario 2).</p> <p>Details of Generators Mitigation has been outlined in Section 5.3.1 of the ONVIA (provided at Appendix 18).</p> <p>At the distances of the receivers, discrete noise sources will be indistinguishable, which is why they have been modelled as a point source. A separate point source has been included for the flues of each generator which are proposed to be in line with the top of the acoustic barriers on the chiller plant deck. Refer to Section 5.2 and 5.3 of the ONVIA at Appendix 18.</p> <p>Full details of each discrete source has been provided in the data sheets which detail the discrete sources of the generators can be found in Appendix D of the ONVIA at Appendix 18.</p> <p>Stantec has provided a markup of all noise sources operational in the modelling scenarios in Section 5.4.1 of the ONVIA at Appendix 18.</p> <p>Further discussion around the generator testing scenario has been provided in Section 5.5.1 of the ONVIA (provided at Appendix 18).</p>

Table 8. EPA Operational Noise Submission Responses	
Matter raised	Response
<p><i>relative to the premises was considered in the scenario</i></p> <p><i>c) Demonstration that all feasible and reasonable mitigation has been applied to the generating testing, including any at-source measures for the generators, and the number and location of generators being tested at any one time</i></p> <p><i>d) Clarification of the sound power level(s) used for the generators, how they represent the different noise sources and how directivity of sources was considered in the assessment.</i></p> <p><i>E) Consideration of other generator testing scenarios which may cause exceedances and indication of the frequency and duration of generator testing.</i></p>	

5.1.4 Construction Noise and Vibration

In relation to construction noise and vibration, the EPA identified issues regarding background noise measurements, construction noise modelling inputs and assumptions, out of hours work and construction noise mitigations.

PROPONENT RESPONSE

The Construction Noise and Vibration Impact Assessment (CNVIA) (**Appendix 19**) has been updated to include and address all matters raised by the Department and the EPA in relation to construction noise and vibration.

Given the detailed and specific technical nature of the EPA's commentary regarding construction noise and vibration, Table 9 provides the specific location within the CNVIA where each matter has been addressed and resolved, and a response from Northrop (the consultants).

Table 9. EPA Construction Noise and Vibration Submission Responses	
Matter raised	Response
1. Background noise measurements	
<p><i>The background noise measurements in the construction noise and vibration assessment (CNVIA) only appear to reference those carried out by Stantec. However, in the ONIA both measurements done by Stantec and Northrop are referenced.</i></p> <p><i>a) The EPA recommends that DPHI requests from the Applicant to clarify the measurements used in each assessment and ensure consistency between them, and where consistency is not considered appropriate, a justification must be provided.</i></p>	<p>Background noise measurements incorporate both Northrop and Stantec measurements. For consistency with the ONVIA, Section 3 of the CNVIA (provided at Appendix 19) has been extracted from Stantec's ONVIA (Appendix 18). Daily monitoring graphs are provided in Appendix C of the ONVIA (Appendix 18).</p>
2. Construction noise modelling inputs and assumptions	
<p><i>There were a number of matters identified with the construction noise modelling inputs and assumptions as follows:</i></p> <p><i>-The ground absorption values used for the CNVIA and ONIA noise modelling are not consistent. The CNVIA used a more absorptive ground absorption (0.5) than the ONIA (0.2). The value in the operational assessment appears more likely to be representative of the ground conditions within the industrial and residential areas.</i></p> <p><i>- CNVIA Table 7 defines construction scenario 2 as representing excavation and piling activities. However, in CNVIA Table 11 no noise source for any piling equipment has been included.</i></p>	<p>Ground absorption in the CNVIA has been updated to be consistent with Stantec's ONVIA. Refer to Table 15 and Figure 9 of the CNVIA (provided at Appendix 19).</p> <p>The construction scenarios and equipment selection has been updated with more detailed construction information. Bored piling works are required in scenario SC02 (substructure) and have been incorporated into the noise model. See Table 13 (equipment ID C19) of the CNVIA (provided at Appendix 19).</p>

Table 9. EPA Construction Noise and Vibration Submission Responses

Matter raised	Response
<p>- Section 4.3.2 of the CNVIA states that construction noise would be evenly distributed across the site. However, the project is built in stages and has discrete buildings to be constructed therefore activities would be expected to be concentrated around certain locations such as the stage location or a particular building. Therefore, it is unclear if this assumption is representative of the proposed construction.</p> <p>- The construction assessment also states that it has assumed all plant and equipment are operating concurrently and that actual levels would be lower than those presented in the report. However, its not clear why this approach has been taken when it would appear more useful to present reasonably foreseeable construction scenarios so that mitigation and work practices can be developed for the activities that may actually take place instead of unrealistic scenarios where mitigation may not be suitable as the scenarios are unrepresentative.</p> <p>a) The EPA recommends that DPHI requests the Applicant to address the above matters raised on the construction noise modelling and amend the assessment accordingly.</p>	<p>More detailed information has been provided around the construction staging. The noise model was updated to reflect the proposed staging (see Figure 1 to Figure 5 of the CNVIA (provided at Appendix 19)). The noise sources were located in positions that would best represent the noise impacts from the proposed construction. The justification of the locations is detailed in Table 14 of the CNVIA (provided at Appendix 19).</p> <p>Furthermore, Appendix B of the CNVIA (provided at Appendix 19) shows the noise sources being concentrated around each data centre building in each stage.</p> <p>CDC provided an updated equipment list that reflects a realistic assumption around the number of equipment that may be operational at one time. Northrop have also modelled a scenario where noise intensive equipment such as concrete cutting, jack hammering or piling were not operating as these items would not be used for extensive periods of time during construction (see methodology provided in Section 4.3 of the CNVIA at Appendix 19).</p>
<p>3. Out of hours work</p>	
<p>Section 4.1.1 of the CNVIA states that the construction hours will be</p> <ul style="list-style-type: none"> - Monday to Friday 7am to 6pm - Saturday 8am to 1pm - No work on Sundays or public holidays <p>The State Significant Development application has applied for work hours that are consistent with the Interim Construction Noise Guideline (ICNG) standard working hours. Therefore, it is not clear why the CNVIA has included an assessment of construction noise for activities done outside of standard hours.</p> <p>a) The EPA recommends that DPHI consider requiring construction work to be undertaken during standard working hours in accordance with the ICNG, with exceptions to the hours only permitted according to Section 2.3 of the ICNG.</p>	<p>The assessment within the CNVIA (provided at Appendix 19) has been updated to only consider standard hours construction. References to out of hours work have been removed.</p> <p>Construction works will be undertaken during standard construction hours.</p>
<p>4. Construction noise mitigation</p>	
<p>The recommended construction noise mitigation measures are generic and are provided without any assessment of what could be implemented and limited information regarding the potential noise reduction or benefit.</p> <p>For example, its not clear if enclosures as suggested in CNVIA Table 19 are possible for any of the activities or items of equipment proposed. Another example is which activities have been identified that could use quieter equipment or methods.</p> <p>The predicted noise levels are stated to be unlikely to occur and also in some cases appear not to have included equipment likely to be used in a certain activity (see item 2). Therefore its not clear what the realistic level of impact may be and therefore what mitigation measures would be appropriate.</p>	<p>Detailed construction noise mitigation measures are provided in Section 7.1 of the CNVIA (provided at Appendix 19). The noise barriers were incorporated into the noise model and are taken into account within the results tables (Table 16 to Table 23) of the CNVIA (provided at Appendix 19).</p>

Table 9. EPA Construction Noise and Vibration Submission Responses

Matter raised	Response
<p>a) <i>The EPA recommends that DPHI requests the applicant to provide an assessment of reasonable and feasible mitigation and work practices to manage construction noise and vibration as required by the ICNG.</i></p>	<p>It was found that acoustic barriers were the most effective approach to reduce the noise from the entire site. The assessment found that a 4m barrier to the southern boundary significantly reduced the overall construction noise levels. Additionally, localised barriers around the compressors and idling concrete trucks were also adopted. See Figure 10 of the CNVIA (provided at Appendix 19).</p> <p>The construction noise model was updated to provide more detailed and accurate representation of the future construction noise levels at the surrounding receivers and demonstrates that the mitigation measures are appropriate and practical.</p> <p>A detailed review of feasible and reasonable mitigation measures were undertaken and presented in Section 7.1 of the CNVIA (provided at Appendix 19).</p>

5.1.5 Dangerous goods – handling, storage and transport

In the submission, the EPA made the following comments in relation to the handling, storage and transport of dangerous goods:

The NSW EPA provided advice in May 2024 to DPHI on the Secretary's Environmental Assessment Requirements for this Proposal (our ref: DOC24/387689-4). The EPA requested that the Applicant "Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes." The EIS does not adequately address this information and the EPA recommends that DPHI requests the Applicant:

- a) *Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.*
- b) *Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.*
- c) *Reference should be made to the guidelines: EPA's Waste Classification Guidelines 2014 (as amended from time to time).*
- d) *Spill management measures, including items such as bunding, and emergency procedures should be clearly outlined.*

PROPONENT RESPONSE

An updated Preliminary Risk Screening Assessment and Memorandum are included as **Appendix 12** and **Appendix 13** to address the requirements of the EPA submission, and is summarised below.

DETAILS OF DANGEROUS GOODS PRESENT ON SITE

A summary of the location, material, dangerous good classification and approximate total quantity of the dangerous goods stored across the whole site (including the SSDA and the approved 5MW DA) is provided in Table 10. A further breakdown of the locations of dangerous goods is provided within the Preliminary Risk Memorandum included as **Appendix 13**.

Table 10. Details of Dangerous Goods (DGs) across whole site			
Area	Material	DG Class.	Approx. Total Quantity
Within the external back-up diesel generator areas	Combustible liquid (diesel)	C1#	9,006 kL
Within the Battery Storage Rooms and Data Halls	Lithium-ion Batteries	9	1,068,146 kg
Within the transformers located in the substation yard	SF6 (Sulfur Hexafluoride) Gas	2.2	4,000 kg
Within the transformers located in the substation yard	Nytro Taurus Insulating Oil	9	300 kL
Present within chillers	R134a Refrigerant	2.2	44,370 kg
Present within VRF systems	R410a Refrigerant	2.2	4,233 kg
*C1 combustible liquids are not considered dangerous goods under UN (United Nations) classification and are considered a dangerous good as per <i>Work Health and Safety Regulation 2017</i> .			

ASSESSMENT, HANDLING, STORAGE, TRANSPORT AND DISPOSAL

The proposed dangerous goods are required for the operation of various on-site systems. As per the Preliminary Risk Memorandum in **Appendix 13**, these systems will be designed, installed, and maintained according to relevant standards to ensure safe storage and use of the dangerous goods. Qualified third parties will handle the maintenance and assessment of these goods. The third party operators are required to have appropriate operating procedures in place.

No production, processing, or disposal of dangerous goods will take place on-site. If any system parts containing dangerous goods need replacement, a qualified third party will handle their removal and transport them off-site for recycling or treatment.

WASTE

According to the Preliminary Risk Screening Memorandum (refer **Appendix 13**), no dangerous goods waste, as defined by the EPA's Waste Classification Guidelines 2014, is expected to be generated or present on-site during normal operations.

Any potentially dangerous waste produced during construction will be managed by the appointed contractor according to their construction waste management plan or equivalent procedures.

SPILL MANAGEMENT

In terms of spill management, the Preliminary Risk Screening Memorandum in **Appendix 13**, recommended the following measures will be implemented to attenuate the risk:

Diesel Fuel

Diesel fuel will be stored in belly tanks with secondary containment and a 15L spill containment at in-fill points in accordance with AS 1940:2017. Spill kits are located near generators, and the stormwater drainage system is equipped with Puraceptors for hydrocarbon capture.

Responsible parties will receive training in spill management, with records of completed training maintained. Refuelling events and fuel levels will be monitored regularly.

In the event of a fire involving diesel fuel, contaminated fire water will be captured in an OSD tank, tested for contaminants, and then transferred to an appropriate treatment facility.

Lithium-ion batteries

Lithium-ion batteries contain liquid electrolyte within the battery cell lining. The design standards, battery management measures, and maintenance policies (as referenced in Table 3 of **Appendix 13**) ensures that the risk of electrolyte spillage or exposure is adequately mitigated.

If the electrolyte is exposed due to a breach in the battery cell lining, it will react with the air, causing the battery cell to undergo thermal runaway, produce off-gases, and likely result in a fire.

In the event of a battery fire where fire hydrants or automatic fire sprinklers are used, the toxic materials mixed with the fire water will be captured in an OSD tank, similar to the procedure described for diesel fuel fires.

Insulating Oil

Transformers containing insulating oil will be provided with adequate containment (bundling or the like) to prevent spillage.

Spill management procedures in line with the requirements of electrical authority will be in place and implemented by the responsible third party.

5.2 Response to Blacktown City Council

The original submission and subsequent addendum received from Blacktown City Council (BCC) object to the proposed development. The objection is based on development engineering issues, asset design and drainage issues, and planning issues relating to earthworks, landscaping, car parking and bulk and scale.

5.2.1 Development Engineering

Consideration of the matters raised by BCC in relation to development engineering matters is provided in Table 11.

Table 11. BCC Development Engineering Submission Responses	
Matter raised	Response
1. Clarify this proposal's relationship with other approvals - front portion of land development under DA-24-00542 (5MW data centre) and its subsequent MOD-24- 00615. The swept path analysis and sight distance should have been assessed in this DA.	Drawing CDC-SYD-MP-CV-DG-0900-01 in the civil engineering plans (refer Appendix 6) has been updated to delineate the adjacent DA approval. The proposed works are consistent with the works already approved by Council (as amended).
2. Provide cross sectional diagrams to illustrate the height of retaining walls, batters and offset of RW from adjoining neighbour's property boundaries.	Refer to drawings CDC-SYD-MP-CV-DG-0202-01" to "CDC-SYD-MP-CV-DG-0202-05" in Appendix 6 .
3. Clearly show the design surface levels within the subject site in relation to adjoining lot surface levels.	Refer to updated drawing CDC-SYD-MP-CV-DG-0400-01' in Appendix 6 that now shows spot levels as requested
4. Submit the On-site Detention tank calculations to demonstrate compliance with Council's OSD requirements. Reference is made to a notation on sheet 46 of 58 in the civil plans package which state "OSD tank sized from previous phase of the development". In this regard, the notation is not accepted and actual calculations to demonstrate that the OSD calculations are in accordance with Council's policies are required for this assessment.	The latest OSD calculations have been provided and added to drawing "CDC-SYD-MP-CV-DG-0520-16" in Appendix 6 .

Table 11. BCC Development Engineering Submission Responses	
Matter raised	Response
5. <i>In drawing no. DG-0526-03 rev C, show the invert level of the 1200-mm dia outlet pipe (Section A) and the 1500mm-dia inlet pipe (Section B).</i>	This drawing has been updated and is provided in Appendix 6 .
6. <i>Provide additional levels along the drainage easement to demonstrate the proposed invert levels of the OSD outlet is suitable for the existing conditions.</i>	This drawing has been updated and is provided in Appendix 6 .
7. <i>In drawing no. DG-0526-03 rev C – a) clearly show the finished surface levels of the detention tank in relation with the existing natural surface levels and adjoining lot surface levels. Note that details of this outlet are not present in nominated plan. b) show details of the outlet pipe to existing pipes within the drainage easement.</i>	The drainage easement has been drawing “CDC-SYD-MP-CV-DG0520-01”. Drawing “CDC-SYD-MP-CV-DG-0526-03 has been updated and is provided in Appendix 6 .
8. <i>Provide typical road cross section diagrams.</i>	Refer to CDC-SYD-MP-CV-DG-0405-01” in Appendix 6 .
9. <i>Provide long-sectional diagram of the Central Road, from the site entry/exit point to chainage 600 (at Road Link North and South intersection).</i>	Refer to the road long section shown in drawing “CDC-SYD-MP-CV-DG-402-01” in Appendix 6 .
10. <i>Submit the DRAINS model for the site including OSD system.</i>	Refer to the calculations provided in Appendix 9

5.2.2 Asset Design

The submission received from BCC provided the following comment in relation to asset design.

1. *The proposal is to match Hollinsworth Road levels which are currently under construction through a WIK with Sydney Business Park and match the constructed downstream stormwater drainage lines in Langford Street. Details are required on the civil design plans particularly for the drainage outlet.*

PROPONENT RESPONSE

Please refer to the updated civil design provided in **Appendix 6** which confirms that the proposed levels will match the Hollinsworth Road levels and stormwater drainage lines in Langford Street.

5.2.3 Drainage

Table 12 addresses the matters raised by BCC in relation to drainage.

Table 12. BCC Drainage Submission Responses	
Matters Raised	Response
1. <i>That the development demonstrate compliance with Part J - Water Sensitive Urban Design and Integrated Water Cycle Management of Blacktown DCP 2015.</i>	The Integrated Water Management Strategy has been updated and is provided in Appendix 7 .
2. <i>Supporting documents shall be provided in electronic copy for assessment:</i> <ol style="list-style-type: none"> <i>DRAINS model - to confirm the design of the OSD and the drainage design on both internal and external of the site</i> <i>MUSIC model - to confirm the reduction target and the non-potable reuse target are achieved.</i> 	For the modelling results from the MUSIC link report, please refer to Appendix B of that report, which complies with Blacktown Council DCP Part J (2015) as well as Appendix 9 for the MUSIC model.

Table 12. BCC Drainage Submission Responses	
Matters Raised	Response
2(i) <i>the details of the proposed OSD and storm filter tank shall be provided including details of the control pit, orifice level weir level and cross-section of the tanks. The required details can be found in Council's Engineering Guideline for Development and WSUD Standard drawing A(BS)175M.</i>	The updated drawing OSD details drawing "CDC-SYD-MP-CV-DG-0526-03". This drawing in Appendix 6 shows the full extent of the proposed OSD extension to accommodate runoff from the proposed portion of the development.
2(ii) <i>the proposed filter chamber shall be amended to comply with the minimum surface areas and the maximum flow rate in accordance with the manufactory specification. And the energy dissipator shall be installed.</i>	Drawing "CDC-SYDMP-CV-DG-0526-03" in Appendix 6 has been updated to demonstrate compliance with the minimum surface areas and maximum flow rates.
2(iii) <i>The details of the eastern grass swale and the substation swale must be provided to support the design including provided including cross-sections, longitudinal section with 1% AEP and the connection to the pipeline.</i>	The cross sectional drawings "CDC-SYD-MP-CV-DG-0553-01" to "CDC-SYDMP- CV-DG-0553-02" and long sectional drawing "CDC-SYD-MP-CV-DG-0552-01" have been updated and are included in Appendix 6
2(iv) <i>All stormsack details are to be included in the submitted plan</i>	Drawings "CDC-SYD-MP-CV-DG-0522-01" to "CDC-SYD-MP-CV-DG-0522-02" in Appendix 6 have been updated to annotate the use of Atlan Stormsack unit.

5.2.4 Planning

Blacktown City Council raised the following planning matters:

1. *Consistency of cut and fill and vegetation management as approved under DA-24-00452 (5 MW data centre) and DA-24-00386 (bulk earthworks).*
2. *Extent of retaining walls specifically along the northern boundary of the site.*
3. *Provision of landscaping buffers specifically along the retaining walls, including additional planting around the site as a genuine attempt for landscape screening independent from other surrounding structures and properties.*
4. *Provision of sufficient car parking spaces for the data centre use, and provision of additional car parking for future change of use feasibility.*
5. *Potential bulk and scale impacts to the surrounding properties and public domain arising from the proposed acoustic treatments and building height, materials and finishes.*

PROPONENT RESPONSE

CUT AND FILL AND EARTHWORKS

As confirmed in Table 11, the revised civil engineering drawings in **Appendix 6** have been updated to be consistent with the cut and fill and vegetation management plans as approved under DA-24-00452 (5MW data centre) and DA-24-00386 (bulk earthworks).

LANDSCAPING

Updated landscaping plans have been provided as **Appendix 11**. The revised plans depict an increase in landscaping across the site.

However, as identified in Drawing L113, landscaping opportunities for much of the site are constrained by underground servicing requirements and the need to provide an Asset Protection Zone (APZ) along the southern boundary.

Landscape areas have been increased at the eastern end of the site where the OSD tank has been relocated in order to allow for more canopy planting along the eastern boundary.

Deep Soil has reduced by 2.2% as a result of new/updated service layouts which have altered where we initially believed we had the opportunities for deep rooted tree plantings. Some locations such as the OSD tank have been modified to allow for low to mid level shrub plantings to help offset this decrease in deep soil planting.

Total proposed canopy coverage across the site has been increased by 3% as a result of maximising tree layout within and outside of asset protection zones, while adhering to the bushfire requirements outlined by the bushfire consultant. The revised canopy coverage has been curated in conjunction with service layout in order to get the most possible canopy coverage across the SSDA site where bushfire and site restrictions allow. The increased canopy coverage is not only a positive outcome for the site in terms of ecology and amenity but will also help in reducing the urban heat island effects of the proposal.

Tree selection has been revised to introduce additional trees and trees of a greater height along the northern boundary to further screen the development. The previously proposed removal of four (4) trees has been removed from the proposal. No tree removal is proposed as part of SSDA.

Furthermore, there is limited opportunity to provide additional landscaping around the proposed substation due to the vegetation management requirements of Endeavour Energy. These requirements restrict the planting of trees closer than their mature height to the closest conductor, the planting of trees within 5 meters of a power pole, and the planting of plants with significant root systems that grow greater than 400mm below ground level near underground cables.

Landscaping has been maximised as much as possible within the development. Retained vegetation and new plantings align with or exceed that provided on neighbouring sites which have been developed within the Marsden Park Industrial Precinct in recent years.

CAR PARKING FOR FUTURE CHANGE OF USE

In relation to point 4, as already outlined within the EIS, data centres are far less intensive than typical industries and demand lower car parking provision. On this basis, compliance with the *Blacktown City Council Growth Centre Precincts Development Control Plan 2010 Amended March 2022* (BDCP 2010) car parking requirements should not be enforced and an alternative 'first principles' approach should instead be accepted.

The BDCP 2010 car parking requirements are excessive given the data hall, which forms the greatest portion of the site GFA, would simply function as an area for the storage of IT equipment. The first principles assessment provided for in the Traffic Impact Assessment (TIA) accompanying the EIS determined that up to 209 spaces were required to accommodate the parking demand within the site.

As such, it is anticipated that the proposed supply of **265 car parking spaces** is sufficient for the potential car parking demand within the site given this incorporates a surplus of 56 parking spaces.

In relation to BCC's concern that the development may change use to a more intensive type of industry, it should be recognised that this is an extremely unlikely proposition. As identified in the cost estimate report that accompanied the EIS, the development is anticipated to have an estimated development cost (EDC) of \$3,113,226,273 (excl. GST) which is substantially more than traditional light industrial development of a similar size and scale. On this basis, a change of use is simply not commercially viable, especially whilst demand for cloud data storage services continues to grow exponentially globally.

Furthermore, a change of use of the scale envisioned by BCC would be subject to an assessment through either a subsequent development application or SSDA, as it is not possible for these to proceed through exempt or complying development pathways. It would be appropriate and typical to assess the impacts of parking demand from an alternate use at this future stage.

Notwithstanding the above, in order to address BCC's query, an adaptive reuse parking plan has been prepared to show that full compliance can be achieved on-site in the event that the buildings are ever changed to another use (see Figure 6 and **Appendix 5** of this response). Table 13 provides the GFA conversion assumptions that Table 14 has relied on.

Table 14 demonstrates that a future adaptive reuse of the site for warehousing would generate a total parking demand across the site of approximately 2,266 car parking spaces, which is less than the **2,372 car parking spaces** shown on the adaptive reuse parking plan.

Table 13. Potential Future Adaptive Reuse Conversion			
Land use	GFA (sqm)	Conversion Rate	GFA
Buildings	266,020sqm	Warehouse (90%)	239,418sqm
		Office (10%)	26,602sqm
Office	13,630sqm	Office (100%)	13,630sqm

Table 14. Car Parking Rates in DCP 2010 for the IN2 (Light Industrial) Zone			
Land use	GFA (sqm)	Rate	Parking Requirement
Warehouse	239,418sqm	1 space per 75sqm GFA up to 7,500sqm	100
		1 space per 200sqm GFA over 7,500sqm	1,160
Office	40,232sqm	1 space per 40sqm GFA	1,006
Total			2,266

BULK AND SCALE IMPACTS

Details regarding how the proposed design has addressed potential bulk and scale impacts of the design have been provided in Section 4.5 of this Submissions Report.

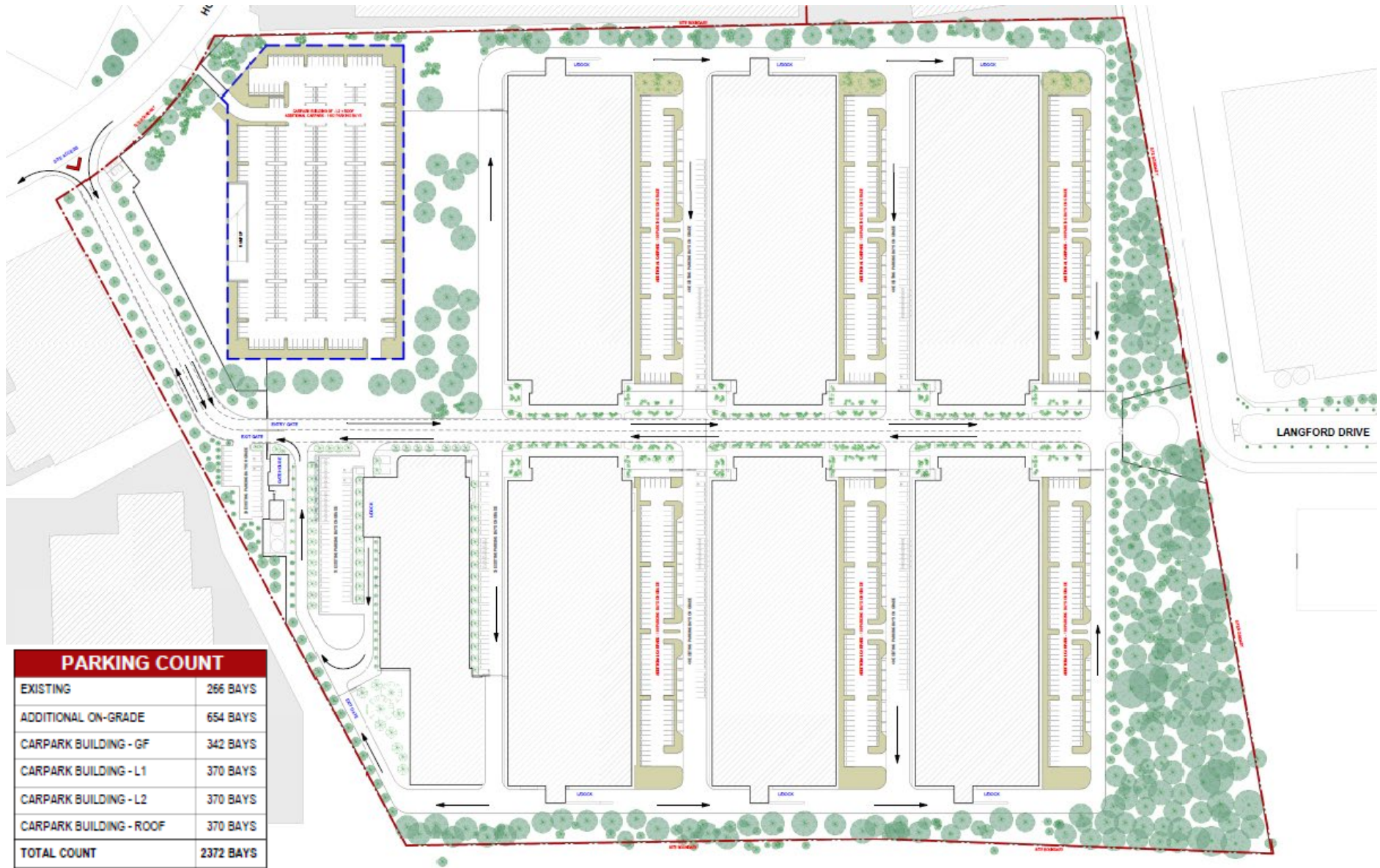


Figure 6: Extract of Adaptive Reuse Car Parking Plan
 Source: EJE Architecture

5.3 Response to Transport for New South Wales

The submission received from Transport for New South Wales (TfNSW) provided was impartial to the proposed development and provided a list of advisory comments and suggested conditions of consent.

5.3.1 Sewer connection across TfNSW owned land

TfNSW made the following comments in regard to the proposed sewer connection across TfNSW owned land:

The proposed sewer connection works are located within the Castlereagh Freeway corridor currently owned by TfNSW.

The proposed sewer connection works shall be designed to meet TfNSW requirements and endorsed by a suitably qualified practitioner. Certified copies of the civil design plans shall be submitted to TfNSW for consideration and approval prior to the release of the Construction Certificate by the Principal Certifying Authority and commencement of any works.

The developer is required to enter a Works Authorisation Deed (WAD) for the abovementioned works.

PROPONENT RESPONSE

The TfNSW comments, recommended conditions of consent, and the requirement to enter a WAD are acknowledged and acceptable. These matters will be addressed post-consent, as part of the Construction Certificate application.

5.3.2 Richmond Road/Hollinsworth Road/Townson Road Intersection

TfNSW made the following comments in regard to the performance of the intersection at Richmond Road/Hollinsworth Road/Townson Road:

The existing performance of the Richmond Road/ Hollinsworth Road/ Townson Road intersection is already at or near capacity such that a slight increase in the traffic volume can potentially causes a significant increase in the delays and queues experienced at this intersection.

Alternate vehicle access options via Langford Drive should be considered to attempt to divert traffic to the Richmond Road / Langford Drive/ Alderton Drive intersection and subsequently alleviate further deterioration of the Level of Service (LoS) of the Richmond Road / Hollinsworth Road / Townson Road intersection.

TfNSW recommends that this is considered by the Applicant as part of the Response to Submissions (RtS).

PROPONENT RESPONSE

Richmond Road Upgrade

The Review of Environmental Factors (REF) for the *Richmond Road Upgrade between M7 Motorway and Townson Road, Marsden Park* was publicly exhibited in November 2024. The project is to be jointly funded by the Australian Government and the NSW Government, and is committed to under the 2024-2025 NSW Budget with a forward estimate expenditure of \$316.6 million to 2027-2028.

As outlined on the project's website¹, the project includes an upgrade to the Richmond Road,

¹ <https://www.transport.nsw.gov.au/projects/current-projects/richmond-road-upgrade-between-m7-motorway-and-townson-road-marsden-park>

Hollinsworth Road, and Townson road intersection as follows:

- An additional through lane along Richmond Road heading northbound (towards Richmond);
- An additional dedicated right turn lane from Richmond Road into Hollinsworth Road;
- A new left turn slip lane from Hollinsworth Road onto Richmond Road; and
- Staged pedestrian crossings.

It can be reasonably concluded that the concerns raised by Transport for NSW regarding the capacity of the intersection will be resolved through this project.

Alternate Access

Alternate vehicle access via Langford Drive has been considered as part of the Proposal, however there is a portion of privately owned land that would require the consent of the landowner at 45 Hollinsworth Road (Lot 1 DP 1176437) to build over and use. This land is owned by the Ahmadiyya Muslim Association Australia (AMAA) and used as the Baitul Huda Mosque.

The Proponent has been in active discussions with AMAA in an effort to facilitate alternative access through to Langford Drive. Negotiations are ongoing however to date, owners' consent, easements, and plans have not been prepared, and it appears unlikely that an outcome can be achieved to facilitate alternative access for the purposes of this SSSA.

Additionally, we note that the western boundary of 45 Hollinsworth Road, currently used for vehicular access to that site, is zoned SP2 Local Road and identified for acquisition by Council to extend Langford Drive and connect it with Hollinsworth Road further north (see Figure 7).

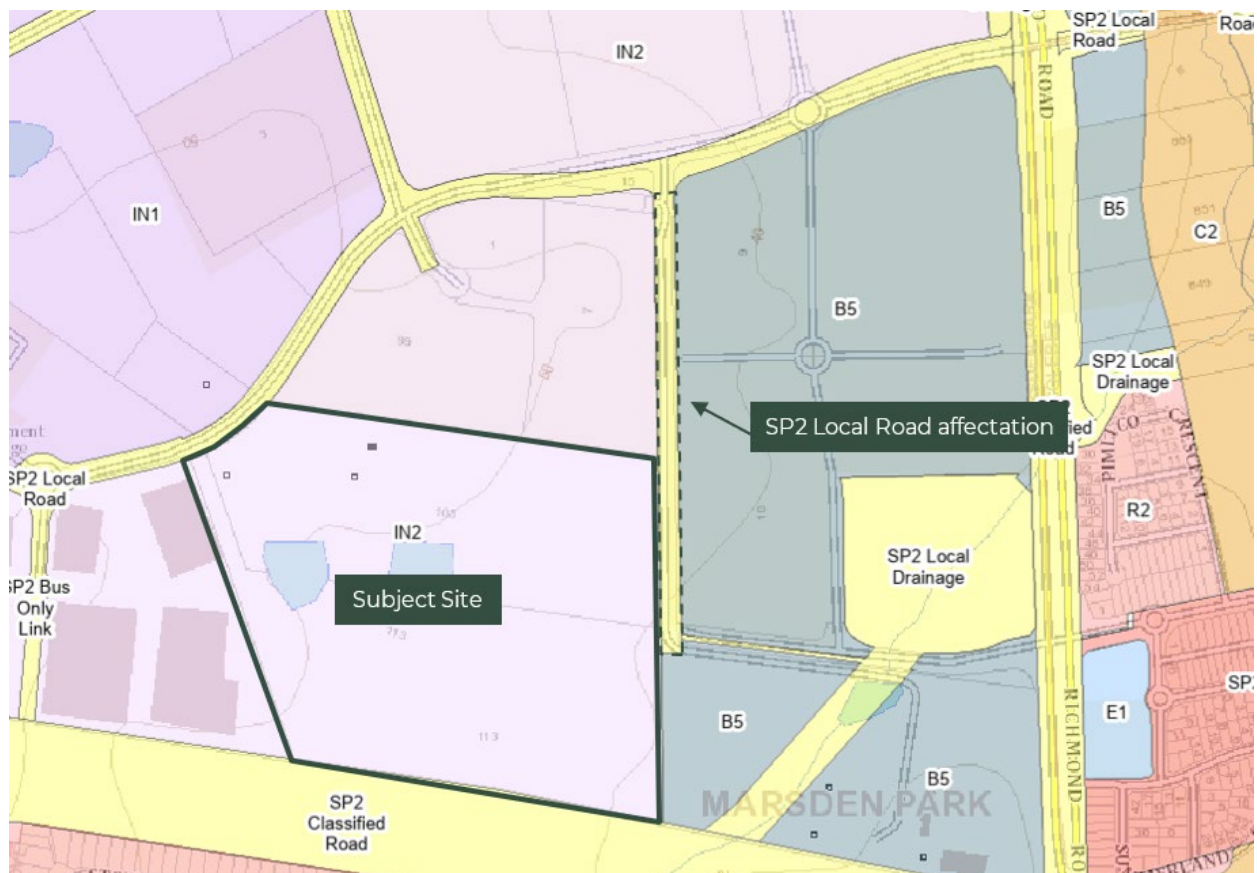


Figure 7: Proposed Local Road extension on 45 Hollinsworth Road, adjacent to subject site
Source: NSW Spatial Planning Portal modified by Patch

As the authority for acquiring and delivering this road infrastructure, we submit that it is Council's responsibility to facilitate alternative road access in the circumstances. The delivery of this roadway is beyond the control of the Proponent.

Nonetheless, the revised design includes a temporary turning circle at a suitable location, which could facilitate a future connection between the site and Langford Drive should Council decide to acquire the SP2 zoned land at a future point (see Figure 6). No access will be provided for by the turning circle at this point, however, it can easily be extended to do so in the future.

5.3.3 Local road considerations

Transport for New South Wales "notes that the development proposes vehicle access to Hollinsworth Road (**local road**). Council as the relevant Road Authority should be satisfied with the design, layout and proposed access arrangement including swept path movement".

PROPONENT RESPONSE

This response is noted, and it is agreed that this is matter for Council to consider as the roads authority.

5.4 Response to Fire and Rescue New South Wales

The submission prepared by FRNSW identified a number of additional documents to be prepared in relation to the proposal. Specifically, it made the following recommendations:

1. *That a Fire Safety Study (FSS) is developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper (HIPAP) No.21 and submitted to FRNSW for review. The FSS is to be developed to the satisfaction of FRNSW prior to any further submission being made to FRNSW; this includes: an Initial Fire Safety Report (IFSR) and / or Performance-Based Design Brief / Fire Engineering Brief Questionnaire (FEBQ).*
2. *Prior to occupation or commissioning an Emergency Plan (EP) is developed for the site in accordance with HIPAP No.1.*
3. *Prior to occupation or commissioning an Emergency Services Information Package (ESIP) be prepared in accordance with FRNSW fire safety guideline – Emergency services information package and tactical fire plans.*
4. *Preliminary assessment of the project plans suggests there may be access/egress issues for emergency services. Design should ensure that safe, efficient, and effective access is provided in accordance with FRNSW fire safety guideline - Access for fire brigade vehicles and firefighters.*

PROPONENT RESPONSE

In line with other data centre projects within the Greater Sydney Region, it is anticipated that a condition of consent will be imposed requiring the Proponent to prepare and submit a Fire Safety Study (FSS) at least one month prior to the commencement of construction of the development (except for construction of those preliminary works that are outside the scope of the hazard studies), or within a timeframe agreed by the Planning Secretary. In addition, conditions of consent are also anticipated to be imposed requiring an Emergency Plan (EP) and Emergency Services Information Package (ESIP) to be prepared prior to commencement of operation.

In relation to the commentary received regarding access/egress, the design team has reviewed the proposal against the *FRNSW Fire Safety Guideline - Access for Fire Brigade Vehicles and firefighters* (version 5.01 17/11/2020). The proposal has been found to comply.

5.5 Response to DCCEEW - Biodiversity, Conservation and Science Group

The submission received from the DCCEEW – Biodiversity, Conservation and Science Group (BCS) requests additional information in regard to the Biodiversity Development Assessment Report (BDAR) waiver request and to rectify the inconsistencies in the information provided in the EIS and Arboricultural Impact Assessment Report (AIA); and further information in regard to land clearing in the non-certified areas.

5.5.1 Biodiversity

The submission received from BCS stated the following in regard to biodiversity:

BCS refused the Biodiversity Development Assessment Report (BDAR) waiver request (dated 21 October 2024) on 5 December 2024 (DOC24/870688-8). As detailed in the BDAR Waiver Determination Cover Letter, based on the information provided it cannot be concluded that the proposal will not have a significant impact on biodiversity values. Accordingly, a BDAR or an amended BDAR waiver request will need to be prepared.

BCS recommend that the inconsistencies in information provided in the EIS and Arboricultural Impact Assessment (AIA) Report prepared by Travers Bushfire & Ecology (dated 4 September 2024) are addressed. The inconsistencies identified include differences in number of trees to be cleared. The tree numbers referenced in the BDAR Waiver Request do not match up with the AIA Report. BCS request a plan is provided which clearly demonstrates which trees are approved to be removed under DA-24-00386 and which trees are proposed to be removed/retained this SSD- 70889211.

BCS also requests that additional clarification is sought from the applicant regarding the non-certified land that has already been largely cleared along the boundary and whether this was undertaken under a previous development application or by other means.

PROPONENT RESPONSE

A revised BDAR waiver request has been prepared by Abel Ecology and is provided at **Appendix 3**. The BDAR waiver request has been updated to be consistent with the information presented in the AIA prepared by Travers Bushfire and Ecology (**Appendix 15**) and was submitted to the Department on 11 February 2025. BCS refused the updated BDAR waiver request (dated 11 February 2025) on 24 March 2025 (DOC25/118079).

It is noted that the SSDA no longer proposes removal of any trees, a reduction of the four (4x) trees proposed for removal in the original lodgement. The Council Early Works DA (DA-24-00386) is in the process of being modified to consolidate all tree removal components of the development into a singular consent.

A BDAR is in the process of being prepared for the site, and will be submitted under separate cover.

5.6 Response to DCCEEW – Heritage NSW

Following a review of the EIS, the DCCEEW - Heritage NSW have requested further information regarding the Aboriginal Cultural Heritage Assessment Report (ACHAR) as detailed below.

5.6.1 Previous Assessment by Heritage NSW

The submission received by the DCCEEW - Heritage NSW made the following comments in relation to the previous assessment by Heritage NSW:

Heritage NSW is currently assessing an Aboriginal Heritage Impact Permit (AHIP) application for the bulk earthworks and associated works approved under DA-24-00386. The intersection of any approved AHIP with an SSD approval has potential to cause confusion. We suggest that the applicant considers options to manage this situation. This may include surrender of the AHIP, should an AHIP be issued before any SSD approval for these works has been issued.

5.6.2 Consultation

The submission by DCCEEW requested that *the ACHAR needs to adequately address comments from the Registered Aboriginal Parties. Darug Aboriginal Corporation has made detailed comments on the report that the ACHAR does not adequately address.*

Please provide this information to Heritage NSW so that we can determine whether the proposed management and mitigation measures are adequate.

5.6.3 Management and Mitigation Measures

The submission received by the DCCEEW made the following comments in relation to the proposed management and mitigation measures

To mitigate the proposed impacts, Travers Bushfire and Ecology (2024) is proposing archaeological salvage excavation of site 45-5-4619 (MPIP PAD 2). While the ACHAR provided with the SSD referral (dated 2 September 2024) does not include a salvage excavation methodology, a methodology has been provided with the version of the ACHAR provided with the AHIP application (dated 21 November 2024). Please include this methodology as part of the Response to Submissions for this project.

We also recommend additional mitigation to provide the Aboriginal community with an opportunity to collect Aboriginal objects on the surface. This measure should form part of an Aboriginal cultural heritage management plan.

PROPONENT RESPONSE

Following the RFI being received, we have been in correspondence with the Department in relation to our intended response to the above matters. The ACHAR is currently in the process of being updated and amended to reflect additional works undertaken by Travers. Our intended response to the above-mentioned matters is detailed below.

The AHIP application is associated with the approved bulk earthworks and associated works approved under DA-24-00386 (Early Works DA). The proposed salvage works will be undertaken as part of that Early Works DA AHIP, noting that no additional impacts are expected as part of the SSDA. As such, the recommendations and proposed approach in regards to mitigating and managing Aboriginal heritage constraints on the site for the SSDA mirror those proposed as part of the Early Works DA.

Once the Early Works DA AHIP is approved, a separate AHIP for the SSDA will not be required.

A meeting with the Registered Aboriginal Parties (RAP) for the project was held on-site on Wednesday 19 March 2025. The purpose of the meeting was to provide the RAP with an opportunity to inspect the study area, specifically in relation to AHIMS site 45-5-4619 to review its salvage status, and to identify a suitable location within the conservation area for reburial of stone artefacts recovered during the course of undertaking the ACHAR. The site meeting was also aimed at discussing the updated conclusions and recommendations from the revised Addendum and the implications for the conclusions and recommendations of the original ACHAR, as well as responding to the submission made by Heritage NSW in regard to the SSD application.

A pedestrian survey of AHIMS site 45-5-4619 (MPIP PAD 2) – specifically the area demarcated for a proposed salvage on the ridgeline landform – confirmed that:

- PAD had been eroded in their entirety: as a result, salvage excavation is not warranted.
- The pedestrian survey did however identify 12 surface stone artefacts: as a result, an AHIP application will be submitted to Heritage NSW for a surface salvage of the ridgeline area demarcated for salvage.

An inspection of the conservation area resulted in the RAP identifying a preferred new location for the reburial of any artefacts recovered during the test and salvage stages of site 45-5-4619. The RAP have also suggested a method for how the artefacts are to be reburied.

As a result of the new information and finds, the Addendum will be updated to include an AHIP application and surface salvage methodology. The existing stone artefacts and the ones located during the recent site inspection will be detailed in the report, and the existing site card for AHIMS site 45-5-4619 will be updated to reflect this new data. The surface salvage methodology will inform the updated AHIP Application to Heritage NSW.

Heritage NSW have indicated that the current AHIP application is on a stop-the-clock, and that once new information on the AHIP application is received, a further 43 days remain for the AHIP to be awarded. The RAP attending the site inspection agreed with the proposed surface salvage for site 45-5-4619, and the location of the proposed reburial site.

5.7 Response to Sydney Water

The submission from Sydney Water made the following comments in regard to water and wastewater servicing:

*Our preliminary assessment indicates that water servicing should be available for the proposed development. Re-iterating our advice under CN 213728 and the applicant's Infrastructure and Utilities Report, **supply to the site for the ultimate development will be restricted to a maximum 14 l/s flow rate.** Amplifications, adjustments, deviations and/or minor extensions may be required. Additional storage on site may be required. Detailed requirements will be provided at the S73 application stage.*

Our preliminary assessment indicates that wastewater servicing should be available for the proposed development. Amplifications, adjustments, deviations and/or minor extensions may be required. Detailed requirements will be provided at the S73 application stage.

A maintenance structure, in the form of a terminal maintenance shaft, is located within the property boundary, and this will need to be protected/access maintained.

PROPONENT RESPONSE

Stantec have confirmed that the 14l/s flow rate is acceptable for the operation of the development.

Detailed requirements, including any potential extensions or amplifications, will be provided once the development is referred to Sydney Water for a Section 73 application.

The terminal maintenance shaft is located north of the proposed 132kW cables, and access to this shaft will remain unaffected.

5.8 Response to Endeavour Energy

The submission from Endeavour Energy was neutral regarding the proposed development.

In their response, Endeavour Energy referenced their original comments and conditions outlined in their submission to the Department on 11 June 2024 regarding the request for SEARs.

PROPONENT RESPONSE

The submission made by Endeavour Energy is acknowledged, and no further action is required.

5.9 Western Sydney Local Health District

Following a review of the EIS, the Western Sydney Local Health District (WSLHD) requested further information regarding the risk of the proposal on human health in relation to Heat, Noise, Air Quality, and Emissions.

The project team is currently in the process of providing a comprehensive response to these matters, which will be addressed separately.

5.10 Response to Public Submissions

It is noted that during the exhibition period one (1) public submission was received that strongly supported the proposal, which read:

I strongly support this project as it will help the economy and provide good jobs both directly (during the construction of the datacentre and afterwards supporting it), as well as indirectly by providing more local computing resources for Sydney and Australia. Infrastructure - including Computing infrastructure - is always crucial and it is imperative the Marsden Park Data Centre is approved as soon as possible.

No Proponent response is required to the above.

6 Updated Project Justification

This section of the Submissions Report provides an updated evaluation of the social, environmental and economic impacts, including the principles of ecologically sustainable development. In addressing and responding to the submissions, a number of additional mitigation measure in addition to those submitted as part of the EIS are proposed. As there are no substantial changes to the proposal, the justification of the project is largely consistent with that provided as part of the EIS, noting that impacts have been further mitigated.

The proposed development has been assessed with regard to the matters for consideration under section 4.15 of the EP&A Act 1979 and the SEARs (SSD-70889211) issued by the Department. We conclude that the proposed development is largely consistent with the original design documentation and can therefore continue to be supported.

The design amendments are minor and have served to further mitigate and minimise the impacts of the proposed development. Accordingly, the justification for the project as outlined in the EIS remains relevant and is updated where relevant below.

6.1 Ecologically Sustainable Development

Clause 193 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation 2021) lists four (4) principles of ecologically sustainable development to be considered in assessing a project. They are:

- The precautionary principle.
- Intergenerational equity.
- Conservation of biological diversity and ecological integrity.
- Improved valuation and pricing of environmental resources.

An analysis of these principles is provided in Table 15 below.

EP&A Regulation Principles	Assessment
1. The Precautionary Principle	<ul style="list-style-type: none"> • The Proposal will explore all feasible opportunities to reduce climate change impacts from construction and operation activities, including energy efficiency, on-site renewable energy technologies, and embodied carbon; • The Proposal's electricity demand is to be met using electricity to ensure that the development is future-proofed as the electrical grid progressively decarbonises; • The Proposal will strive to implement climate adaptation principles to increase the resilience of the development to risks caused by projected changes in climate; and • The site is predominantly Bio-certified land, avoiding the environmental impact of a greenfield development.
2. Inter-Generational Equity	<ul style="list-style-type: none"> • The occupiable portions of the development will provide healthy internal and external environments for workers and visitors wherever possible. Specifically, due consideration to the sustainability of the environment by implementing Proposal wide nature benefits will support future generations; and • There will be emphasis placed on considering energy efficiency, environmentally preferable materials, and water conservation.

Table 15. Principles of Ecologically Sustainable Development

EP&A Regulation Principles	Assessment
3. Conservation of Biological Diversity and Ecological Integrity	<ul style="list-style-type: none"> • Conserving local ecological integrity via location of the development on a site that is predominantly Bio-certified land; • No tree removal is proposed as part of the SSDA; and • Design of landscaping will preference indigenous, low water use, drought resistant plant species wherever feasible.
4. Improved Valuation, Pricing and Incentive Mechanisms	<ul style="list-style-type: none"> • The Proposal will seek to target a PUE of 1.3 which represents a 20% improvement when compared to benchmark (1.61); • The Proposal will seek to target a WUE of 0.01 which represents nearly a 100% improvement when compared to benchmark (1.8); • The Proposal will purchase electricity that is 100% backed by renewable electricity sources for both customer IT electricity and overhead electricity to run the data centres. CDC currently achieves this by purchasing Large-scale Generation Certificates (LGCs); • The Proponent will enter an agreement to rate the operational energy and water performance of the commercial office components of each building against NABERS upon the achievement of at least 70% occupancy within the office space. The performance targets shall be aligned with the SEPP requirements as follows: <ul style="list-style-type: none"> - 5.5-star base building NABERS Energy for office space only. - 3-star NABERS Water for office space only.

6.2 Consistency with Strategic Context

The proposal as amended remains consistent with the relevant strategic planning framework and guidelines at the metropolitan, regional, and local level.

The proposal is consistent with *A Metropolis of Three Cities* (2018); *Six Cities Discussion Paper* (2022); *Central City District Plan* (2018) and *Blacktown Local Strategic Planning Statement* (2020).

The proposal will support the growth of the Marsden Park strategic centre by utilising vacant industrial land for a high technology industry use which will contribute to and support the digital economy. This will in turn support the growth of targeted industry sectors more broadly. Similarly, the proposal will support the retention and management of industrial and urban services land, by safe-guarding industrially zoned land from conversion to residential development, including conversion to mixed-use zones. By focusing employment growth and economic development within the Marsden Park strategic centre, this will in turn help to underpin the economy of the Central City District, and the broader economy.

The proposal will deliver an essential piece of IT infrastructure that supports the locality and the state more broadly. At a local level, the proposal will generate up to 220 full-time equivalent (FTE) construction jobs, and 265 operational FTE employees representing a positive contribution to the local economy.

6.3 Compliance with Statutory Requirements

The proposal as amended remains consistent with the following legislation and environmental planning instruments:

- *Environment Protection and Biodiversity Conservation Act 1999*;
- *Environmental Planning and Assessment Act 1979*;
- *Environmental Planning and Assessment Regulation 2021*;
- *Protection of the Environment Operations Act 1997*;

- *Protection of the Environment Operations (Clean Air) Regulation 2022;*
- *Biodiversity Conservation Act 2016;*
- *National Parks and Wildlife Act 1974;*
- *State Environmental Planning Policy (Precincts – Central River City) 2021;*
- *State Environmental Planning Policy (Planning Systems) 2021;*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021;*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021;*
- *State Environmental Planning Policy (Resilience and Hazards) 2021;*
- *State Environmental Planning Policy (Sustainable Buildings) 2022; and*
- *Blacktown City Council Growth Centre Precincts Development Control Plan 2010.*

6.3.1 Environmental Planning and Assessment Regulations

The EIS and RTS have addressed the specification criteria within clause 190 and clause 192 of the EP&A Regulation 2021. The EIS has addressed the principles of ecologically sustainable development applying clause 193 of the EP&A Regulation 2021.

6.4 Consultation

The EIS details the engagement that has been undertaken in the formulation of the project. Engagement has been undertaken with the following key stakeholders:

- Government agencies, including Blacktown City Council, Sydney Water; Endeavour Energy; Heritage NSW; the Department; EPA; BCS; TfNSW; Fire & Rescue NSW and NSW Rural Fire Service.
- Deerubbin Local Aboriginal Land Council; Aboriginal knowledge holders, community members and interest groups.
- Surrounding landowners.

The outcomes of the consultation process have been considered in the design of the project.

The application was publicly exhibited between Thursday 14 November 2024 and Wednesday 11 December 2024 in accordance with the EP&A Regulation 2021. Additional consultation was undertaken following exhibition of the application in response to submissions as outlined in Sections 4 and 5.

Detailed responses to the issues raised in the submissions received during the exhibition of the EIS are provided in Sections 4 and 5.

6.5 Likely Impacts of Development

The Proposal as amended does not give rise to additional adverse impacts as identified and assessed in the EIS.

6.5.1 Social and Economic

The Proposal will have a net positive social and economic impact. The social and economic impacts and benefits associated with the proposed development include:

- The proposal's social impacts range from high negative to high positive. The social impact is generally expected to be minimal due to the development aligning with existing land use of the Marsden Park Industrial Precinct and mitigation measures in place. The proposal's key negative impacts are the contribution to cumulative traffic issues along Richmond Road, visual impacts during operation, and the health and wellbeing impacts associated with noise generated during construction and operation. Key positive impacts include planting across the site resulting in a positive way of life impact, and livelihood impacts in the form of employment opportunities.

While these impacts are acknowledged, it is considered that through the adoption of appropriate mitigation measures, they can be appropriately managed as detailed throughout the EIS, this Submissions Report, the relevant appendices and in the mitigation measures provided as **Appendix 23**.

- Overall, the proposal addresses the strategic need for physical data storage infrastructure in New South Wales to facilitate the ongoing digital transformation and cater for changing population needs. The proposal will also activate vacant employment lands and provide employment opportunities for local residents, supporting local government employment objectives.
- The proposal has an estimated development cost (EDC) of \$3,113,226,273 exc. GST and will result in the provision of critical infrastructure that is increasingly important to the continued prosperity of the digital economy and represents a significant private investment in NSW.
- During construction, the proposal is expected to provide full time employment (FTE) for up to 220 workers and once operational 265 full-time employees are expected to be employed. This excludes contractors and subcontractors, who will also gain employment and work from the operation of the facility.
- More importantly, however, the proposal will provide economic benefit through the provision of a state-of-the-art data centre which will provide a means of ensuring that the critical data of business, organisations and government is able to be safely stored and secured locally, nationally and internationally.
- The proposal is a direct response to demand within the NSW market for such facilities and will provide infrastructure that provides a secure, reliable, and cost-effective way to store and process data, while also offering scalability and high levels of uptime.

6.5.2 Environmental

The environmental impact assessment of the Proposal has demonstrated that there are not anticipated to be more than minor impacts as a result of the normal operation of the development, and these are not considered to be of significance, either in nature or extent.

The most significant environmental impact associated with the proposal arise from the testing and emergency operation of the back-up generators. Beyond the impacts associated with the testing and emergency operation of the back-up generators, it is considered that the impact of the proposal is low and that any potential adverse impacts which may result have been minimised or appropriately managed through proposed mitigation strategies.

Where short term impacts have the potential to occur throughout construction, mitigation measures have been proposed to help minimise their effect, which include (but are not limited to) the following:

- Preparing a CEMP to manage and monitor air emissions during construction;
- Undertaking early notifications and providing the community with warnings of potential disruptions;
- Establishing a complaints management system; and

- Undertaking verification monitoring.

A series of all updated mitigations associated with the approval, including those described above, are provided as **Appendix 23**.

6.6 Suitability of the Site for the Development

Following the analysis undertaken as a part of this environmental impact assessment, it is concluded that the site is suitable for the proposed use as a data centre, given:

- The proposal is consistent with the IN2 – Light Industrial Zone objectives, is permitted with consent and satisfactorily addresses the relevant provisions in *Appendix 13 Marsden Park Industrial Precinct Plan of the State Environmental Planning Policy (Precincts—Central River City) 2021*;
- The proposal will facilitate industrial development in the Marsden Park Industrial Precinct and will support business activity that occurs in the Marsden Park strategic centre, the Central River City, and Greater Sydney;
- The proposal is also located adjacent to the existing Endeavour Energy 11kV South Marsden Park Zone Substation which provides certainty of power supply initially and prior to the establishment of the proposed onsite 132/11kV Zone Substation;
- The proposal will support the retention and management of industrial and urban services land, by safe-guarding industrially zoned land from conversion to residential development, including conversion to mixed-use zones;
- The proposed development will optimise use of a vacant industrial site and deliver strategic objectives to support the growth of targeted industry sectors within the Marsden Park strategic centre. It achieves this by utilising vacant industrial land within the Marsden Park Industrial Precinct for a high technology industry use which will contribute to and support the digital economy. This will in turn will support the growth of targeted industry sectors more broadly;
- 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; and
- The site is highly accessible and well serviced by transport, and is within close proximity of Richmond Road, and the M7 Motorway with bus services linking the area with Rouse Hill Town Centre, Blacktown Station and Tallawong Station.

6.7 The Public Interest

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

- Is consistent with relevant State and local strategic plans and complies with the relevant State and local planning controls;
- Beyond the impacts associated with the testing of generators and emergency use of generators in the event of a power outage, it is considered that the environmental impact of the proposal is low and that any potential adverse impacts which may result can be minimised or appropriately managed through proposed mitigation strategies;
- In relation to the design of the proposal, it is considered that an appropriate balance has been struck between facilitating the bespoke built form requirements associated with data centres and the need to provide a built form and landscaping outcome which does not result in adverse visual, or amenity impacts, or appear at odds with the broader industrial character;

- The proposal will provide for the economic and orderly use of land intended for industrial purposes, and will see a formerly under-utilised site renewed and providing for new jobs during construction and operation;
- The proposal will provide employment opportunities for workers in the locality and Greater Sydney with approximately 220 full time equivalent (FTE) construction jobs over a two-year construction period and approximately 265 direct operational jobs in the information and technology, security and property management industries;
- The site will provide for a development outcome which will contribute to the continued success of the NSW and Australian economy through allowing private investment which provides an increasingly critical technological asset class of development to be delivered at the site; and
- The proposed development aligns with the operational needs of the Proponent, supporting the long-term potential and objectives of the locality.

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

7 Conclusion

This Response to Submissions Response Report (Submissions Report) has been prepared for the Department of Planning, Housing and Infrastructure (the Department) on behalf of Canberra Data Centres Pty Ltd (the Proponent) in response to the submissions received during exhibition of State Significant Development (SSD) SSD-70889211 (the Proposal).

To date, a total of 11 submissions have been received, consisting of (1) local government submission, nine (9) state government and agency submissions, and one (1) community submission.

In addition to the submissions received, one (1) Request for Information has also been received from the Department requesting additional information and the drafting of this Submissions Report.

As detailed in the Submissions Report, since submissions were received, the following activities have been undertaken by the Proponent:

- Additional engagement has been undertaken with multiple stakeholders including the Department, the EPA, NSW DCCEEW Heritage, Blacktown City Council, and Western Sydney Local Health District;
- Revised BDAR Waiver Request lodged with the Department on 11 February 2025 for circulation to BCS. BCS refused the Waiver on 24 March 2025 (DOC25/118079). However it is noted that a meeting is scheduled to occur on 1 April 2025 with representatives of BCS and the Department;
- Ongoing engagement with representatives of the Baitul Huda Mosque;
- Refinements have been made to the proposed development, including: increased landscaping, refined civil design, introduction of a turning head to allow possible future connection to Langford Drive, no tree removal is proposed; revised OSD tank design; amended façade designs, modified acoustic treatments and mitigations, removal of southern skybridges from design, amended construction staging and methodology, additional details of proposed substation design and updated technical reports and assessments;
- A modification application is in the process of being prepared and submitted to the Early Works DA (DA-24-00386) to include removal of four (4) additional trees, to reduce confusion between approvals. No tree removal is proposed as part of the SSDA;
- A modification application is in the process of being prepared and submitted to the 5MW DA (DA-24-00542) to revise the OSD tank details and acoustic mitigations to reflect the proposed SSDA design; and
- Further assessment and additional information have been provided by the project team.

This Submissions Report has addressed the submissions received in response to the public exhibition of SSD-70889211. The Proposal as refined will result in high-quality development that achieves the original aims of the Proposal while resulting in no unacceptable environmental impacts. This Submissions Report confirms that subject to the implementation of the additional mitigation measures as identified, the proposed development will not result in any significant adverse impacts.

Based on the Submissions Report provided, the applicant has adequately demonstrated that the proposed development will not result in any unacceptable adverse impacts. Furthermore, adequate mitigation measures are proposed to ensure that any potential impacts are appropriately limited during both construction and operational stages.

Based on the supporting material provided in this Submissions Report in addition to the material provided in the original EIS, the Department has now been provided with sufficient information and documentation to progress the assessment of SSD-70889211. We request that the Department complete the assessment of the application and proceed to determination.



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