



Greenbox

# Julius Avenue Data Centre SSSA 6-8 Julius Avenue, North Ryde

Prepared for ISPT  
12th Dec 2025

# Acknowledgment of Country

We acknowledge the Traditional Custodians of the land and pay our respects to Elders past, present and future. We honour Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to our society.

# Executive Summary

This Architectural Design Report has been prepared by Greenbox Architecture to accompany the State Significant Development Application (SSDA) for the Julius Avenue Data Centre Development.

The Julius Avenue Data Centre, North Ryde Data Centre Project is a secure, scalable, and sustainable facility within the Macquarie Park Technology Precinct. Designed to meet Tier III Uptime Institute standards, the data centre will provide high-performance infrastructure that ensures continuous operations while adapting to evolving technological needs. The project is committed to aligning with local planning regulations and incorporating environmentally responsible design.

A key priority is future proofing, ensuring the facility can scale efficiently to accommodate increasing data demands. Security and reliability are integral, with redundant power and cooling systems, advanced cybersecurity, and robust access controls.

The development must address site constraints such as zoning laws, environmental considerations, and infrastructure requirements. As part of a major commercial and technology hub, the project must comply with local council guidelines, implement stormwater management solutions, and ensure seamless integration with existing transport and utility networks. Upgrades to electricity, water, and telecommunications will also be necessary to support the facility's extensive operations.

From a technical standpoint, the facility's design will follow industry best practices, incorporating structurally robust data halls, energy-efficient cooling systems, secure perimetres, and fire-resistant materials. The layout will emphasize operational efficiency, featuring modular data halls, structured cabling, emergency exits, and designated areas for storage, security, and support services. Additionally, the data centre will implement waste management strategies and adhere to strict Australian building and environmental standards.

The Julius Avenue Data Centre Data Centre will be a cutting-edge facility that integrates innovation, security, and sustainability. This document serves as a comprehensive guide for all stakeholders, ensuring the project is executed with efficiency, compliance, and long-term value while also providing the technical requirements for the development of the data centre.



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# Project Overview

# 01 Project Overview

## 1.1 Project Introduction

This Architectural Design Report has been prepared by Greenbox Architecture on behalf of ISPT to accompany the State Significant Development Application (SSDA) for the Julius Avenue data centre development.

The Julius Avenue Data Centre, North Ryde project involves the comprehensive development, design and approval of a data centre facility. This new facility is strategically located in the Macquarie Park Innovation Precinct, among numerous commercial facilities. The project is a critical step in enhancing the client's data infrastructure capabilities, ensuring scalability, reliability, and security to meet growing technological demands.

Project specifics include the following:

- Site preparation works, including tree removal;
- Earthworks and additional site retaining;
- Infrastructure comprising civil works and utilities servicing;
- Construction a data centre, with the following:
  - Basement car parking for 38 cars, including 2 accessible;
  - 8 data halls across five storeys with an IT load of 76.8MW with rooftop chiller plant area.
- Three storey office/front of house building;
- Four storey enclosed generator gantry to rear of data centre.
- New Ausgrid precinct-wide 132 kilovolt (kV) Subtransmission Switching Station (STSS);
- Two pedestrian through-site links;
  - Complimentary landscaping
  - Offset planting



Aerial view of site location

### Legend:

— — — — Site location



# 01 Project Overview

## 1.1 Project Introduction

Descriptor	Project Details
<b>Project Area</b>	The subject site has an area of 28,630sqm
<b>Proposed Use</b>	Data centre with ancillary office space.
<b>Project Description</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Site preparation works, including tree clearing</li> <li><input type="checkbox"/> Earthworks and additional site retaining</li> <li><input type="checkbox"/> Infrastructure comprising civil works and utilities servicing</li> <li><input type="checkbox"/> Construction of a multi-level data centre, with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Basement car parking for 38 cars (including 2 accessible spaces)</li> <li><input type="checkbox"/> 8 data halls across seven storeys with a total capacity of 76.8 megawatts with upper-level mechanical equipment and rooftop plant.</li> <li><input type="checkbox"/> Three storey office/front of house building</li> <li><input type="checkbox"/> Four storey enclosed generator gantry to rear of data centre.</li> <li><input type="checkbox"/> New Ausgrid zone (STSS)</li> <li><input type="checkbox"/> Two new pedestrian through-site links connecting Julius Avenue to the southern bushland</li> <li><input type="checkbox"/> Complimentary landscaping and offset planting.</li> </ul> </li> </ul>
<b>Gross Floor Area</b>	16,647sqm
<b>Building Height</b>	40m from Ground Floor and 28m from Level 2 (Julius Ave) 5 stories + Roof
<b>Data Houses</b>	8 data halls
<b>Car Parking</b>	38 car spaces including 2 DDA spaces
<b>Utilities</b>	Provision of required utilities including: <ul style="list-style-type: none"> <li><input type="checkbox"/> 48 back up generators</li> <li><input type="checkbox"/> diesel storage capacity (12 x tanks + 72 day tanks)</li> <li><input type="checkbox"/> 12 x basement water tanks for industrial water</li> <li><input type="checkbox"/> 2 x basement water tanks for fire (1 fire water tank and 1 fire water containment tank)</li> <li><input type="checkbox"/> 1 x Subtransmission Switching Station</li> </ul>
<b>Operations and Management</b>	The facility will be operated on a 24-hour, 7 day a week basis.

# 01 Project Overview

## 1.2 Response to SEARs

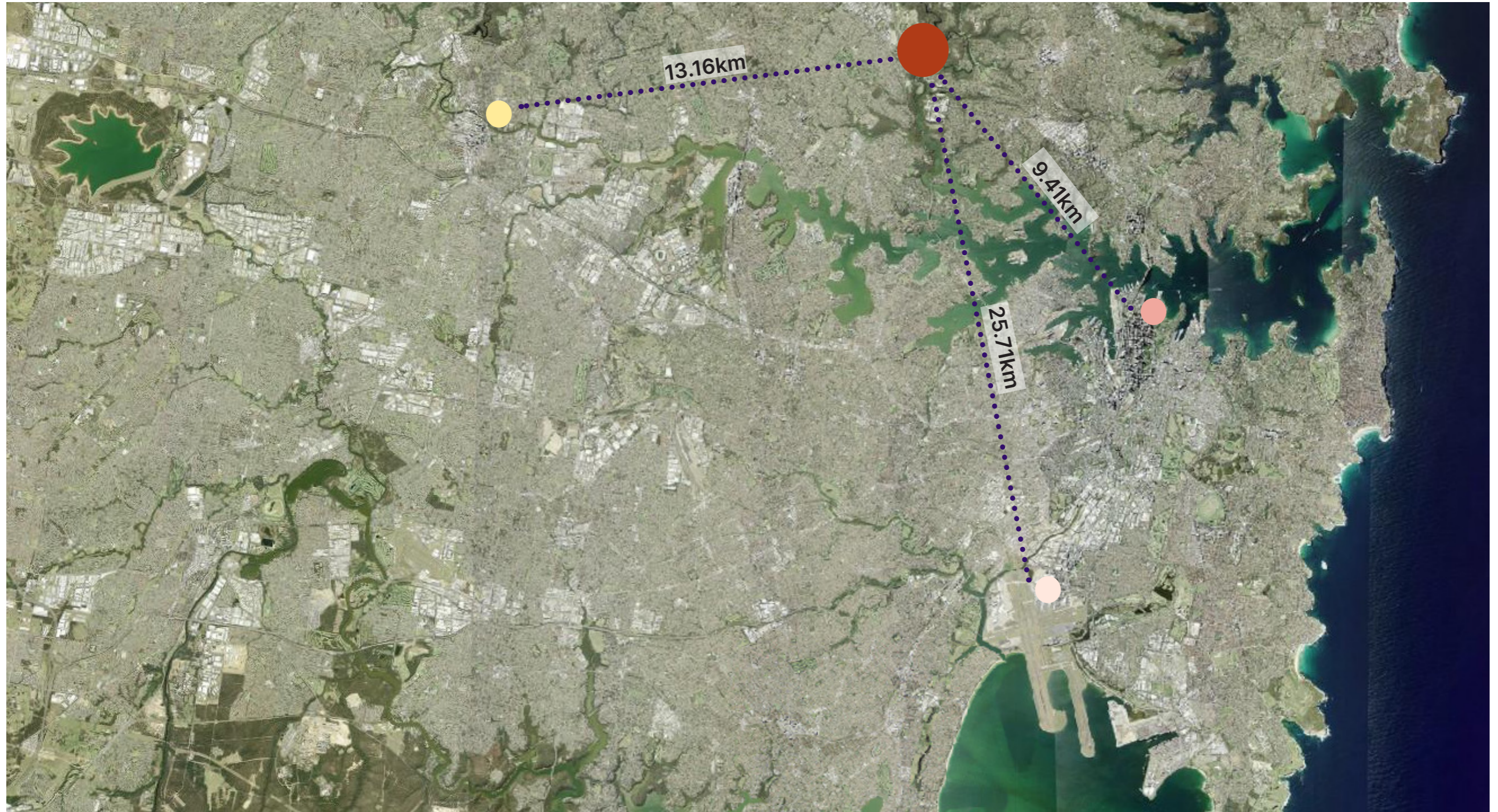
This report has been prepared in response to the requirements contained within the Secretary’s Environmental Assessment Requirements (SEARs) dated 4th April 2024 issued for the State Significant Development Application (SSDA) at 6-8 Julius Avenue, North Ryde. Specifically, this report has been prepared to respond to the SEARS requirement issued below, as well as the additional requirements stated in the SEARS covering letter dated 20 February 2025.

Item	Description of Requirement	Section Reference (this Report)
<input type="checkbox"/> 4. Built Form and Urban Design  Part 4 of the key issues and documentation section of the Planning Secretary's Environmental Assessment Requirements.	<input type="checkbox"/> Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach.	<input type="checkbox"/> Refer Section 03 - Built Form and Design Strategies
	<input type="checkbox"/> Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.	<input type="checkbox"/> Refer Section 03 - Built Form and Design Strategies
	<input type="checkbox"/> Demonstrate how the building design will deliver a high-quality development, including consideration of facade design, articulation, materials, finishes, colours, any signage and integration of services.	<input type="checkbox"/> Refer Section 03 - Built Form and Design Strategies <input type="checkbox"/> Refer Section 4.3 - Facade Design and Materiality
	<input type="checkbox"/> Assess how the development complies with the relevant accessibility requirements.	<input type="checkbox"/> Refer to Accessibility Report
<input type="checkbox"/> Additional assessment requirements  As per the SEARS covering letter; The Department has identified assessment requirements additional to those above. These requirements, should be taken to be the collective SEARS for the project.	<input type="checkbox"/> Statutory and strategic - The EIS must assess the consistency of the development with the principles, objectives and provisions identified in the MacQuarie Park Design Guide.	<input type="checkbox"/> Refer Section 2.3 Macquarie Park Design Guide
	<input type="checkbox"/> Design options analysis - The EIS must identify design options considered during an iterative process and demonstrate the proposed development has been optimised to provide an integrated built-form design and to minimise amenity impacts by having regard to the relevant evaluation criteria in the Macquarie Park Design Guide and the Government Architect's Better Placed and Greener Places design guides.	<input type="checkbox"/> Refer Section 03 - Built Form and Design Strategies

# Site Context and Analysis

# 02 Site Context and Analysis

## 2.1 Regional Context



Aerial view of Greater Sydney

Legend:

- Site
- Parramatta CBD
- Sydney Airport
- Sydney CBD

# 02 Site Context and Analysis

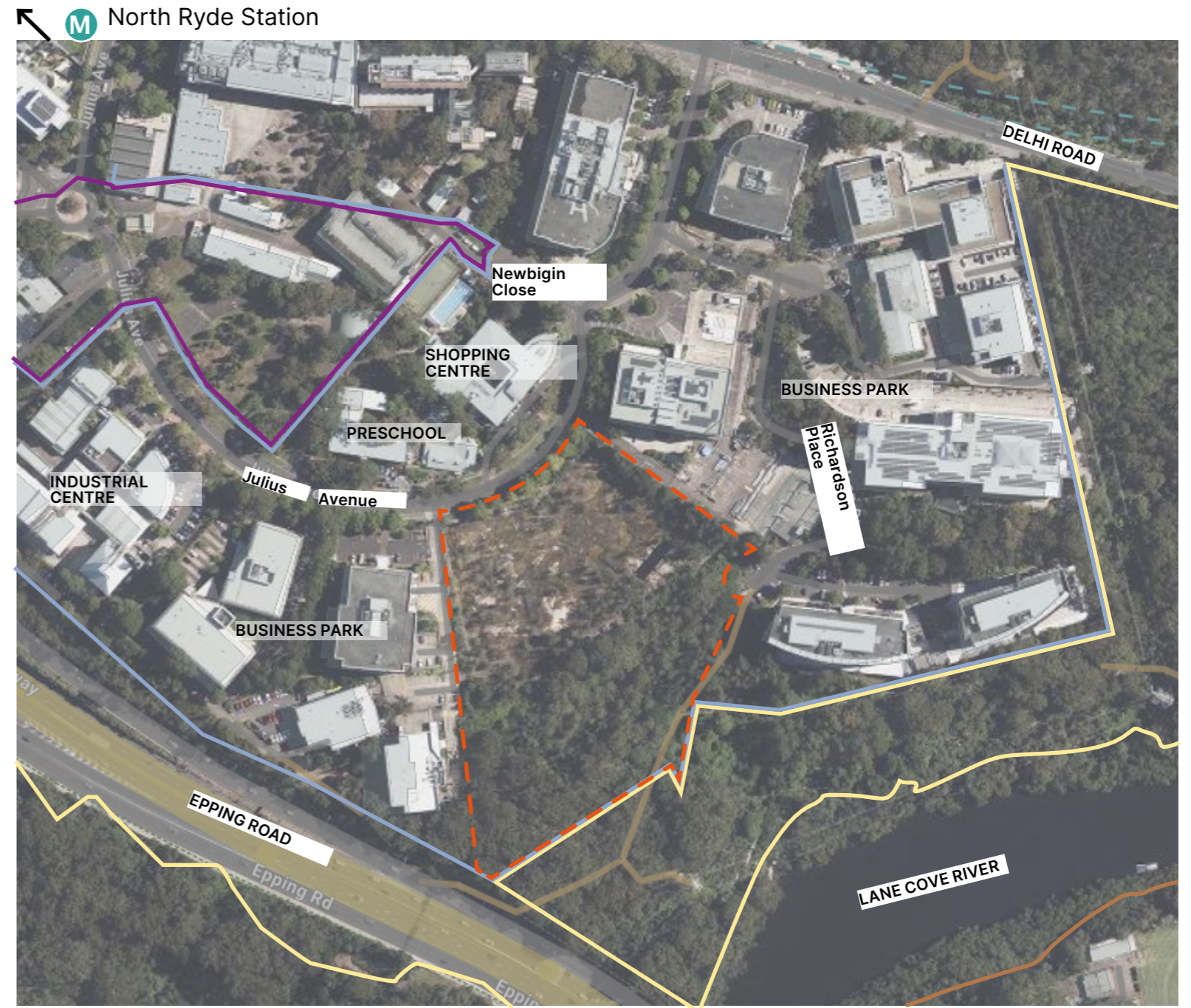
## 2.2 Local Context

The Julius Avenue Data Centre, must consider various site-specific constraints, including zoning regulations, environmental factors (including extensive existing vegetation and steep topography), and infrastructure requirements.

Additionally, general constraints applicable to the broader North Ryde area, governed by the City of Ryde Council, must be addressed to ensure compliance with local planning policies and successful project delivery. The site is impacted by the Macquarie Park Design Guide, which sets out specific guidance to inform future development within the Precinct’.

### Existing Site Attributes and Surrounding Context

- The Site is generally surrounded to the north-east, north-west, and south-west by commercial uses and E3 Productivity Support zoned land.
- Approximately 150m to the west of the Site is MU1 mixed Use zoned land which contemplates residential development to a height of 95m.
- The Site directly adjoins the Lane Cove National Park to the east and south-east which contains a walking track known as The Great North Walk and a fire trail.
- The Lane Cove River is located approximately 100m to the east of the Site.
- The Site directly adjoins the Ryde City Council Administrative Centre to the east.
- Approximately 500m to the west of the Site is the North Ryde Metro Station.
- The nearest residential development is located approximately 300m to the south-east of the Site on the eastern side of Lane Cove River in Lane Cove North, and 300m to the south-west of the Site on the southern side of Epping Road in North Ryde.



Aerial view of site location

### Legend:

- - - - Site location
- - - - Lane Cove National Park
- - - - E3 Productivity Support
- - - - Recreational Area
- - - - MU1 Mixed Use Zone

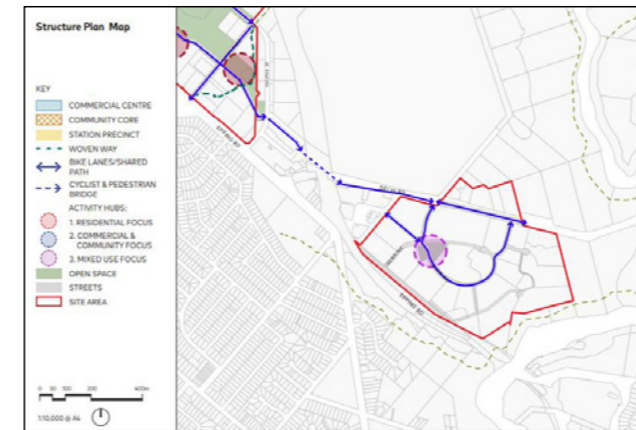
# 02 Site Context and Analysis

## 2.3 Macquarie Park Design Guide

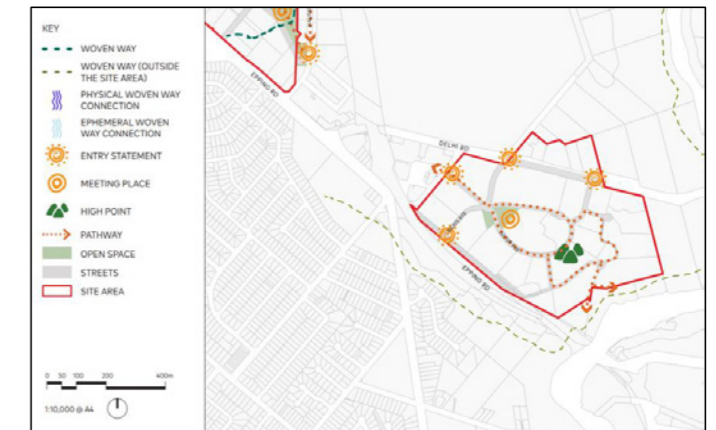
The Macquarie Park Design Guide provides a framework for future development within the precinct, focusing on improved connectivity, urban design, and cultural recognition. It outlines requirements for new streets, building setbacks, and built form outcomes to ensure development aligns with the Structure Plan and enhances street permeability and public access. It also encourages proposals to reflect thoughtful urban design through appropriate building envelopes, active frontages, and integration of pedestrian pathways, all while supporting broader planning objectives such as sustainable transport and recreation opportunities.

A key element of the Guide is its emphasis on cultural and environmental responsibility. It calls for development that acknowledges and contributes to Aboriginal heritage through a Designing with Country approach, which includes cultural enhancement, and impact mitigation. Additionally, it promotes ecological outcomes by requiring canopy coverage and deep soil planting targets, with a focus on biodiversity, green infrastructure, and enhancing the site's environmental values to support community wellbeing and long-term sustainability.

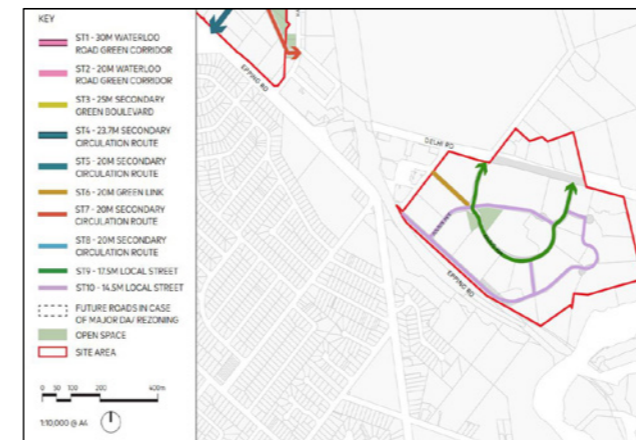
The Connecting to Country Aboriginal Design Principles guideline has also been used as a reference to develop the Architectural and Landscape Design Strategy. Connecting To Country design principles have been broadly addressed in relation to the Architecture and Landscape proposal, and are further discussed on the next page.



Structure Plan Map



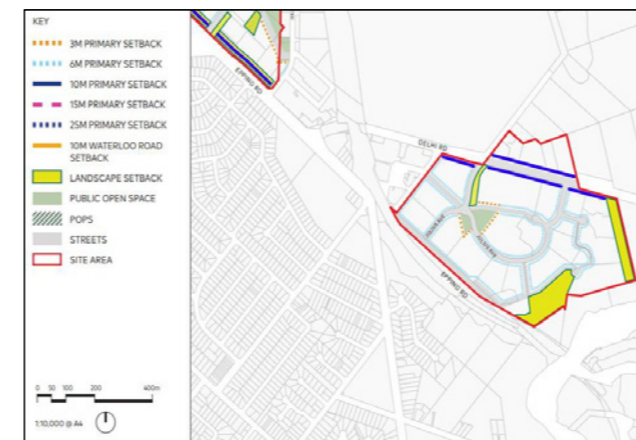
Connecting with Country Map



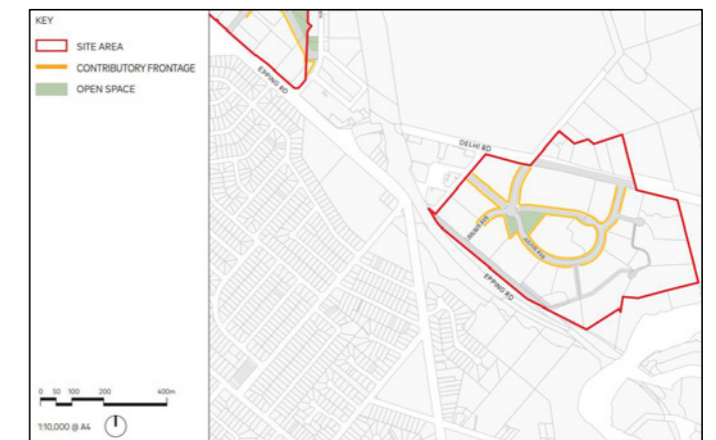
Street Network Map



Design Guide Through-Site Links Map



Design Guide Building Setbacks Map



Design Guide Contributory Frontages Map

## 02 Site Context and Analysis

### 2.4 Connecting to Country - Aboriginal Design Principles

#### Macquarie Park Transport Oriented Development

The design of the Julius Avenue Data Centre has been developed to align with the 'Connecting to Country' principles set out in the Macquarie Park Transport Oriented Development Precinct Guideline. Recognising the deep cultural significance and enduring custodianship of the Traditional Owners of the land, the project acknowledges the importance of embedding Aboriginal perspectives, stories, and relationships to Country into the built environment.

A key element of the design is the incorporation of pedestrian pathways through the site, enhancing permeability and public access. This feature responds directly to the Guideline's emphasis on improving the pedestrian experience while facilitating deeper physical and symbolic connections with the land. The landscaping strategy further supports this connection, with the integration of native plant species significant to local Aboriginal communities. This approach creates a sensory and educational environment that reinforces a strong connection to Country.

An essential aspect of the Julius Avenue Data Centre's sustainability strategy is its response to solar control and passive design principles. Informed by Aboriginal knowledge systems that recognise seasonal shifts and the role of the sun in understanding and respecting natural rhythms, the project orients its office and administration components to the north. This orientation maximises natural light during winter months and allows for shading and solar control in the summer, thereby reducing energy demand.

Importantly, the design incorporates the principle of Designated Keep Sites, acknowledging that some parts of Country hold particular significance and should be protected or set aside for low-impact or culturally sensitive uses. In the case of the Julius Avenue site, a vast portion of the land is intentionally left undeveloped, with existing mature vegetation to be retained. This undisturbed area serves both ecological and cultural purposes—preserving habitat, supporting biodiversity, and allowing for respectful contemplation and recognition of Country. It represents a tangible commitment to care for the land and a refusal to erase or override the natural and cultural narratives embedded within it.



# 02 Site Context and Analysis

## 2.5 Planning Controls

### Permissibility

#### Objectives of zone

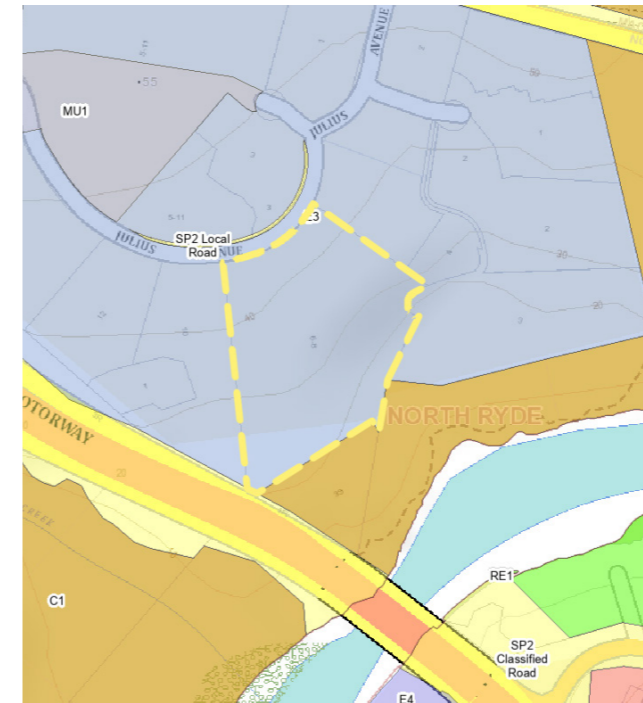
- To provide a range of facilities and services, light industries, warehouses and offices.
- To provide for land uses that are compatible with, but do not compete with, land uses in surrounding local and commercial centres.
- To maintain the economic viability of local and commercial centres by limiting certain retail and commercial activity.
- To provide for land uses that meet the needs of the community, businesses and industries but that are not suited to locations in other employment zones.
- To provide opportunities for new and emerging light industries.
- To enable other land uses that provide facilities and services to meet the day to day needs of workers, to sell goods of a large size, weight or quantity or to sell goods manufactured on-site.
- To promote sustainable development, including public transport and working environments.
- To encourage industries involved in research and development.

### FSR and Building Height

Clause 7.7 - Additional requirements for increased building height and floor space ratios on land other than Key Sites.

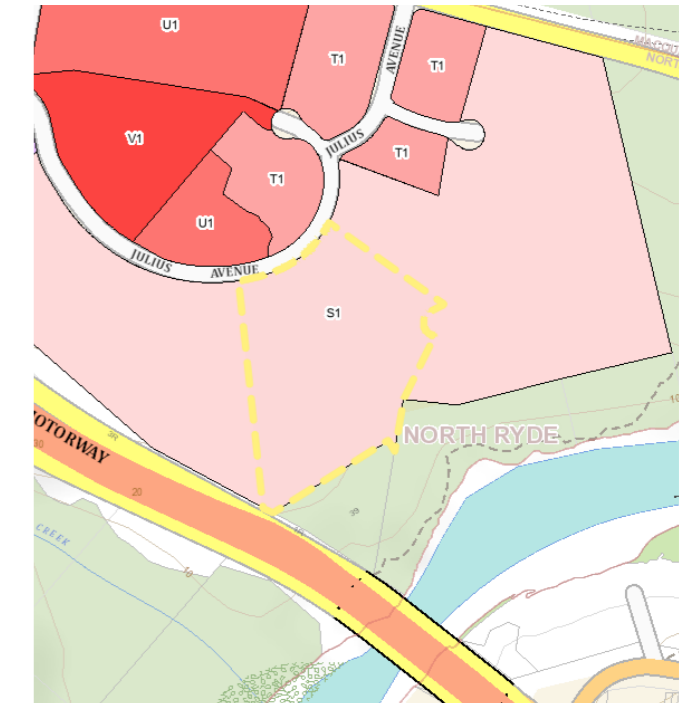
The Site is subject to the following incentive building height and FSR development standards:

- Maximum Building Height: 45m\*
- Maximum FSR: 1.5:1



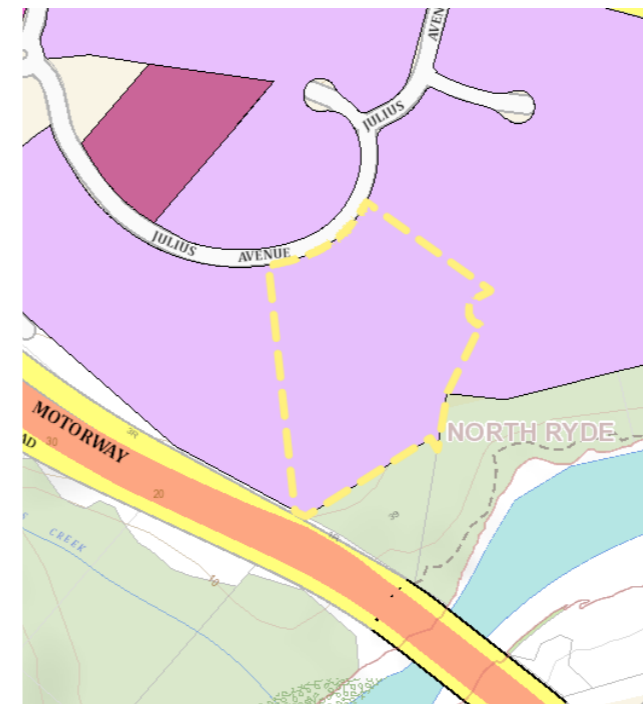
Land Zoning

■ E3 - Productivity Support



Floor Space Ratio (FSR)

■ 1.5:1



Building Height

■ 45 m

# 02 Site Context and Analysis

## 2.6 Site Description

### Site Description

- The Site is identified as 6-8 Julius Avenue, North Ryde, legally described as Lot 89 in DP1082131 (the Site). The Site is irregular in shape and is located on the south-eastern side of Julius Avenue, North Ryde.
- The Site has a primary frontage of approximately 100m to Julius Avenue and has a partial rear frontage to Richardson Place (cul-de-sac) at the north-eastern corner. The Site has an area of approximately 2.863ha.
- The Site is currently vacant. The northern part of the Site was excavated and cleared of vegetation in 2009 as part of the existing development consent on the Site.
- The Site is zoned E3 Productivity Support pursuant to RLEP 2014 and is located within the City of Ryde Local Government Area (LGA) which is approximately 15km north-west of the Sydney CBD.

### Zoning Regulations and Site-Specific Constraints

- The site is located within the Macquarie Park Innovation District, a key commercial and technology hub. The Site is subject to the provisions of the Design Guide that was adopted as part of the Macquarie Park Rezoning Proposal that was gazetted in November 2024. The Design Guide is given statutory weight by Clause 7.3 of RLEP 2014.
- Permitted Uses: The land is zoned E3 pursuant to RLEP 2014, with Data Centres being a permissible use.
- Height and Floor Space Ratio (FSR): The Site is mapped to have a maximum building height of 30m. However, pursuant to Clause 7.7 of the RLEP2014, the Site is afforded bonus incentives pertaining to building height and FSR
- Setbacks and Landscaping:
  - 6m setback to all existing and new streets unless otherwise specified - the minor encroachment to the street setback on Julius Avenue is offset by generous setbacks to the south.
  - Minimum side and rear boundary setbacks of 9m - given the irregular shape of the site, and to provide building articulation,

the proposal provides a stepped building form and is generally consistent with the Design Guide setback controls, when averaged across the length of the site boundaries. Adequate building separation is considered, and a landscape setback to the south of the site is maintained.

- Landscape setback - The southern portion of the site is to be preserved as a landscape zone, generally in line with the area defined in the Macquarie Park Design Guide (Figure 37b. Setbacks Map).

### Environmental Factors

- Environmental considerations are critical for any development in North Ryde due to proximity to natural reserves and waterways.
- Stormwater Management: The development has an overland flow into the bushland.
- Bushfire Risk: Parts of North Ryde are classified as bushfire-prone areas. Although Julius Avenue is primarily a business precinct, bushfire assessments have been undertaken.
- Biodiversity: A tree assessment has been conducted to evaluate the significance of individual trees, including their species, height etc. Any tree removal will be offset with additional plantings.

### Infrastructure Requirements

- Road Access and Traffic Management: Julius Avenue is accessed via Delhi Rd, then Epping Road, a major arterial road.
- Public Transport: The site is well-served by public transport, including the nearby Macquarie Park Metro Station and bus services. Development proposals must consider pedestrian access to public transport facilities.
- Utilities and Services: The site must be connected to essential utilities, including electricity, water, sewage, and telecommunications. Upgrades to existing infrastructure may be necessary to support the new development.
- Electrical Supply: A proposed Ausgrid 132kv STSS is proposed to service the development. It is located to the south of the proposed access road running east-west across the site. The final configuration of this facility is subject to Ausgrid confirmation.

# 02 Site Context and Analysis

## 2.7 Existing Character



Aerial view of site location



1 5 JULIUS AVENUE



2 3 JULIUS AVENUE



3 10 JULIUS AVENUE



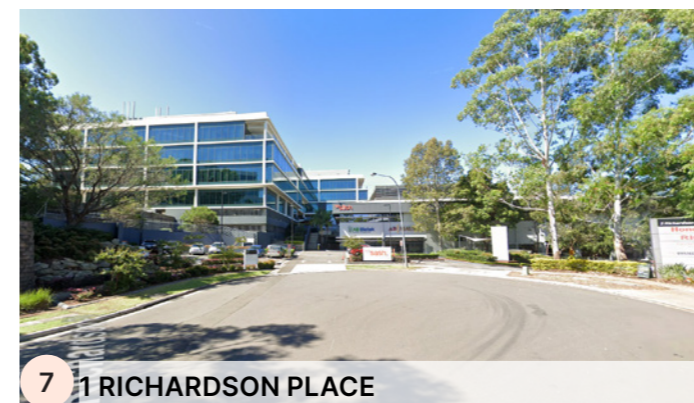
4 1 JULIUS AVENUE



5 4 JULIUS AVENUE



6 4 RICHARDSON PLACE



7 1 RICHARDSON PLACE



8 3 RICHARDSON PLACE

# 02 Site Context and Analysis

## 2.8 Surrounding Site Views



Aerial view of site location

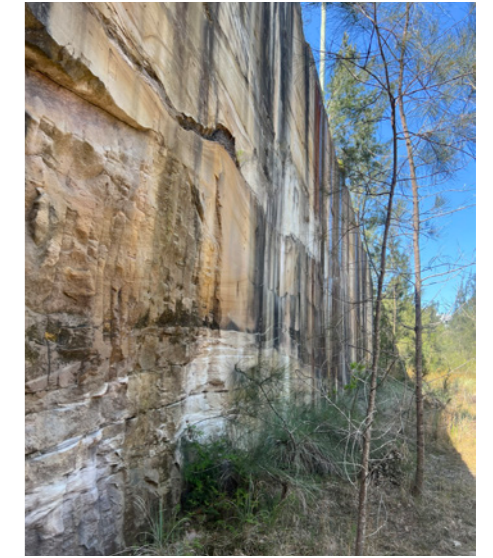


# 02 Site Context and Analysis

## 2.9 Existing Site Condition



Aerial view of site location



# 02 Site Context and Analysis

## 2.10 Site Topography

Positioned on a slope that descends towards the Lane Cove River to the south, the site presents unique opportunities and challenges for the design. The change in elevation impacts both access and visual experience, requiring careful consideration in the design approach.

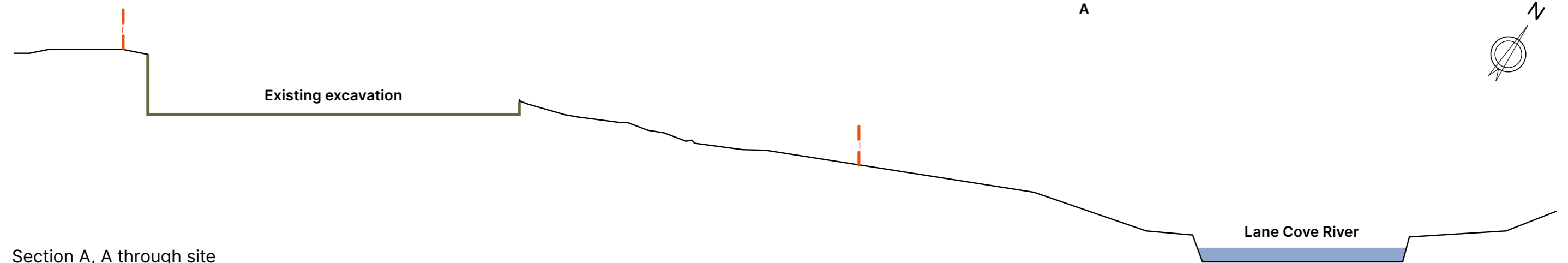
As illustrated in the diagrams below, the southern slope creates a natural gradient that affects circulation across the site. Vehicular and pedestrian access will need to navigate this slope efficiently, incorporating elements like retaining walls and managing gradients.

An existing excavation on the site will be a key feature in the design, used for underground parking, services, and basement levels. This feature allows for the incorporation of split levels or sunken courtyards, enhancing the relationship between the building and its natural landscape while reducing visual bulk.

### Legend:

--- Site location      — Existing excavation

~ Contours



Section A, A through site

# 02 Site Context and Analysis

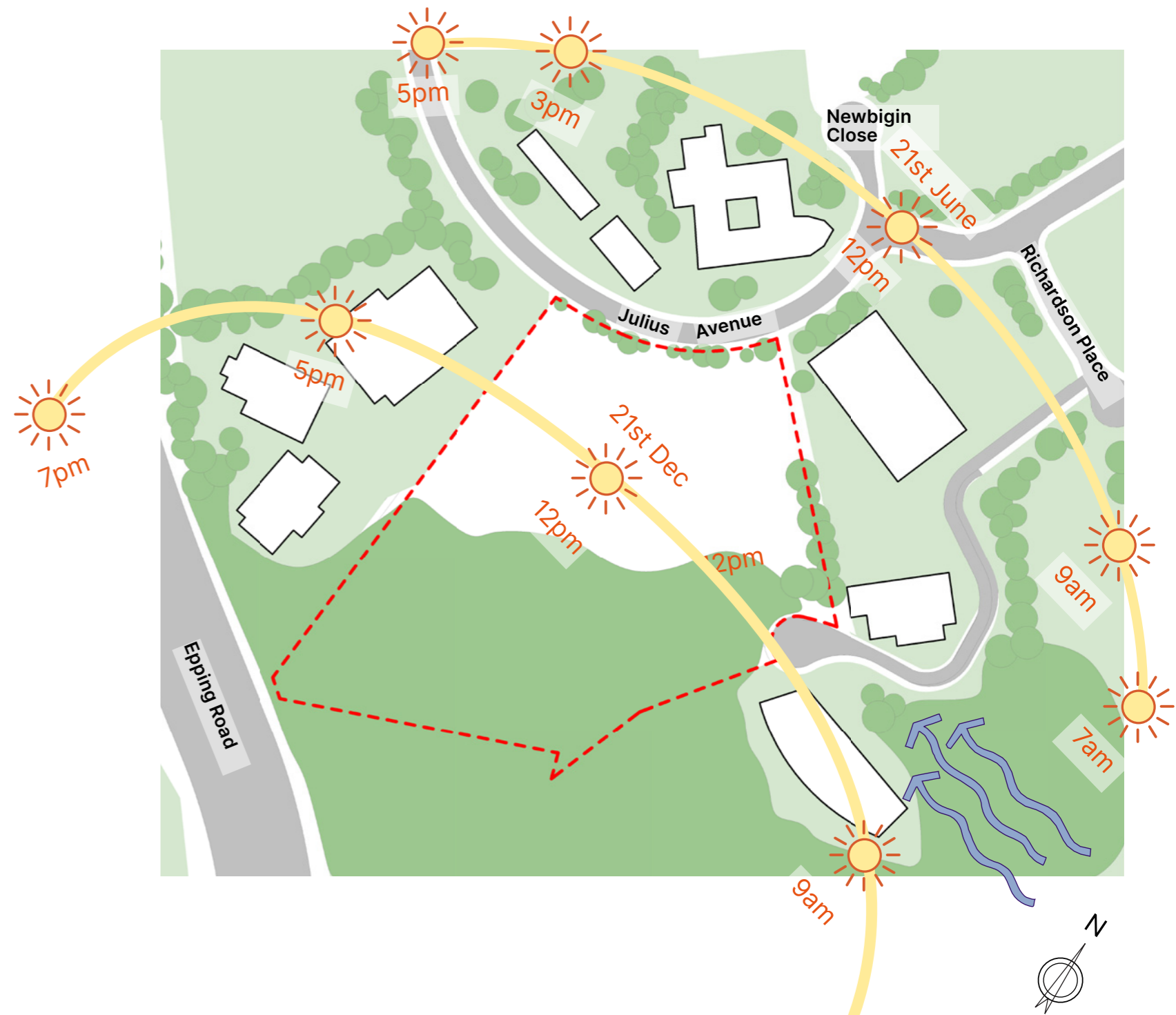
## 2.11 Solar and Wind Analysis

### Solar Analysis:




By positioning the office spaces and front-of-house areas towards the north of the site, the building can take full advantage of direct sunlight for a significant portion of the day. This allows for optimal natural daylight throughout the day, especially in the morning and afternoon, which is crucial for both the energy efficiency and well-being of occupants.

### Wind Analysis:

Julius Avenue benefits from prevailing winds from the east. The site has a significant drop in levels towards the south, which creates a natural air channel.



### Legend:

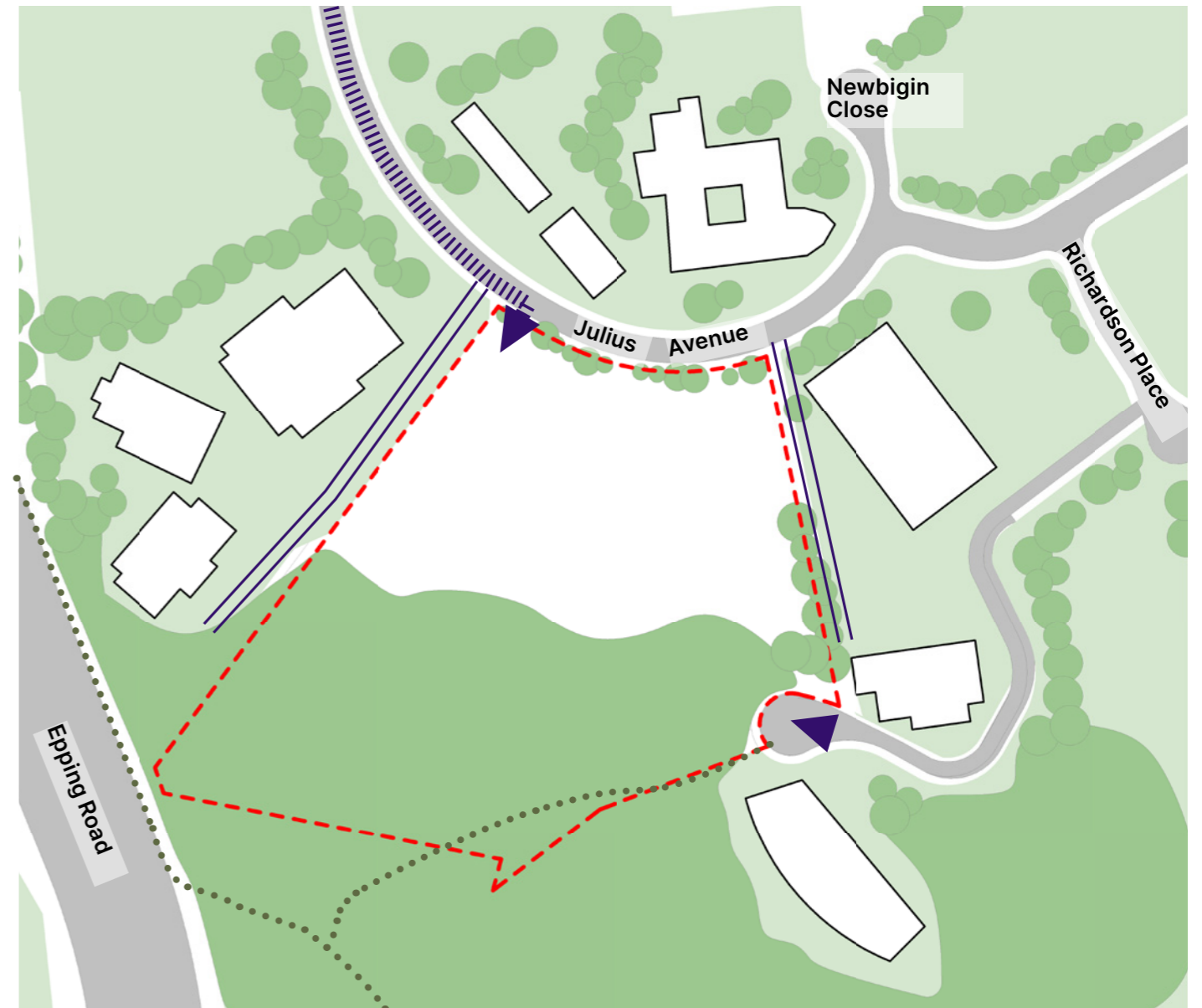
-  Site location
-  Sunpath
-  Prevailing wind

# 02 Site Context and Analysis






## 2.12 Access

The site is strategically located within the Macquarie Park Innovation Precinct, offering excellent road access with a primary frontage of approximately 100 metres to Julius Avenue and a partial rear frontage to Richardson Place. It is well-served by major arterial roads, including Delhi Road and Epping Road, providing efficient connections to surrounding areas, including the Sydney CBD, located about 15 km to the south-west. This strong vehicular access ensures the site is easily accessible for both traffic and pedestrians, supporting the developments connectivity and functionality.

The site's southward slope offers unique design possibilities and challenges. The varying elevation demands strategic planning for both vehicle and pedestrian routes, which will include the use of retaining walls, multi-level designs, and sunken courtyards to fully utilise the space. The existing excavation is to be re-purposed for loading/ utility areas, improving access and minimising the building's visual bulk. With improved road connectivity and a well considered approach to the terrain, this site is well-suited for a seamlessly integrated and efficient development.



### Legend:

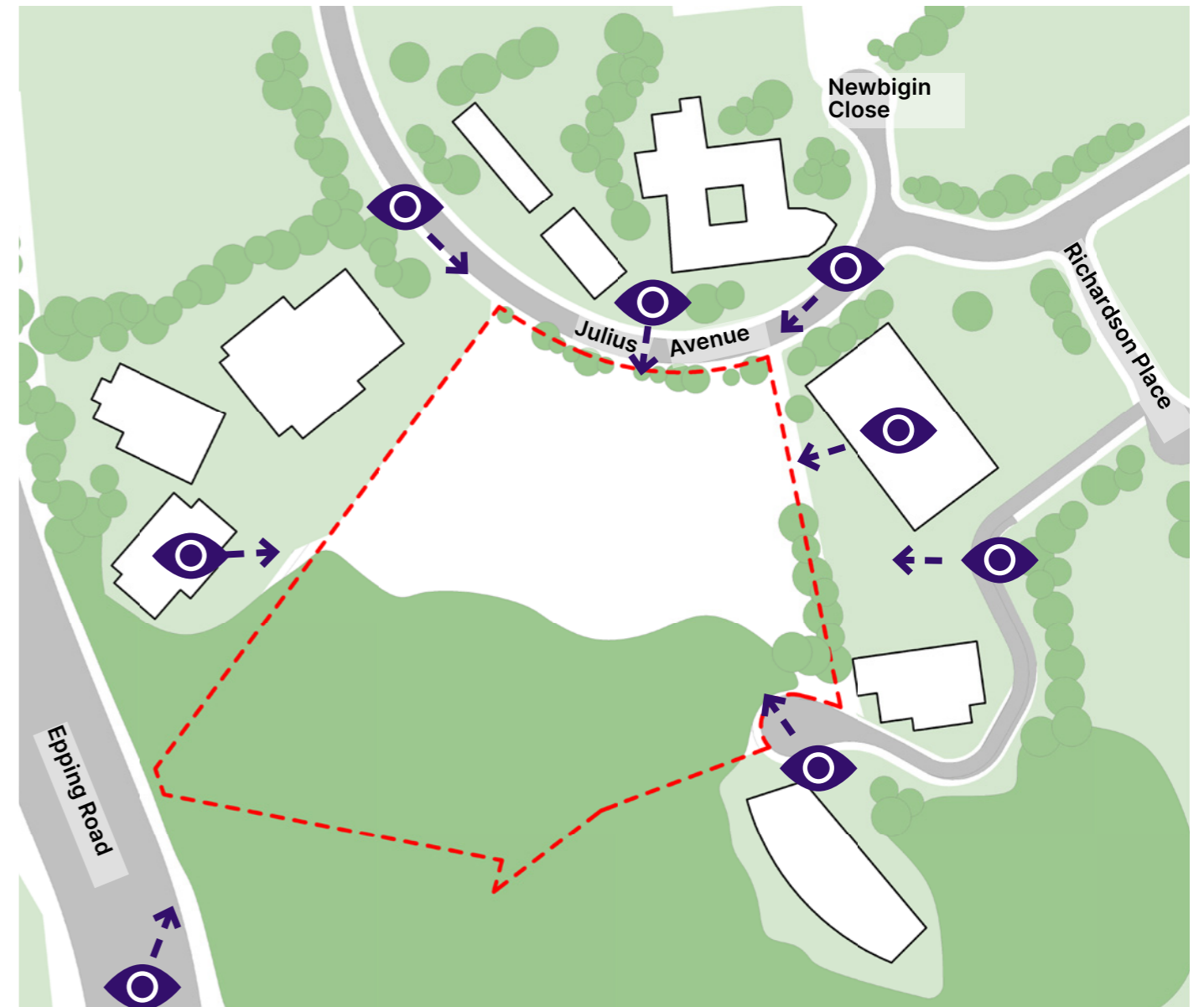
-  Site location
-  Site access
-  Primary access road
-  Private road
-  Existing footpath

## 02 Site Context and Analysis

### 2.13 Critical Views and Sensitive Receivers

The site occupies a prominent position within Riverside Corporate Park and is highly visible from a variety of commercial, residential, and public vantage points, including Julius Avenue and Epping Road. This visibility presents a valuable opportunity for the development to serve as a visual landmark that reinforces the identity of the business precinct. With thoughtful design, the site can introduce a contemporary built form that enhances the experience of workers, visitors, and commuters, while contributing positively to the overall streetscape through active frontages, integrated landscaping, and strong architectural quality.

In addition to its urban context, the site's proximity to bushland and recreational areas such as the Great North Walk and Lane Cove River offers the chance to create a sensitive and respectful interface with the natural environment. The development can be designed to minimise visual intrusion while supporting a harmonious urban-to-natural transition. Its visibility from nearby high-density residential areas also enables it to contribute to a cohesive skyline when scale and materiality are carefully considered. Overall, the site is well-positioned to deliver a contextually responsive and visually engaging outcome from a wide range of viewpoints.



#### Legend:

--- Site location

👁 Key views

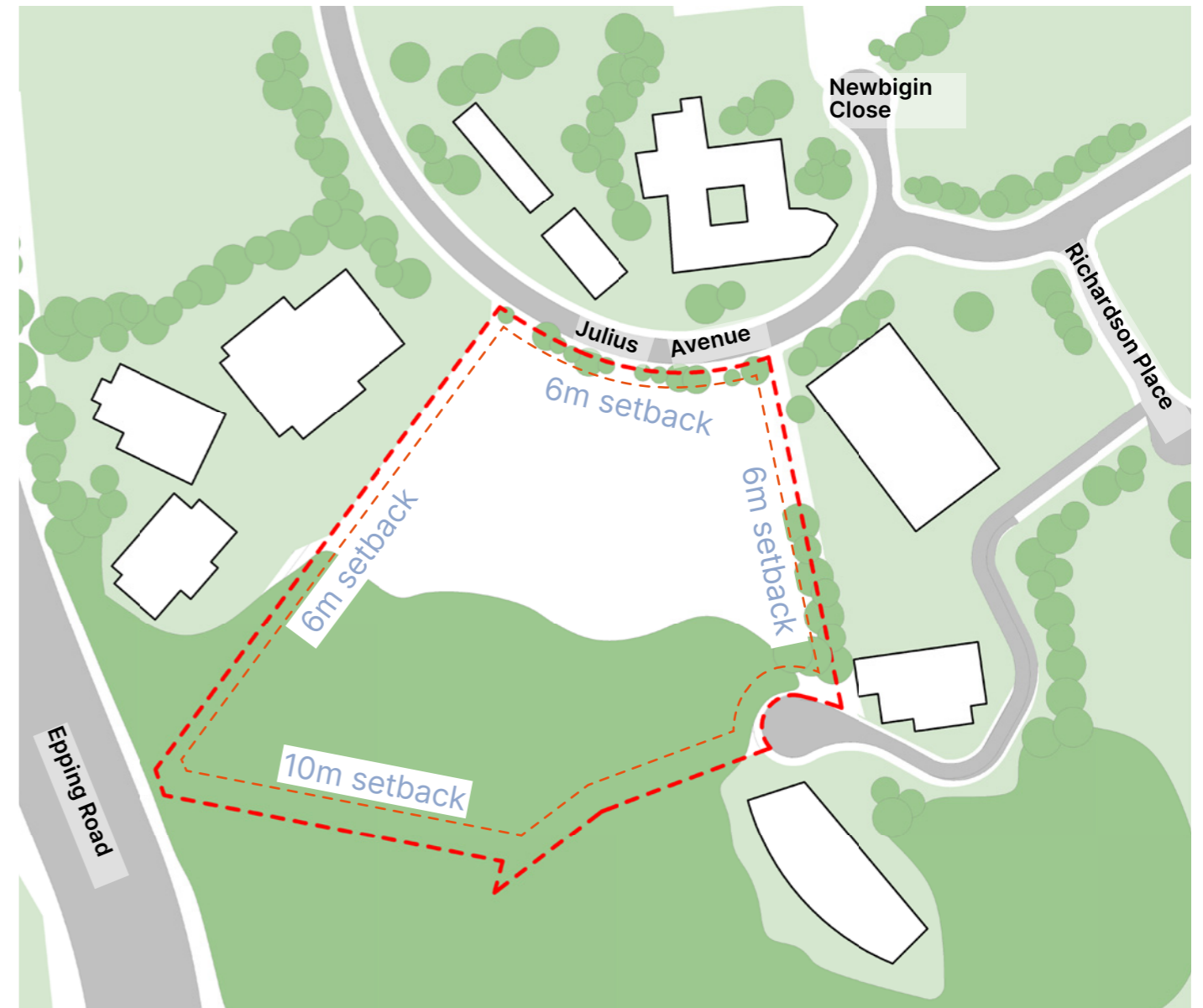


## 02 Site Context and Analysis

### 2.14 Setbacks

The setback requirements are guided by the Macquarie Park Design Guide, which mandates a 6-metre setback from all existing and new streets, along with minimum side and rear boundary setbacks of 9 metres. The proposal aligns with these setback controls. To enhance the streetscape, the proposal includes a 6-metre landscaped setback to Julius Avenue, replacing the previously planned paved plaza, while still adhering to the landscaping objectives. The irregular shape of the site is addressed through a stepped building form, ensuring articulation and compliance with the setback guidelines when averaged across the boundaries.

Opportunities for the site include expanding the landscape setbacks to create green spaces and improve public access through enhanced walking paths. Despite minor encroachments, the proposal minimises tree removal, compensates with additional plantings, and retains the landscaped character of the setback. The design allows for the transfer of Gross Floor Area (GFA) into a taller structure, offering the potential for increased height without exceeding the maximum building height. This flexibility allows for better building articulation and the potential for a more efficient use of space, while still meeting the required deep soil and canopy cover standards.



Current proposed minimum building street and side setbacks.

#### Legend:

--- Site location

--- Setback

## 02 Site Context and Analysis

### 2.15 Greenery and Biodiversity

The site is situated within a diverse ecological context, offering opportunities for integrating greenery and enhancing biodiversity. The surrounding area features a mix of native bushland dominated by Eucalyptus and Angophora species. The site itself has areas with low-quality vegetation, including native shrubs and weeds, as well as Casuarina canopies. These factors highlight the potential for enhancing the site's ecological value by improving vegetation quality and increasing habitat for local wildlife.

Despite its complexity, the sloping nature of the site offers the chance to incorporate natural stormwater management, and to preserve or enhance the native bushland setting. The surrounding Eucalyptus canopies and street trees provide an opportunity to integrate more native planting and green infrastructure into the development, improving both the aesthetic value and biodiversity of the area.


It should be noted that 'trees removed as a consequence of Development Application approval must be replaced, in accordance with Section 6 of the Urban Forest Technical Manual, to effectively maintain the Urban Forest canopy Tree replacement plantings should be undertaken on a ratio of 3 to 1 in accordance with Councils draft Development Control Plan (Part 9.5) – Tree Preservation'. The landscape proposal extensively articulates the strategy for tree replacement.

The site will maintain an Asset Protection Zone (APZ) for bushfire safety, ensuring a defendable space. Buildings will be Type A construction with a two-hour fire rating and ember protection. A 6-metre-wide access road connects Richardson Place to Julius Avenue, exceeding bushfire access standards. Broadly, it is considered that the proposal generally meets Planning for Bush Fire Protection 2019 requirements.



#### Legend:

--- Site location

 Dense bushland area

## 02 Site Context and Analysis

### 2.16 Bushfire Zone

The subject site is identified as bushfire prone and contains both modified and natural vegetation, including areas classified as posing a bushfire hazard. The site is bordered by commercial properties on multiple sides and a vegetated area to the south, with sloped terrain that increases the potential intensity and spread of bushfire from this direction. Due to existing environmental and site constraints, it is not possible to achieve the full minimum Asset Protection Zones (APZs) typically required.

All grounds within the site, including a 20-metre buffer to the south, will be maintained as an Asset Protection Zone (APZ) in accordance with NSW Rural Fire Service standards and Planning for Bush Fire Protection 2019. This will create a defensible space for fire services, complemented by recommended construction provisions.

The proposed buildings will be Type A construction with a two-hour fire rating and ember protection, meeting the objectives of section 8.3.1 of Planning for Bush Fire Protection. All APZs will follow Inner Protection Area guidelines. A 6-metre-wide access road will connect Richardson Place to Julius Avenue, exceeding section 7.4 property access requirements. Existing in-ground hydrants on surrounding streets will be supplemented by an extended hydrant network throughout the site, designed to comply with AS2419.1-2021 standards.



#### Legend:






- Site location
- Vegetation Buffer
- Vegetation Category 1

# 02 Site Context and Analysis

## 2.17 Site Constraints and Opportunities







**Constraints**

-  Existing easement
-  DCP setbacks
-  Steep slope
-  Bushland
-  Bushfire zone



**Opportunities**

-  Utilise existing entranceways
-  Connecting footpaths
-  Tall trees for screening
-  Critical views to consider

# Built Form and Design Strategies

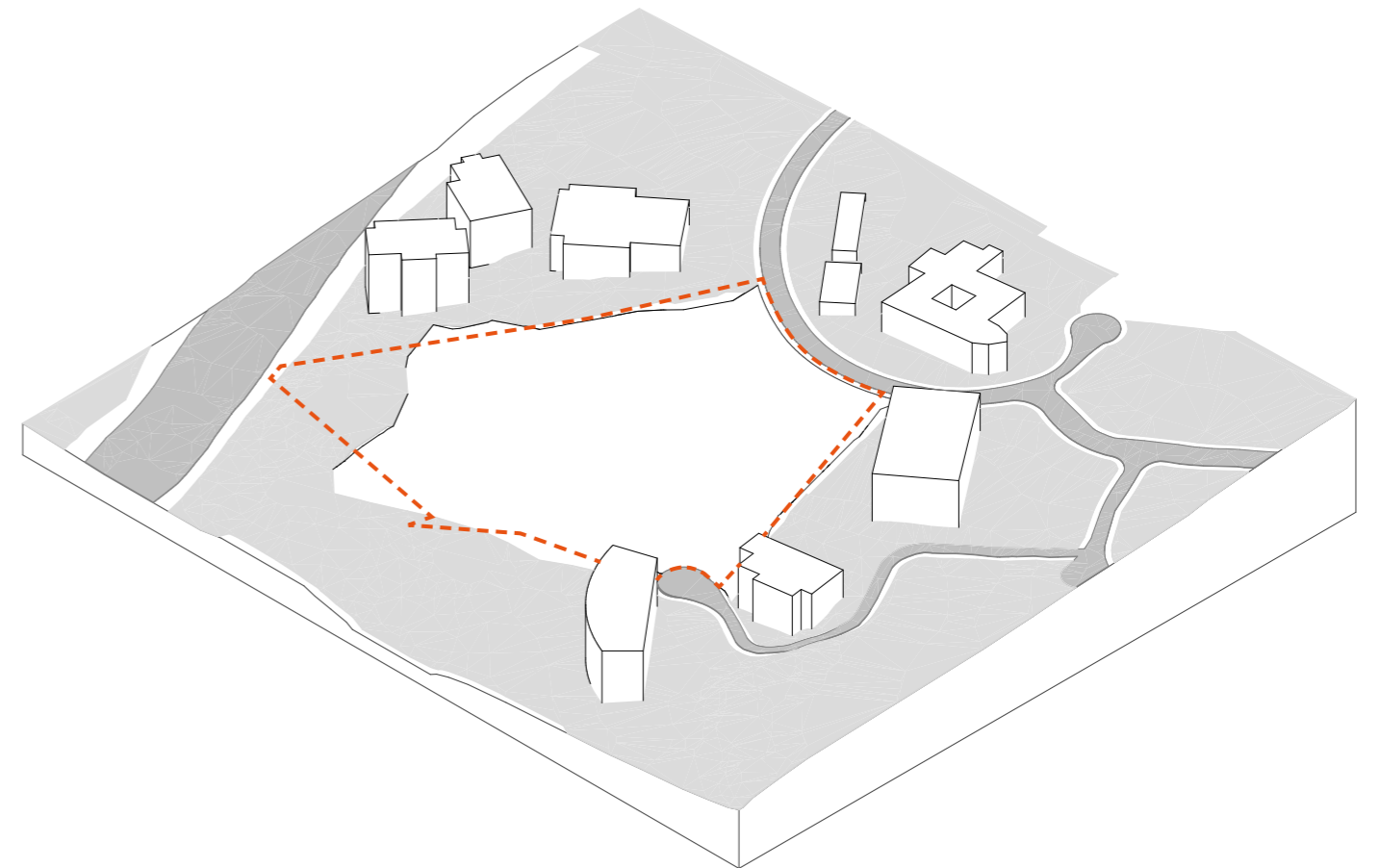
# 03 Built Form and Design Strategies

## 3.1 Summary

The following site considerations will inform the design of the proposed building at 6-8 Julius Avenue, ensuring that the design responds effectively to its surroundings while meeting the operational requirements of the development.

- The site is within a E3 productivity support zone, surrounded by commercial and residential areas, and bordered by Lane Cove National Park and the Lane Cove River, offering opportunities for integration with nature while minimizing conflicts with adjacent land uses.
- Excellent road access and proximity to North Ryde Metro Station enhance the site's connectivity, influencing the design of entrances and circulation.
- The site's southward slope presents challenges in access and circulation but offers opportunities for a split-level design, sunken courtyards, and better landscape integration.
- Building orientation will prioritize solar access for office spaces to maximize daylight and energy efficiency, while wind analysis suggests leveraging prevailing winds for natural ventilation.
- The existing ecological context, including native bushland and a pond, will guide the incorporation of green infrastructure, native planting, and sustainable stormwater management solutions.
- Bushfire risk from the south will be mitigated with fire-rated materials, sealed openings, and safe emergency access.
- Setback requirements will influence the building massing, with a 6-metre setback along Julius Avenue enhancing the streetscape and improving public access.

These considerations will be central to developing a design that is sustainable, accessible, and well-integrated with its surroundings.



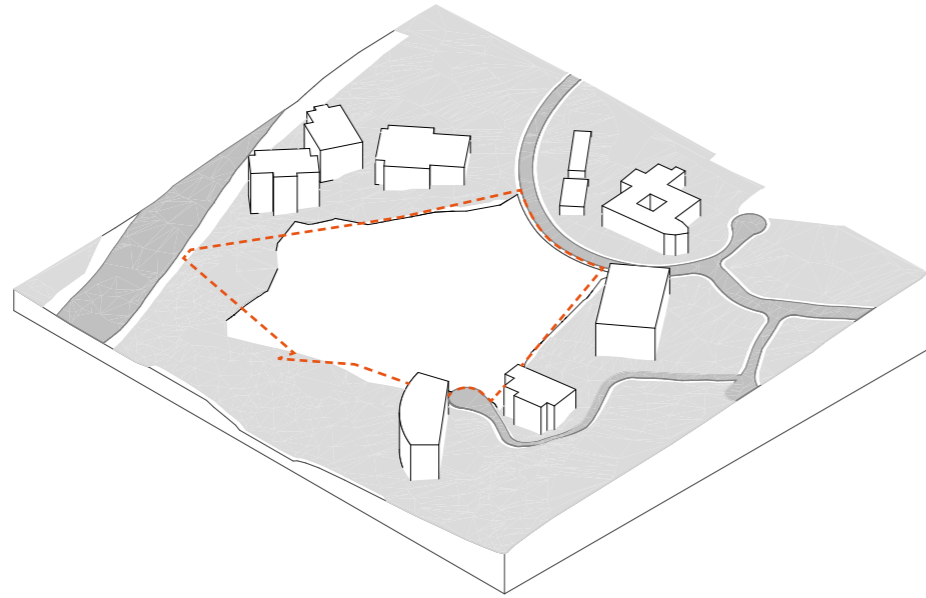
Site isometric view

**Legend:**

--- Site location

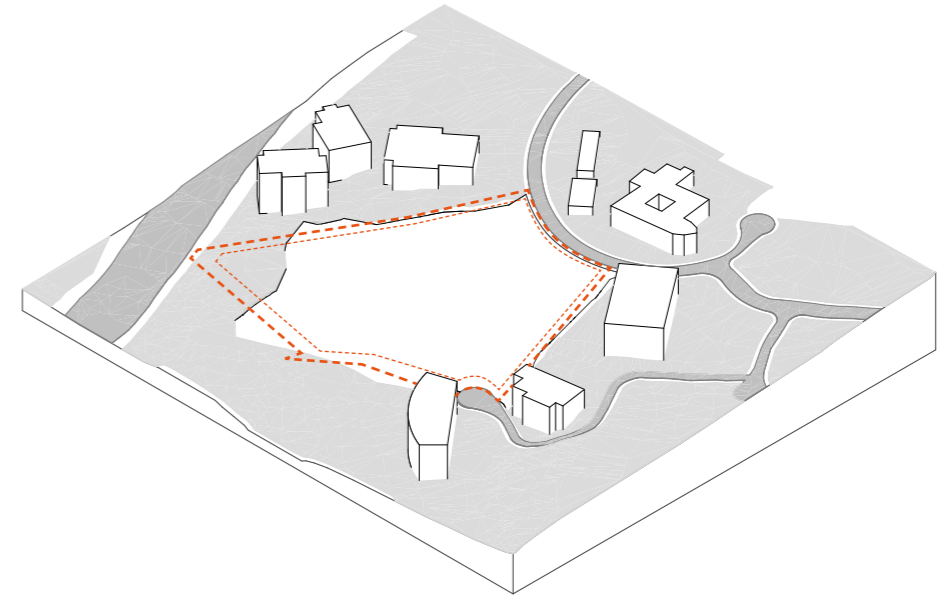
# 03 Built Form and Design Strategies

## 3.2 Site Parametres



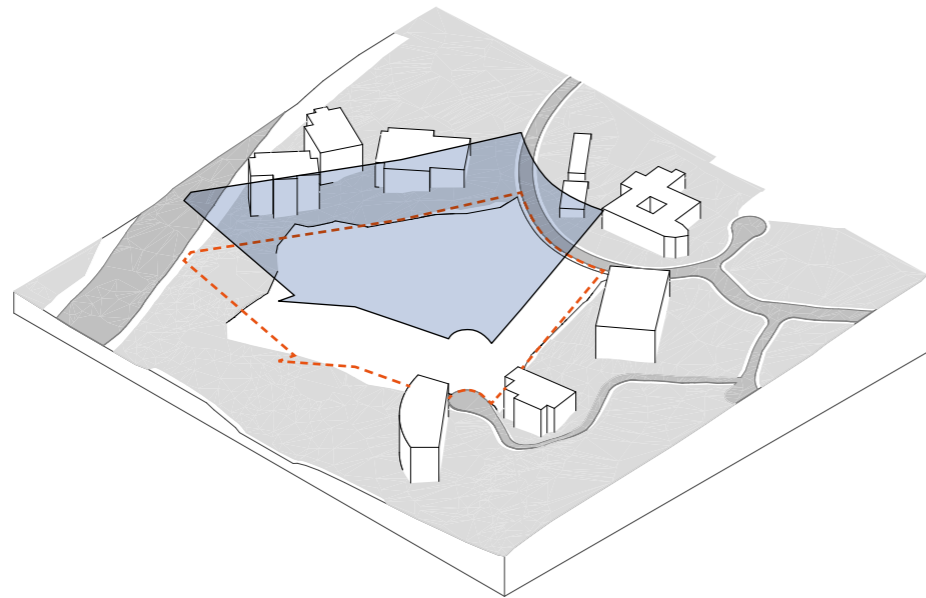
### 1. Site

Site boundary is indicated in red outline.



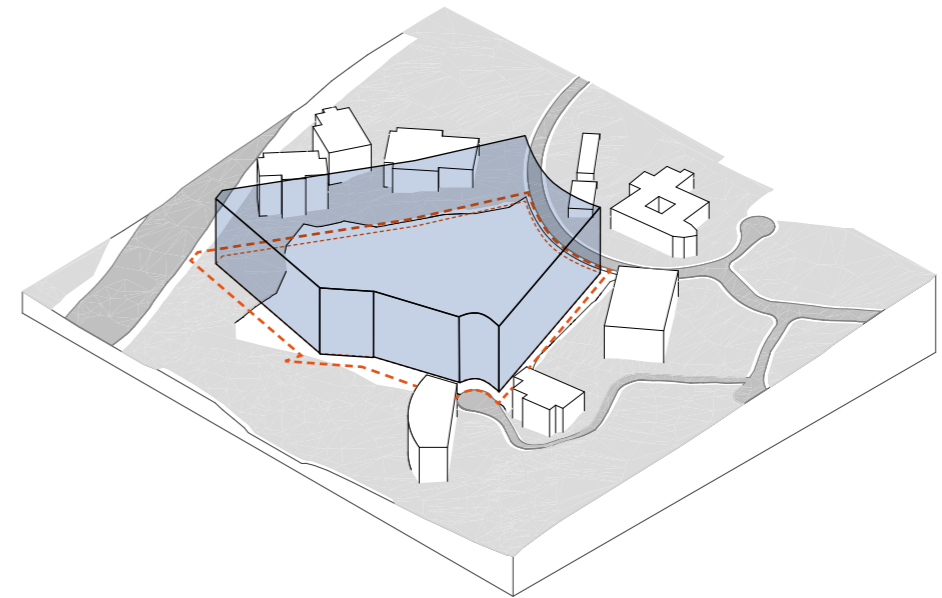
### 2. Site with DCP setbacks applied

Setbacks of 6m front and side, 10m rear setbacks from boundary edge are applied.



### 3. Site with height envelope applied

A maximum building height of 30m, with bonus incentives pertaining to building height and FSR.



### 4. Site with DCP setbacks and height envelope applied

Maximum extents of permissible building envelope.

# 03 Built Form and Design Strategies

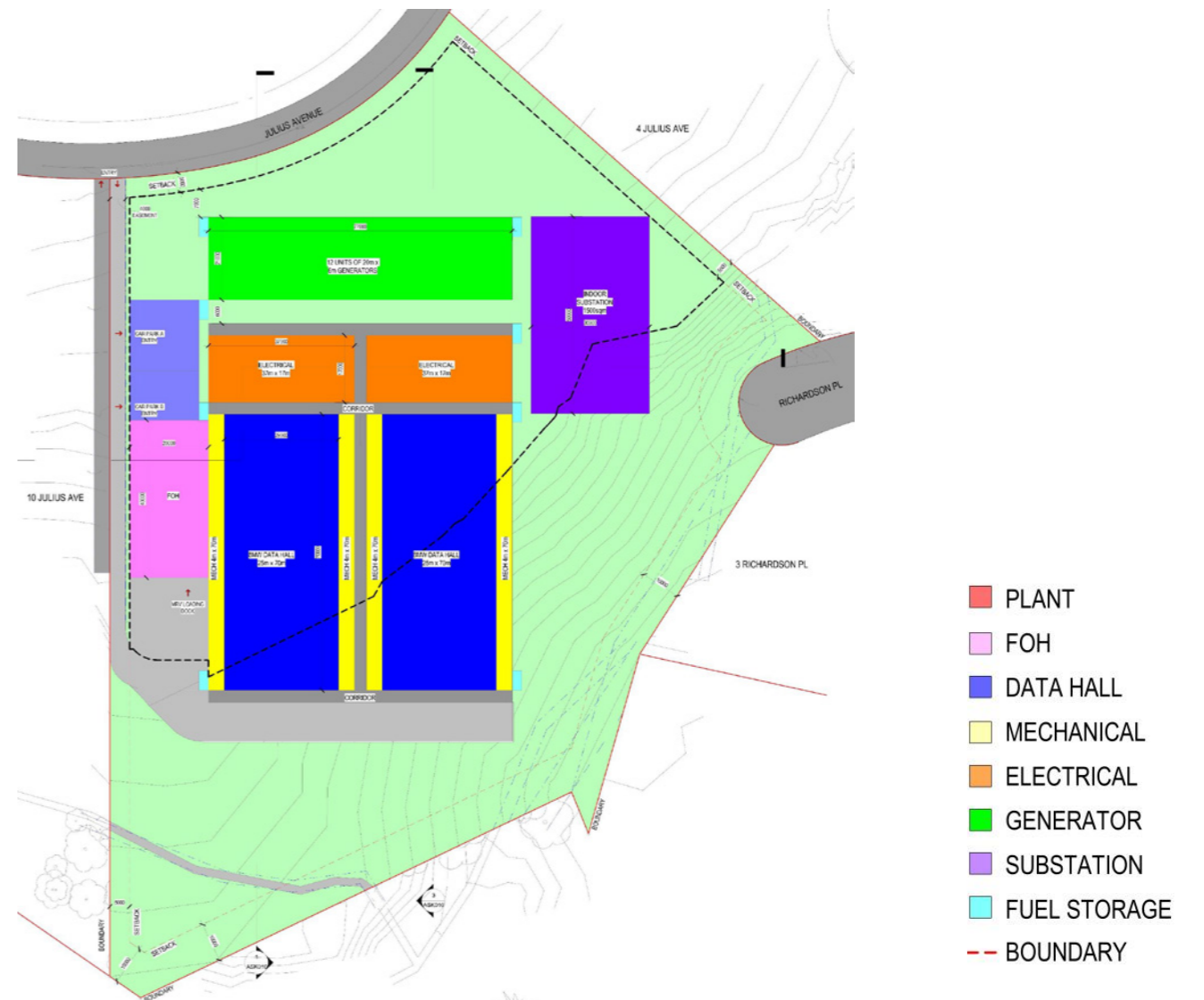
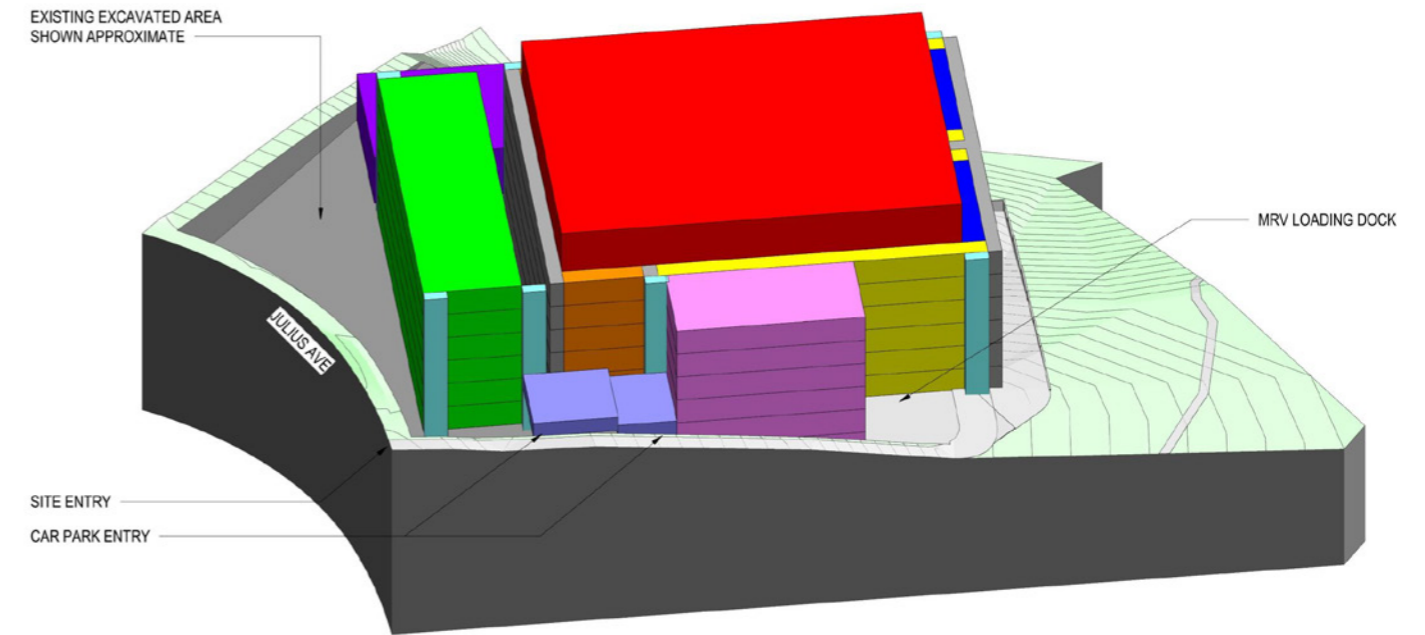
## 3.3 Design Evolution

The initial design proposal for the Data Centre primarily organised the facility in a north-south configuration, utilising a substantial portion of the site area. This layout necessitated the removal of a significant volume of existing vegetation.

In this design, the Data Halls were concentrated towards the south, with generators facing the street. The arrangement also included a Front of House/Administration zone alongside a proposed access road to the west, and a substation zone positioned towards Richardson Place on the east.

This proposal presented several issues:

- Noise Impact: The placement of generators, which typically generate noise, was towards the commercial and future residential facilities to the north, potentially causing disturbances.
- Limited Aesthetic Opportunity: The Generator Gantry/platform offered limited architectural design and aesthetic opportunities, detracting from the visual appeal.
- Obscured Main Entry: The main entry was located to the southwest down the proposed access road and behind a proposed car park, making it less accessible and identifiable.
- Vegetation Removal: The arrangement required removal of a substantial portion of natural vegetation, which was not ideal for environmental sustainability.
- Lack of Connectivity: The proposal did not allow for a site through road to Richardson Place, limiting site accessibility and connectivity.
- These issues highlighted the need for a revised design that would better balance functional requirements with environmental and aesthetic considerations, while also improving accessibility and minimising noise impact on surrounding areas.



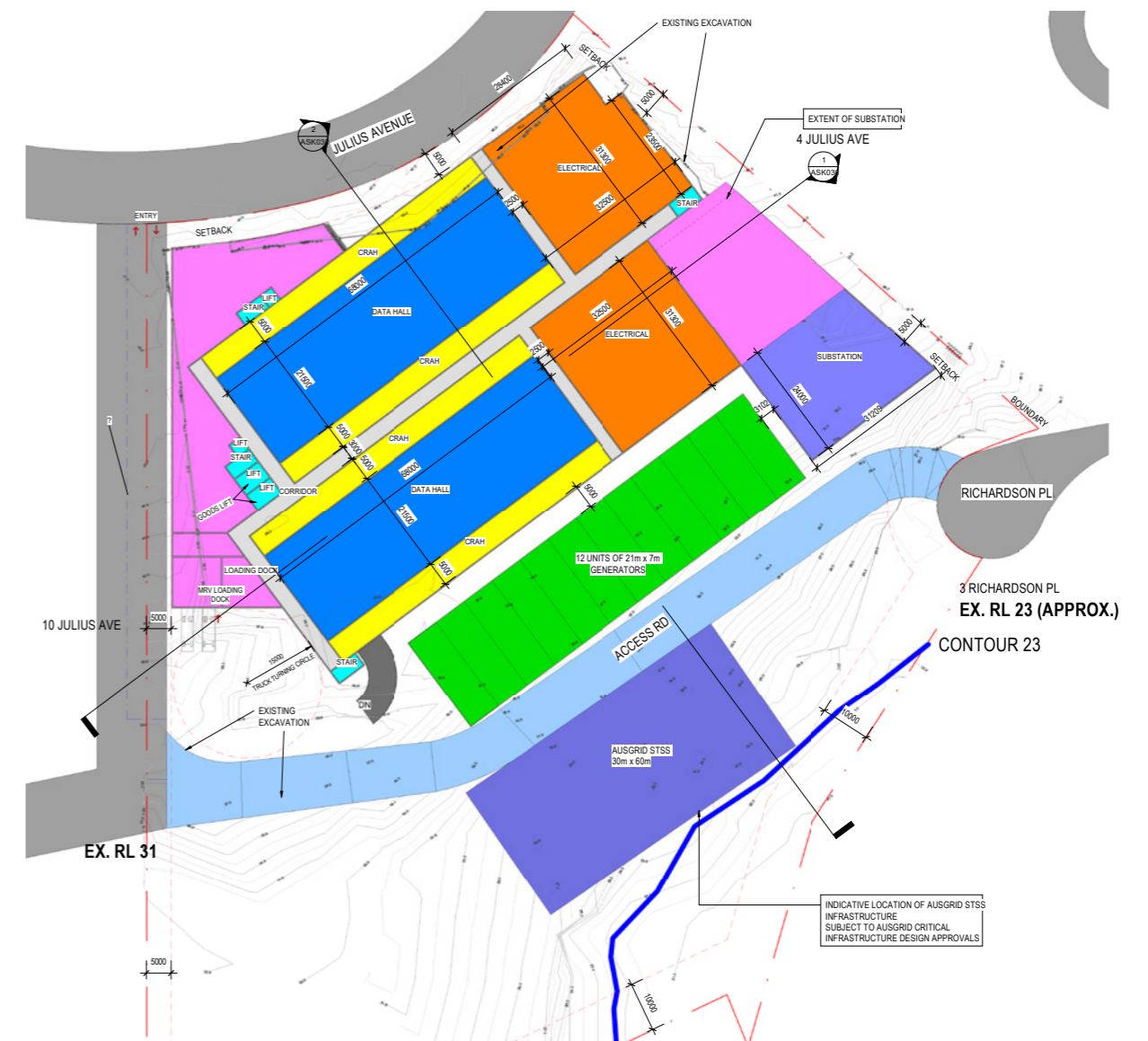
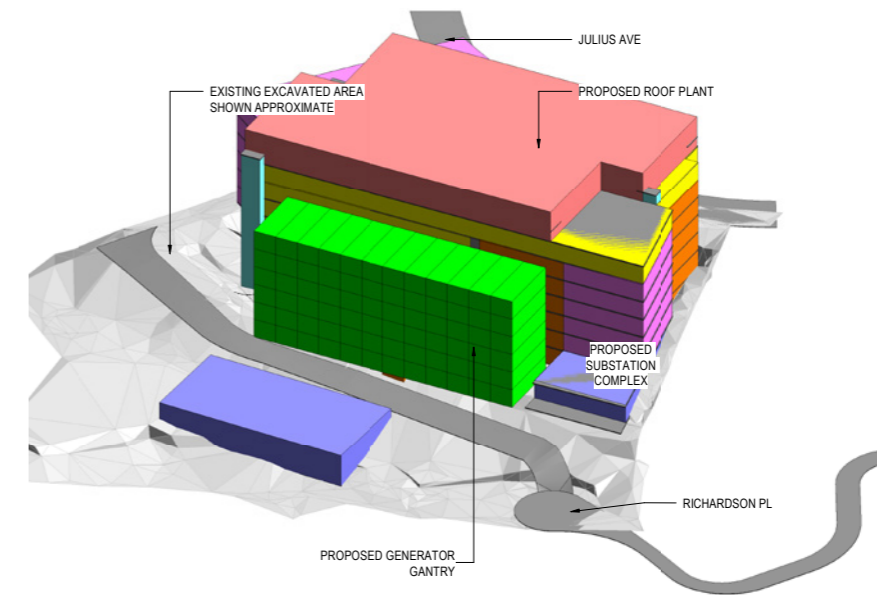
# 03 Built Form and Design Strategies

## 3.3 Design Evolution

The developed masterplan strategically reoriented the general arrangement of the Data Centre project by 90 degrees, resulting in an east-west configuration. This revised design offers several significant benefits:

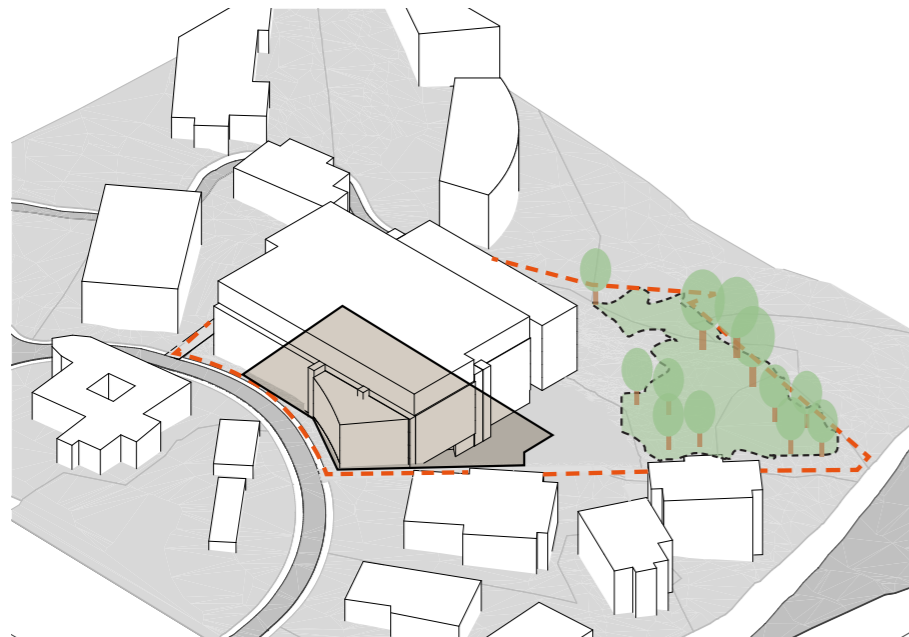
- **Maximised Vegetation Retention:** The new layout maximises the retention of valuable existing vegetation and bushland towards the south of the site, enhancing environmental sustainability.
- **Strategic Main Entry Location:** The main entry and Front of House are strategically positioned to ensure they are easily identifiable and accessible.
- **Enhanced Facade Presentation:** Positioning the office component to the north results in well-articulated facades facing the Julius Avenue commercial precinct, contributing to the area's aesthetic appeal.
- **Street Activation:** Having the Front of House component present to Julius Avenue fosters a vibrant and engaging streetscape.
- **Noise Minimisation:** Generators are located behind the main Data Hall building and positioned to the south, minimising sound towards the street and surrounding areas.
- **Improved Connectivity:** The arrangement allows for an east-west site through road connecting to Richardson Place, enhancing site accessibility.

This thoughtful reconfiguration improves the Data Centre's integration with the surrounding environment and community, balancing operational efficiency with visual and environmental sensitivity.



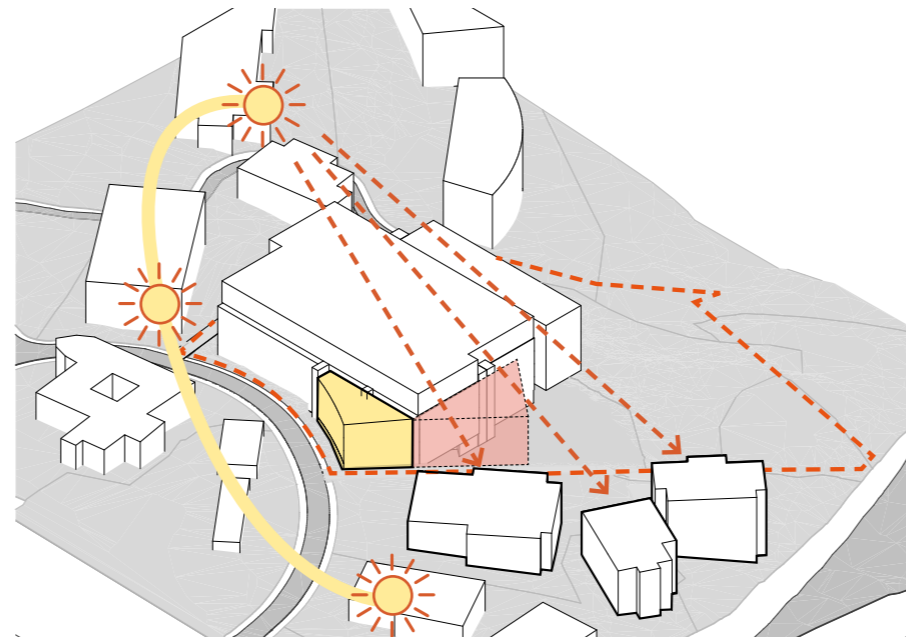
# 03 Built Form and Design Strategies

## 3.4 Design Strategies



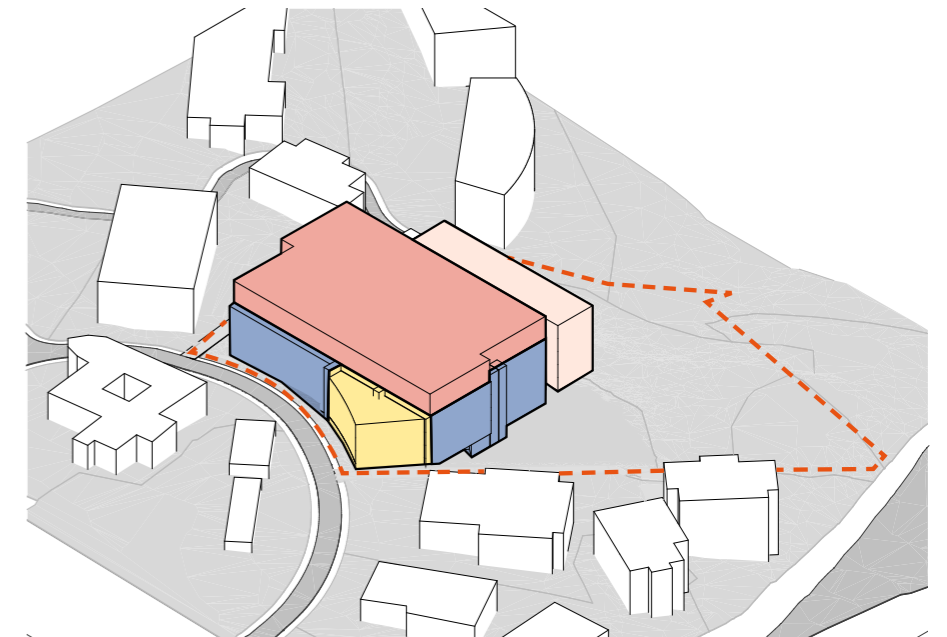
### Site positioning

The building footprint is located away from the bushland and utilises the existing building footprint.



### Massing refinement

Massing is cut back to improve energy efficiency to West facade, and to better improve the relationship with the neighbouring buildings.

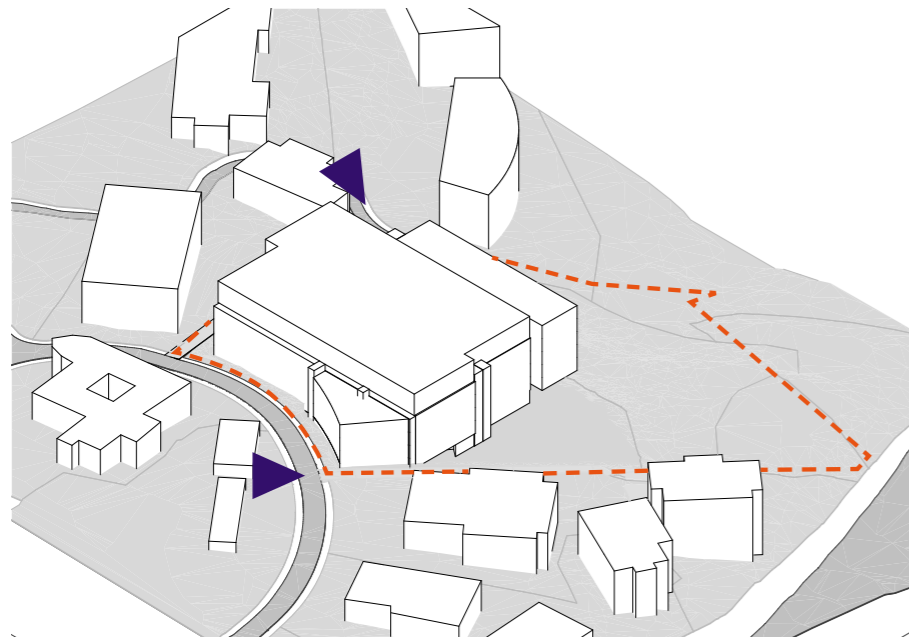


### Location of services

The spaces are placed in the most appropriate locations on site with the generators at the rear and FOH, data halls in the centre of the building.

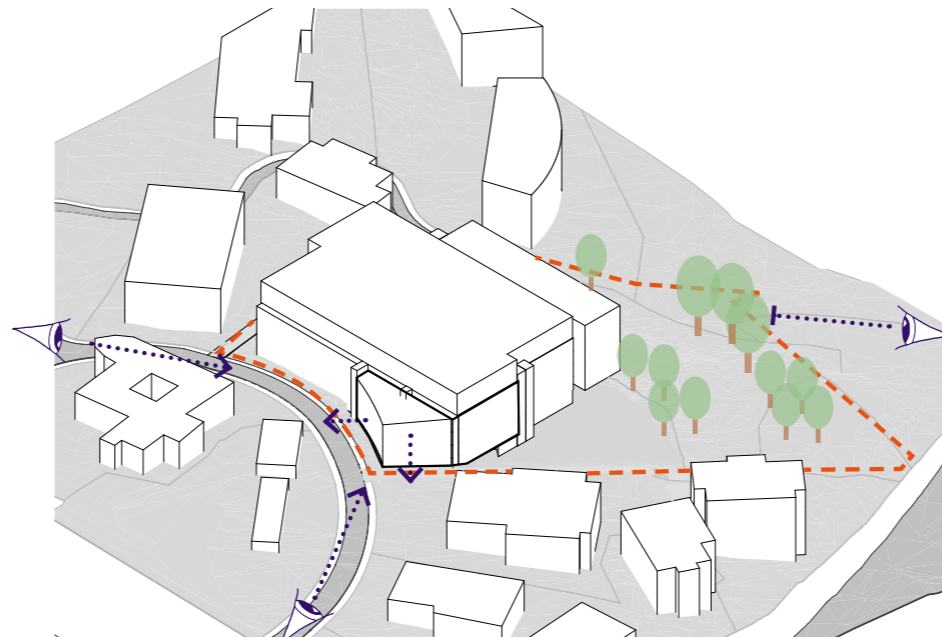
# 03 Built Form and Design Strategies

## 3.4 Design Strategies



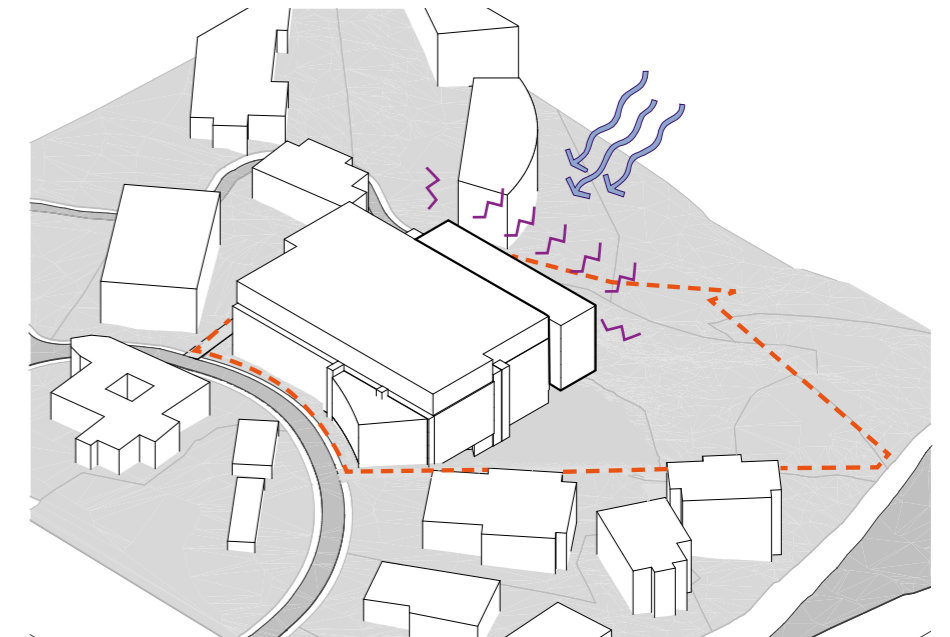
### Site connections

The site access will utilise existing roads along Julius Avenue



### Visual aspect

The primary building aspect is towards Julius Avenue and the service areas are partly concealed by the bushland.



### Position of the generators

The generators are best placed away from the surrounding buildings to mitigate the noise emission, as well as utilising the prevailing winds to assist in cooling.

# 03 Built Form and Design Strategies

## 3.5 Building Massing

The proposed massing has been carefully designed to meet operational requirements while addressing key site constraints, including setbacks, pedestrian pathways, and the preservation of existing vegetation. The building is situated within the required envelope controls, including height restrictions, and takes advantage of the site's unique topography.

Positioned primarily in the northern portion of the site, the building utilises an existing site cut to reduce its overall height and visual bulk, minimising its impact on surrounding areas, particularly when viewed from Julius Avenue. This strategic placement ensures that the building maintains a low profile while maximising the use of available space.

The main entry and Front of House component are oriented to the north to optimise solar access for office and administration areas. Service and heavy vehicle access are discreetly located to the south, creating a clear separation between operational and visitor functions.

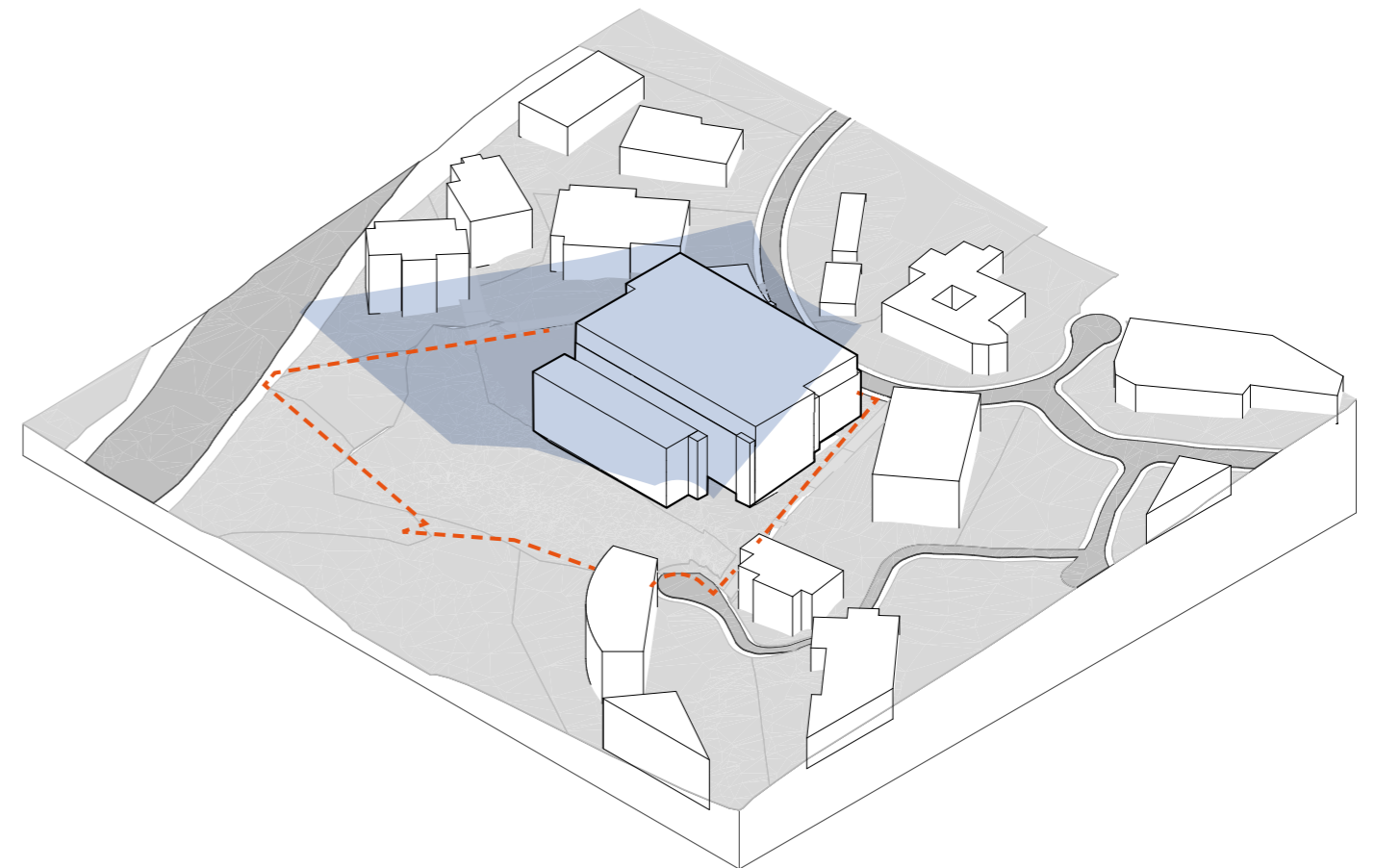
Critical power generators are positioned to the south of the building to minimise noise impact on nearby commercial and future residential areas to the north. This approach ensures that the building's massing respects the surrounding environment and minimises potential disturbances.

This design approach focuses on the optimal placement of the building on the site, ensuring a balanced relationship between functionality, environmental impact, and integration with the surrounding context.

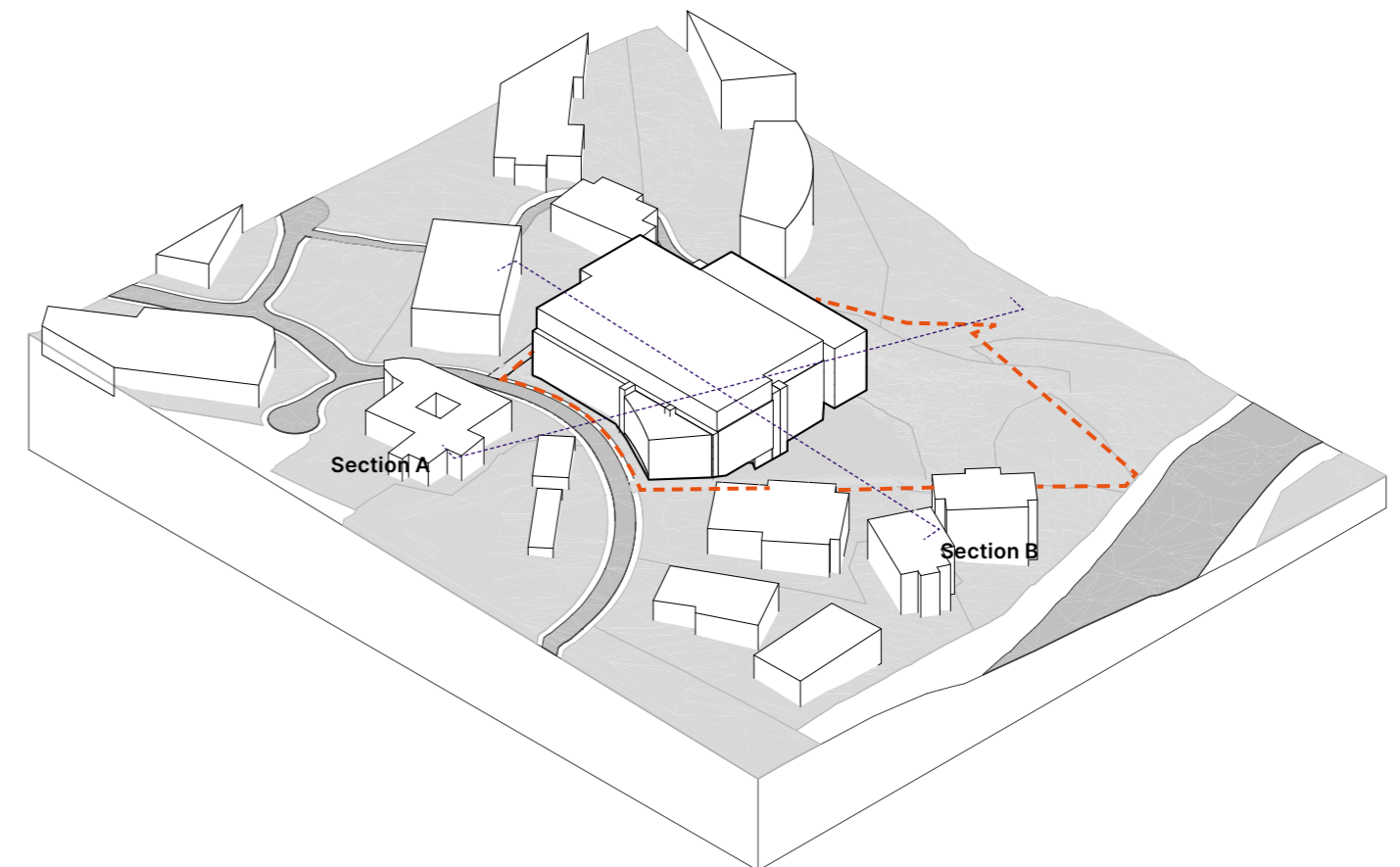
### Legend:

--- Site location

■ Height plane



Site with proposal north-west isometric view



Site with proposal south-east isometric view

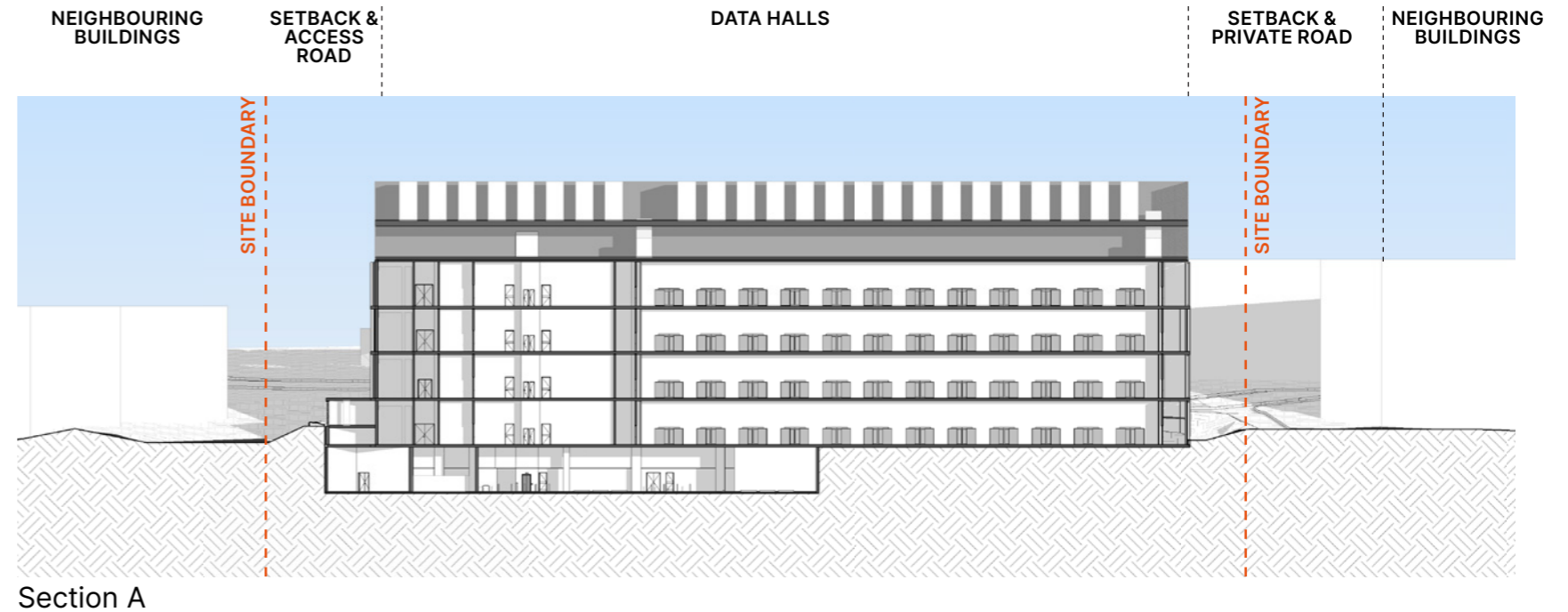
# 03 Built Form and Design Strategies

## 3.6 Building Massing in Context

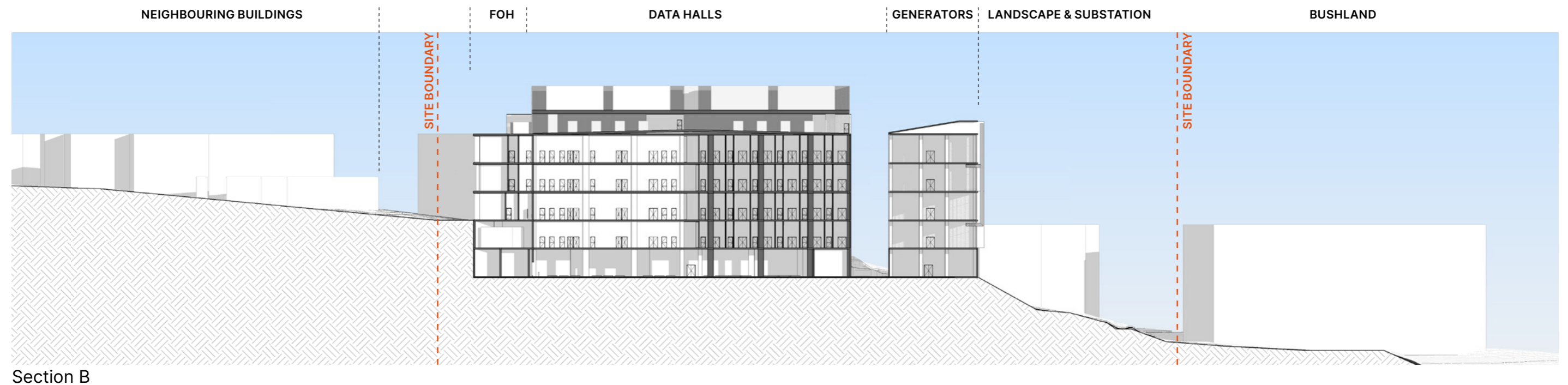
The proposal is designed to meet operational requirements while addressing site constraints, including setbacks, pedestrian pathways, and vegetation preservation. The building fits within the required envelope controls, including height restrictions.

Located primarily in the northern portion of the site, the building takes advantage of an existing site cut, reducing its visual bulk and maintaining a low profile. This strategic positioning minimizes its impact on the surrounding environment.

The Front of House component faces north, providing solar access to office and administration areas. Service and heavy vehicle access are discreetly positioned to the south, separating operational and visitor functions. Generators are located to the south to reduce acoustic impacts on nearby commercial and future residential areas.



----- Existing ground line



## 03 Built Form and Design Strategies

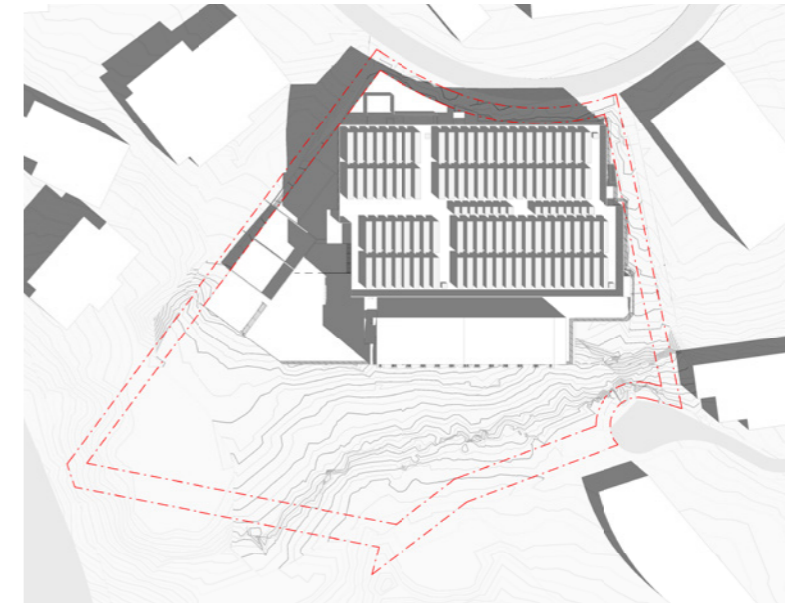
### 3.7 Shadow Diagrams

The rectilinear arrangement of the proposed Data Centre ensures that the shadows cast by the building throughout the year have minimal impact on adjoining properties. This design approach, combined with adequate side, rear, and street setbacks, provides effective buffering against shadows cast by the structure.

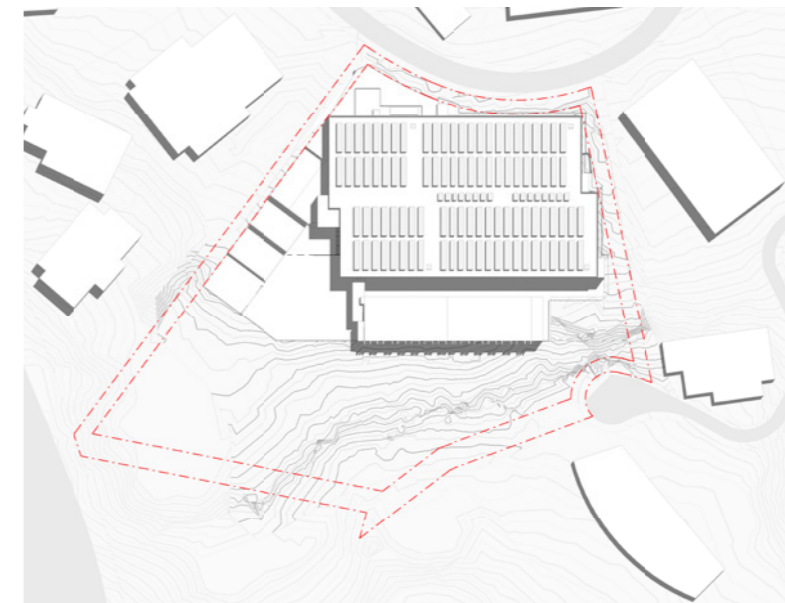
Detailed shadow diagrams illustrate that during the summer solstice (representing the best-case scenario), the shadow impact is generally confined to the subject site. The most significant shadow impact, observed on December 21st at 3 PM, has minimal effect on the adjoining property to the east.

Throughout the month, the shadows cast by the Data Centre are otherwise generally negligible, ensuring that the building's presence does not adversely affect the surrounding properties.

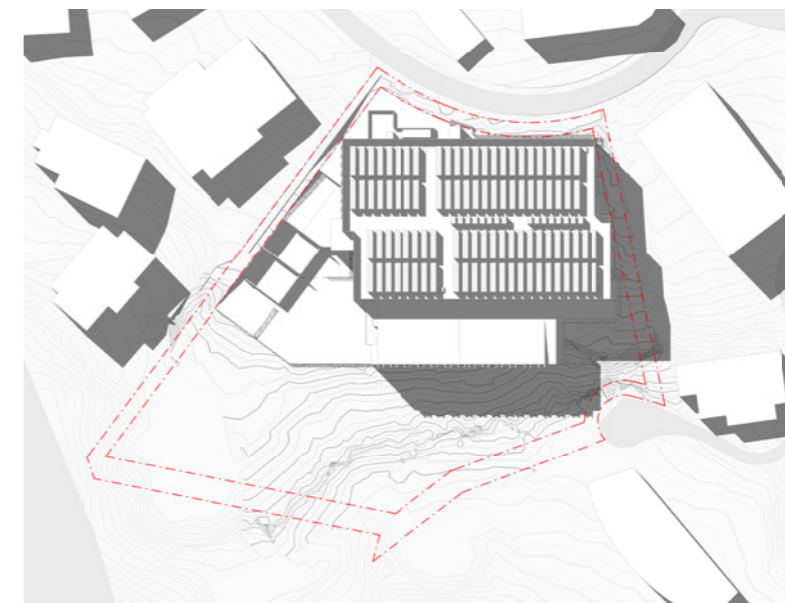
This thoughtful consideration of shadow impact underscores the project's commitment to minimising its environmental footprint and maintaining harmony with the neighbouring community.



December 21st 9am



December 21st 12pm



December 21st 3pm

## 03 Built Form and Design Strategies

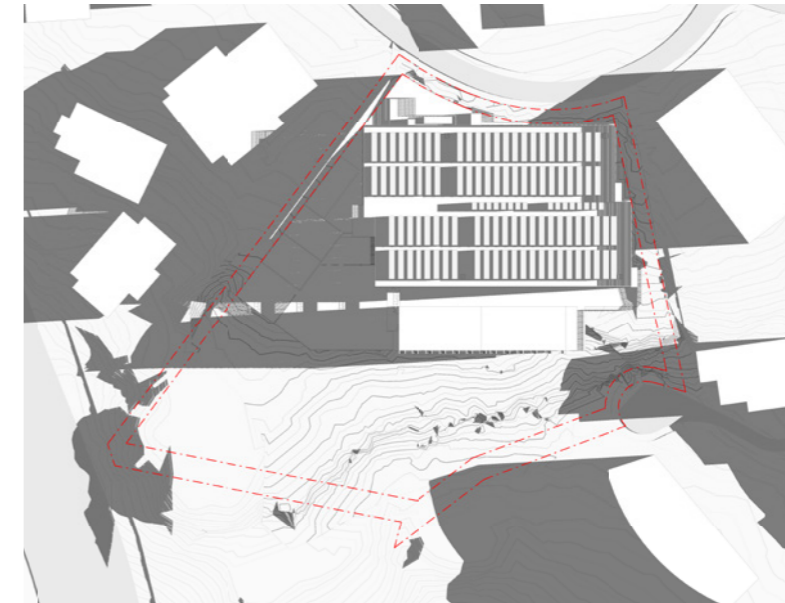
### 3.7 Shadow Diagrams

The proposed Data Centre's design is carefully planned to ensure minimal shadow impact on neighbouring properties, particularly during the winter months when shadows are at their longest. This thoughtful layout, combined with sufficient side, rear, and street setbacks, effectively buffers the shadows cast by the building.

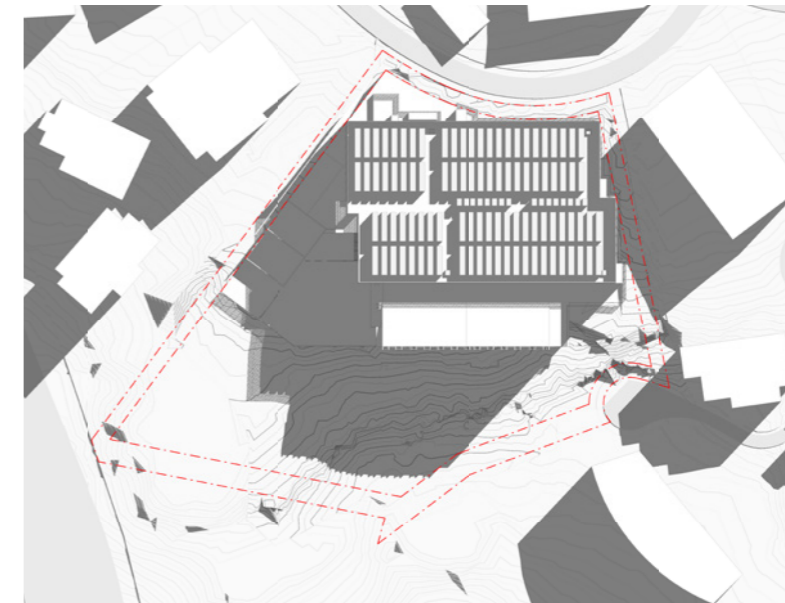
These shadow diagrams specifically highlight the winter solstice, demonstrating that even during this period, the shadow impact remains largely limited to the subject site. The most notable shadow, observed on June 21st at 3 PM, impacts the landscaped zone to the south of the subject site, but has minimal impact on adjoining allotments. At 9 AM, a shadow extends across the western boundary into the neighbouring site. This shadow impact is fleeting and has limited impact on the amenity of the commercial building here.

Throughout the winter months, the shadows cast by the Data Centre are generally negligible, ensuring that the building does not adversely affect the surrounding properties.

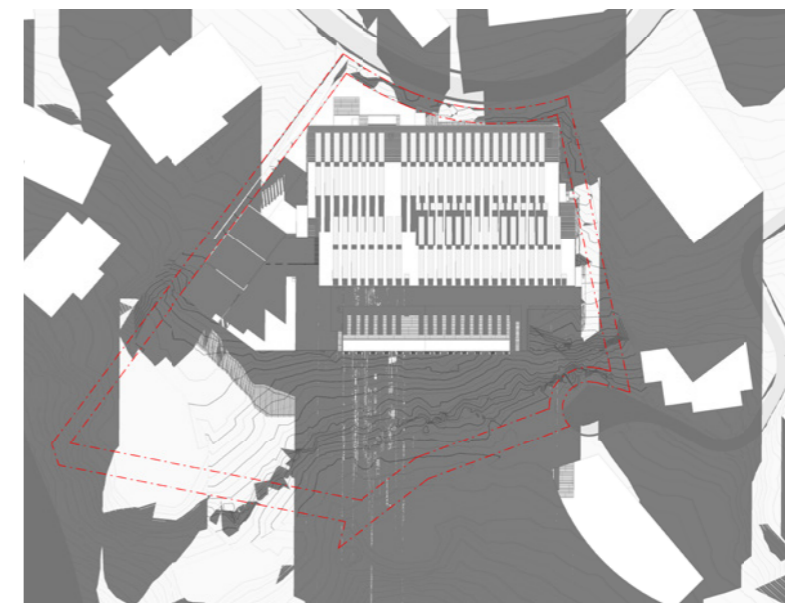
This careful consideration of shadow impact reflects the project's dedication to minimising its environmental footprint and maintaining a harmonious relationship with the neighbouring community.



June 21st 9am



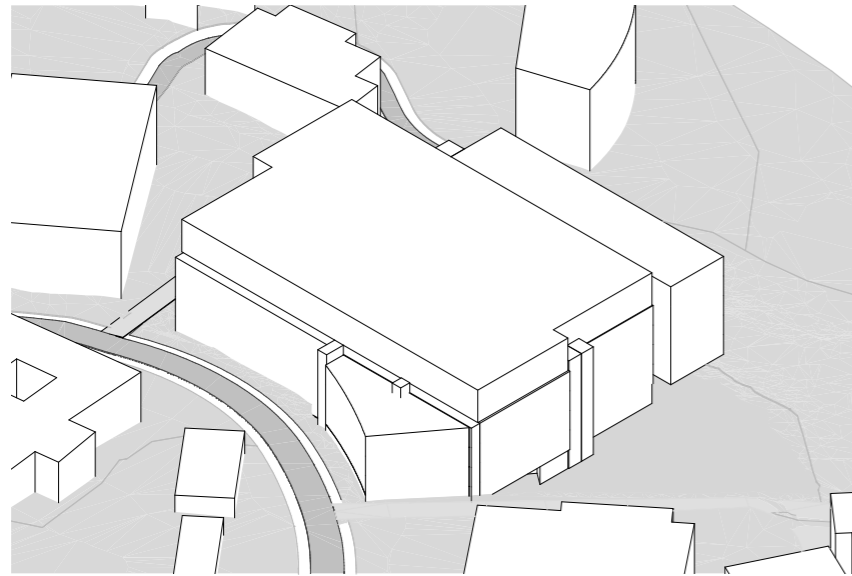
June 21st 12pm



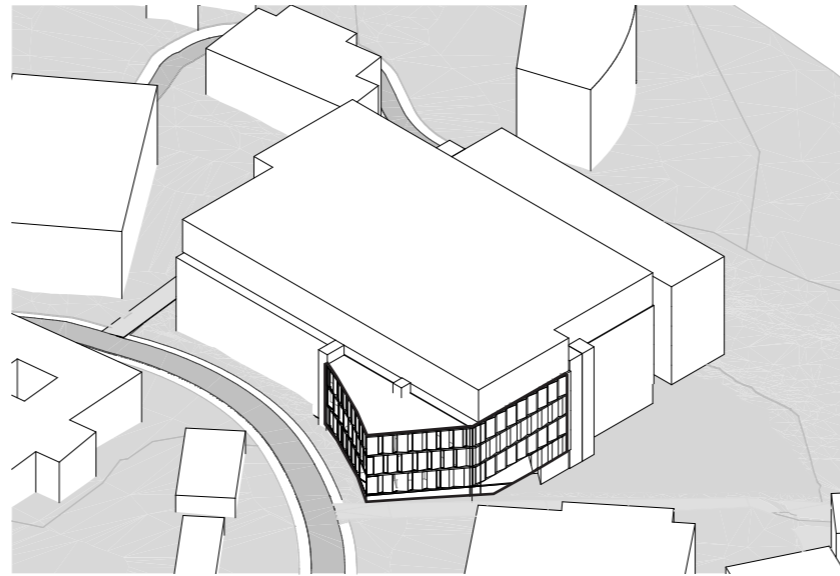
June 21st 3pm

# 03 Built Form and Design Strategies

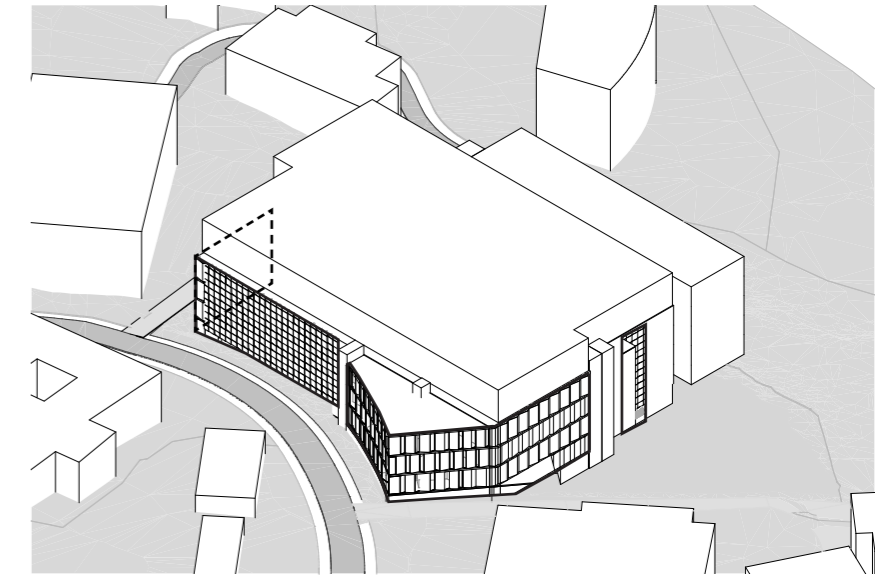
## 3.8 Facade Arrangement



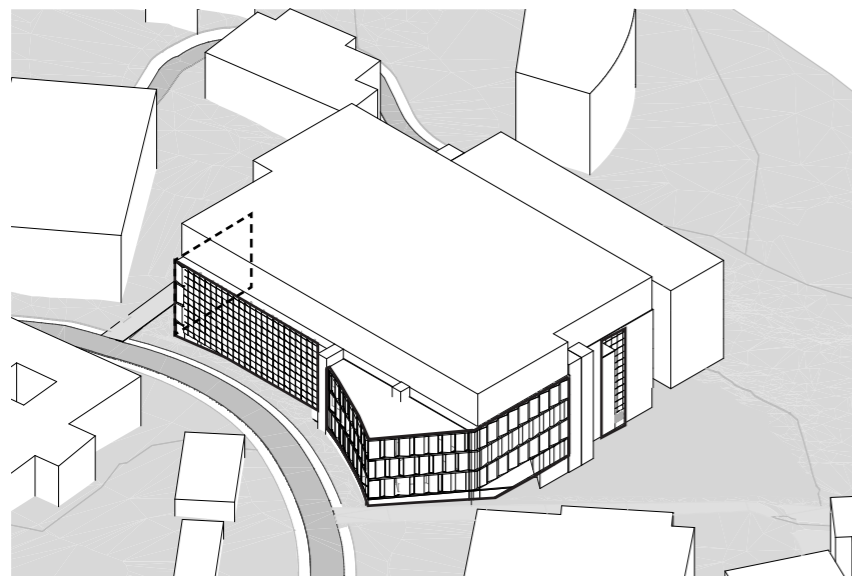
Building Mass



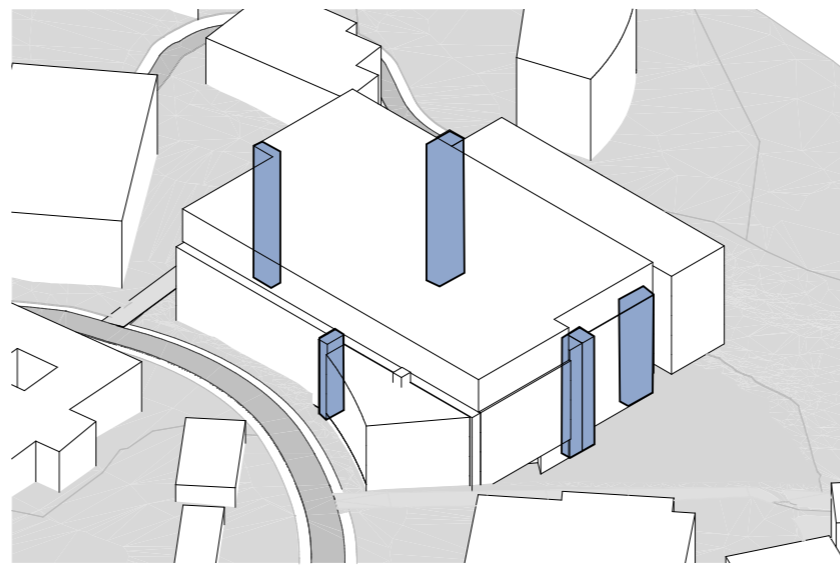
Focal point of the building - the FOH facade



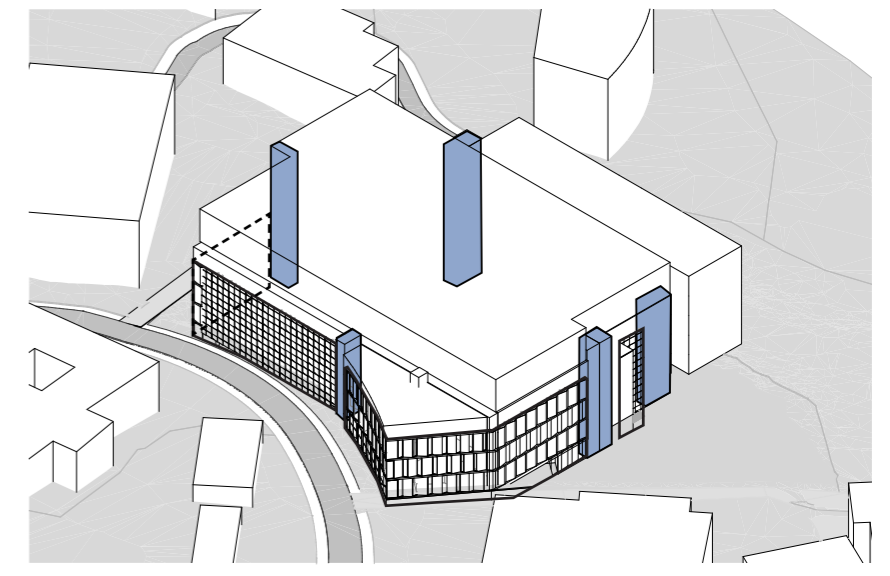
Booking marking the FOH are the data hall façades



Both façades treatments work together to create the design narrative



Stair cores ground the building and act as transition spaces between the two facade treatments



This facade strategy offers a dynamic look to the building

# 03 Built Form and Design Strategies

## 3.8 Facade Strategy

Bringing through the ideas from the massing positioning and the arrangement of the internal zones, the facade strategy builds on this with the aim to provide the most efficient and functional arrangement of spaces.

The two key aspects to consider are the large expanses of the data hall façades—these have limited window allocation and can often feel quite blank and imposing.

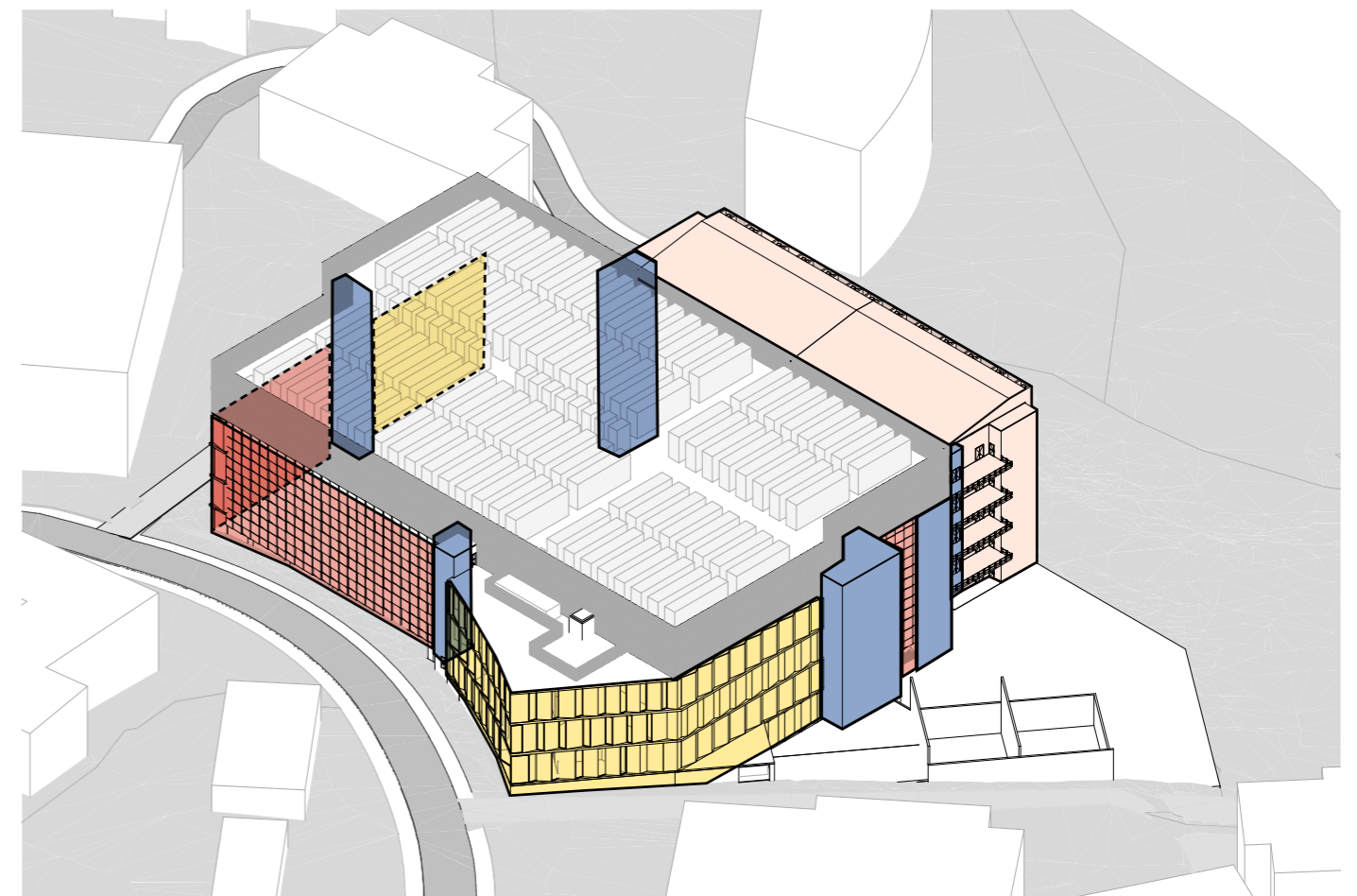
In contrast, the FOH (front-of-house) facade needs to be open and well naturally lit; furthermore, this is the focal point of the building, so it needs to appear welcoming.

The service spaces are there to help ground the building and provide regular piers within the facade. The service facade—the most functional—is positioned to the rear of the space. This building aims to integrate well within the commercial context nearby, and the internal placement of spaces seek to demonstrate that.





### Facade A – FOH references: How to maximise light into the spaces?



### Facade B – Data hall facade references: How can a large facade appear open and dynamic without the use of openings?



#### Legend:

	Facade A - FOH facade		Service facade
	Facade B - Data hall facade		Core transition spaces

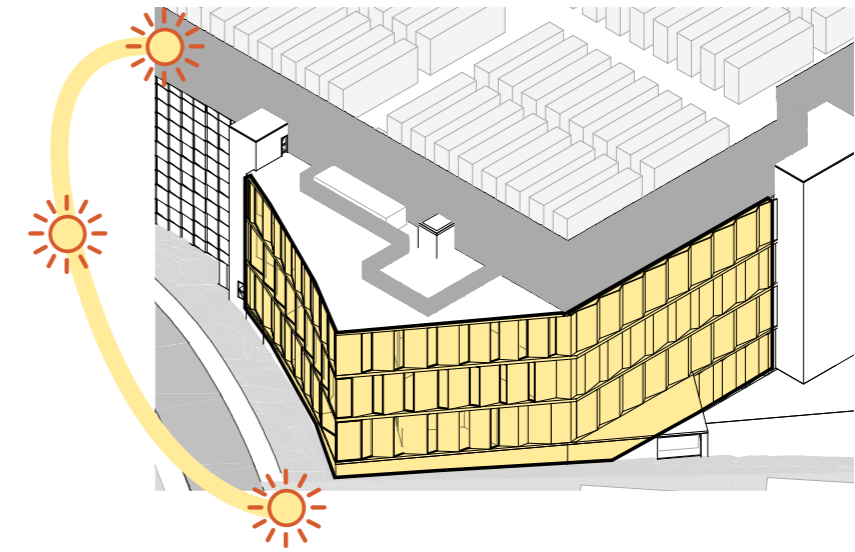
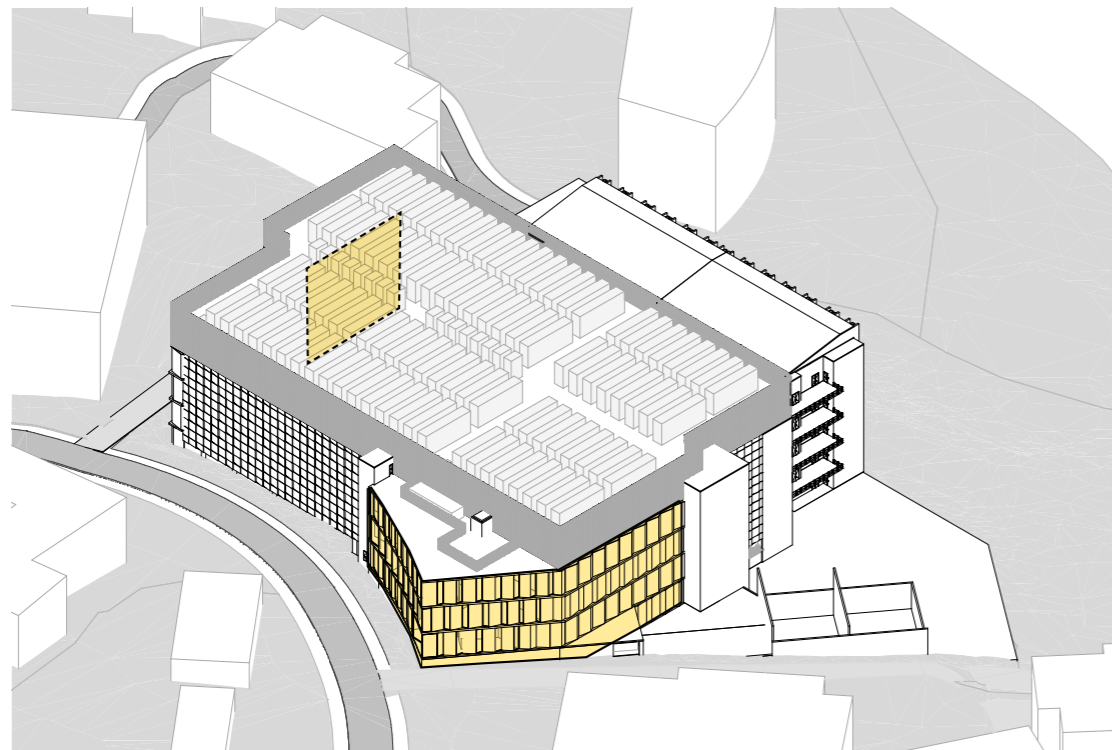
# 03 Built Form and Design Strategies

## 3.10 Facade A

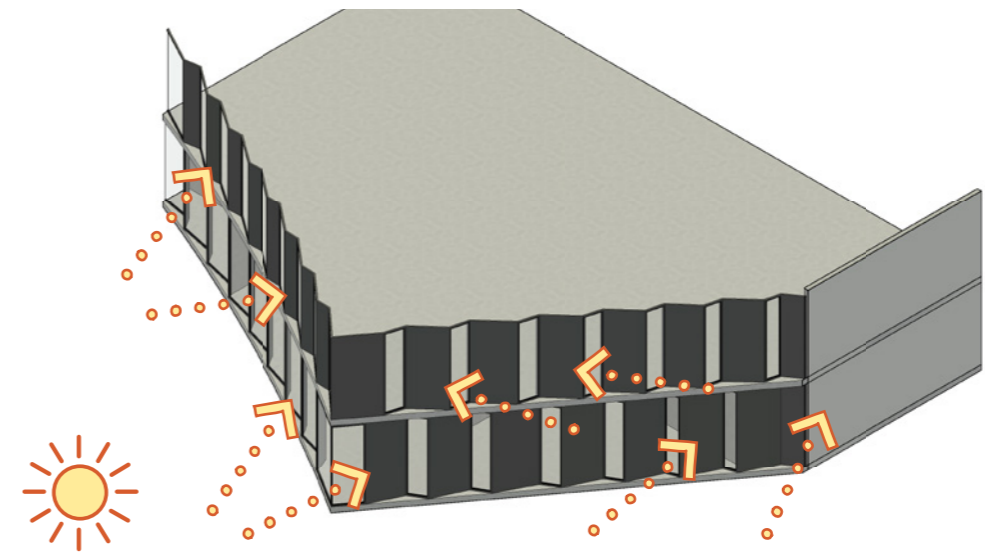
The primary functional requirement for this façade is to maximise natural light within the interior spaces and take full advantage of the building's north-facing orientation. These areas are designed to feel bright and airy.

The protruding block of the FOH dominates this elevation and is the focal point of the building when approached from Julius Avenue. As a result, the façade has become a key design feature, with light access driving its form and articulation. To optimise daylight throughout the day, the windows are angled in alternating directions.

This creates a concertina effect, allowing the façade to capture light from both morning and afternoon sun while also framing varied views. The angular rhythm introduces depth and dimension to the elevation, enhanced by the shifting play of shadows throughout the day. This dynamic quality gives the façade a constantly evolving character along Julius Avenue—which stems from the primary function of maximising natural light within the interior spaces



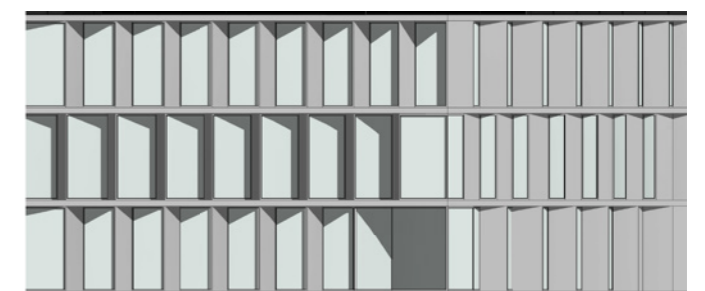
1. FOH facade north facing



2. Angled windows to maximise natural light into the spaces



Morning facade



Evening facade

3. The concertina effect offers a changing facade during the day

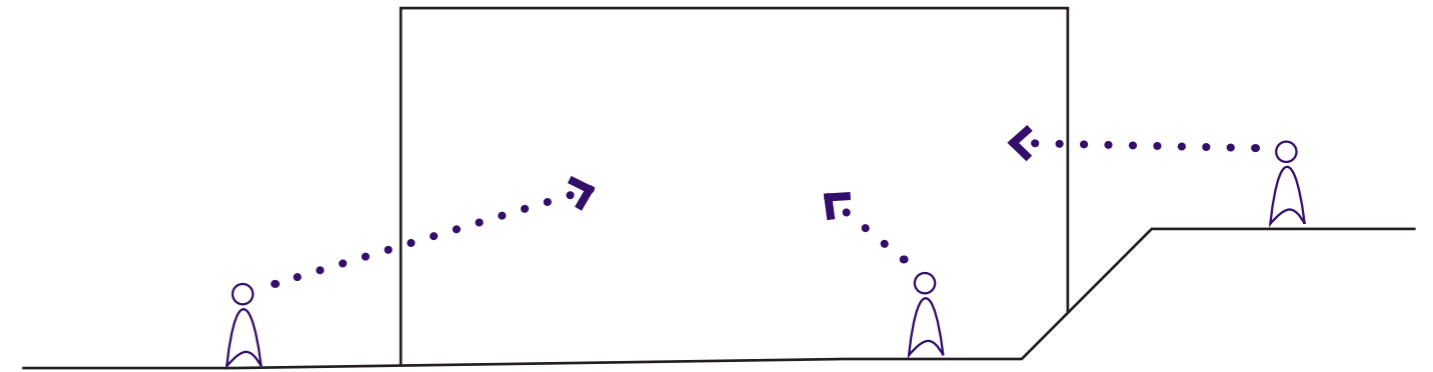
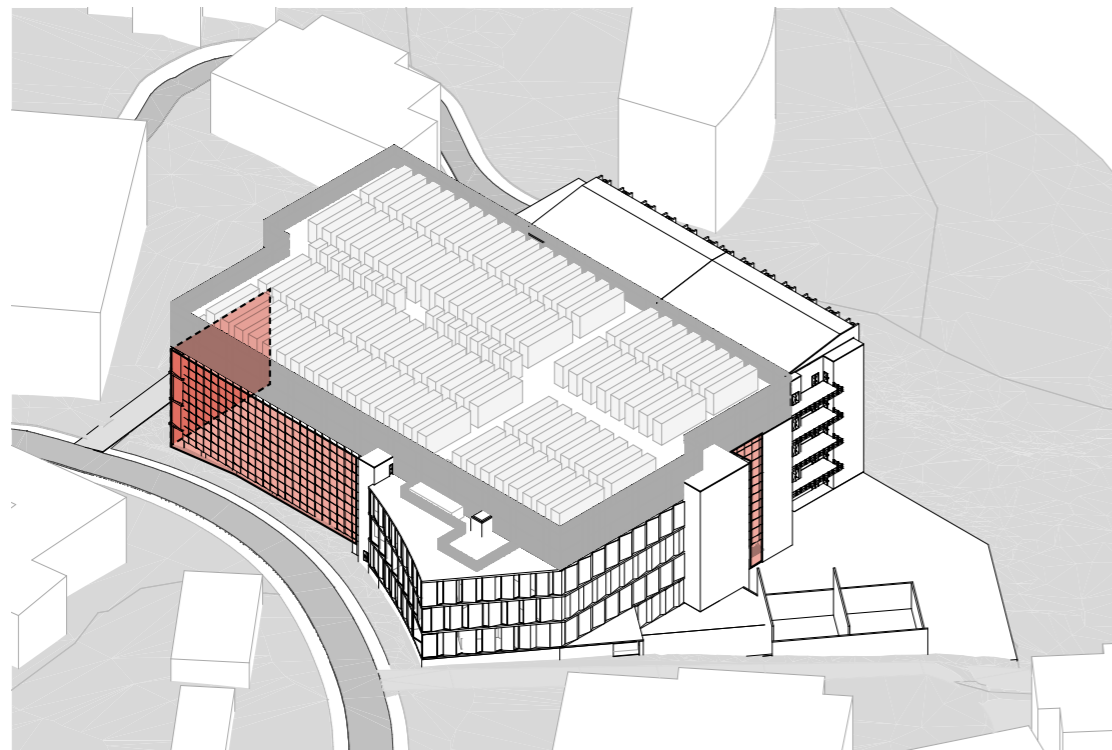
# 03 Built Form and Design Strategies

## 3.11 Façade B

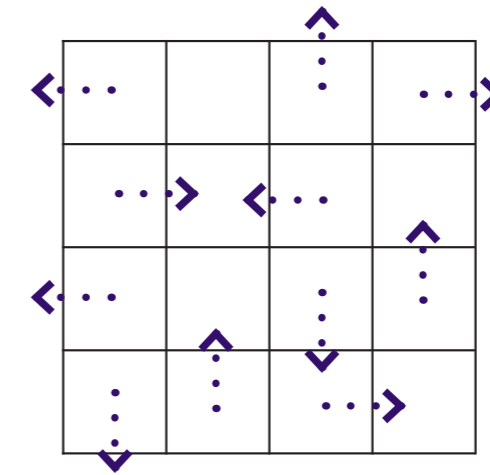
The design narrative for Façade B draws from the core principles of Façade A—specifically the interplay of light and surface articulation. Unlike Façade A, Façade B is constrained by the functional requirement for no windows, resulting in large blank surfaces.

To address this challenge and achieve a visually engaging outcome, the design focuses on how the façade is perceived from multiple vantage points, given the site’s significant level changes. Angled panels are oriented in multiple directions to provide varied visual aspects from different viewpoints.

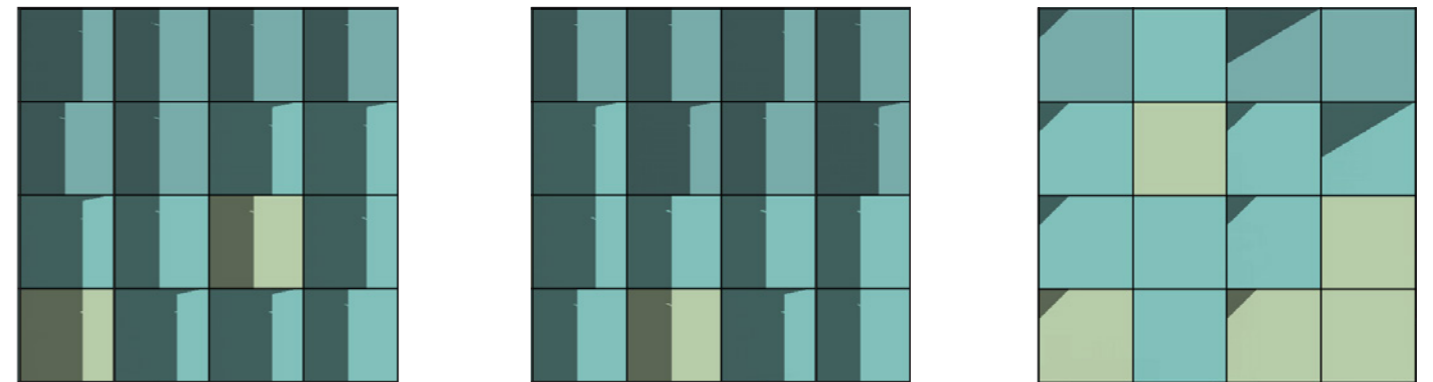
As the sun moves throughout the day, these panels cast shifting shadows onto one another, creating a rich and dynamic play of light and shadow. Echoing the aesthetic language of Façade A, this approach introduces texture, depth, and visual interest to an otherwise solid façade—achieving a dynamic quality without the use of openings.



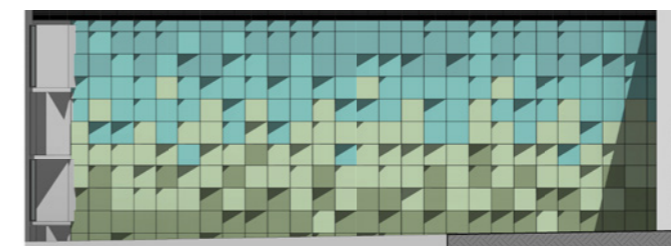
1. Façade viable from varying angles and heights



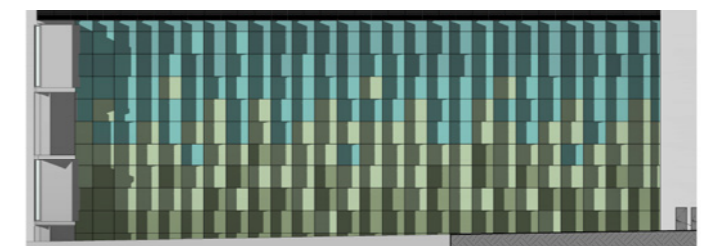
2. Panels are orientated to differing directions to face each view



3. The orientation of the panels creates an ever changing dynamic facade



4. Morning facade



Evening facade

# 03 Built Form and Design Strategies

## 3.12 Materiality

The choice of materials is both functional and aesthetic, carefully responding to the distinct architectural language of Façades A and B. Each material has been selected to support the spatial intent while contributing to the overall composition and performance of the building.

The service areas, particularly the stair cores, are constructed from precast concrete with a rugged vertical finish. These robust elements ground the building and act as key structural anchors within the façade. In contrast, the front-of-house (FOH) façade features a lighter-toned polished concrete, offering a refined and welcoming appearance that complements its role as the public-facing focal point.

For the data halls, the expansive façade is clad in polished metal panels. This finish not only reflects sunlight to create a dynamic play of light and shadow throughout the day, but also visually breaks up the large surface area without the use of windows—bringing depth and animation to the otherwise solid façade.

Together, these materials create a balanced composition: from the strong, grounding presence of concrete piers to the light-reflective metal panels. Each material expresses its functional origin while contributing to a cohesive architectural narrative.



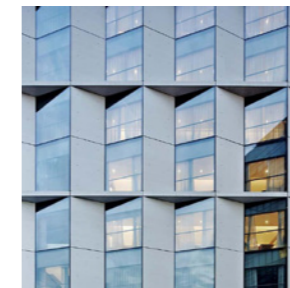
### Materiality:



Metal Cladding



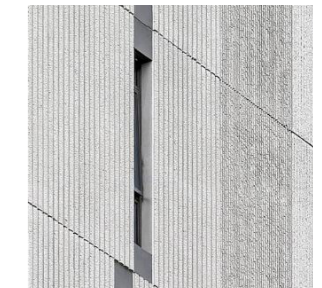
Precast concrete with smooth finish



UV Reflective Window glazing



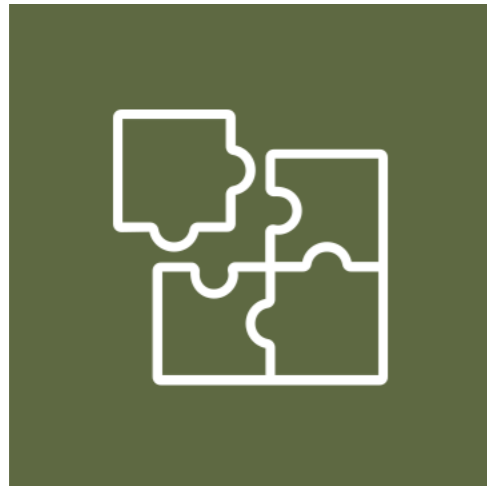
Metal cladding in gold colour



Precast concrete with vertical textured finish

# 03 Built Form and Design Strategies

## 3.13 Key Design Principles



### Seamless Integration

The data centre is positioned within the site's existing cut in the northern portion to reduce its visual presence from Julius Avenue and neighbouring properties. Retention of native vegetation to the south and a 5-metre landscaped setback enhance ecological and streetscape quality, integrating the building into its Macquarie Park context.



### Functionality

The design supports critical digital infrastructure needs through modular data halls, resilient mechanical systems, and efficient site circulation. A new east-west access road improves functional separation between public and operational areas, while supporting future connectivity to Richardson Place.



### Security

Secure site access and perimeter controls are embedded discreetly into the design, ensuring operational integrity without dominating the streetscape. Vegetation buffers and landscape treatments screen security infrastructure and create a more pedestrian-friendly interface along Julius Avenue.



### Human-Centric Design

The administration component addresses Julius Avenue with extensive glazing and an identifiable, active entry point. Staff amenity is supported through landscaped breakout areas and visual connections to outdoor spaces, promoting a workplace that balances functionality with comfort.



### Sustainability

The proposal incorporates energy-efficient systems, fire-resistant materials, and water-sensitive urban design. By retaining mature vegetation, integrating native planting, and reducing embodied impacts through structural efficiency, the development aims to deliver a high-performance, climate-resilient facility that enhances local biodiversity.

# The Proposal

# 04 The Proposal

## 4.1 Design Statement

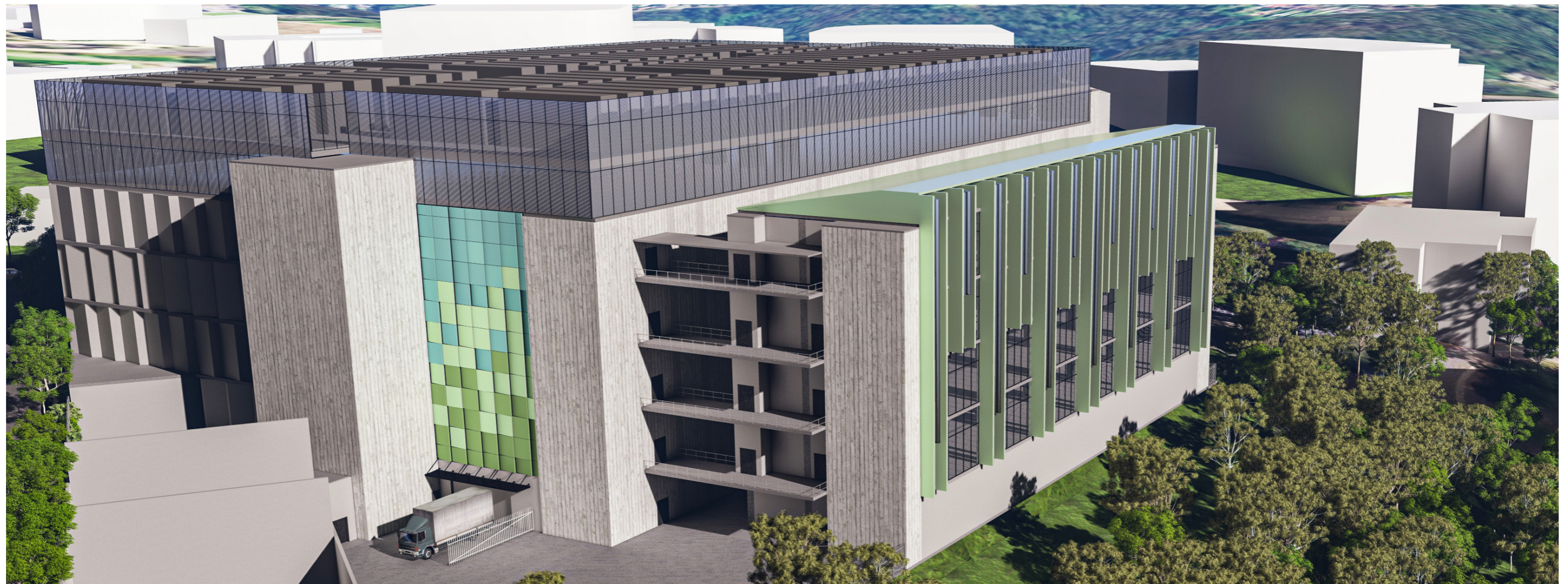
The design intends to deliver critical digital infrastructure to support growing data demands, while responding to the operational, environmental, and planning requirements of its location. Functionally, the development provides a resilient and scalable facility that supports secure data processing through modular data halls, redundant power and cooling systems, and high levels of physical and digital security. The facility is designed in accordance with Uptime Institute Tier III standards, ensuring continuous operation and long-term service capacity.

The building has been positioned to the northern portion of the site, using an existing site cut to reduce overall height and visual impact when viewed from Julius Avenue and adjacent properties. This enables the southern portion of the site—home to significant native vegetation—to be preserved, maintaining ecological value and contributing to the area’s environmental quality.

The generators, critical to the centre’s function, are located at the rear of the site to reduce noise and amenity impacts on neighbouring commercial and future residential areas.

Connectivity within the site and to the wider area has been carefully considered, with a proposed east–west access road improving circulation and linking Julius Avenue with Richardson Place. This road improves vehicular and pedestrian access across the site while maintaining clear separation between public and operational zones. The building’s administration and office areas face Julius Avenue, maximising solar access and creating a prominent, clearly identifiable entry point for staff and visitors.

The proposal achieves functional efficiency while enhancing the local streetscape, supporting ecological outcomes, and integrating with the broader Macquarie Park employment area.

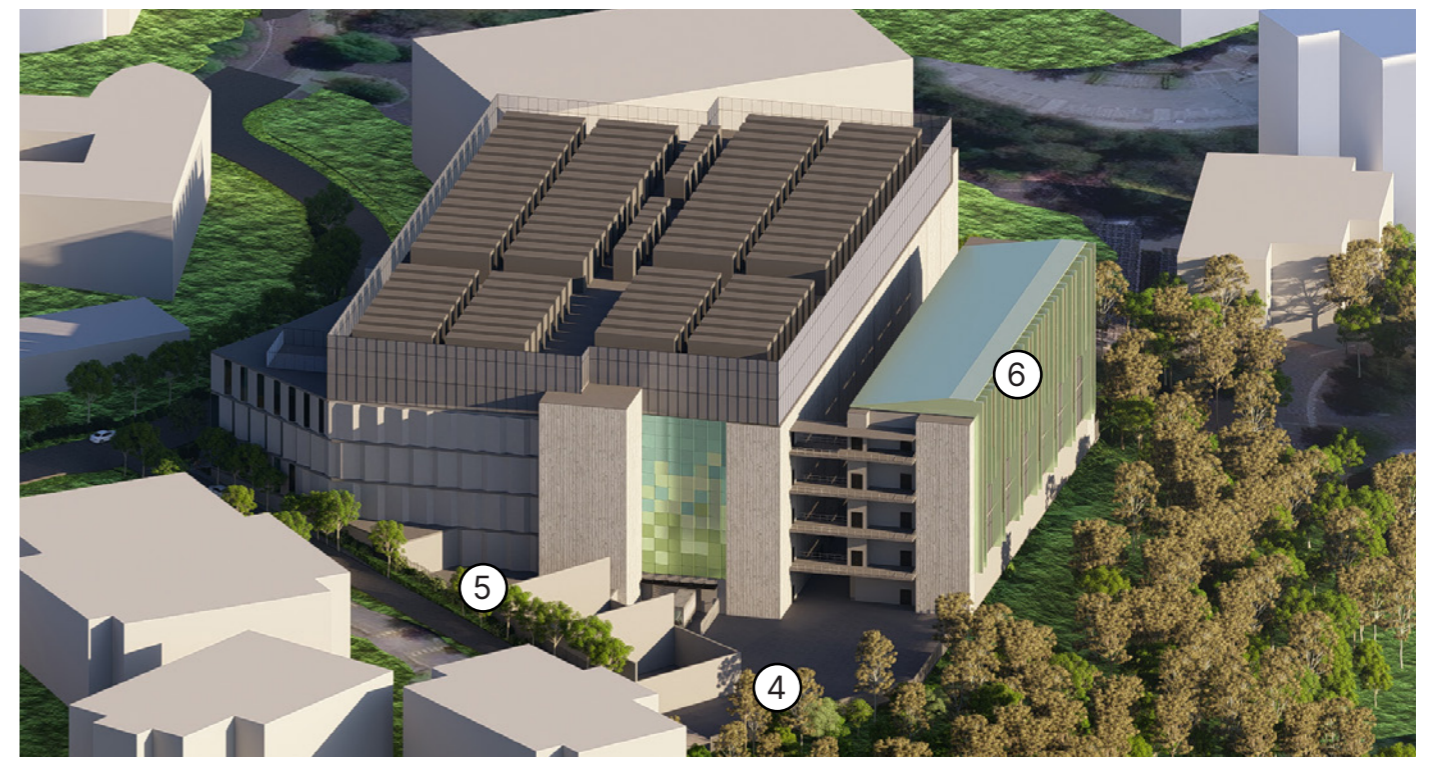
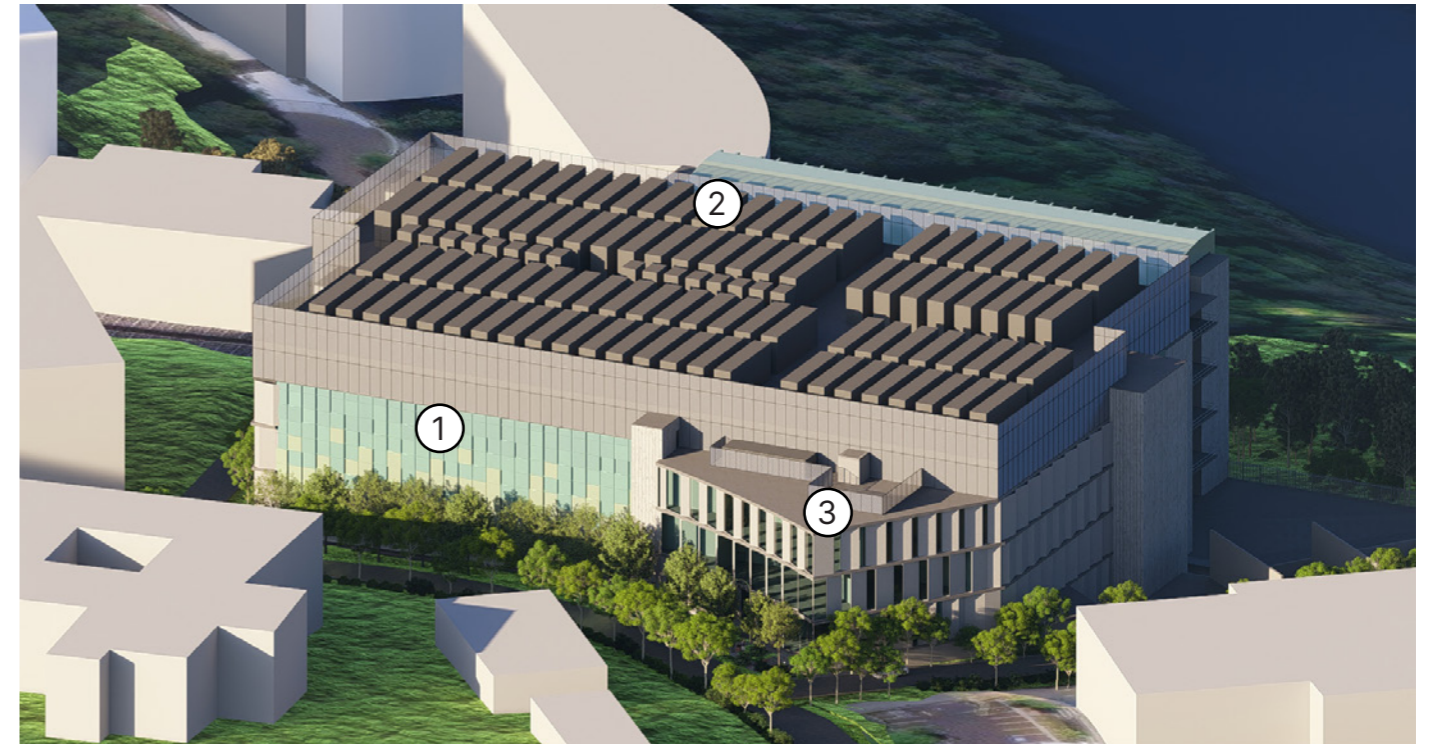


# 04 The Proposal

## 4.2 General Building Arrangement

The built form and arrangement of spaces are designed to work efficiently together, maximising the functionality within the site, as well as to respond positively to each of the surrounding area uses.

- 1. Data Hall
- 2. Plant Area
- 3. Front of House
- 4. Loading Bay
- 5. Ausgrid STSS
- 6. Generator Gantry

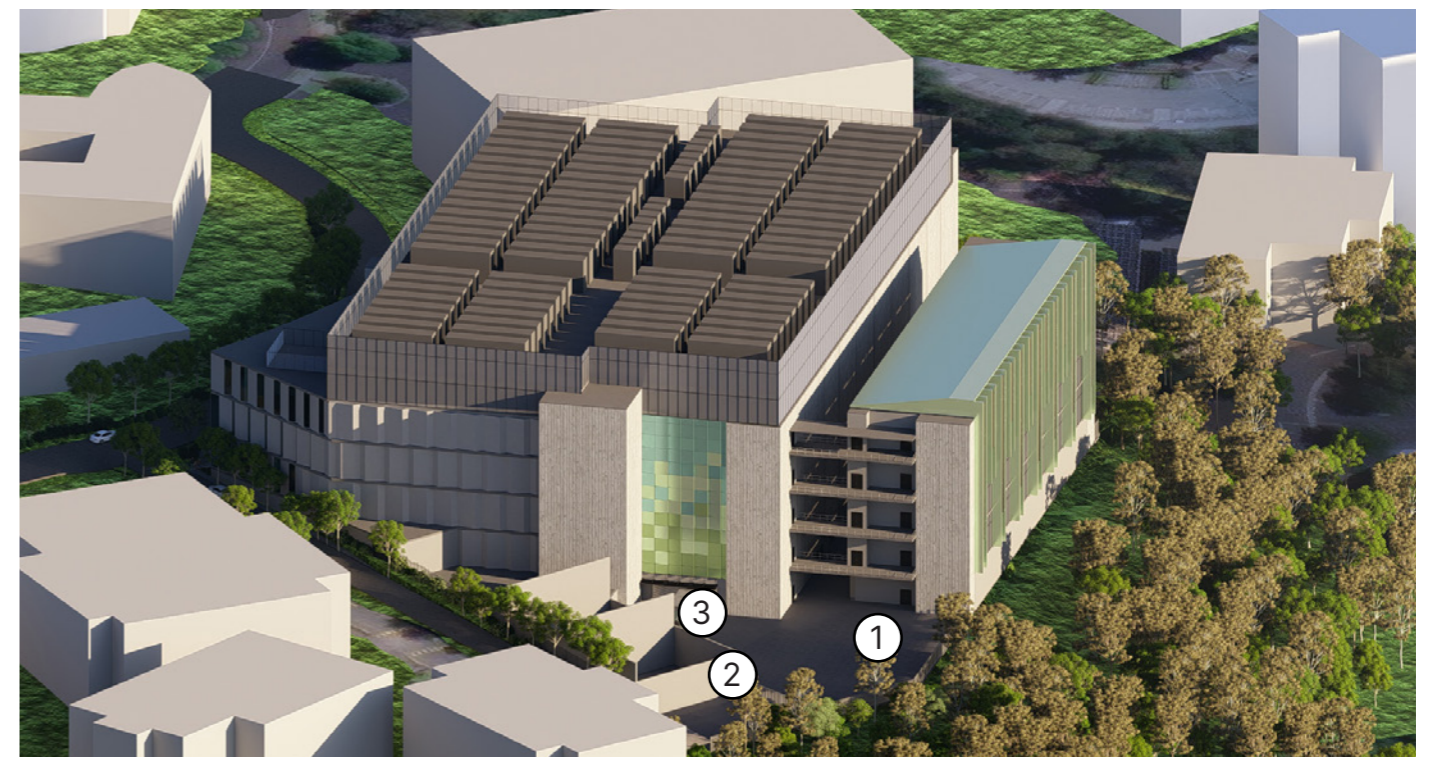
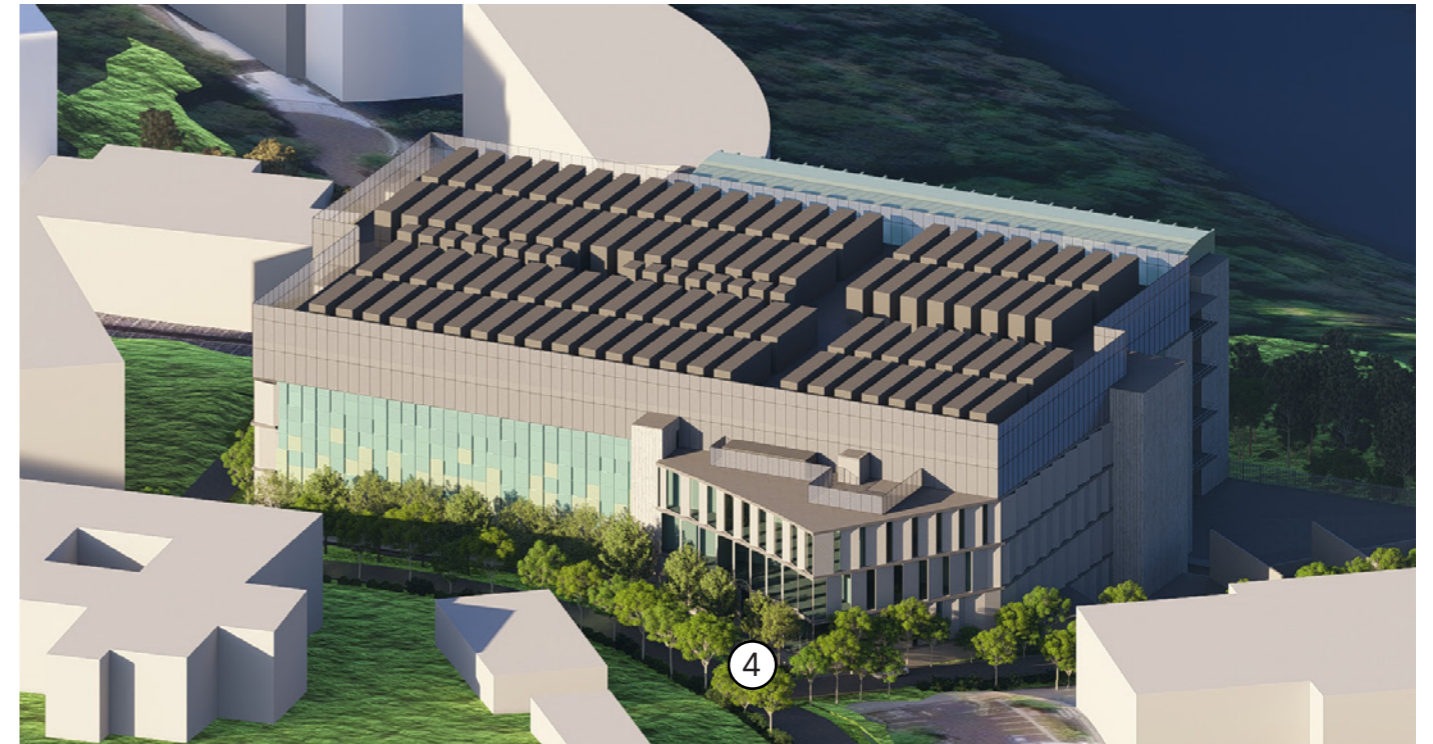


# 04 The Proposal

## 4.3 Front of Site Arrangement

The built form and arrangement of spaces are designed to work efficiently together, maximising the functionality within the site, as well as to respond positively to each of the surrounding area uses.

- 1. Site Access
- 2. Site Control
- 3. Loading Dock
- 4. Main Entrance



# 04 The Proposal

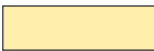


## 4.4 Site Fencing Arrangement

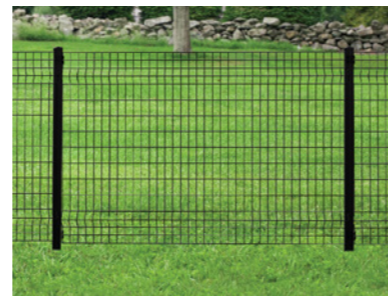
The primary security measure for the site is a 2400mm high spear top palisade fence. This robust fencing extends along the entire eastern boundary and wraps around the southern perimeter of the building, situated to the north of the proposed east-west access road. It continues to encompass the loading dock area before extending northward along the western boundary of the allotment, ensuring comprehensive security coverage.

In contrast, the fencing along the northern portion of the site, which faces Julius Avenue, is 1500mm high and constructed from a simple wire mesh. This design choice was influenced by the Council's preference to maintain the commercial streetscape along Julius Avenue, avoiding the visual obstruction that more substantial fencing might cause. The wire mesh fencing was selected as an appropriate response to this concern, offering a high degree of transparency and minimal visual impact while still providing a secure delineation of the site.

This strategic combination of fencing types ensures that the site remains secure without compromising the aesthetic and functional requirements of the surrounding area. The spear top palisade fence provides robust security where it is most needed, while the wire mesh fence along Julius Avenue maintains the desired open and commercial appearance, aligning with the Council's urban design objectives.

Legend:

-  Gate location
-  2400 Primary palisade security fencing
-  1500mm Front face security fencing



Example of type of palisade fencing to be proposed on site

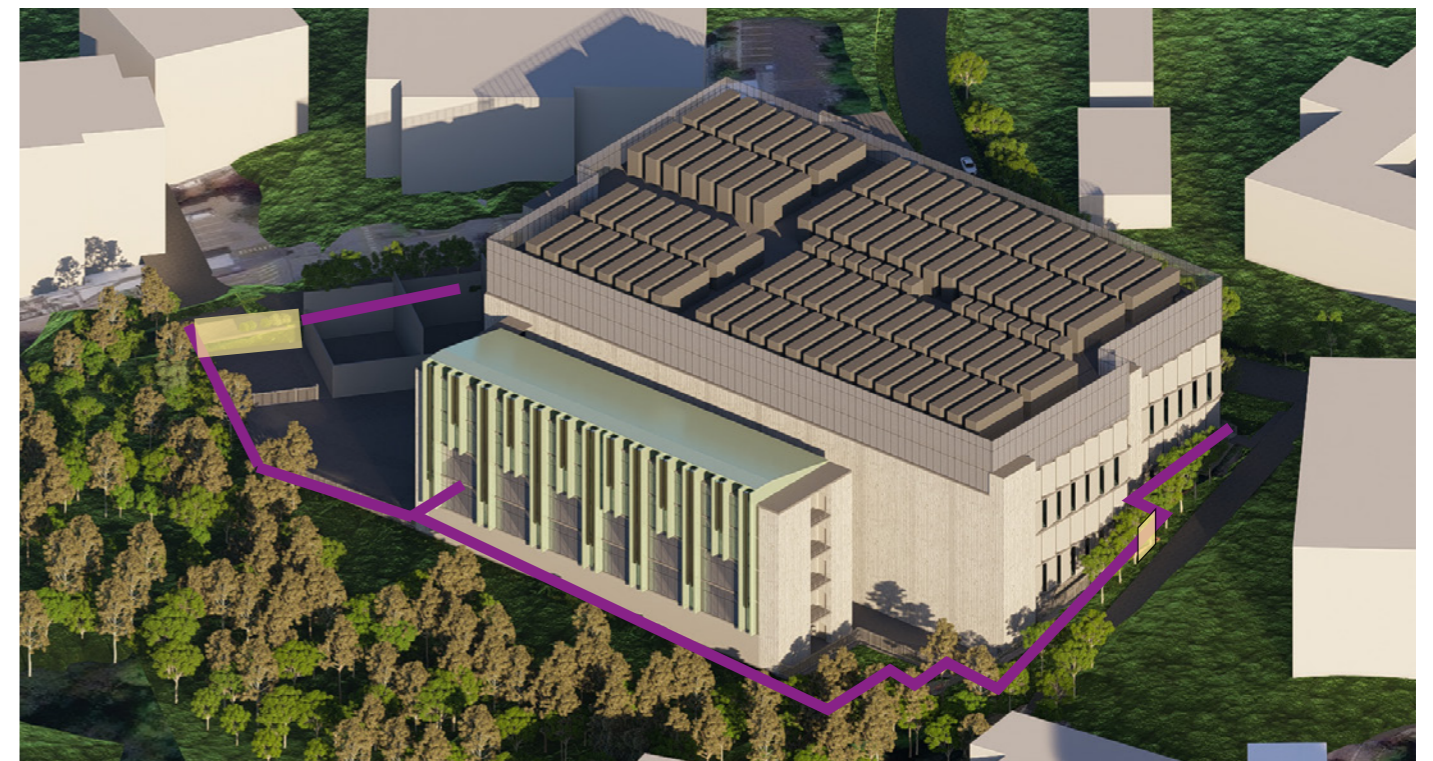
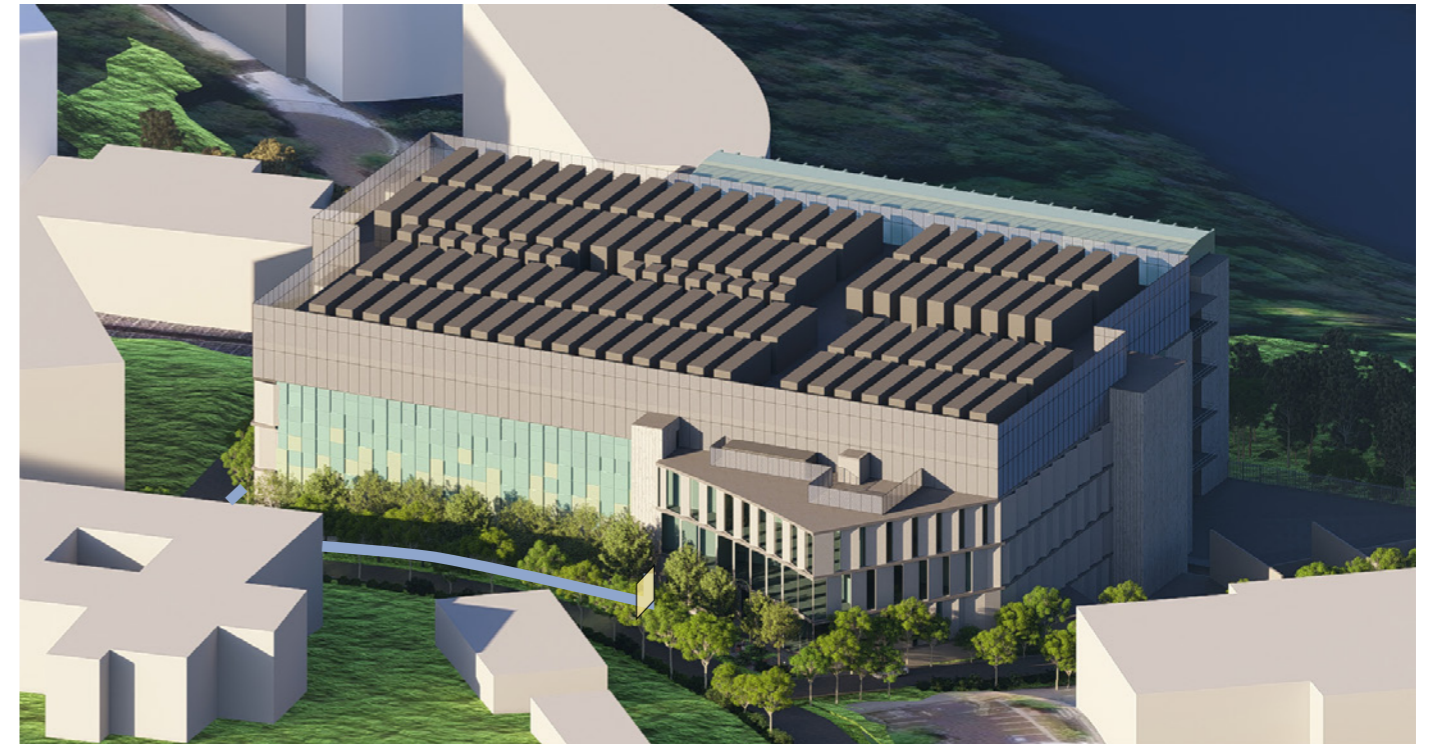


Diagram showing the different fencing areas

# 04 The Proposal

## 4.5 Overview

The architectural design of the proposed Data Centre responds directly to the site's physical characteristics, environmental setting, and planning context. The building's massing is deliberately subdued, utilising the existing landform to embed the structure within the site and reduce its visual bulk. This approach ensures that the built form is respectful of its surroundings, particularly when viewed from Julius Avenue and neighbouring sites.

The architectural language is defined by durable, high-quality materials and a refined aesthetic. Precast concrete panels provide structural integrity and thermal mass, while bronze-coloured metal cladding and faceted façade geometry lend visual interest and sophistication. The administration areas feature extensive glazing, enhancing natural light penetration and activating the street frontage. These design strategies reduce the building's apparent scale and contribute positively to the public domain.

The scheme preserves the southern portion of the site as a landscaped buffer, protecting existing vegetation and reinforcing local biodiversity. This not only supports ecological objectives but also provides a green visual edge that softens the built form and integrates the development with its natural surroundings, including the nearby Lane Cove National Park. Landscape elements and open space are used strategically to enhance walkability, urban cooling, and visual amenity.

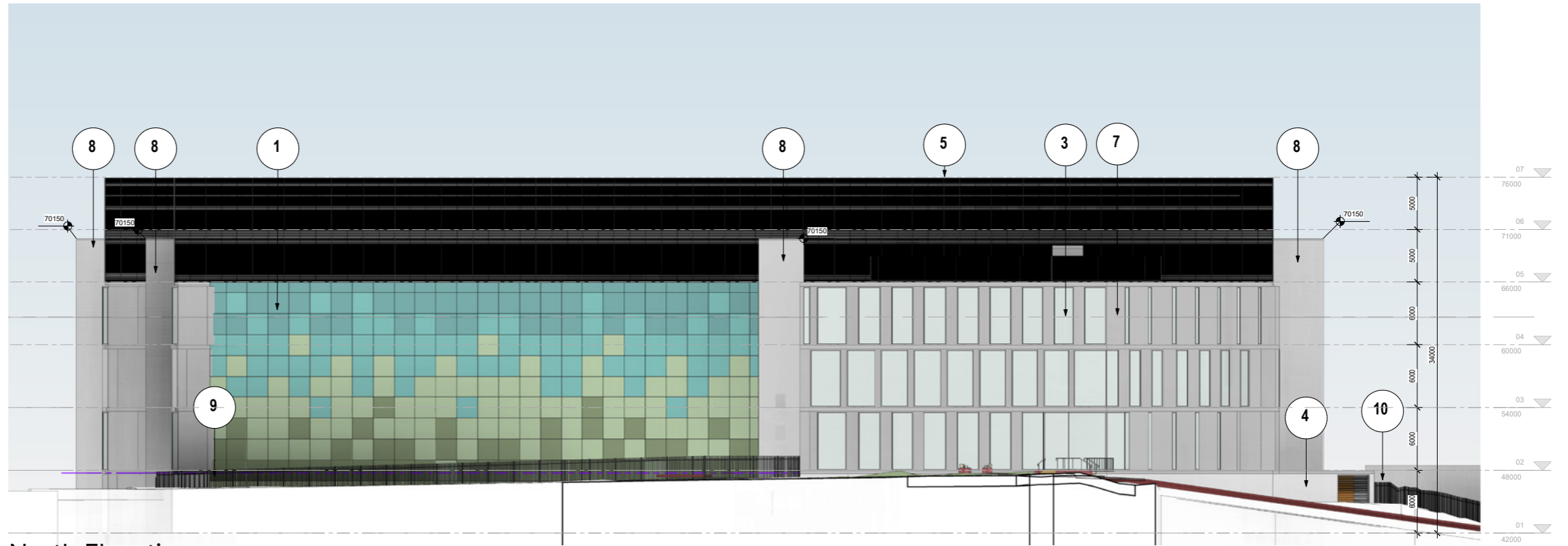
In conclusion, the architectural response is both technically appropriate and contextually sensitive. The design meets the operational needs of a modern data centre while contributing to a more sustainable and connected urban area. It demonstrates how essential infrastructure can be delivered with architectural quality and environmental care, supporting the strategic objectives of the local council and the broader North Ryde employment corridor.



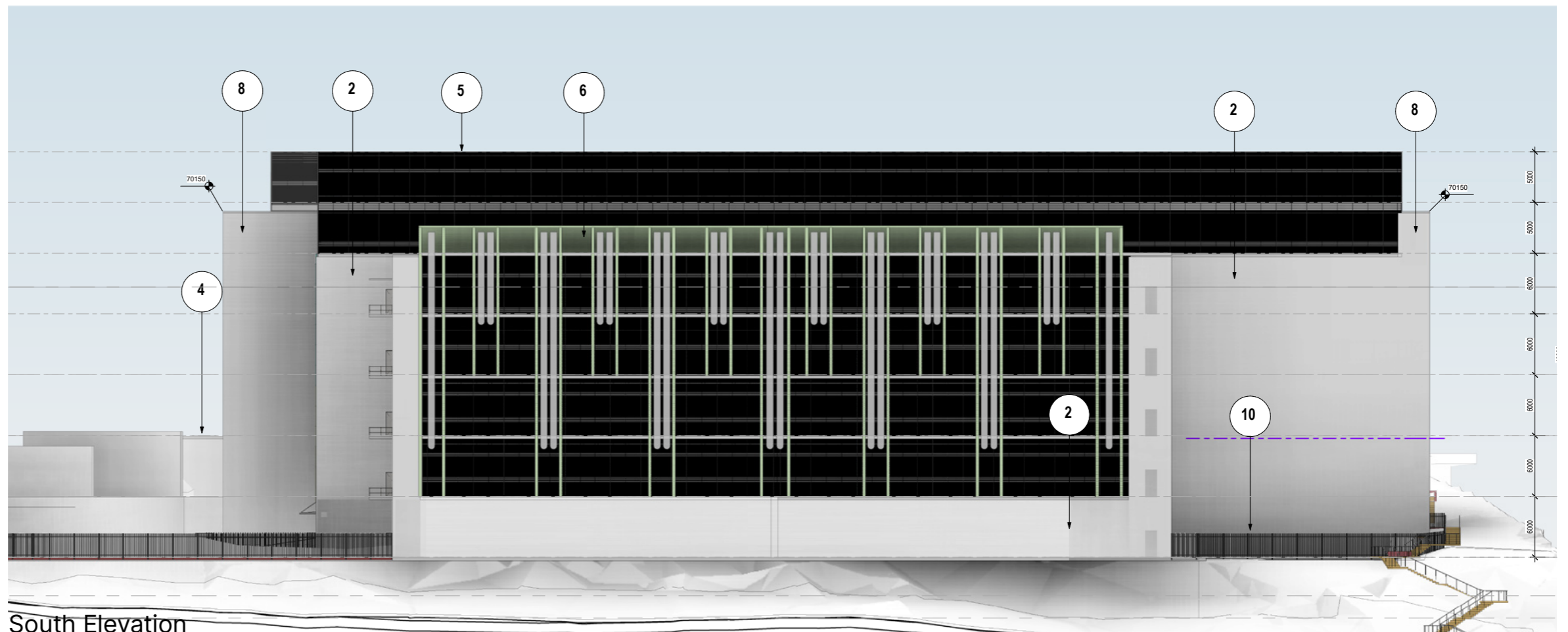
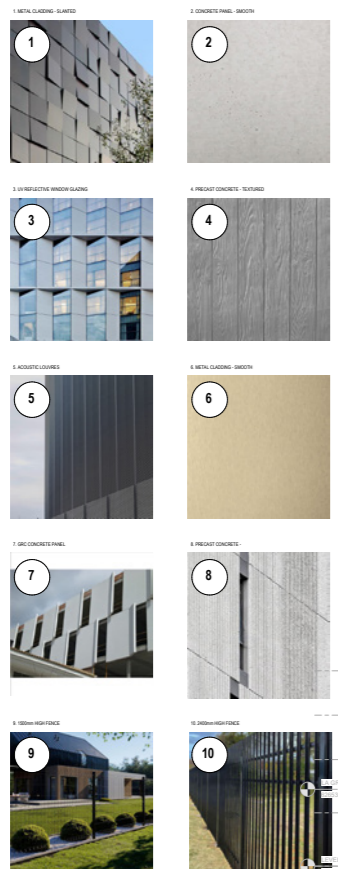


# 04 The Proposal

## 4.6 Elevations



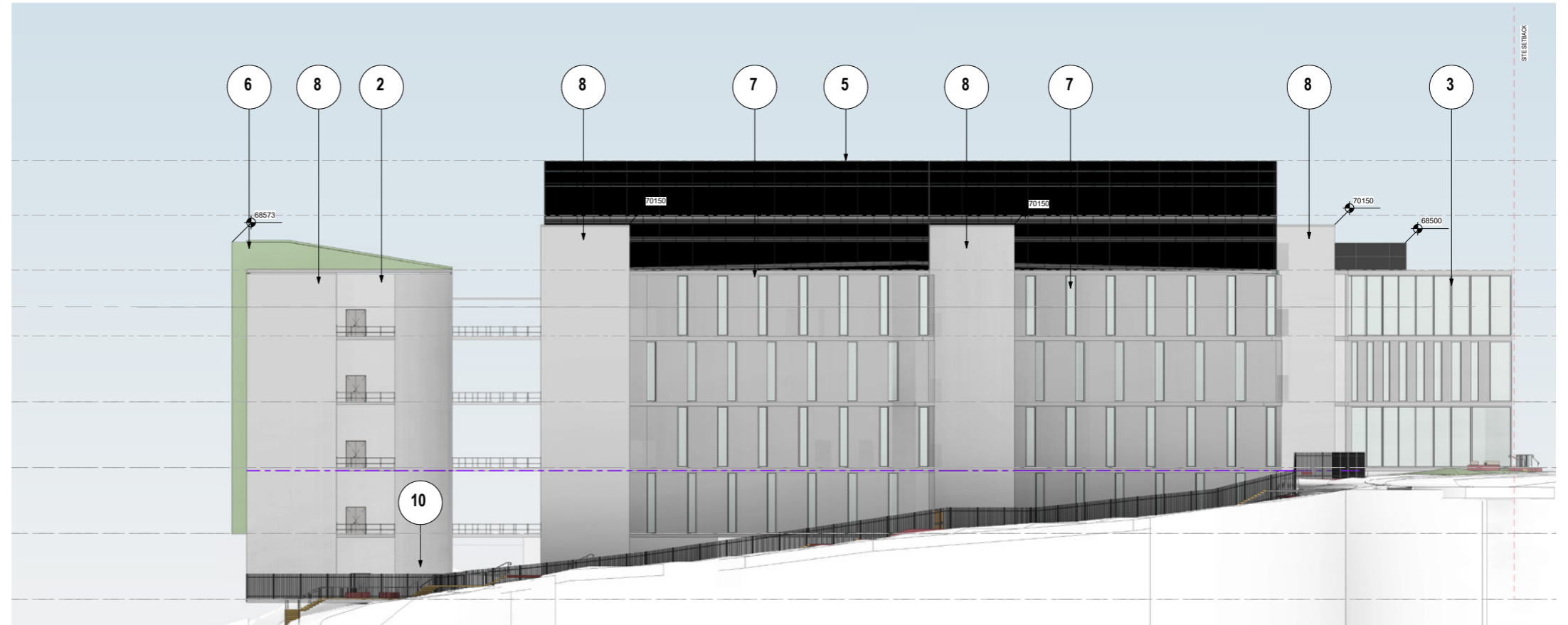
North Elevation



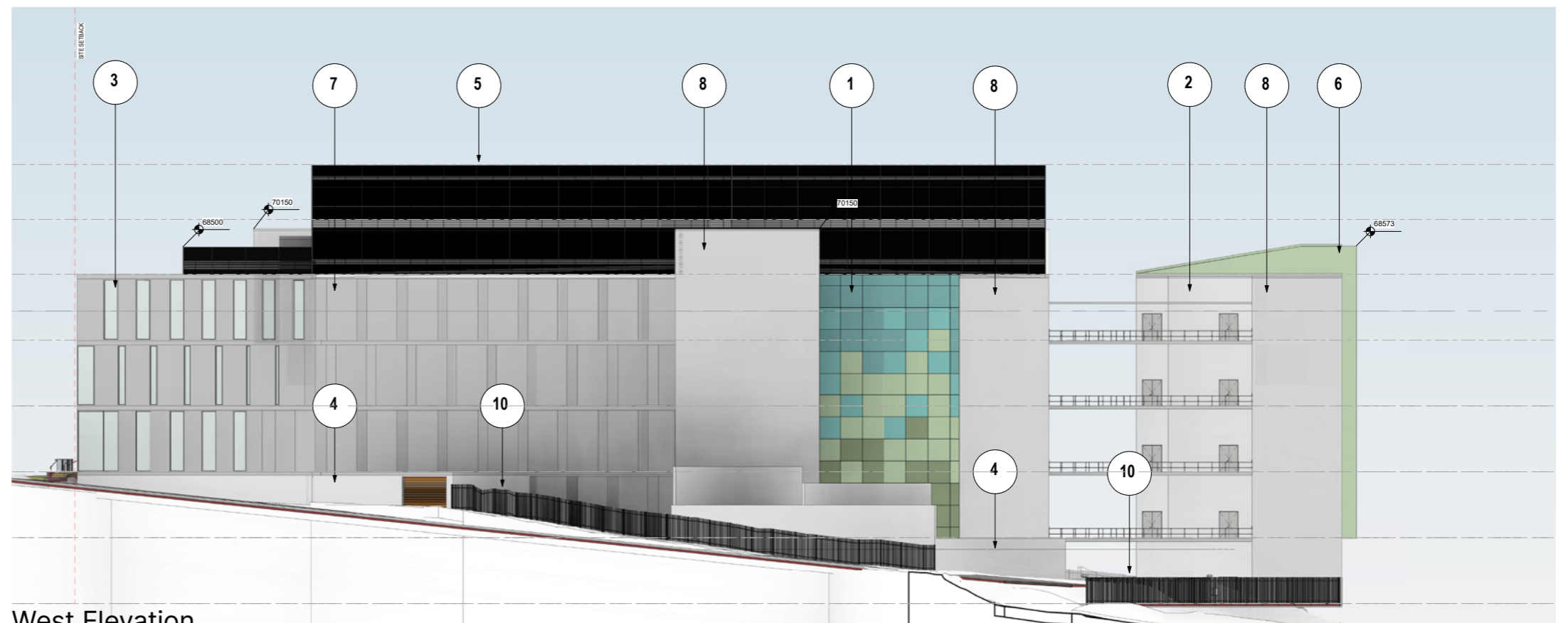
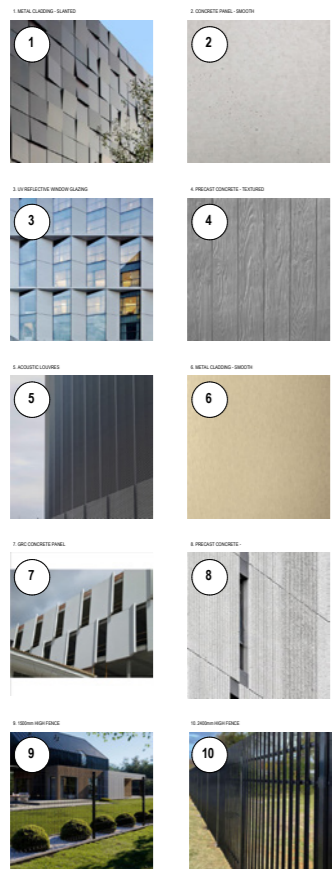
South Elevation

# 04 The Proposal

## 4.6 Elevations



East Elevation



West Elevation

## 04 The Proposal

### 4.7 Response to Statutory Requirements

The proposed five-storey data centre at 6–8 Julius Avenue, North Ryde, is a strategically designed facility that responds to increasing digital infrastructure demand while aligning with applicable planning legislation and assessment frameworks. The development is classified as a State Significant Development (SSD) and is subject to rigorous evaluation in accordance with the State Environmental Planning Policy (Planning Systems) 2021 and associated SSD guidelines.

#### **State Environmental Planning Policy (Planning Systems) 2021**

This policy provides the legislative framework for consistent and transparent planning decisions across New South Wales. The Julius Avenue Data Centre proposal addresses this policy by undertaking a comprehensive assessment process, which includes environmental impact evaluation, public exhibition, and agency consultation. The project is committed to delivering a high-quality, compliant development that responds to both strategic and site-specific planning objectives, including sustainability, transport integration, and environmental protection.

#### **State Significant Development (SSD) Guidelines**

The SSD guidelines outline the procedural and technical requirements for projects of state significance. The proposed development at 6–8 Julius Avenue aligns with these guidelines through detailed environmental and design reporting, including assessment of visual impact, biodiversity, traffic and access, bushfire risk, and integration with surrounding land uses. The proposal balances critical infrastructure needs with sensitive urban and ecological design responses, such as retaining mature vegetation, minimising building bulk through topographic integration, and enhancing site connectivity via a new east–west access road.

#### **Streamlined Data Centre Approval Pathway**

In 2021, the NSW Government introduced reforms to support the fast-tracked delivery of data centres in key economic areas, including North Ryde, a recognised technology and employment hub. As a result, the project at 6–8 Julius Avenue benefits from a streamlined assessment pathway, encouraging timely and efficient delivery of critical digital infrastructure. This initiative supports the state’s strategic planning goals by promoting investment in essential technology services while maintaining rigorous environmental and community standards.

#### **Conclusion**

The proposed data centre at 6–8 Julius Avenue demonstrates clear alignment with the State Environmental Planning Policy (Planning Systems) 2021 and meets the assessment requirements of the State Significant Development framework. Through a site-responsive, sustainable, and technically robust design, the project contributes to the growth of New South Wales’ digital infrastructure while respecting its surrounding environment and planning context.

# Design Response to GANSW

# 05 Environmental Response

## 5.1 Better Placed

### Better Placed is an integrated design policy for the built environment of NSW.

It reflects the shared aspirations and expectations for the spaces where we live, work, and interact. The policy establishes a clear framework to guide the creation of good design, ensuring the architecture, public spaces, and environments we build today meet our needs and will continue to serve future generations.

The Better Placed Design Policy identifies seven main objectives:

- Better fit
- Better performance
- Better for community
- Better for people
- Better working
- Better value
- Better look and feel

#### Objective 01.

##### Better fit

Contextual, local and of its place:

The design responds carefully to the site's characteristics, including its topography and surrounding land use. By positioning the building in a manner that minimises its height and visual impact, the design ensures minimal disruption to the local environment. The surrounding native vegetation is preserved to maintain ecological value and contribute to local biodiversity.

The integration of an east-west access road improves circulation and connectivity, linking key access points and providing better access for both pedestrians and vehicles. This ensures clear separation between operational and public zones, complementing the surrounding employment precinct.



#### Objective 02.

##### Better performance

Sustainable, adaptable and durable

The data centre is designed to meet high-performance standards, including compliance with Uptime Institute Tier III standards, ensuring continuous operation with redundant power and cooling systems. This guarantees secure data processing while adapting to increasing demands over time. Energy-efficient technologies and water-saving systems reduce the environmental footprint and operational costs.

Durability is ensured through robust materials and high-performance mechanical and electrical systems, optimised for data centre use. The design also incorporates resource optimisation and waste minimisation, making it environmentally responsible and economically viable in the long term.



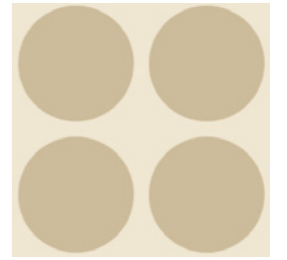
#### Objective 03.

##### Better for community

Inclusive, connected and diverse

The design prioritises positive impacts on the surrounding community by enhancing the local streetscape and improving accessibility. Landscaping along the building's perimeter softens its appearance, improving the visual amenity of the surrounding area. The integration of an east-west access road facilitates better pedestrian and vehicular movement across the site.

Landscaped zones and outdoor seating areas create spaces for relaxation and public interaction, contributing to the local community's overall experience. This thoughtful design ensures the data centre is more integrated with the broader environment, benefiting both workers and the public.



# 05 Environmental Response

## 5.1 Better Placed

### Objective 04.

#### Better for people

##### Safe, comfortable and livable

The design focuses on creating a comfortable and engaging environment for staff and visitors. Office and administration areas face outward, maximising solar access and natural light, promoting a healthier work environment. Extensive glazing allows for visual connection with the surrounding environment, encouraging openness and enhancing the interior experience.

The dynamic entry and clear signage improve navigation, ensuring that both staff and visitors can easily find their way around. Breakout areas in landscaped zones provide informal meeting spaces, contributing to employee wellbeing and fostering a welcoming environment.



### Objective 05.

#### Better working

##### Functional, efficient and fit for purpose

Functionality is central to the data centre's design, ensuring operational efficiency and security. The facility supports modular data halls for scalability, with redundant power and cooling systems to guarantee reliability. The layout clearly separates public, staff, and operational areas, maintaining security while facilitating a smooth flow of people and resources.

The integration of an east-west access road enhances site circulation, providing clear routes for pedestrians and vehicles while reducing disruptions. The design ensures that the data centre's core operations align with the broader context of the employment precinct, creating a safe and efficient environment.



### Objective 06.

#### Better value

##### Creating and adding value

The design delivers long-term value through energy-efficient technologies and the selection of durable materials, reducing operational costs and environmental impacts. The use of low-maintenance systems and high-performance mechanical and electrical features ensures that the facility will remain functional and economically viable for years.

In addition, compliance with Tier III standards guarantees operational efficiency and scalability. This long-term value extends to the surrounding area, contributing to the area's ongoing development.



### Objective 07.

#### Better look and feel

The visual quality of the data centre is enhanced through careful design, using natural materials and a restrained colour palette that allows the structure to blend into the existing urban fabric. Landscaping around the building softens its appearance and contributes to the overall aesthetic while improving ecological quality.

Dynamic entry points and outdoor seating areas improve the user experience, making the data centre feel welcoming and connected to the community. These features ensure that the development enhances the visual and functional quality of the surrounding precinct while maintaining a strong identity.



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**Greenbox Architecture**

Level 22, 68 Pitt Street Sydney NSW 2000 Australia

T +61 2 8069 8930

E mail@greenboxarchitecture.com

greenboxarchitecture.com

**Greenbox**