

GreenSquareDC Expansion Project (Stage 2)

3 Brookhollow Avenue, Norwest

Architectural Design Report

17 June 2026

Acknowledgement 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.

Design Team

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01 Introduction

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1. Introduction

Purpose of this Report

This report has been prepared on behalf of Project Garden 1 Pty Ltd as trustee for the Norwest Property Trust (the applicant) in support of a State Significant Development Application (SSDA) submitted to the Department of Planning, Housing and Infrastructure (DPHI) under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The SSDA seeks development consent for the construction and operation of a data centre, with a total power consumption of approximately 96MW. The proposal will form part of a state-of-the-art data centre campus operated by Green Square Data Centres (Green Square DC), equipped to cater for growing data storage needs within Australia and the emergence of artificial intelligence (AI).

This report provides an assessment of Built Form and Urban Design and respond to the Secretary's Environmental Assessment Requirements (SEARs) issued by DPHI on 8 April 2025 in relation to the project. The SEARs requires the following in relation to the assessment of Built Form and Urban Design.

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1. Introduction

Site Context

The site is known as 3 Brookhollow Avenue, Norwest (Lot 2021 DP 831173) and is in the Norwest locality, which forms part of the Hills Local Government Area (LGA). Development surrounding the site comprises of a mix of commercial, retail and residential land uses as described below:

- To the north of the site is Norwest Boulevard, commercial office buildings, an early learning centre, 'Castle Pines' retirement community and Castle Hill Country Club Golf Course;
- To the east of the site is Windsor Road, commercial office buildings, small pockets of residential development and industrial development;
- To the south of the site is Brookhollow Avenue, commercial developments, a hotel and medium density residential development; and
- To the west of the site is commercial development, including a shopping centre (Norwest Marketown), various retail offerings and the Norwest Metro Station.

The site is well serviced by public transport including bus and Metro. Norwest Metro Station provides connections to Tallawong in the northwest and Sydney CBD to the southeast. Bus stops along Norwest Boulevard provide connections through to Parramatta, Seven Hills and Rouse Hill.

As shown in the below mapping, the site is in proximity to Strangers Creek and Brookhollow Reserve, located at the site's southwestern border. Norwest Lake is located approximately 90m northwest of the site.



1. Introduction

Site Description

The subject site is legally described as Lot 2021 of Deposited Plan (DP) 831173. The site can be described as irregularly shaped and has a total land area of approximately 51,867sqm. A portion of the site currently comprises an existing 4MW data centre that was approved under D93/318, dated 21 June 1993.

The site is bound by Brookhollow Avenue to the south and east, Brookhollow Reserve and the Hills Corporate Centre to the west and Norwest Boulevard to the North. The primary frontage of the site is to Brookhollow Avenue, where vehicular access is provided.

Based on a review of topographical mapping, the site appears to fall from east to west from a maximum height of RL104 in the northeastern corner of the site to RL82m along the western portion of the site.

The site is located approximately 500m to the east of the Norwest Metro station, with the metro line running under the north / northwest boundary of the site.

The site is heavily vegetated, however, none of the vegetation is mapped on the biodiversity values mapping prepared under the Biodiversity Conservation Act 2016 (BC Act).

Refer to aerials of the site at Figure below.



1. Introduction

Relevant Approvals

There are several development approvals of relevance to the SSDA include:

- Complying Development Certificate (CDC): Certificate No. 25/250218-01 which provided consent for partial demolition of the existing data centre. The CDC was issued on 9 September 2025.
- Development Application for alterations and additions to existing data centre campus (1382/2025/JP) was approved by Council on 4 September 2025.
- Development Application for substation and bulk earthworks currently being prepared for submission to Council and expected for approval by June 2026.

CDC (CERTIFICATE NO. 25/250218-01) – DEMOLITION OF EXISTING INTERNAL STRUCTURES

On 9 September 2025, a CDC, Certificate No. 25/250218-01, Council Reference 239/2026/PC was issued by Certatude which provided consent for the partial demolition of the existing data centre. Specifically, the proposed works included the demolition of internal walls, access floors, slabs and roof, across Levels 1 to 4 of the existing data centre. The demolition works were required in order to facilitate the future Stage 1 development (1382/2025/JP).

The works have since been completed.

STAGE 1 DEVELOPMENT APPLICATION

Stage 1 approval was obtained from the Regional Planning Panel on 4 September 2025 under DA1382/2025/JP.

Stage 1 involves significant upgrades and refurbishment of an existing data centre facility that occupies the site previously operated by IBM. The works enable the repositioning of the existing dilapidated facility to be fit-for purpose and responsive to the evolving data storage demands of the market.

SUBSTATION AND EARLY WORKS DEVELOPMENT APPLICATION

A planning application is currently being prepared which will seek approval for on-site power infrastructure including a substation that will transform utility power supplied via a high voltage (132 kilovolts) line to medium voltage (33 kilovolts). The substation will comprise of two main structures, a control building and two power transformers.

The substation is proposed to service Stage 1 (SYD01), with the intent to expand to Stage 2. Ahead of construction of the substation, the intent is to connect Stage 1 to the 11kv power supply, before creating a new point of connection from the proposed substation, which will be established once constructed.

Supply infrastructure will be provided from an Endeavour substation located nearby and will be delivered to the site under Part 5 powers held by Endeavour as an Electricity Supply Authority.

1. Introduction

Project Summary

This SSDA seeks development consent for the construction and operation of a data centre, with a total power consumption of approximately 96MW (IT load). The proposal will form part of a broader state-of-the-art data centre campus, equipped to cater for growing data storage needs within Australia and the emergence of artificial intelligence (AI).

In summary, approval for the following is sought:

- Minor site preparation works including tree clearing and bulk earthworks;
- Civil earthworks and the installation of relevant servicing infrastructure and utilities;
- Construction of a four (4) storey data centre with roof top plant, equating to an RL 130 and Gross Floor Area (GFA) of 16,191m2;
- Installation of 77 x diesel fuel generators and associated diesel storage
- Provision of on-site car parking for approximately 25 spaces; and
- Landscaping and offset tree planting.



1. Introduction

SEARS Relevant To This Report

This report has been prepared to respond to the SEARs issued for GreenSquare DC 96MW data centre project. The SEARs that are relevant to this Built Form and Urban Design assessment, and where they are addressed within this report, are detailed below.

SEARS	Documentation	Response
3. Design Quality	Demonstrate how the development will achieve: • Design excellence in accordance with any applicable EPI provisions. • Good design in accordance with the seven objectives for good design in Better Placed. Where required by an EPI or concept approval, demonstrate that the development has been subject to a competitive design process, or reviewed by the State Design Review Panel (SDRP) where required under the NSW SDRP: Guidelines for Project Teams. Recommendations are to be addressed prior to lodgment.	State Design Review Panel comments and response addressed in section 06
4. Built Form and Urban Design	Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach. 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. Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, materials, finishes, colours, any signage and integration of services. Assess how the development complies with the relevant accessibility requirements.	Refer to Section 02 - Site Context and Analysis and Section 04 - Built Form and Design Strategy, which outline the rationale behind the design and planning decisions. These sections demonstrate how the proposal has been informed by detailed site and context analysis, as well as specialist engineering input. Refer to Section 04 - Built Form and Design Strategy The proposed built form has been informed by a range of factors, including (but not limited to) the GANSW Better Placed principles, the existing data centre on site, ground-plane response, landscape strategy, Connecting with Country considerations, building function, and the future character of the surrounding area. Refer to Section 05 - Façade Design and Materiality for further details on the façade design, material selection, and design response. Refer Accessibility Report

02

Site Context & Analysis

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2. Site Context & Analysis

Regional Context

The subject site is located at **3 Brookhollow Avenue, Norwest,** within the **Norwest Business Park** in the Hills Shire Council Local Government Area, approximately 40km north-west of the Sydney CBD.



Legend

- Site
- Sydney CBD
- Parramatta CBD
- Sydney Airport
- Western Sydney Airport

N

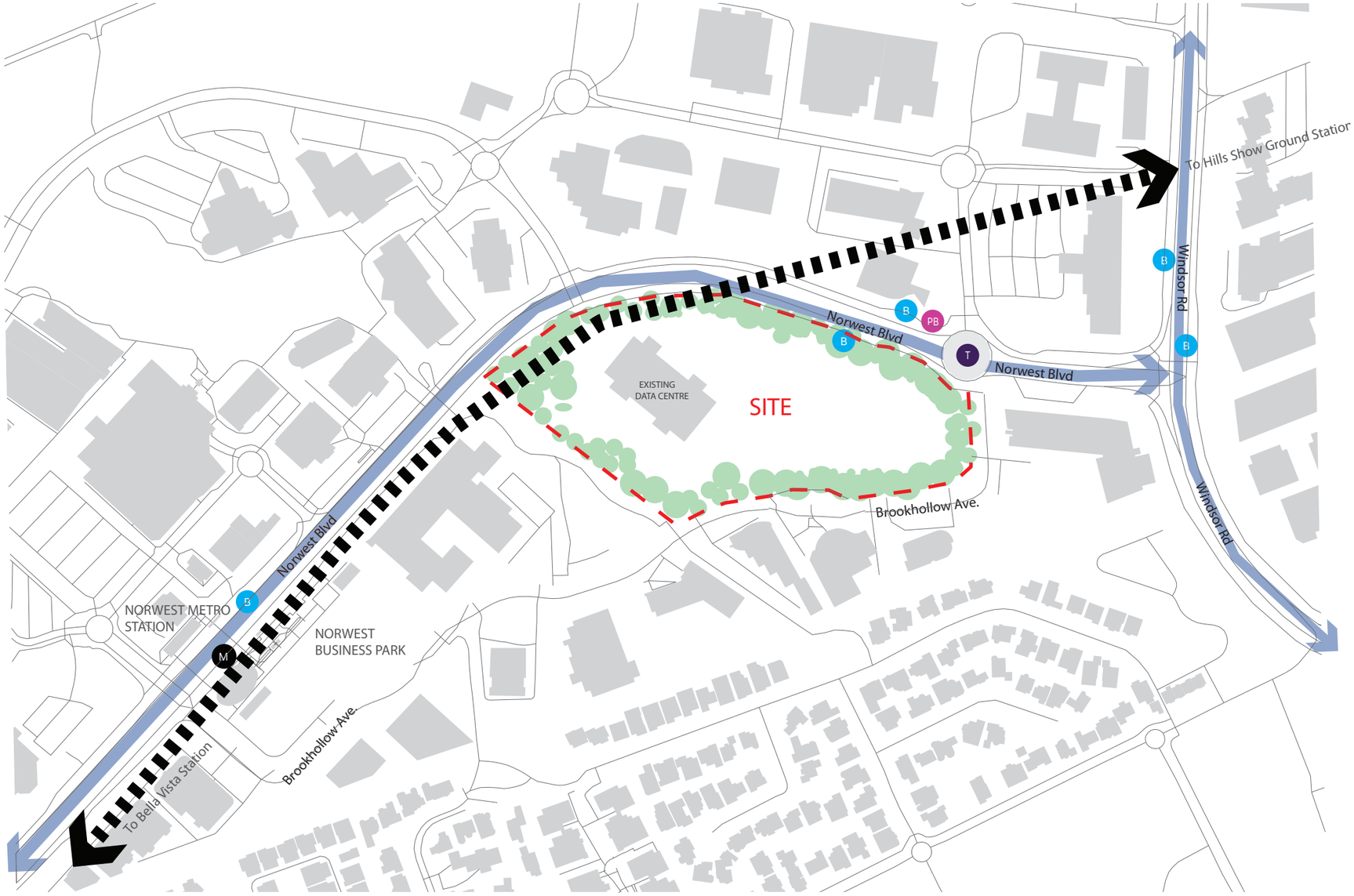
2. Site Context & Analysis

Project Context

Norwest Business Park is one of Sydney's most established employment hubs, comprising more than **400 companies** and providing jobs for **over 25,000 people** across a mix of commercial, professional, and healthcare services.

The site itself spans **51,900m²** with a highly unique 20m wide '**green belt**' incorporating over 400 mature trees. The site accommodates an existing **~15,000m² three-level Data Centre**. On 4 September 2025, the applicant received DA approval from the Hills Shire Council to refurbish and operate the existing building by GreenSquareDC (GSDC). GSDC will retain and repurpose the $110 million re-developed existing structure, delivering significant embodied carbon savings and ensuring best-practice sustainability outcomes.

The site benefits from excellent public transport access, being located within **200m walking distance of the new Norwest Metro station**, and well served by bus connections.



2. Site Context & Analysis

Landscape Connections

The landscape is one of the site's defining strengths. A **20-metre-wide 'green belt'** encircles the development, retaining and enhancing more than **400 mature trees** to create a continuous canopy and natural buffer. This landscape is more than amenity: it represents a living system that cools, shades, filters air, and connects the project back to Country.

Through **Caring for Country initiatives** — underplanting with native shrubs, restoring tree health, incorporating nesting boxes, and exploring features such as native bee hives and water points for fauna — the green belt becomes a thriving ecosystem rather than a static edge . This approach honours the interconnectedness of land, water, flora, and fauna, and demonstrates reciprocity: giving back to Country as much as we take.

By integrating **rainwater harvesting** for irrigation, **water-sensitive planting**, and ongoing ecological management, the landscape becomes both functional and symbolic — limiting stormwater run-off while nurturing biodiversity.

The result is a rare metropolitan Data Centre environment: a technology hub embedded within a genuine ecological sanctuary, reflecting responsibility to Country and creating long-term value for both people and place.



2. Site Context & Analysis

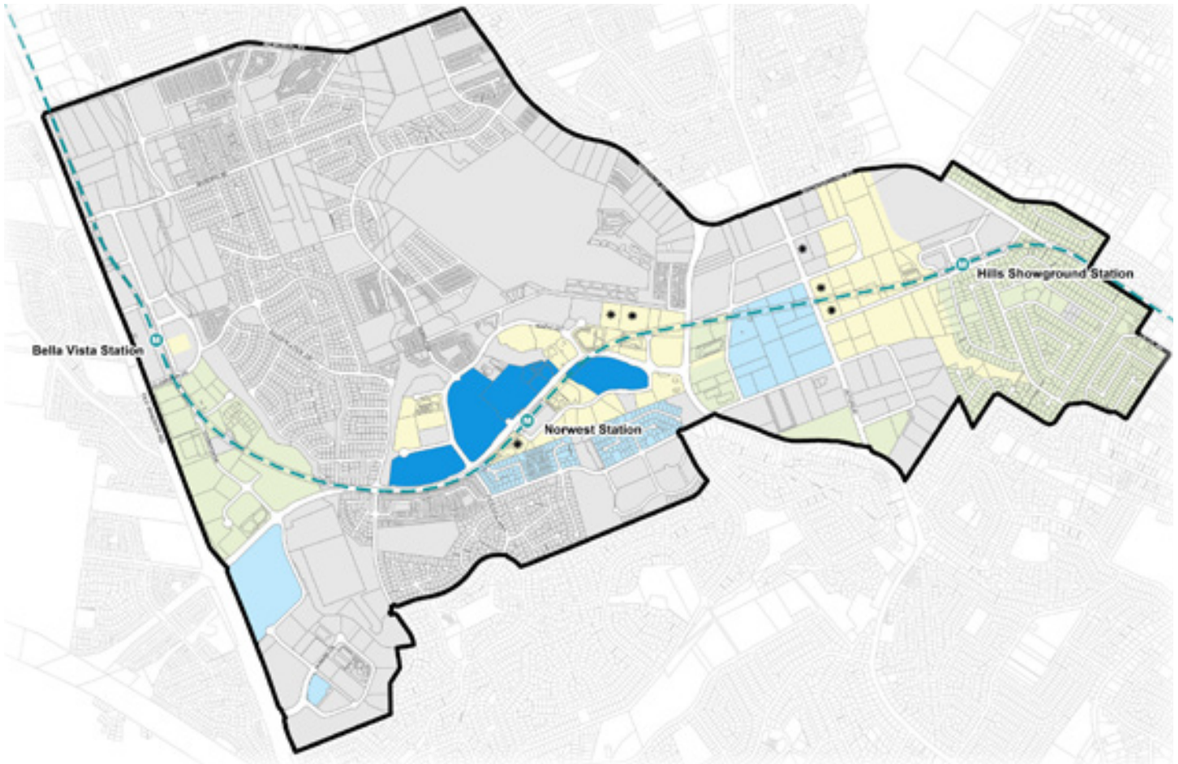
Planning Framework - Norwest Precinct Plan



The site has been identified as ‘Market Driven Short to Medium Term Change’ in the Norwest Precinct Plan.

“A number of sites have been identified for future market driven change. The term ‘Market Driven Change’ refers to the market being best placed to determine the timing and delivery of development, rather than the land use outcomes, which will be guided by this plan and the applicable environmental planning instruments. It is expected that any change to the planning controls to enable these development opportunities would be facilitated by landowner-initiated planning proposals that would be considered by Council in the future, along with associated Development Control Plan amendments and appropriate infrastructure contribution mechanisms.”

Source: Norwest Precinct Plan



Source: Norwest Precinct Plan

- Metro Station
- Metro Line (Underground Tunnel / Viaduct)
- Norwest Strategic Centre
- Strategic Work Completed
- Market Driven Short to Medium Term Change
- Market Driven Longer Term Change
- Phase 1: Housekeeping Amendments
- Phase 2: Council-Led Change

Source: Norwest Precinct Plan

2. Site Context & Analysis

Planning Framework - LEP and Norwest Precinct Plan - HOB

Height of Building

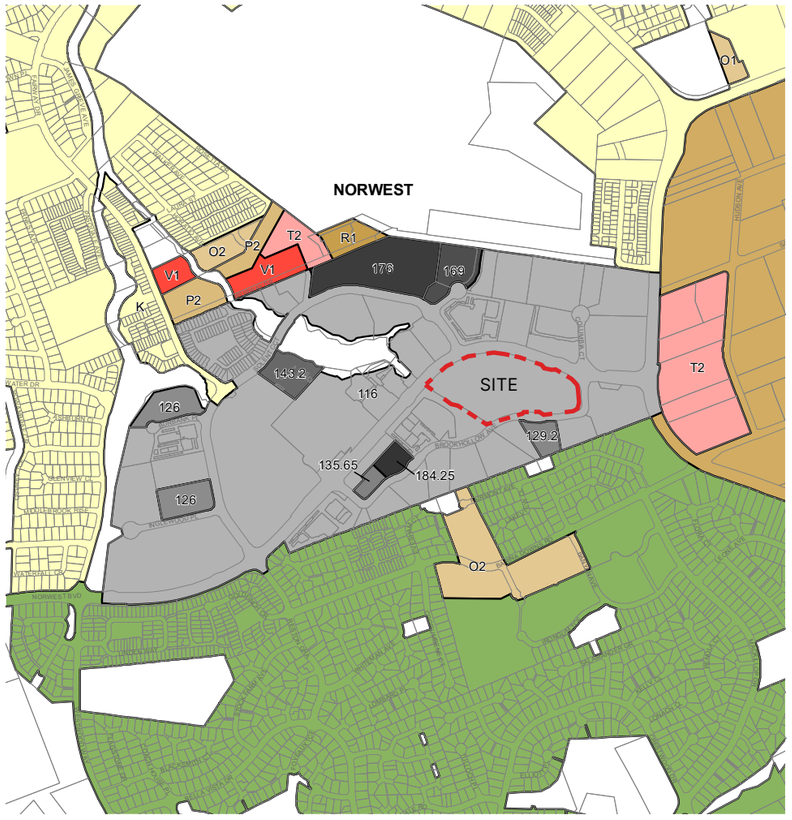
The two maps on the right illustrate building height controls under both the Local Environmental Plan (LEP) and the Norwest Precinct Plan.
Under the LEP, the maximum permissible building height for the subject site is **RL116.** However, t**he Norwest Precinct Plan** envisions a broader range of building heights, allowing for developments of **8 to 15 storeys.**

Taking into account the site's topography and typical floor-to-floor heights:

If the site were developed for **residential use** (with an average floor-to-floor height of 3.5m), the corresponding Height of Building (HOB) would be approximately **RL149.**
If developed for **commercial use** (with an average floor-to-floor height of 4.5m), the HOB would be approximately **RL168**

The **proposed Data Centre** has a building height **of RL130**, which is well below both residential and commercial height thresholds envisioned in the Norwest Precinct Plan. This confirms that the proposal aligns with the strategic intent and future urban scale outlined in the Precinct Plan.

LEP



Legend:

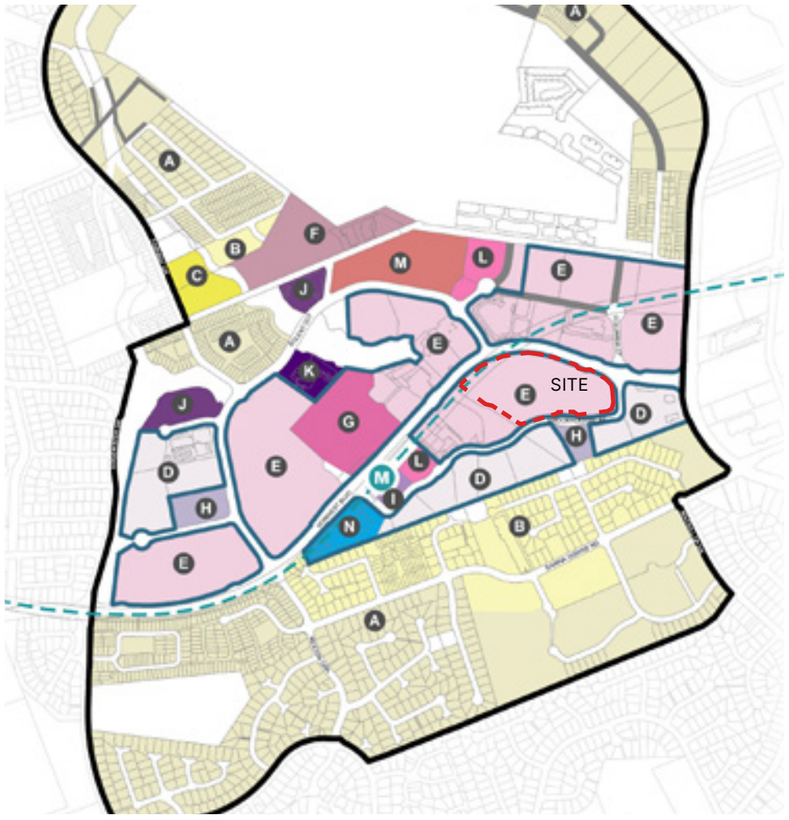
Maximum Building Height (m)

G	7	R1	21	W2	41.5
I	8	R2	22	X1	45
J	9	R3	22.5	X2	46
K	10	S	23	Y1	50
M1	12	T1	25	Y2	51.5
M2	12.5	T2	27	Y3	52
N	14	T3	28	Y4	54
O1	15	T4	29	Z	57
O2	16	U1	30	AA1	67.5
P1	17	U2	32	AA2	68
P2	18	V1	36	AA3	73.5
Q1	19	V2	37	AB	99.5
Q2	20	W1	40		

Heights shown on map in RL(m)

103, 108, 116, 126, 129.2, 135.65, 140, 143.2, 169, 176, 184.25, Area A, SEPP (Precincts - Central River City) 2021

Norwest Precinct Plan



Legend:

Metro Station	M
Metro Line (Underground Tunnel)	
Norwest Central Precinct	
Proposed Road	
Area Flagged for Potential Change	
A 2-3 Storeys	
B 5 Storeys	
C 7-12 Storeys	
D 8-10 Storeys	
E 8-15 Storeys	

F 3-19 Storeys	
G 4-35 Storeys	
H 10 Storeys	
I 11 Storeys	
J 12 Storeys	
K 20 Storeys	
L 25 Storeys	
M 26 Storeys	
N 4-23 Storeys	

2. Site Context & Analysis

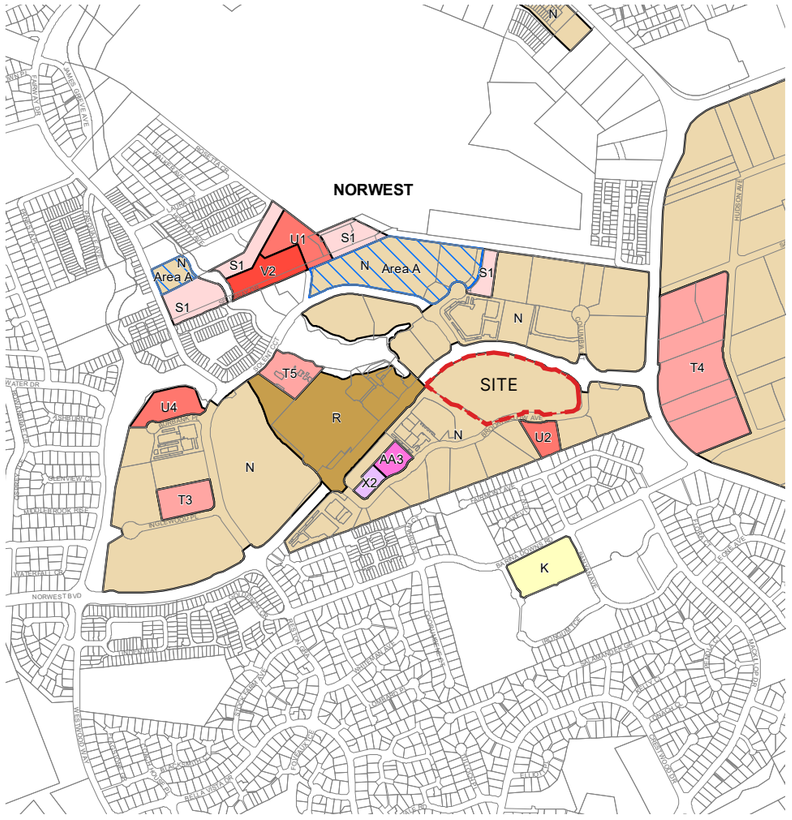
LEP and Norwest Precinct Plan - FSR

Floor Space Ratio (FSR) and Strategic Alignment

The **LEP** sets a maximum **FSR of 1:1** for the site, while the **Norwest Precinct Plan** envisions a higher density of **2:1 to 2.5:1**, encouraging a more urban and intensified built form.

In contrast, the proposed Data Centre achieves a lower FSR, reflecting its infrastructure-driven design and minimal spatial footprint. This restrained approach not only ensures full compliance with planning controls but also demonstrates a thoughtful response to site context, reducing bulk and scale while supporting the precinct's long-term vision.

LEP



Legend:

Maximum Floor Space Ratio (n:1)

F	0.6	U1	2.6	S2	1.6	Y1	4.5
I	0.75	U2	2.65	S3	1.69	Y2	4.6
J	0.83	U3	2.7	S4	1.7	Y3	4.9
K	0.85	U4	2.8	S5	1.8	Z1	5
L	0.9	V1	3	S6	1.9	Z2	5.4
N	1	V2	3.2	S7	1.99	Z3	5.5
O	1.1	V3	3.4	T1	2	Z4	5.6
P1	1.2	W1	3.5	T2	2.1	AA1	6.1
P2	1.22	W2	3.8	T3	2.2	AA2	6.4
Q	1.3	W3	3.9	T4	2.3	AA3	6.5
R	1.49	X1	4	T5	2.42		Area A
S1	1.5	X2	4.1				

Norwest Precinct Plan



Legend:

Metro Station	M
Metro Line (Underground Tunnel)	
Norwest Central Precinct	
Proposed Road	
Area Flagged for Potential Change	
Refer to Focus Areas 3, 4 and 5 within Section 5.3	
A	1.0:1
B	1.5:1
C	2:1 - 2.3:1
D	2.0:1
E	2.1:1
F	2.2:1
G	2.36:1
H	2.42:1
I	2.0:1 - 2.5:1
J	2.5:1
K	2.6:1
L	2.65:1
M	2.8:1
N	2.9:1
O	3.0:1
P	3.2:1
Q	4.1:1
R	4.0:1 - 5.0
S	6.5:1

2. Site Context & Analysis

LEP and Norwest Precinct Plan - Land Zoning

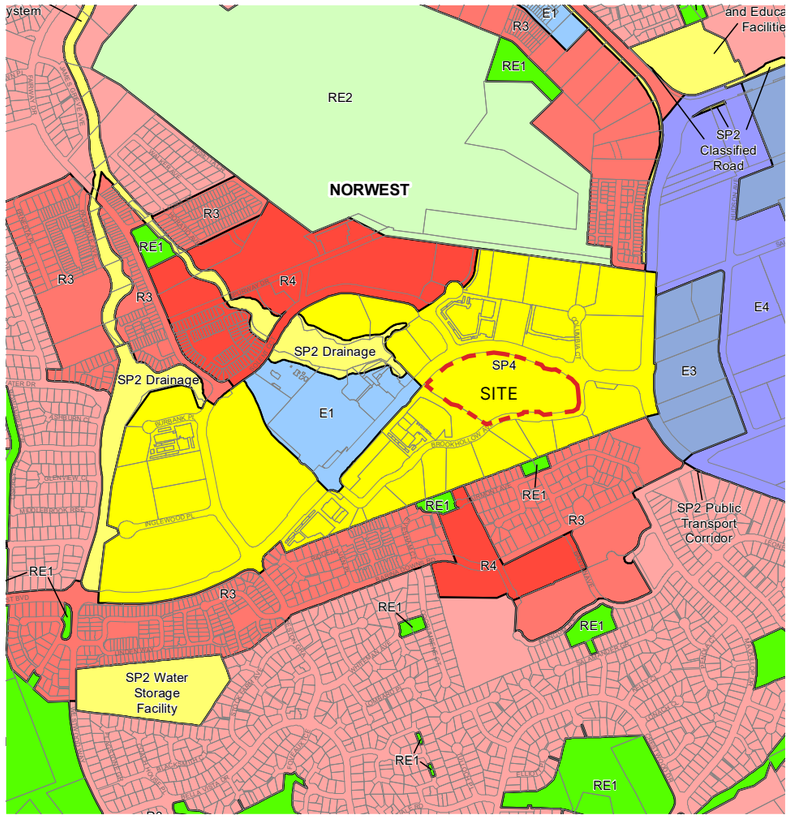
Zoning Context and Strategic Alignment

The zoning around the subject site is undergoing a clear transition, with several nearby areas increasing in density—from low to medium, and medium to high—as reflected in recent amendments to the LEP.

This shift aligns with the Norwest Precinct Plan, which designates surrounding sites, including residential developments to the south, for High Density Residential and High Density Employment uses.

The subject site itself is identified in the Precinct Plan as suitable for High Density Employment, positioning it within the broader vision for a more urbanised and economically active precinct. The proposed Data Centre supports this long-term strategic direction by contributing to employment generation and innovation. As a digital infrastructure hub, it facilitates AI-driven industries and virtual job creation, reinforcing the site's role in supporting future-focused economic growth.

LEP

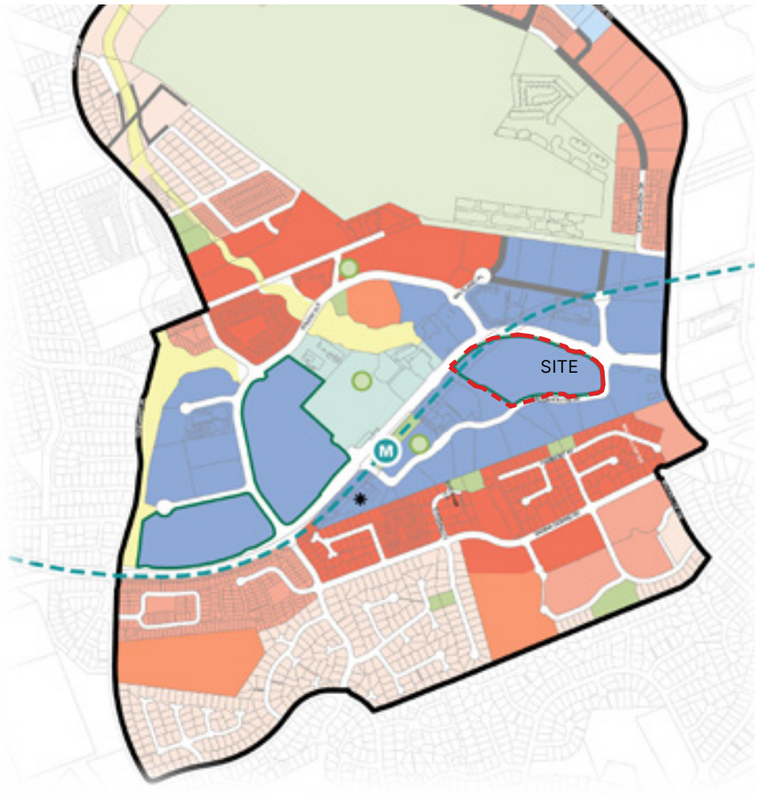


Legend:

Zone

- C1 National Parks and Nature Reserves
- C2 Environmental Conservation
- C3 Environmental Management
- C4 Environmental Living
- E1 Local Centre
- E3 Productivity Support
- E4 General Industrial
- MU1 Mixed Use
- R1 General Residential
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU3 Forestry
- RU5 Village
- RU6 Transition
- SP2 Infrastructure
- SP3 Tourist
- SP4 Enterprise
- W2 Recreational Waterways
- CRC SEPP (Precincts - Central River City) 2021

Norwest Precinct Plan

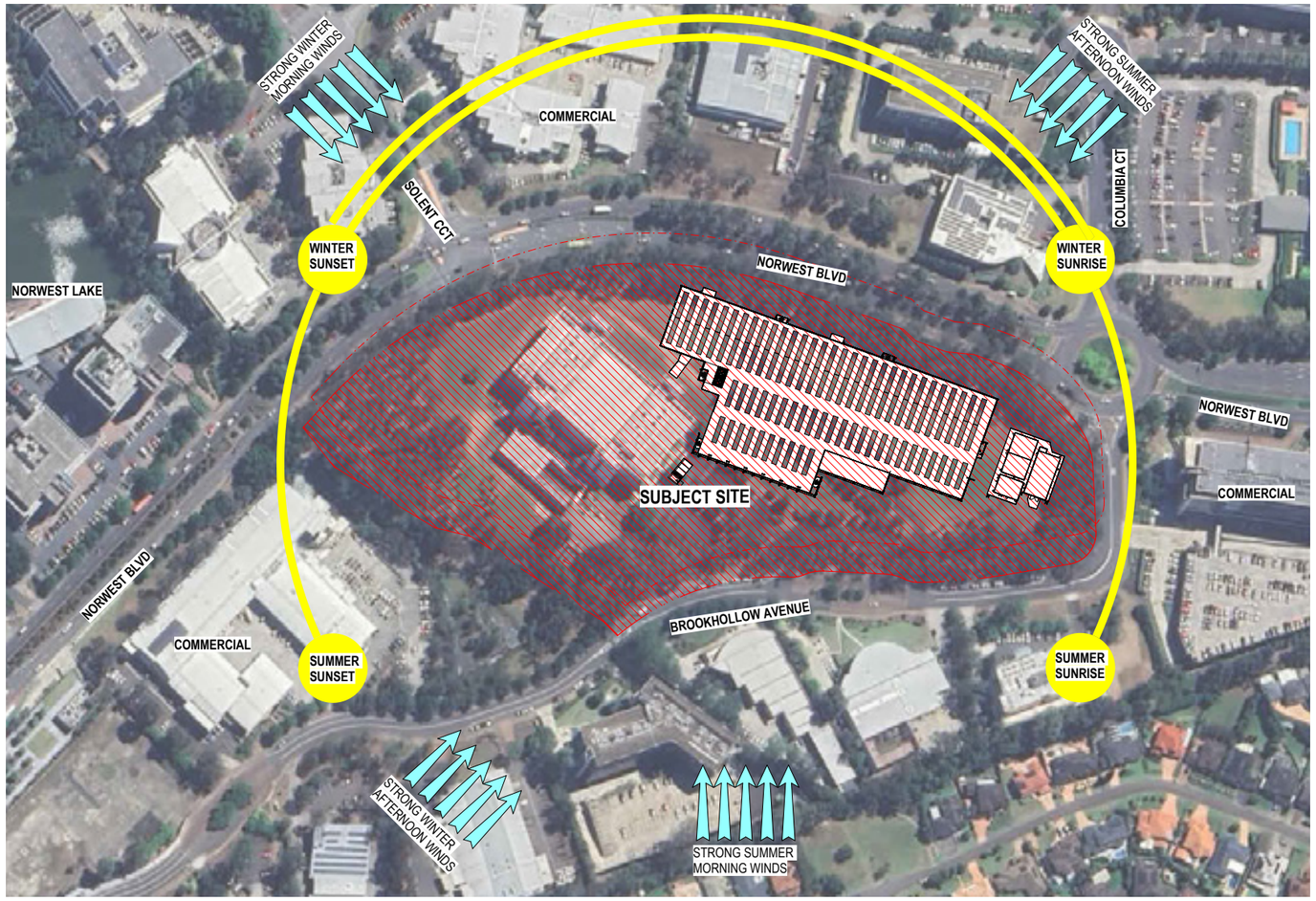


Legend:

- Metro Station
- Metro Line (Underground Tunnel)
- Norwest Central Precinct
- Refer to Focus Areas 3, 4 and 5 within Section 5.3
- Proposed Road
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Local Centre / Retail Area
- High Density Employment
- Mixed Use
- Public Open Space
- Private Open Space
- Drainage Land
- Special Use
- Urban Plaza

2. Site Context & Analysis

Site Analysis



2. Site Context & Analysis

Site Character - 1991 - Prior to development of Norwest Business Park



---------- SITE

2. Site Context & Analysis

Site Character - Existing Data Centre on Site

The site has played a pivotal role in the evolution of Norwest Business Park as a premier business location. In 1993, Cathay Pacific invested **$260 million** to develop an international Data Centre on the land. At the time, the project represented **16% of the initial stage of Norwest Business Park** and helped transform the precinct into an internationally recognised business hub.

Cathay Pacific operated the Data Centre until it was transferred to **IBM around 2000**. IBM managed the facility for nearly two decades before closing operations in 2024.

In early 2025, **GSDC purchased the dormant site** as part of its long-term strategy to deliver a two-stage redevelopment, preserving and extending the site's proud Data Centre legacy while positioning Norwest at the forefront of Australia's AI-era digital infrastructure.



2. Site Context & Analysis

Site Character - Existing Data Centre on Site













EXISTING DATA CENTRE ON SITE



2. Site Context & Analysis

Site Character - Existing Condition

Current built form fits within the existing context

Established ‘green belt’



---------- SITE

2. Site Context & Analysis

Site Character - Existing Condition




1 EXISTING DATA CENTRE

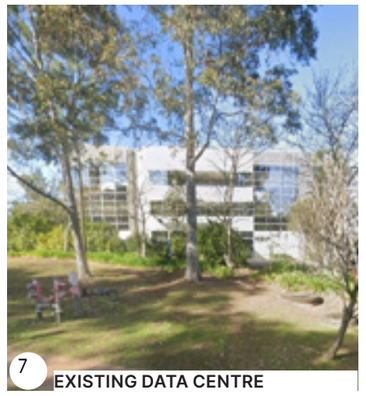

2 EXISTING COLLEGE


3 EXISTING COMMERCIAL


4 EXISTING COMMERCIAL BUILDING


5 EXISTING COMMERCIAL


6 EXISTING COMMERCIAL BUILDING


7 EXISTING DATA CENTRE

N

Greenbox Architecture Pty Ltd ©2026

2. Site Context & Analysis

Site Constraints

Key Constraints

1. **Site Topography**

   Significant ground level variation impacts building placement and access.

2. **Height Restrictions**

   RL116 cap under the LEP, combined with site slope, restricts building massing and efficiency.

3. **The ‘green belt’**

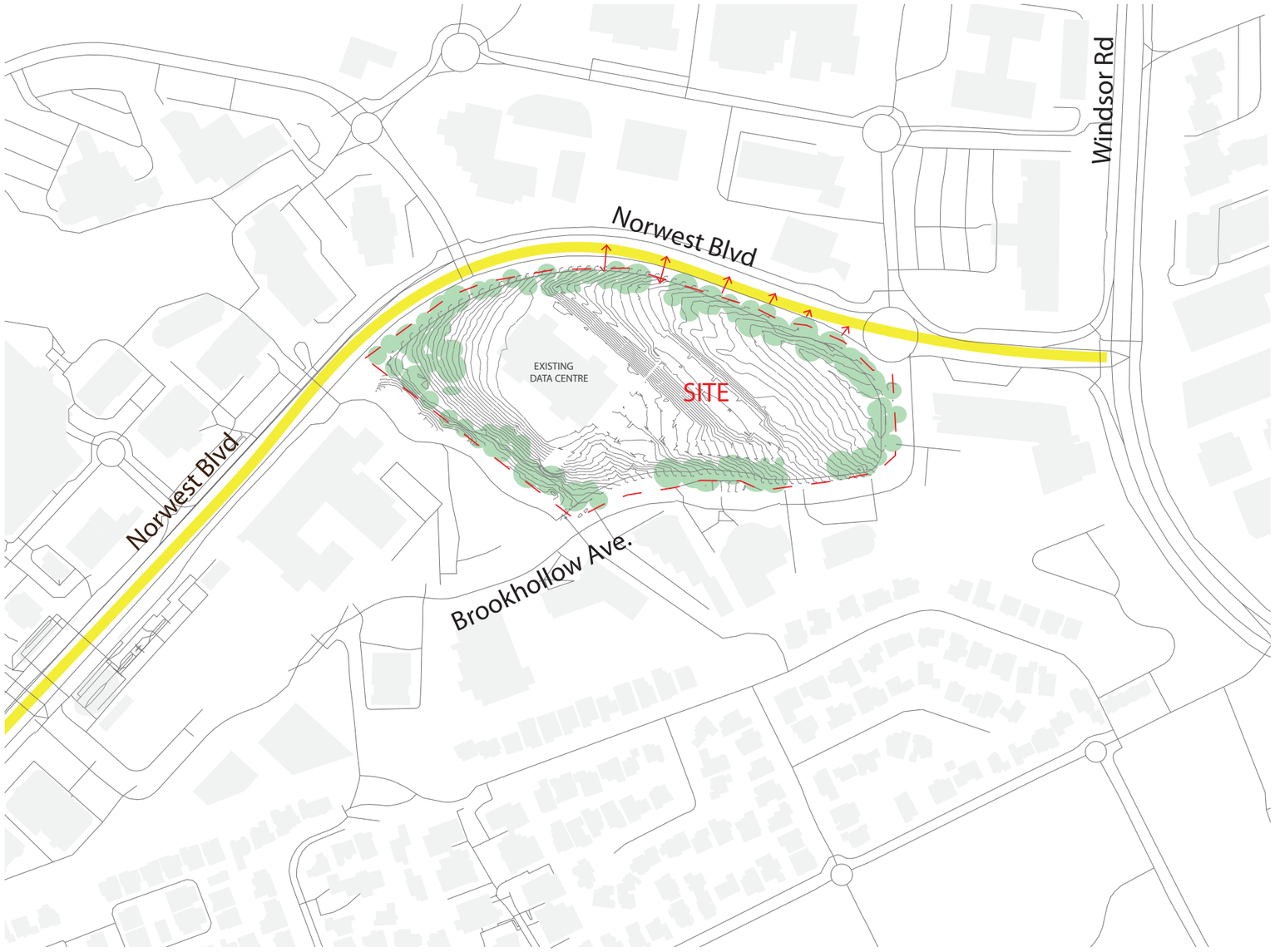
   Existing mature vegetation buffer to be maintained and the developable area is subsequently reduced.

4. **Limited active frontages**

   Two sides of the site boundaries are on major multi lane roads and behind a 20m setback zone covered with trees.

5. **Traffic and Access Limitation**

   The data centre requires strong site-wide security, affecting layout and perimeter design.



Legend

Site

Traffic and access limitation

Opportunities for active frontage

N

2. Site Context & Analysis

Site Opportunities

Key Opportunities

1 Existing Data Centre

To be able to re-use and repurpose an existing data centre aligns with GreenSquare DC's philosophy and it presented a unique opportunity for the rest of the site to be developed as an extension to the existing facility.

2 Employment Growth

The data centre will drive employment growth by enabling a broad range of digital services and attracting technology-focused businesses. It provides essential infrastructure that creates new opportunities for skilled jobs, both locally and remotely, especially during construction, and indirect jobs during operation, strengthening Norwest's position as a hub for innovation.

3 Access

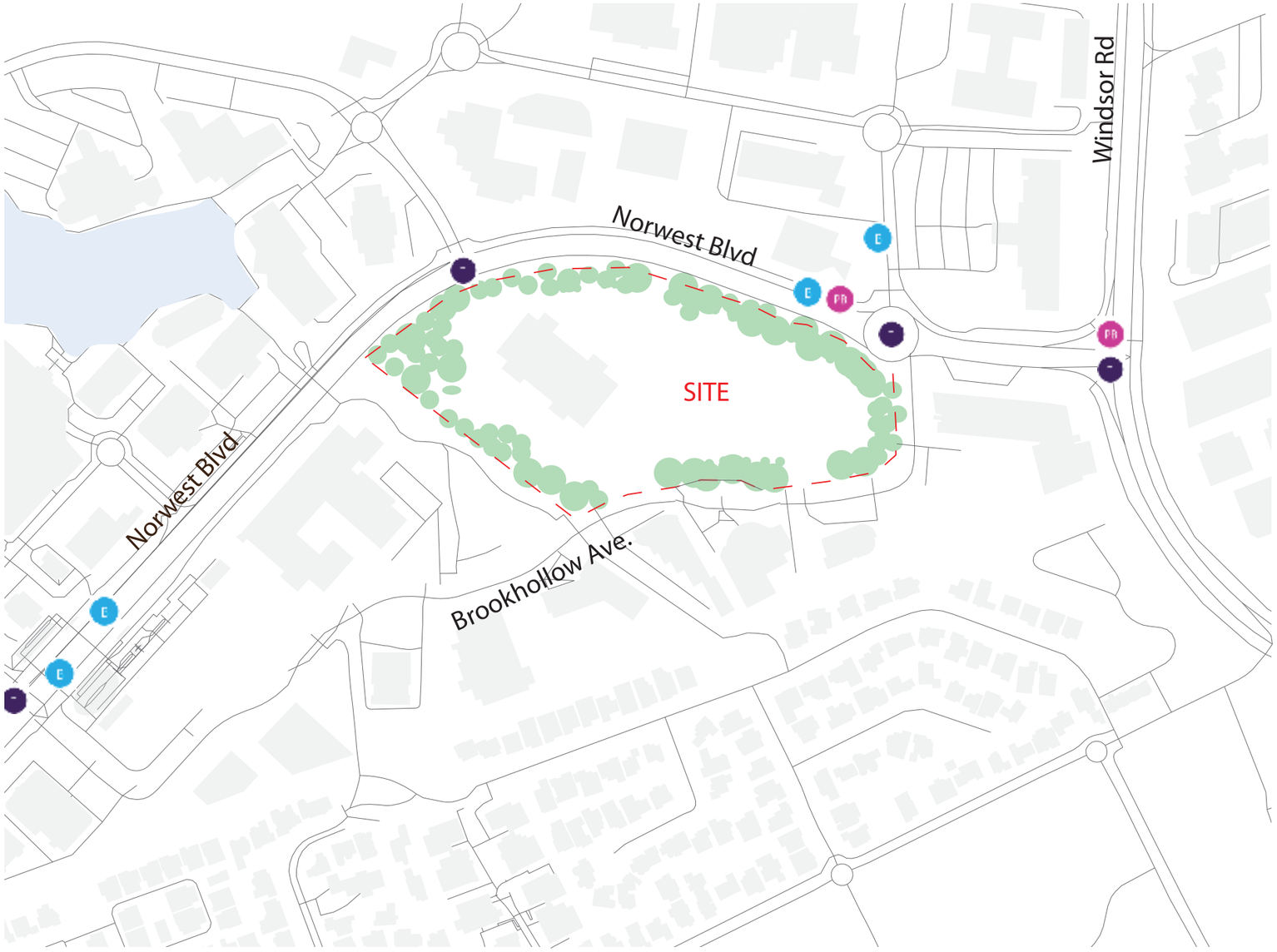
The site benefits from excellent connectivity, with close proximity to Norwest station, bus lanes, and future pedestrian bridges, ensuring easy access and improved connections.

4 The 'green belt'

Existing mature vegetation buffer to be maintained to support the existing ecosystem and biodiversity, as well as enhancing the outdoor space. It creates a visual buffer for the proposed development that sets back significantly into the site boundary.

5 Aspect & View

North-facing orientation provides opportunities for solar access to internal corridors, while the 20-metre green buffer provides visual amenity and a pleasant outlook from the building.

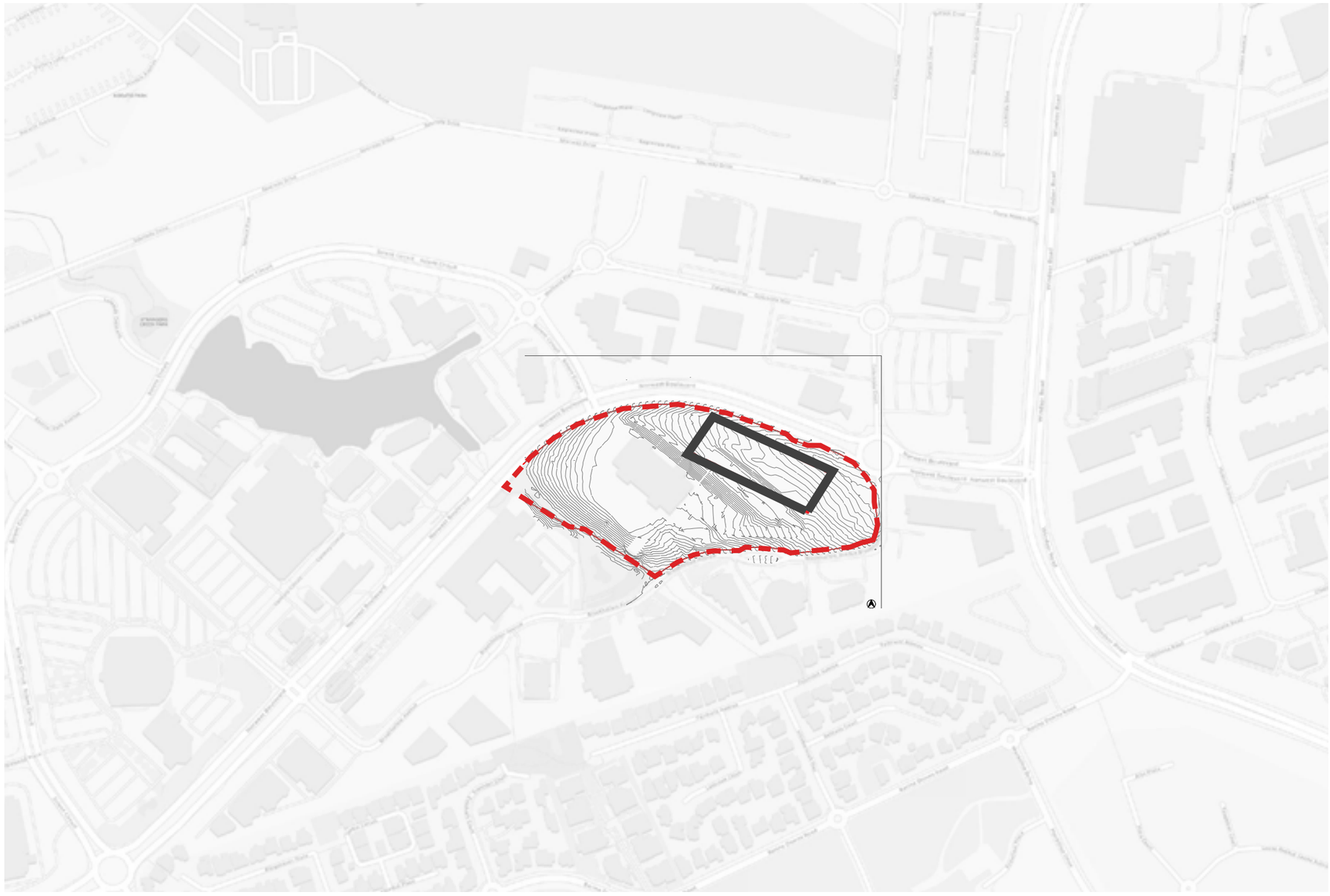


2. Site Context & Analysis

Site Topography

Topography

The broader region is characterised by softly rolling hills and gentle slopes. Topography is gently undulating and slopes from the east of the site to the southwest, descending approximately 20m. A vegetated embankment is evident along the edge of Norwest Boulevard into the site.



Legend

Site

Contours

N

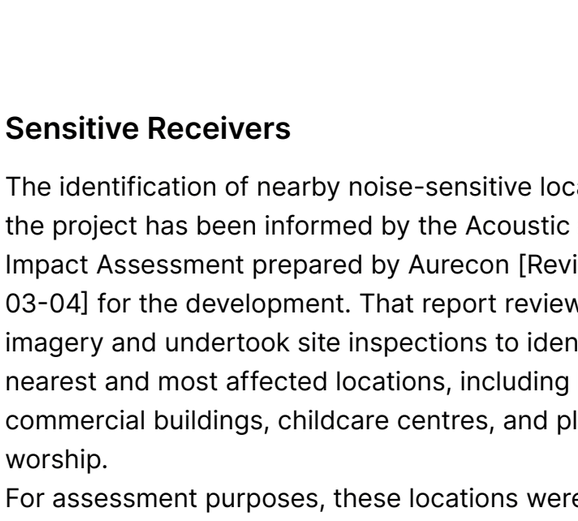
2. Site Context & Analysis

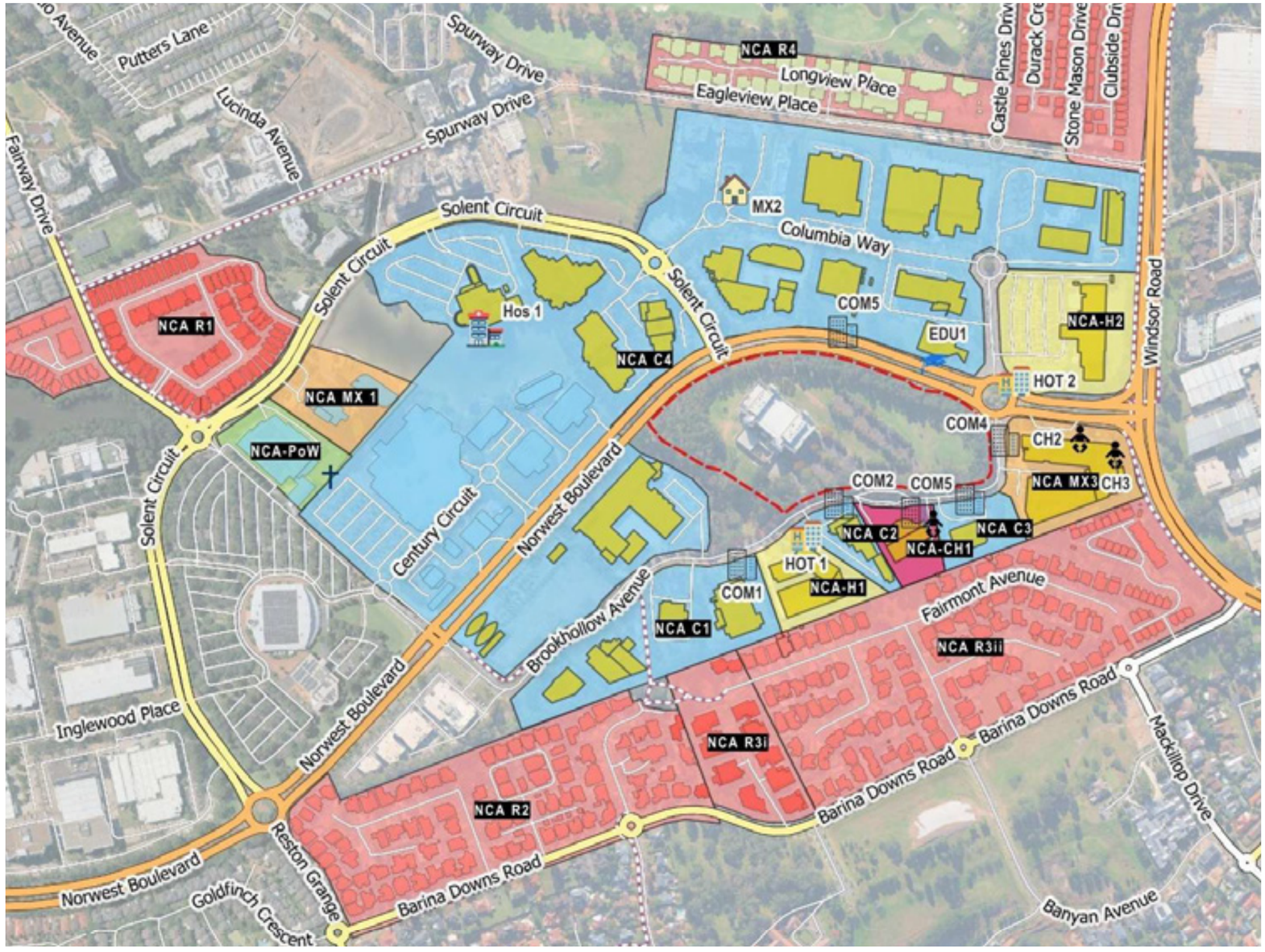
Sensitive Receivers

Sensitive Receivers

The identification of nearby noise-sensitive locations for the project has been informed by the Acoustic and Noise Impact Assessment prepared by Aurecon [Revision 2026-03-04] for the development. That report reviewed aerial imagery and undertook site inspections to identify the nearest and most affected locations, including homes, commercial buildings, childcare centres, and places of worship.

For assessment purposes, these locations were grouped into Noise Catchment Areas (NCAs), representing areas with similar noise conditions. As outlined in the acoustic report, meeting the relevant noise limits within each NCA indicates that more distant locations will also comply. The identified NCAs, their locations, and applicable land zoning are shown in Table 5-2 and Figure 5-2 of the acoustic report. This information has been used to inform the design response and ensure appropriate consideration of noise impacts of the proposed development.





Map from Acoustic and Noise Assessment Report Prepared by Aurecon [Revision 2026-03-04]

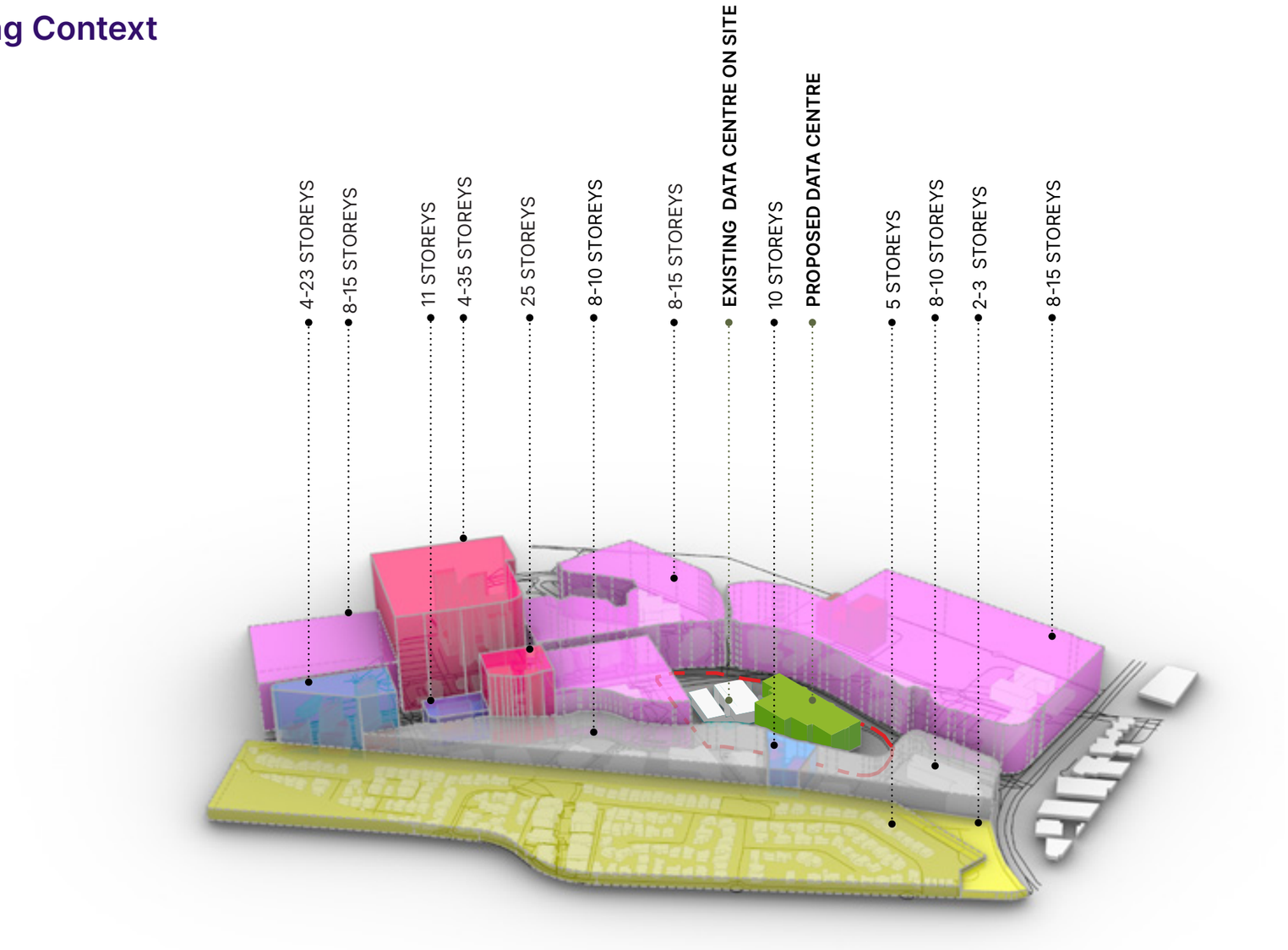
2. Site Context & Analysis

Proposed Built Form within the **Emerging Context**

The diagram to the right demonstrates that the site is located within a zone identified by the Norwest Precinct Plan for future growth, where increased building heights are envisioned compared to the current condition. This strategic vision aims to support a vibrant, high-density urban environment consistent with the precinct's long-term objectives.

As illustrated in the diagrams, the Norwest Precinct Plan anticipates a significant uplift in building heights across the area. Our proposed design, with a maximum RL of 130, not only respects this vision but remains comfortably below the height parameters envisioned for this site.

This ensures that the proposal is fully compliant with the precinct's planning framework while contributing positively to the evolving character of the surrounding context.



Indicative HOB diagram as per the Norwest Precinct Plan

2. Site Context & Analysis

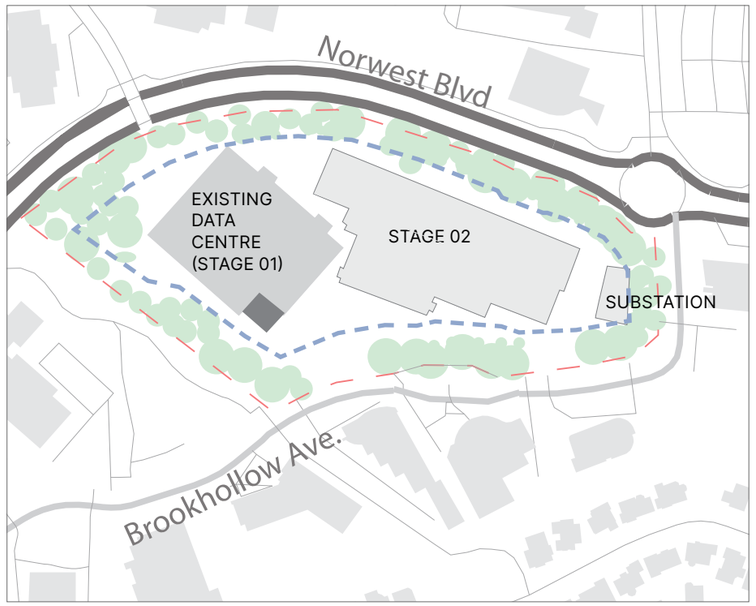
Opportunities and Constraints - Urban Design Response

Building Footprint, Setbacks and Orientation

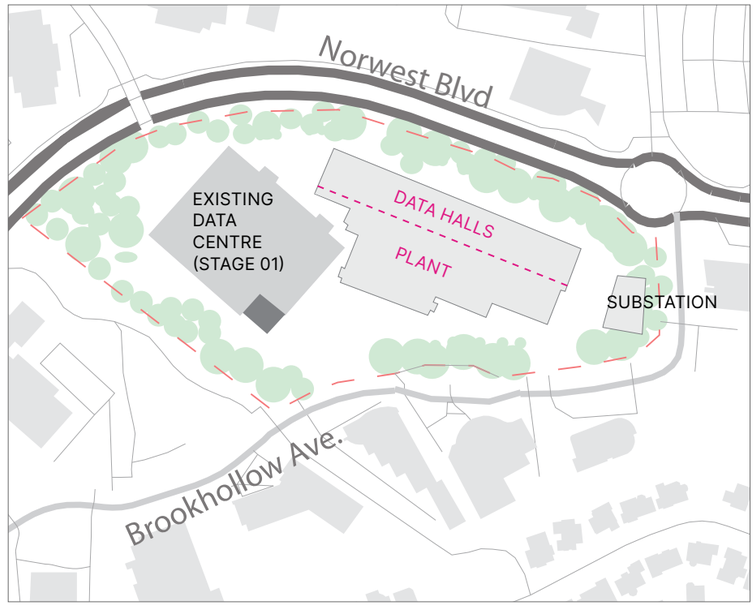
The building's orientation and footprint are shaped by the 20-metre perimeter setback and the presence of the existing data centre, ensuring the continuous green belt remains a defining feature of the project.

Urban Interface Strategy: Topography and Future Sensitive Receivers

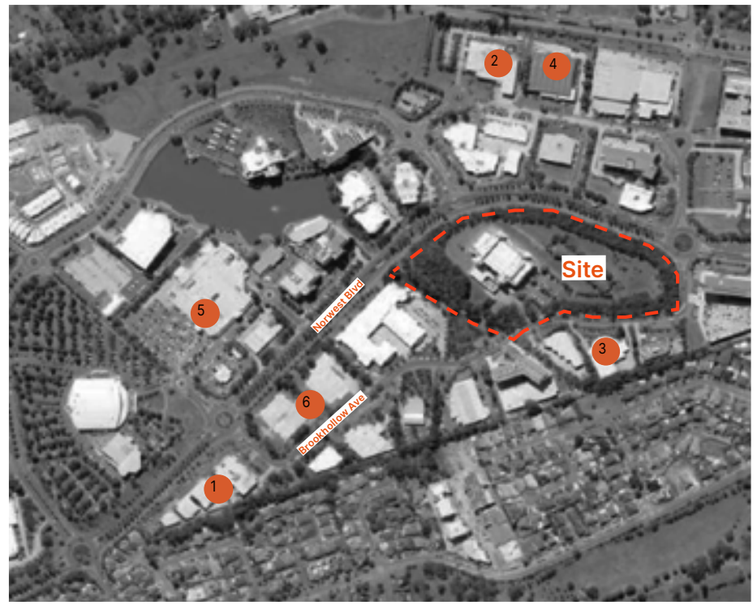
In response to the site's topography—lower at Brookhollow Avenue and higher toward Norwest Boulevard—service elements (car park, gantry, tank room) are located on the lower ground, with data halls positioned higher.
This arrangement also future-proofs the development. Norwest Boulevard is expected to accommodate more sensitive uses, so keeping this frontage free of visually and acoustically intensive plant improves amenity and urban quality. While Brookhollow Avenue also includes sensitive receivers, locating plant here has less impact, as these areas face inward and sit naturally within the lower part of the site, aligning with functional and topographical requirements.



20M SETBACK LINE



SERVICES AND NOISE GENERATING EQUIPMENT FACING THE BROOKHOLLOW AVENUE



EMERGING AND FUTURE SENSITIVE RECEIVERS

2. Site Context & Analysis

Opportunities and Constraints - Urban Design Response

Front of House Space

Stages 01 and 02 will share the Front-of-House area; therefore, this space has been centrally located to serve both buildings efficiently.

Pedestrian Access

Pedestrian access is provided via Brookhollow Avenue, which offers the most direct route to the Front-of-House area.

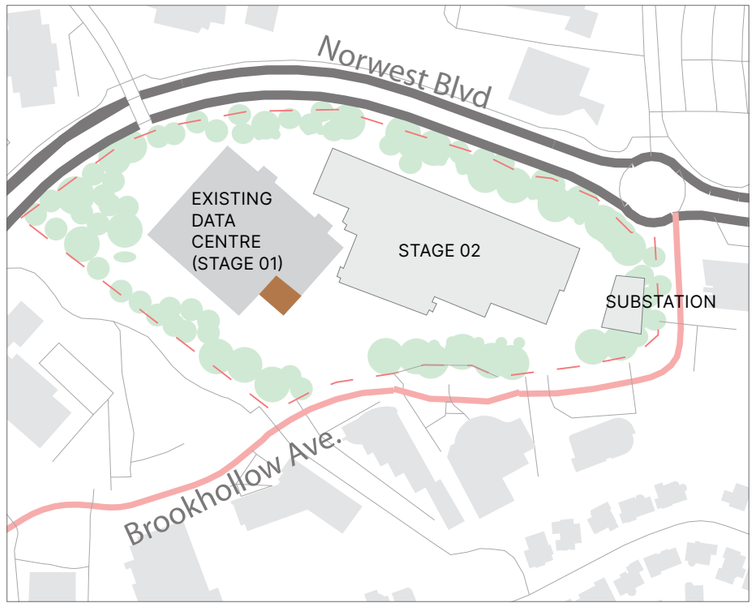
Vehicular Access

There are several reasons why vehicular access for Stage 02 is provided via Brookhollow Avenue:

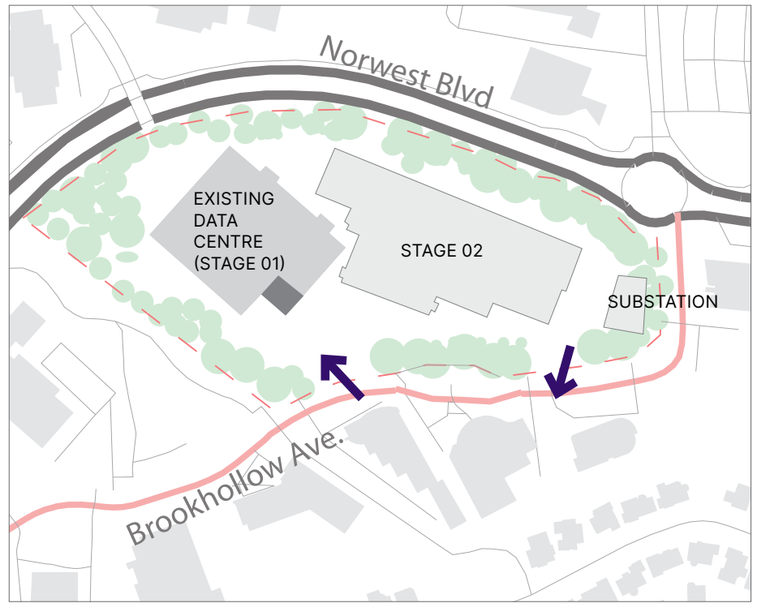
- Norwest Boulevard functions as a major arterial road with high traffic volumes, making it unsuitable for site access.

- An existing driveway already serves Stage 01, allowing access to be consolidated on the Brookhollow Avenue frontage.

- The natural topography is lower along Brookhollow Avenue, making it the most practical location for the car park and associated services.







FRONT-OF-HOUSE AREA

Vehicular Access

N

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2. Site Context & Analysis

Opportunities and Constraints - Urban Design Response

Streetscape

The façade along the Norwest Blvd is identified as the primary elevation because it addresses Norwest Boulevard, the site's most active frontage. It engages the highest levels of pedestrian and vehicular movement and forms the key interface with existing and future development across the boulevard and roundabout.

As a result, greater design emphasis has been placed on this elevation. Conversely, the generator gantry is positioned toward Brookhollow Avenue and the existing Stage 01 building, where site activity is lower and visual sensitivity is reduced.

This orientation minimises its presence to the public realm and consolidates service functions away from the primary frontage.

Mitigation of visual and amenity impact from nearby open spaces and sensitive receivers

- Retention of the 20 m green belt as a continuous landscaped buffer.

- Data halls and primary active frontage positioned along Norwest Boulevard to strengthen the commercial interface.

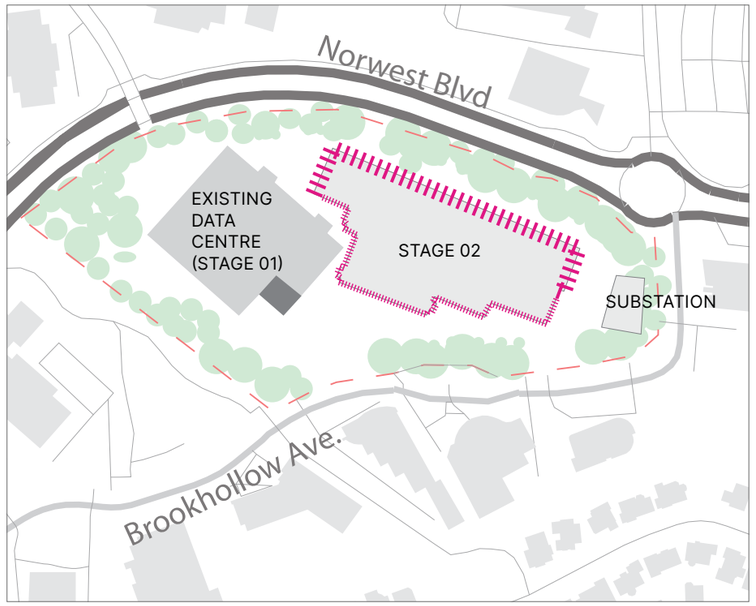
- New landscape elements, including public walking trails, to enhance amenity and integration.

- A refined primary active façade using materials, finishes and colours that support the area's future character.

Noise Impact Mitigation

Noise mitigation measures have been incorporated into the design to minimise potential impacts on nearby sensitive receivers, in accordance with the Acoustic and Noise Impact Assessment prepared by Aurecon [Revision 2026-03-04]

These measures include the provision of horizontal baffle screens between rooftop chillers and vertical acoustic walls around the roof perimeter. Together, these elements are designed to reduce noise emissions and ensure acceptable noise levels at surrounding sensitive receivers.







Visual sensitivity - Higher

Visual sensitivity - Lower

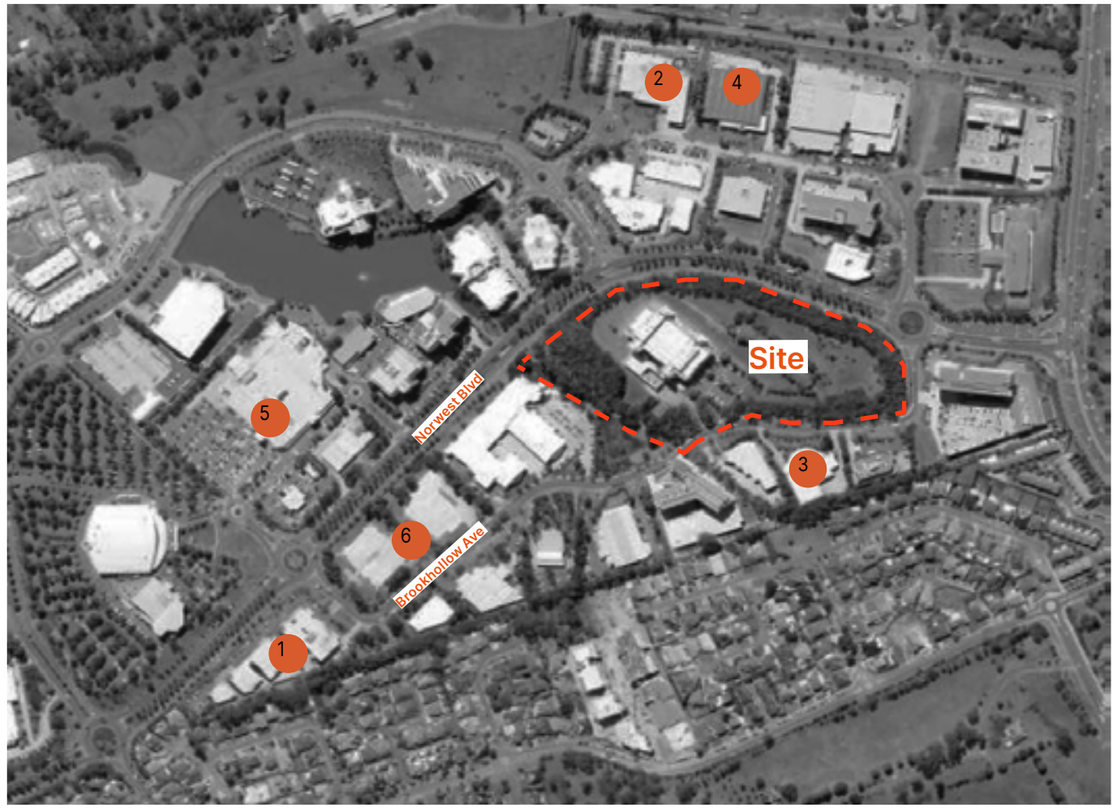
Acoustic walls around the roof perimeter

Horizontal baffle screens between rooftop chillers

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2. Site Context & Analysis

Future Context - Proposed Surroundings



N



CENTRAL PLAZA AT 34-46 BROOKHOLLOW AVENUE
Image source: Norwest Precinct Plan
Status: Gateway Approved (Source: Norwest Precinct Plan)



13 COLUMBIA WAY - NORWEST QUARTER
Image source: Norwest Precinct Plan
Status: Gateway Approved (Source: Norwest Precinct Plan)



14-16 BROOKHOLLOW AVENUE
Image source: GroupGSA
Status: Gateway Approved (Source: Norwest Precinct Plan)



7 MAITLAND PLACE
Image source: TTW
Status: Gateway Approved (Source: Norwest Precinct Plan)



MARKETOWN
Image source: FJCstudios



25-31 BROOKHOLLOW AVENUE
Status: Gateway Approved (Source: Norwest Precinct Plan)

2. Site Context & Analysis

Future Context - Proposed Surroundings

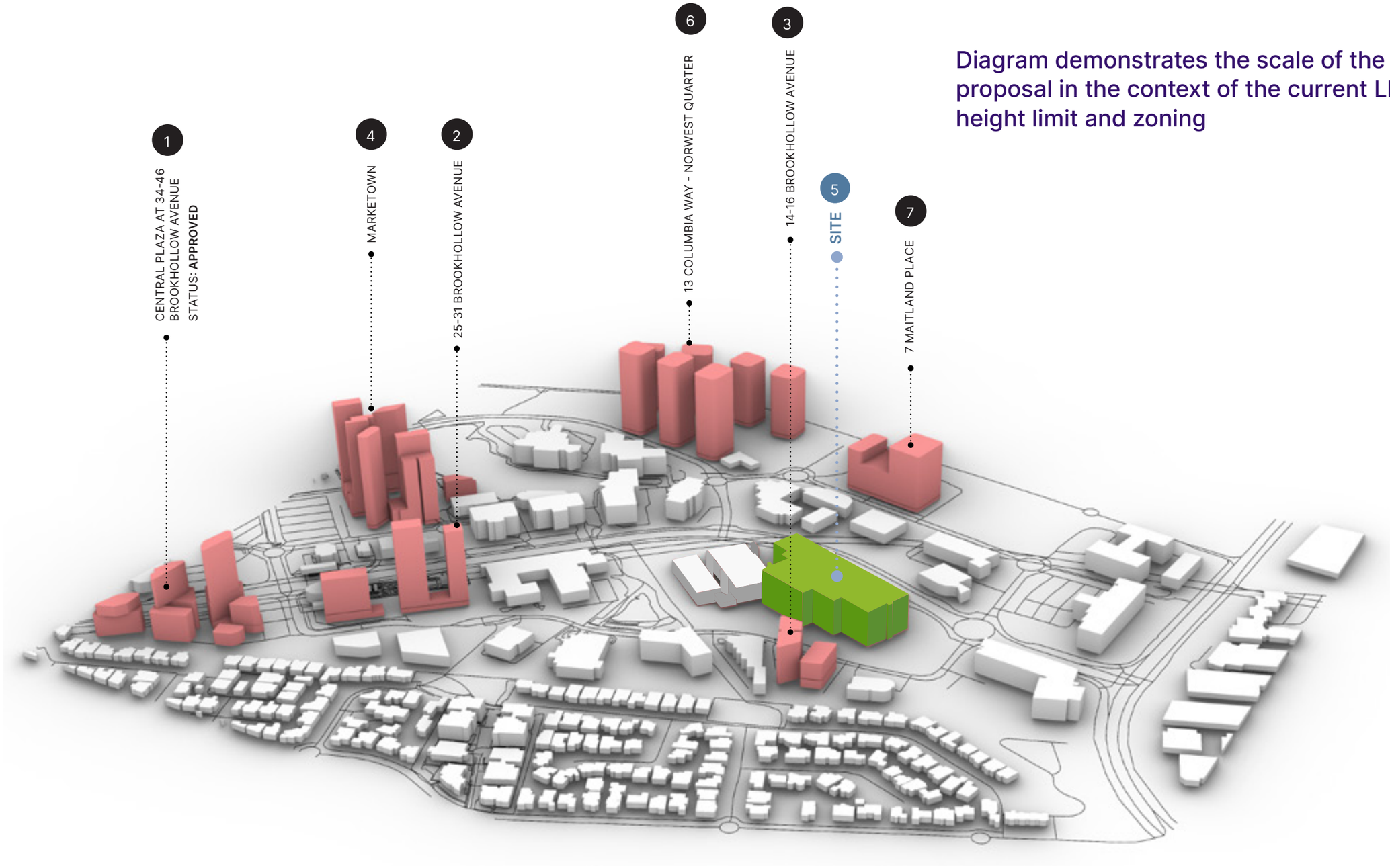
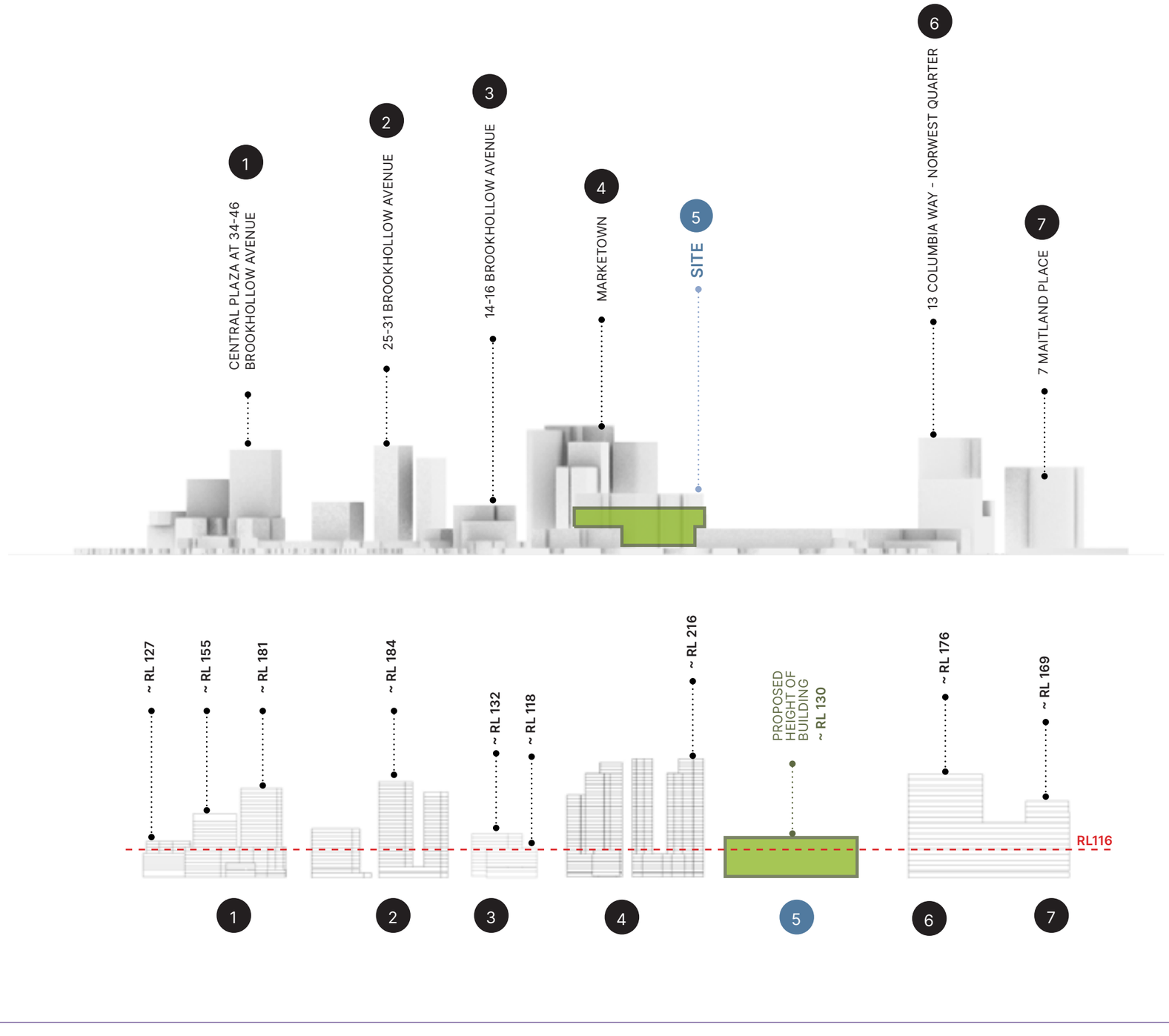


Diagram demonstrates the scale of the proposal in the context of the current LEP height limit and zoning

2. Site Context & Analysis

Future Context - Proposed Surroundings



03

ESD

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3. ESD

GreenSquare Sustainability in Design

SCOPE 1

Reducing Direct Emissions

Client Friendly Refrigerants

Our cooling plant uses low GWP refrigerants removing 99.9% of global warming potential.

Climate Friendly Electrical

Medium voltage switchgear selected for reduced SF-6.

Diesel Alternatives

Non-fossil fuel HVO being assessed as post commissioning first fill for planned maintenance.

SCOPE 2

Reducing Indirect Emissions

Design Efficiency

Highly energy-optimised cooling plant with adiabatic pads to use during extreme temperature. Significantly reduces cooling energy input and PUE.

Embedded Network

To assist customers in direct procurement of renewable power if required.

SCOPE 3

Minimising Embodied Carbon

Shell and Core Reduction

Aim to reduce scope 3 embodied in construction via higher density data halls and materials substitution.

Carbon Measurement

Use of quality digital BIM model deployed to track and account for building elements.

WATER STEWARDSHIP

Water Sensitive Design

Minimal water usage cooling design through closed loop design and peak trimming only.

Water Harvesting

Aim to use non-potable water at sites wherever feasible through recycled water and use rainwater harvesting.

DIGITAL

Optimised Design

Intelligent Controls

Advanced operational controls, ensuring highest efficiency across all seasons and loads.

Digital Twin Approach

Utilising digital twin system to model all customer rack installations optimising the best deployment of mixed rack density solutions.

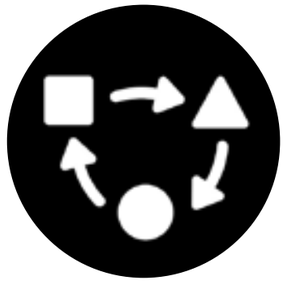
Advanced BIM Modelling

Deployed to ensure quality in our E2E delivery lifecycle as well as accurate carbon and cost accounting.

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3. ESD

ESD Strategies embedded at the heart of the project



BUILDING LIFECYCLE

Data centre has a long life span of over 30 years. It is designed and constructed for longevity and durability. Drawing from Stage 1, GreenSquareDC believes there is a future after 30 years life span to re-purpose the existing facility and adapt to the technological change in the future.



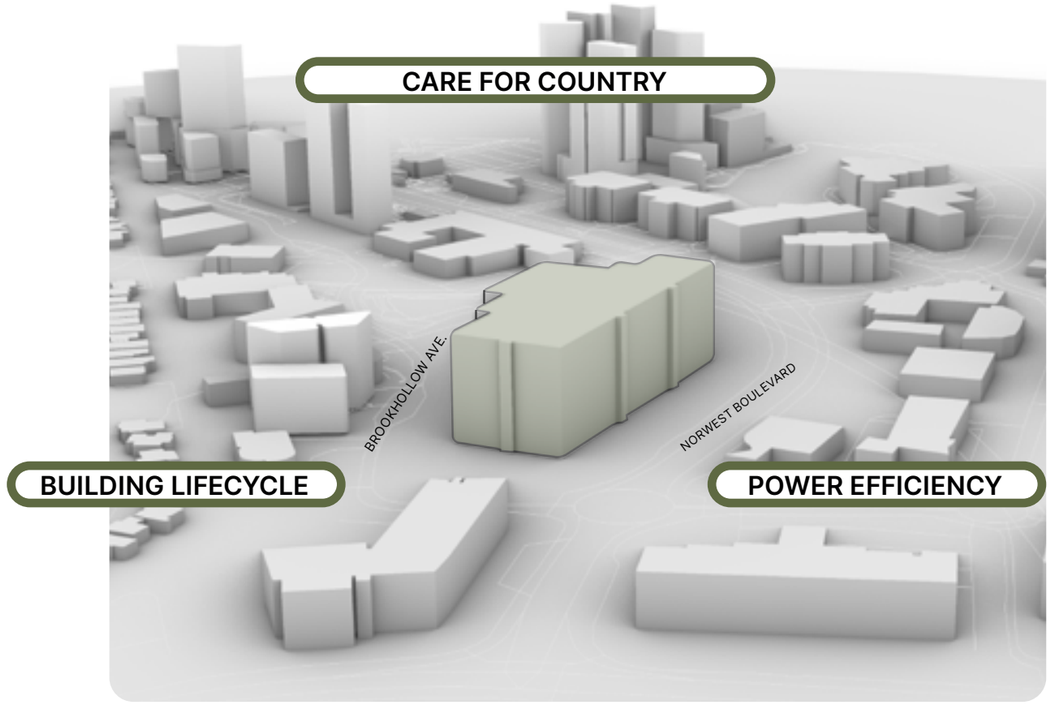
CARE FOR COUNTRY

The landscape is one of the site's defining strengths. A 20-metre-wide 'green belt' encircles the development, retaining and enhancing more than 400 mature trees to create a continuous canopy and natural buffer. This landscape is more than amenity: it represents a living system that cools, shades, filters air, and connects the project back to Country. Through Caring for Country initiatives — underplanting with native shrubs, restoring tree health, incorporating nesting boxes, and exploring features such as native bee hives and water points for fauna — the green belt becomes a thriving ecosystem rather than a static edge . This approach honours the interconnectedness of land, water, flora, and fauna, and demonstrates reciprocity: giving back to Country as much as we take.



POWER EFFICIENCY

By using embedded NMI metering network that allows future renewable power supply, using efficient base building services and NABERs 5 star infrastructure, we are targeting a highly power efficient building with a PUE of 1.2. Power Use Effectiveness (PUE) is a metric that measures how efficiently a data centre uses energy. A lower PUE towards 1 indicates that a greater proportion of energy is being used directly for computing, rather than overheads like cooling or lighting. The global average PUE is around 1.55 (DCCEEW, 2022),



04

Built Form and Design Strategy

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4. Built Form and Design Strategy

Alignment to GANSW “Better Placed” requirements

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



Objective 01.

Better fit

Contextual, local and of its place:



Objective 02.

Better performance

Sustainable, adaptable and durable



Objective 03.

Better for community

Inclusive, connected and diverse

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:

1. **Better fit**
2. **Better performance**
3. **Better for community**
4. **Better for people**
5. **Better working**
6. **Better value**
7. **Better look and feel**

The proposed scheme aligns with the Better Placed Policy under the ‘Better fit’ objective by maintaining a strong connection to the local natural context and enhancing the street interface with Norwest Boulevard. The design is informed by its context and integrates seamlessly into the surroundings.

In line with the Norwest Precinct Plan, the design contributes to an activated ground floor by introducing interactive landscaped areas and creating an enjoyable, engaging environment.

The proposed scheme focuses on ‘Better performance’ through sustainability, adaptability, and durability, ensuring long-term resilience and minimal environmental impact.

Sustainable Design
The design integrates eco-friendly materials and energy-efficient systems to reduce the project’s environmental footprint and support future generations.

Adaptability
Designed for flexibility, the project can evolve with changing technologies, market demands, and environmental conditions, ensuring it remains relevant and functional over time.

Durability
The project uses high-quality, robust materials that reduce the need for repairs and maintenance, offering lasting performance and reliability.

The proposed scheme meets the Better Placed criteria by addressing technological needs, connectivity, and diversity. It is well integrated into the urban context, enhancing rather than disrupting the surrounding environment.

The project will create local and offsite employment opportunities and support businesses, strengthening the community’s economic well-being.

4. Built Form and Design Strategy

Alignment to GANSW “Better Placed” requirements



Objective 04.

Better for people

Safe, comfortable and livable

The proposed scheme aligns with the Better Placed principles, particularly in relation to the ‘Better for people’ criteria. The design incorporates both safety and security features throughout the development, with careful attention given to physical and passive surveillance, accessibility, and the design of the data centre.

Operating 24/7, the project ensures constant activity on-site, fostering a safe and secure environment.

Landscaped setbacks and the street interface have been thoughtfully designed to activate the precinct and create pedestrian-friendly connections.



Objective 05.

Better working

Functional, efficient and fit for purpose

The project aligns with the Better Placed principles in regards to the ‘Better working’ criteria.

The building has been thoughtfully designed to align with the Better Working principles, prioritising efficiency, functionality, and fitness for purpose. The integration of a well-designed data centre and carefully planned landscaped setbacks not only enhances operational performance but also ensures these spaces meet both current and future needs.

With flexible layouts and adaptable spaces, the design facilitates easy modifications over time, supporting long-term use and functionality. This seamless integration of key features ensures the building is highly efficient, well-suited to its purpose, and capable of meeting the evolving needs of its occupants, while also offering a visually appealing and sustainable environment.



Objective 06.

Better value

Creating and adding value

The proposed scheme aligns with the Better Placed principles in regards to the ‘Better value’.

Our society and economy have rapidly embraced digital technology, making data centres essential for modern life. From remote work and entertainment to streaming, social media, online banking, and e-commerce, these technologies rely on robust data centre infrastructure.

The development of this new data centre will:
- Provide a secure location for data storage within the Sydney basin
- Increase the speed of digital access for data centre users in Sydney and across NSW
- Enhance support for local innovation and AI development, fostering economic growth and ensuring industry remains within Australia.



Objective 07.

Better look and feel

Inclusive, connected and diverse

The proposed scheme aligns with the Better Placed principles regarding the ‘Better look and feel’.

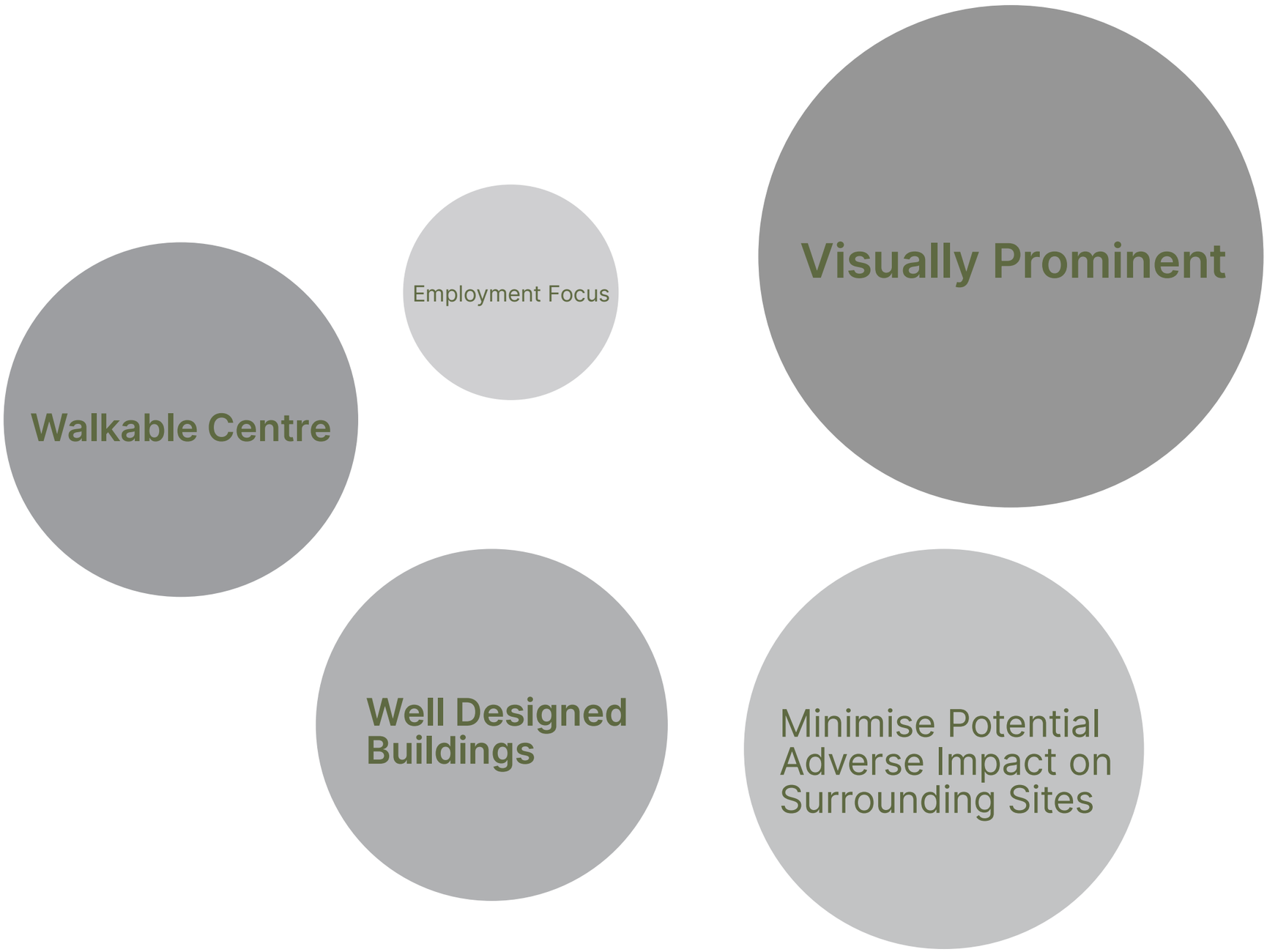
The project carefully balances both functionality and aesthetic appeal throughout the design process. It integrates seamlessly with its surrounding environment, blending into the urban context.

The activation of the facade along Norwest Boulevard creates an engaging streetscape, enhancing the overall look and feel of the project. Landscaped setback areas further enrich the public domain, adding to the visual appeal of the urban space.

By incorporating attractive architectural forms, along with landscaped areas, seating, and green spaces, the design enhances the aesthetic quality of the environment, creating a more inviting and visually appealing atmosphere.

4. Built Form and Design Strategy

Key Design Principles



Keywords from Norwest Precinct Plan - July 2024

4. Built Form and Design Strategy

Key Design Principles

RESPECT

The environment

GreenSquareDC's guiding principle is **sustainability**. In particular for this site, the design respects the "green belt" and the existing building on site.

The perspectives of its people

The design focuses on a **human-centric** experience, for both it's users and observers.

The identity of a Data Centre

By building a **high quality**, **secure** and **efficient facility**, we are providing the modern technological world what it needs.

4. Built Form and Design Strategy

Existing Data Centre on Site

The site has a legacy of use for the purpose of a data centre, with the existing facility on site having previously been operated by IBM, prior to acquisition by GreenSquareDC in 2025.

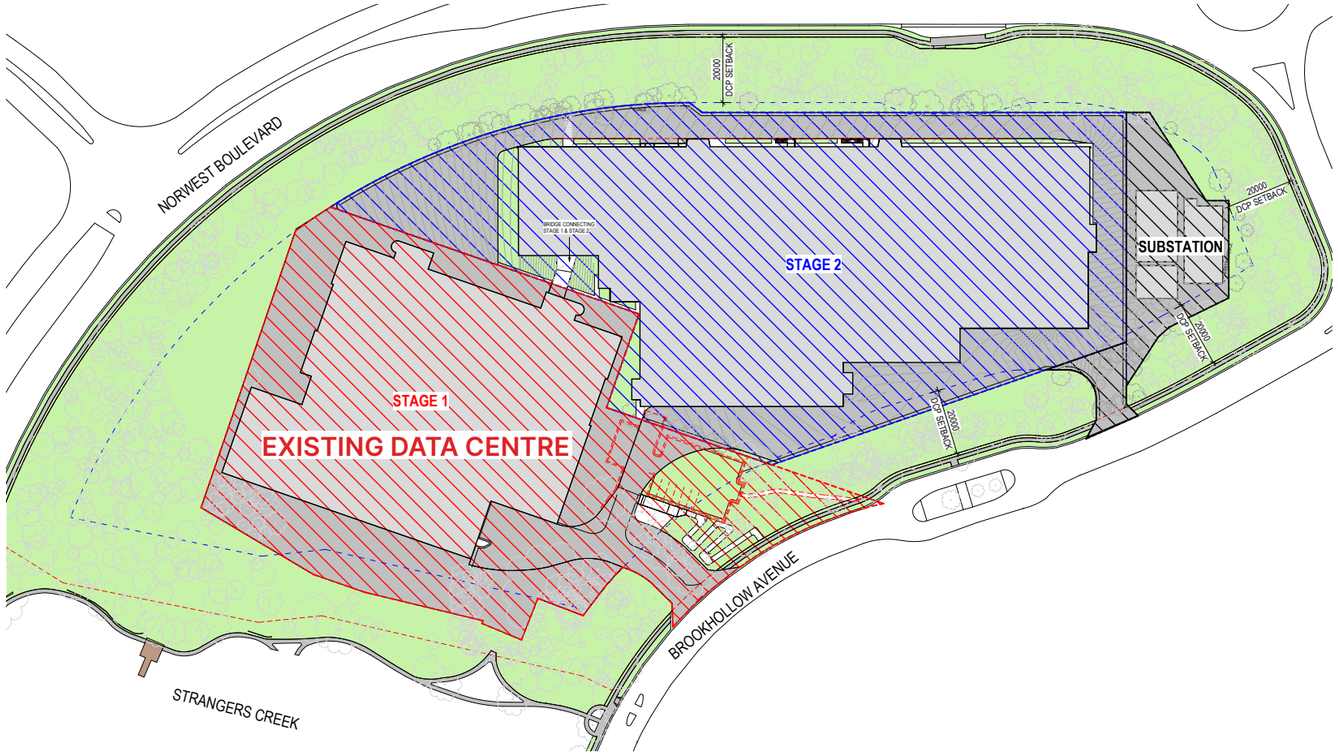
Approved in 1993, the 4MW IBM data centre facility comprises outdated technologies and is no longer fit for purposes to meet contemporary customer needs or the emergence of artificial intelligence.

On 4 September 2025, GreenSquareDC obtained approval (1382/2025/JP) to upgrade the existing IBM facility to cater for a renewed 14.9MW . Construction works are currently underway in accordance with the approved plans, progressing toward delivery of the upgraded facility.

A planning application is currently being prepared which will seek approval for on-site power infrastructure including a substation and switching station that will transform utility power supplied via a high voltage (132 kilovolts) line to medium voltage (33 kilovolts).



EXISTING DATA CENTRE ON SITE



4. Built Form and Design Strategy

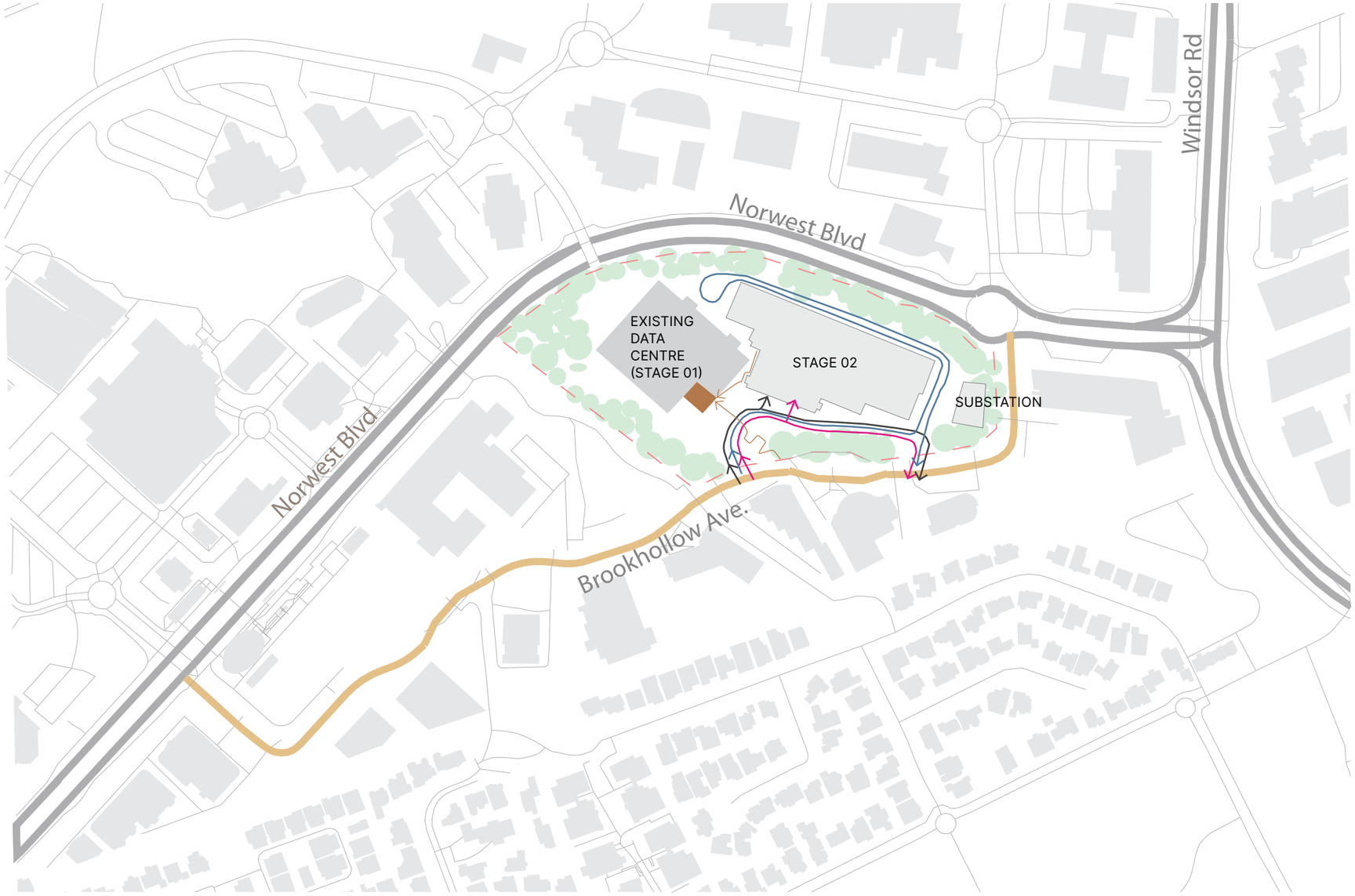
Ground Plane Urban Design Response - Vehicular , Pedestrian and Security Strategy

Access and Security Integration

Access to the site is provided via Brookhollow Avenue, a two-lane local road to the south, which connects to Norwest Boulevard—a major four-lane road located to the north. Public transport is readily available, with bus stops situated along Norwest Boulevard to the northeast. While several secondary roads exist in the surrounding area, they do not provide direct access to the site.

Stage 01 and Stage 02 share a centrally located Front of House area, which activates the ground level and serves as a key interface for the project. For security and operational efficiency, Stage 02 leverages the security infrastructure of Stage 01, ensuring a unified and controlled access point across both stages.

This integrated approach supports the secure nature of the Data Centre while maintaining a cohesive and vibrant entry experience.



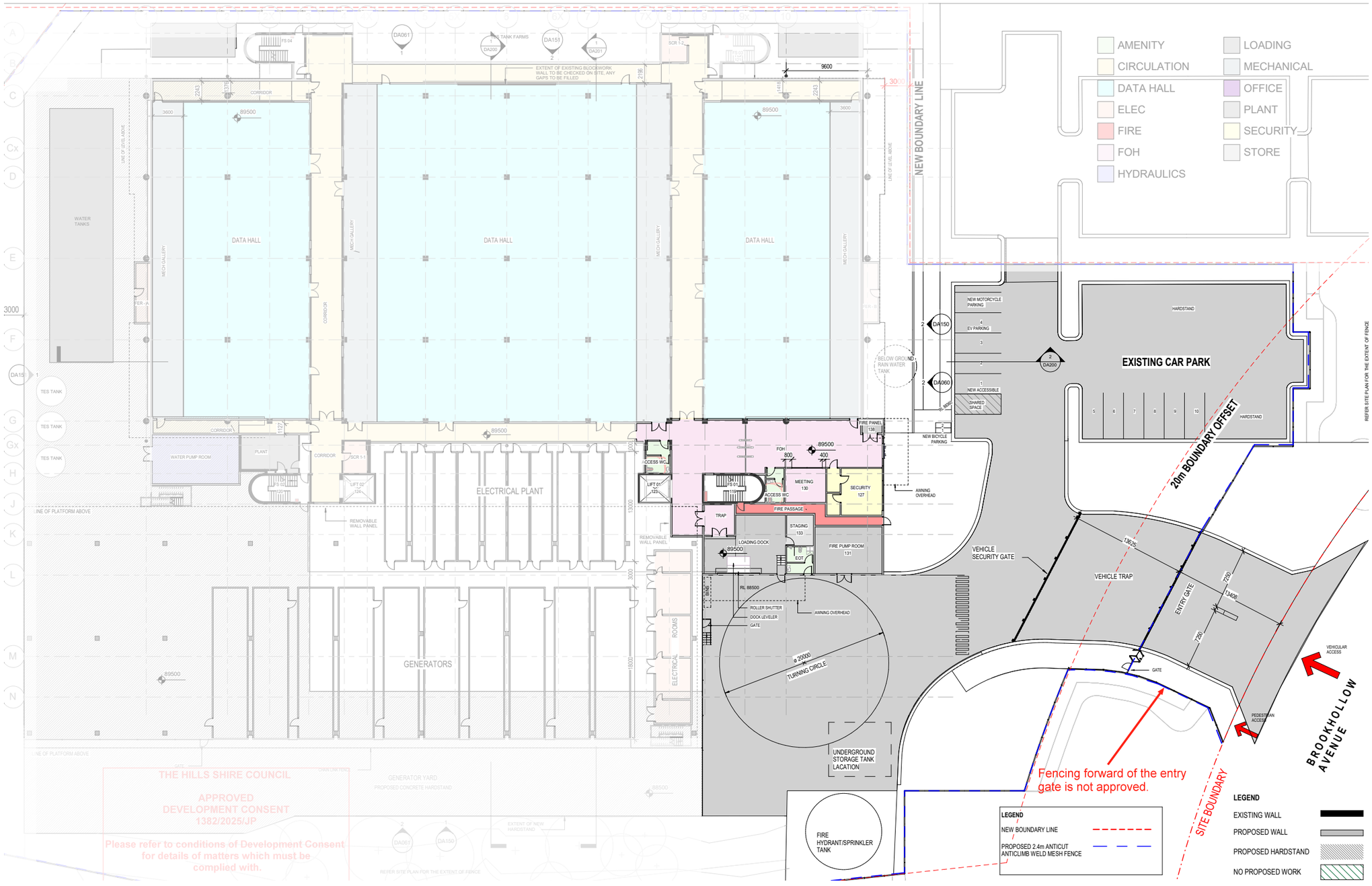
Legend

- Site
- Highways
- Secondary Road
- Loading Dock Access
- Carpark Access
- Cranage / Maintenance Access
- Pedestrian Access
- FOH

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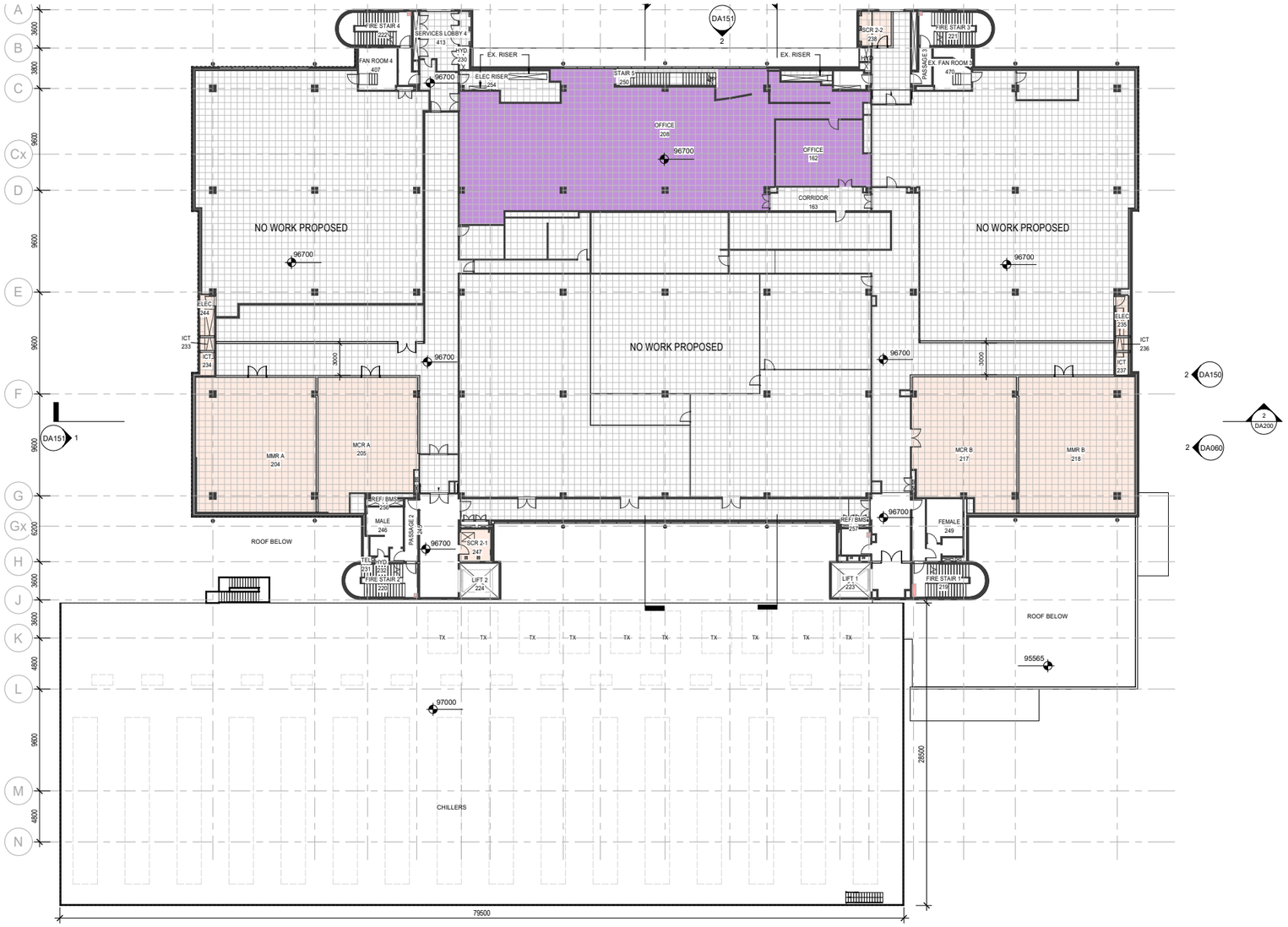
4. Built Form and Design Strategy

DA Stamped Drawings - Level 1 Floor Plan



4. Built Form and Design Strategy

DA Stamped Drawings - Level 2 Floor Plan



THE HILLS SHIRE COUNCIL

APPROVED
DEVELOPMENT CONSENT
1382/2025/JP

Please refer to conditions of Development Consent for details of matters which must be complied with.

LEGEND

- EXISTING WALL
- PROPOSED WALL
- PROPOSED HARDSTAND
- NO PROPOSED WORK

4. Built Form and Design Strategy

Ground Plan Urban Design Response - Landscape Strategy



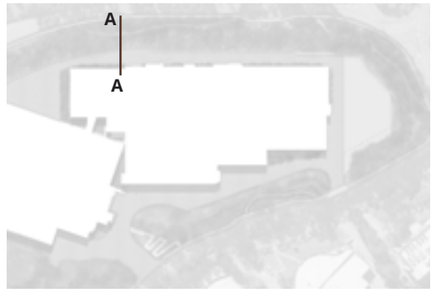
KEY

1. Vehicle Entry / Exit
2. Native Planting to edge to soften built form
3. Trails through existing vegetation. Opportunities for collaboration with local artists.
4. Proposed Fence
5. Proposed Substation
6. Existing Vegetation retained and supplemented with additional planting
7. Pedestrian entry

- Fence
- Site boundary
- Setback

4. Built Form and Design Strategy

Ground Plane Urban Design Response - Landscape Strategy





SECTION AA - TYPICAL SECTION THROUGH TRAIL THROUGH 20M GREEN BELT

4. Built Form and Design Strategy

Ground Plane Urban Design Response - Landscape CwC Response

The proposal has been shaped by the themes identified in the walk on country, undertaken with Dharug custodians in September, 2025. The importance of habitat creation, materiality and water were presented as key ideas and themes that should be considered in the landscape desigr

The following initiatives have been identified for inclusion in the design and further design phases:

- Opportunity to incorporate art and interpretatio through native planting, reference to the historical waterways and locally significant materials.
- Retention of existing native vegetation in perimeter of site and further supplementary planting for habitat creation and biodiversity outcomes.
- Bird boxes, hollows and logs made from trees that require removal.
- Seed collection from removed trees to retain local species and propagate for supplementary planting.
- Use of locally significant materials and colours and textures that reflect the natural features of the site.
- Nature trail with seating areas through the green perimeter, located between trees to avoid removal where possible, provides amenity for workers and community.



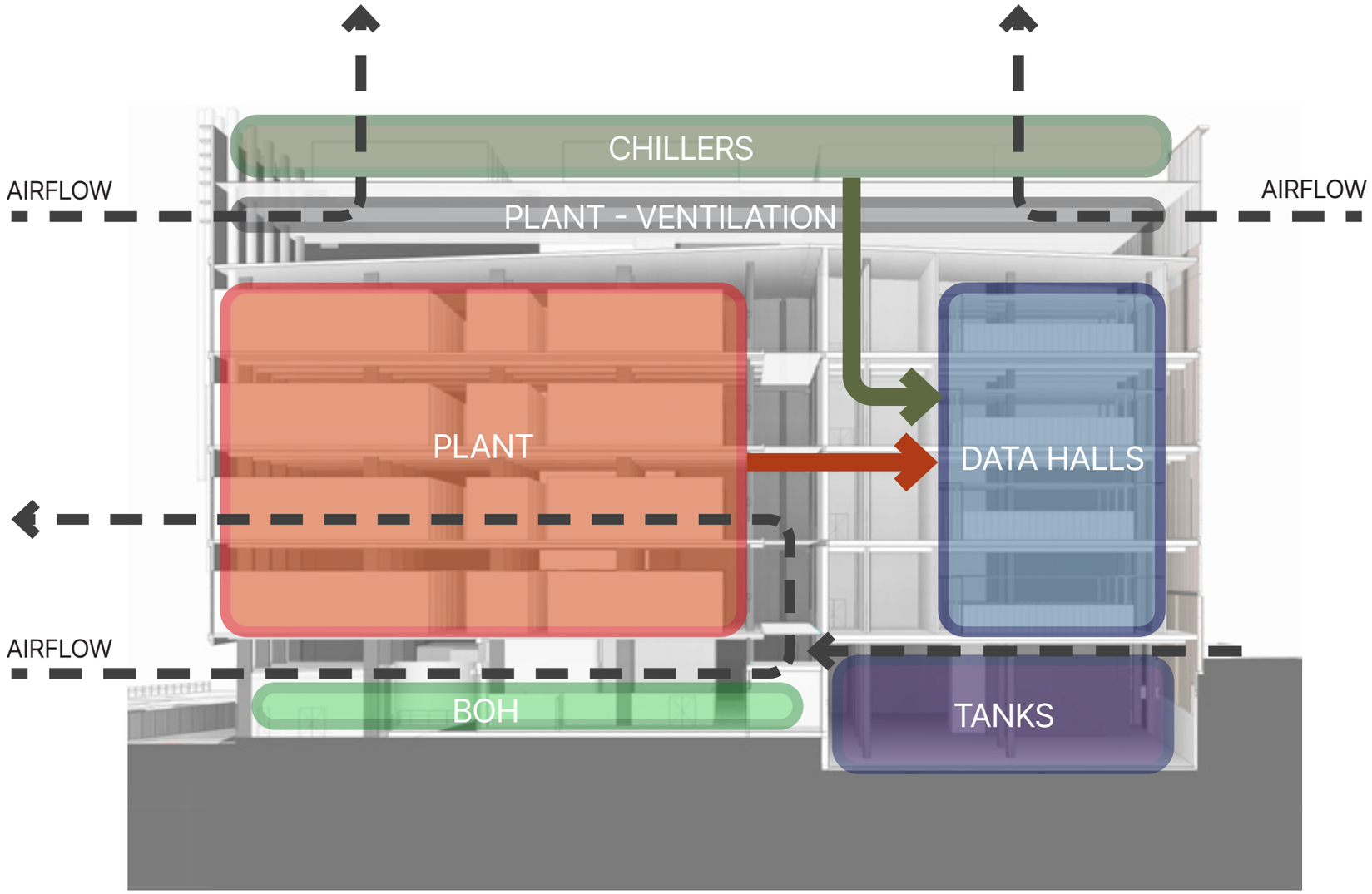
4. Built Form and Design Strategy

Building Function - General Building Arrangement

A **Data Centre** is the critical backbone of the digital economy. It is a highly secure and resilient facility that houses the servers, storage, and networking systems powering everything from cloud computing and AI to banking, healthcare, and everyday online services.

Modern Data Centres are more than just buildings — they are **infrastructure engines**, designed for continuous operation, extreme reliability, and sustainability.

At Norwest, this means creating a facility that not only supports the next generation of technological revolution but also integrates with its landscape, community, and environment.



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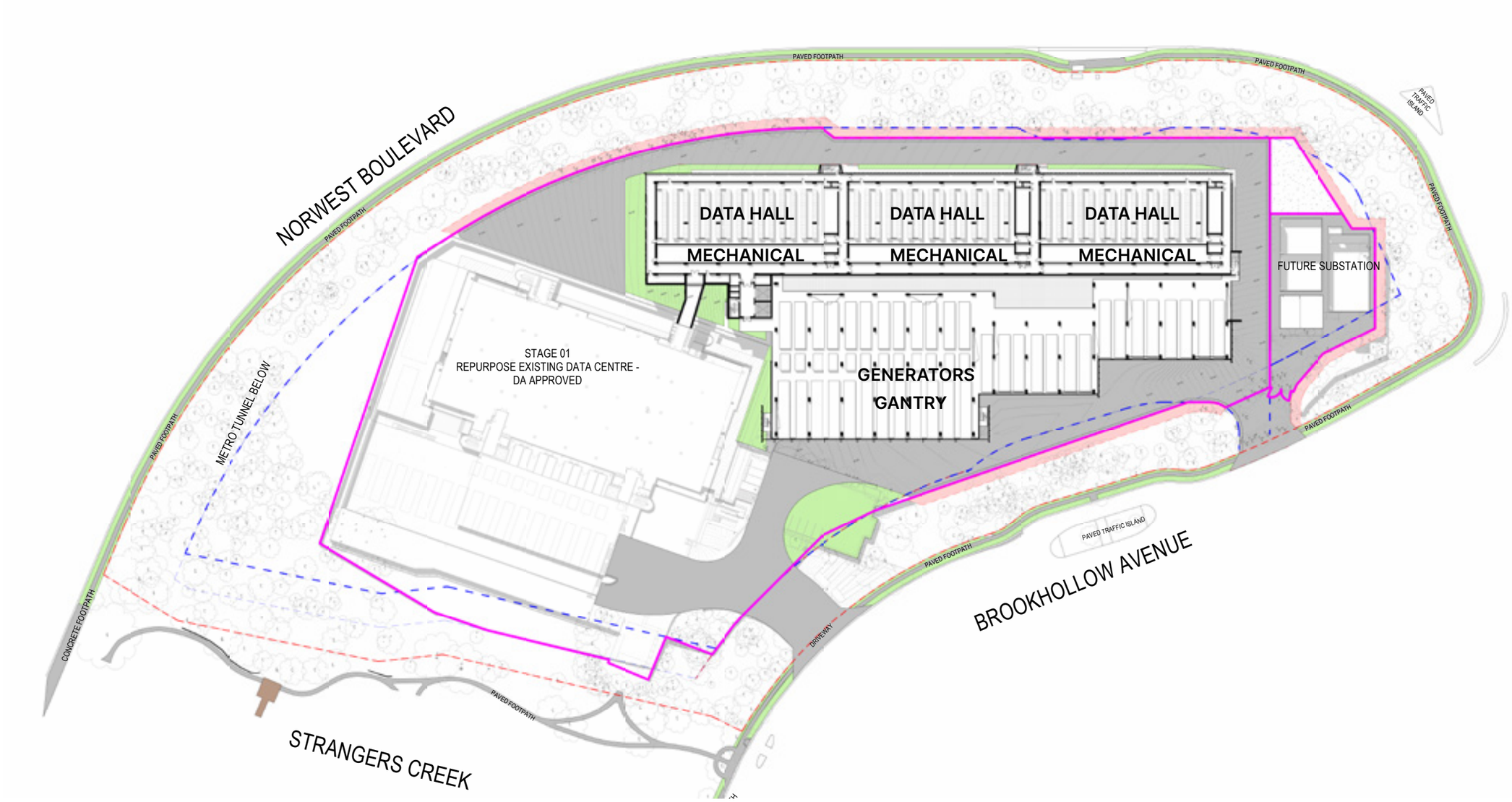
4. Built Form and Design Strategy

Floor Plans - BOH



4. Built Form and Design Strategy

Floor Plans - Typical Levels



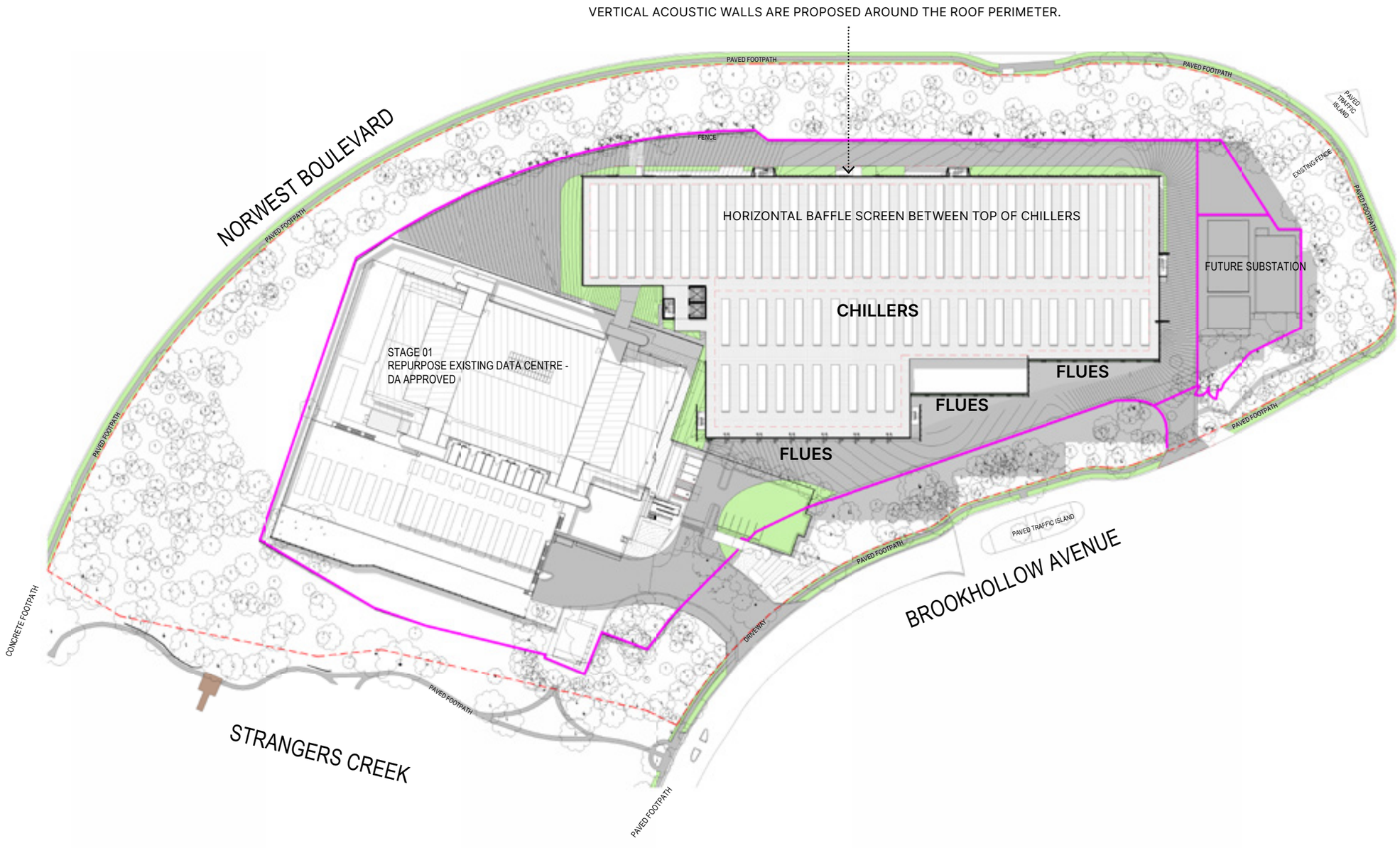
Legend

- Fence
- 20m DCP Setback

Greenbox Architecture Pty Ltd ©2026

4. Built Form and Design Strategy

Floorplans - Roof Level



Legend

Fence

20m DCP Setback

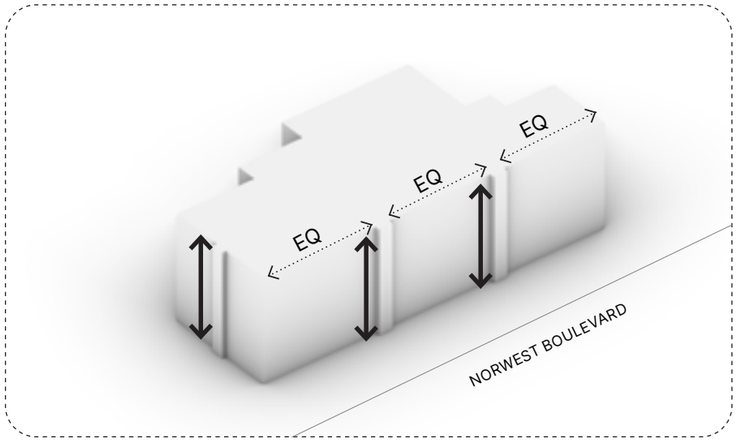
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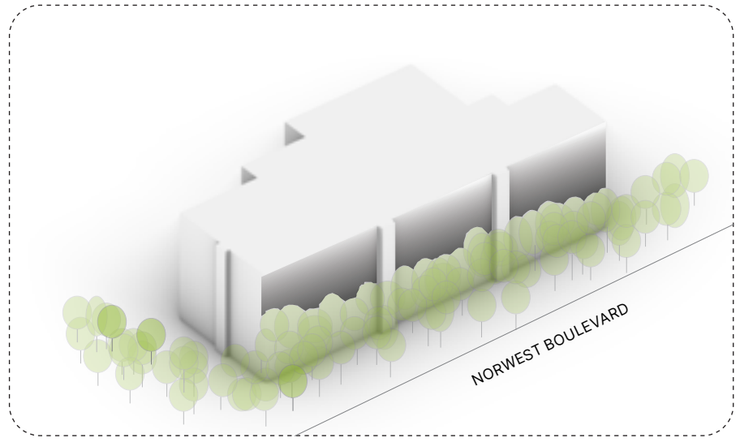
Facade Design and Materiality

Greenbox Architecture Pty Ltd ©2026

5. Facade Design and Materiality

Built Form





REDUCING BULK AND SCALE

To reduce the bulk and scale of the building, the design introduces staircases that project outward between the three main sections, each approximately 53 meters wide. These protruding elements help to break up the overall geometry, creating distinct visual separations and adding depth to the façade.

This strategy softens the massing and enhances the pedestrian experience along Norwest Boulevard by making the building appear more articulated and approachable.

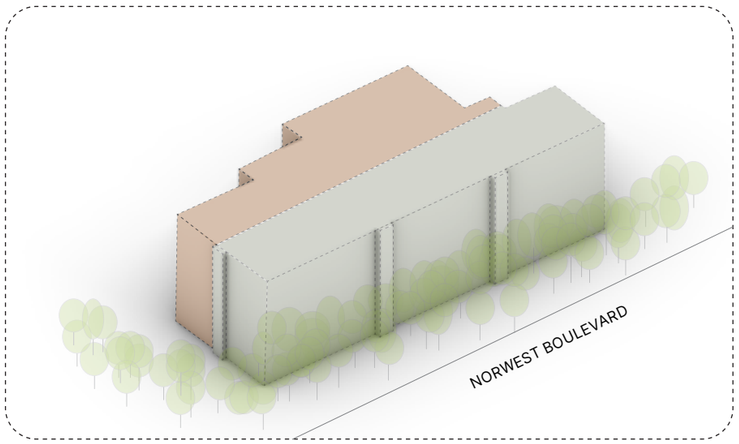
FRAMING NATURE

The building is positioned behind a 20-meter wide ‘green belt’ along Norwest Boulevard, which is being retained as part of the design. This green belt, composed of mature trees, provides a lush natural foreground that enhances the architectural presence of the building. Portions of the structure rise above the tree canopy, and the design intentionally incorporates larger openings at these upper levels to activate the façade and introduce articulation.

This approach creates a dynamic relationship between the built form and its landscape context, contributing to a more engaging and visually balanced streetscape.

5. Facade Design and Materiality

Built Form



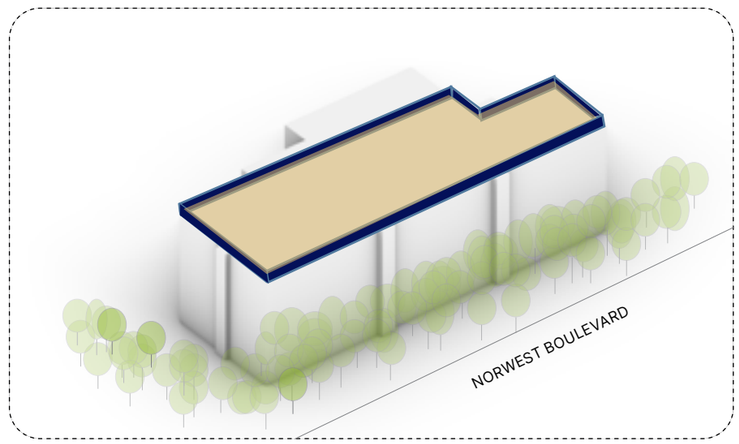
Legend:

- Heart and Lungs of the building - Electrical and Mechanical Plant
- Data Centre

DESIGNING AROUND FUNCTIONALITY AND INTERACTION

The design of the data centre distinguishes between its core operational components—the **“heart and lungs”**—and its more publicly engaging elements. The “heart and lungs,” represented in brown, house the essential infrastructure such as generators that drive the building’s functionality. In contrast, the green-highlighted areas along the main façade serve as the building’s public interface. These include corridors and articulated facades designed to activate the frontage along Norwest Boulevard, offering a more engaging and visually dynamic presence.

This duality ensures the building remains highly functional while contributing positively to its urban context.



Legend:

- Acoustic Wall
- Horizontal Baffle Screen Between Top of Roof Chillers

NOISE IMPACT MITIGATION

Roof-level noise mitigation measures, including:

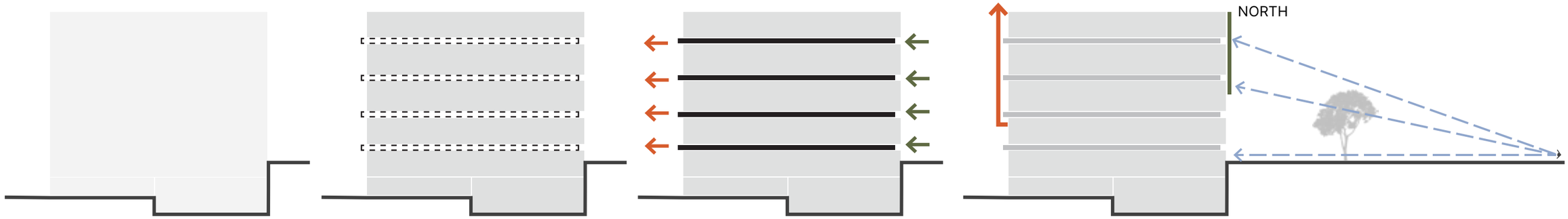
1. Horizontal baffle screens between chillers and

2. Vertical acoustic walls around the roof perimeter

As recommended in the Acoustic and Noise Impact Assessment prepared by Aurecon [Revision 2026-03-04]

5. Facade Design and Materiality

Built Form



1. BUILDING ENVELOPE

2. DESIGNATING FLOOR PLATES BASED ON FUNCTIONS

3. SHIFTING HORIZONTAL ELEMENTS TO CREATE VISUAL INTEREST IN FORM

4. FLUES ADDED TO SOUTH FACADE AND VERTICAL ARTICULATION TO NORTH FACADE

5. Facade Design and Materiality

Facade



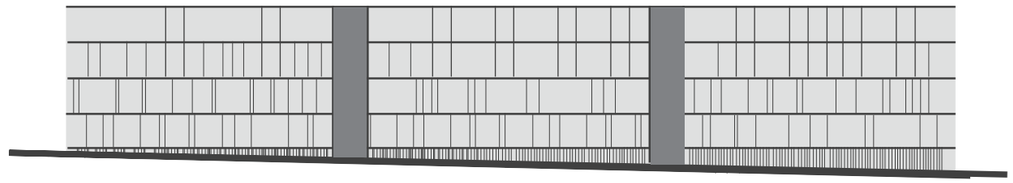
1. BUILDING ENVELOPE



2. INTRODUCTION OF HORIZONTAL ARTICULATION TO REDUCE THE PERCEIVED BULK AND SCALE OF THE BUILDING.



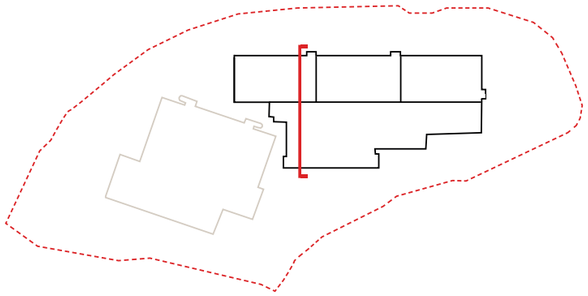
3. INTRODUCTION OF VERTICAL ARTICULATION TO BREAK DOWN THE BUILDING MASS AND REDUCE ITS APPARENT SCALE.



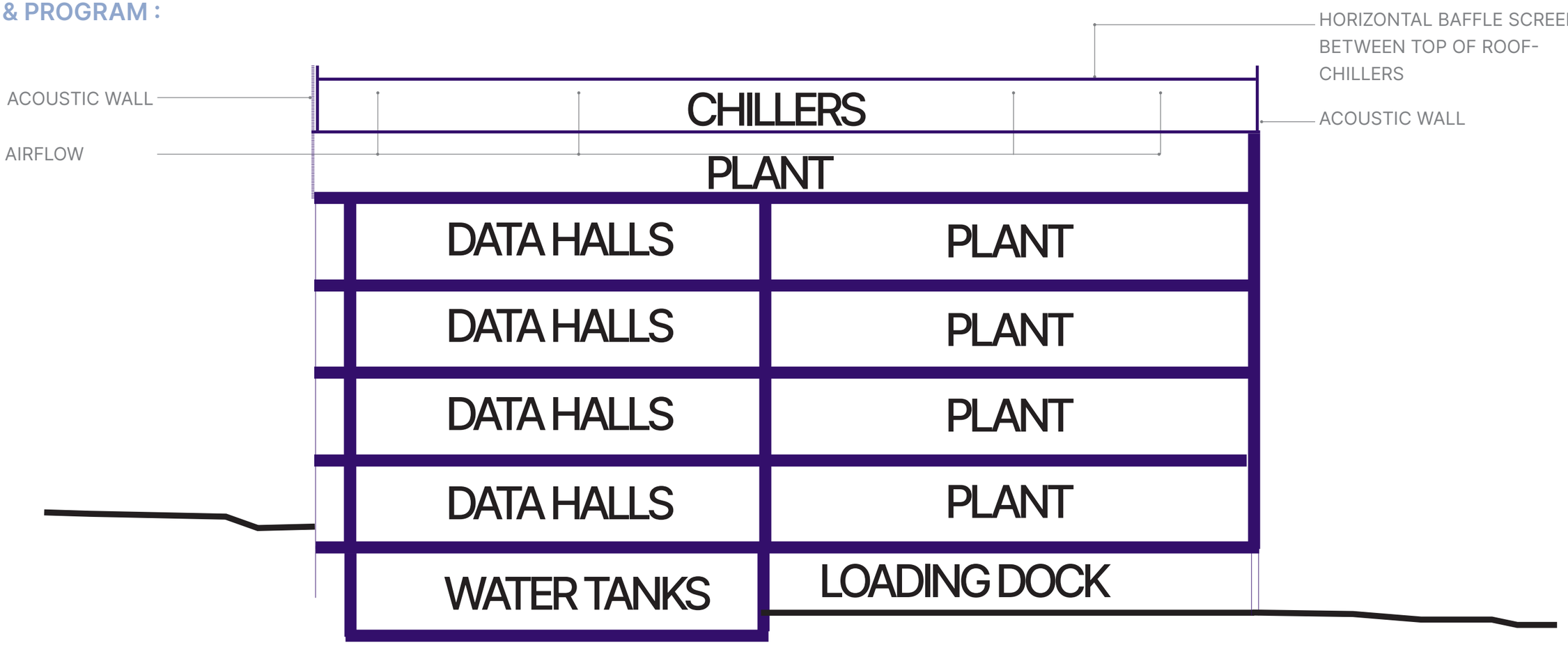
4. INCORPORATION OF FINER FAÇADE GRAIN TO FURTHER REDUCE PERCEIVED BULK AND IMPROVE HUMAN SCALE.

5. Facade Design and Materiality

Function

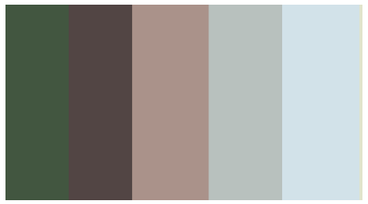


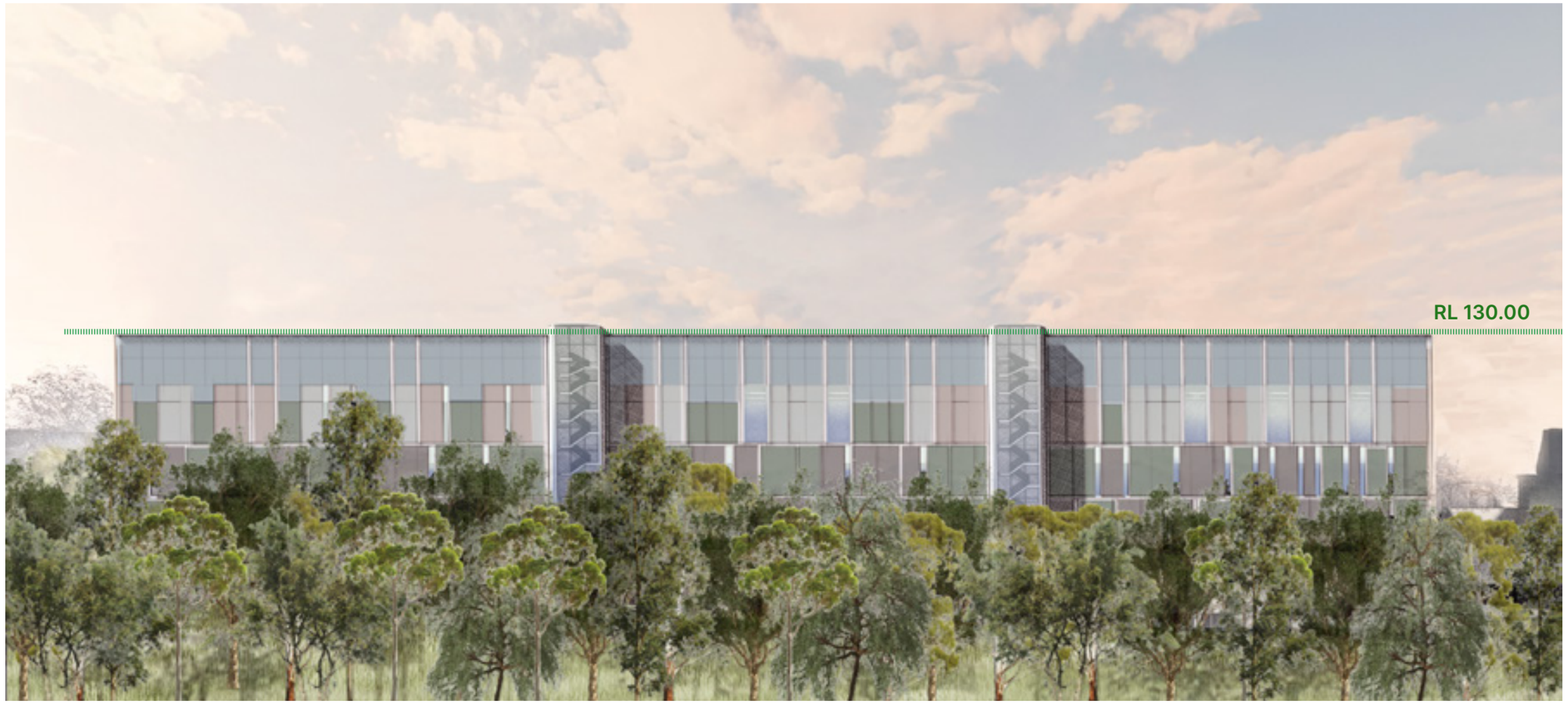
FACADE REQUIREMENTS & PROGRAM :

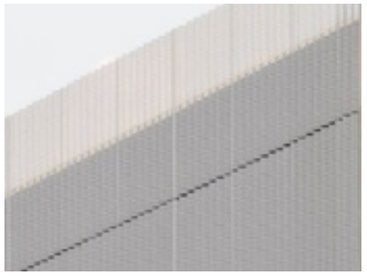


5. Facade Design and Materiality

Proposed Scheme - View from Norwest Boulevard







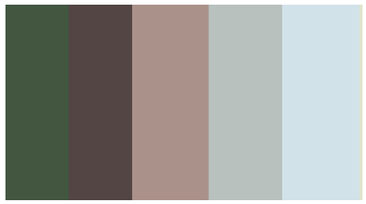




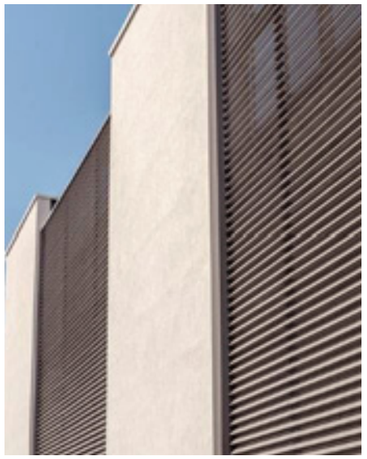
VIEW FROM NORWEST BOULEVARD

5. Facade Design and Materiality

Proposed Scheme - View from Brookhollow Ave





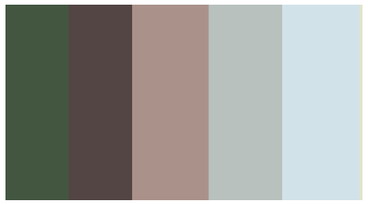


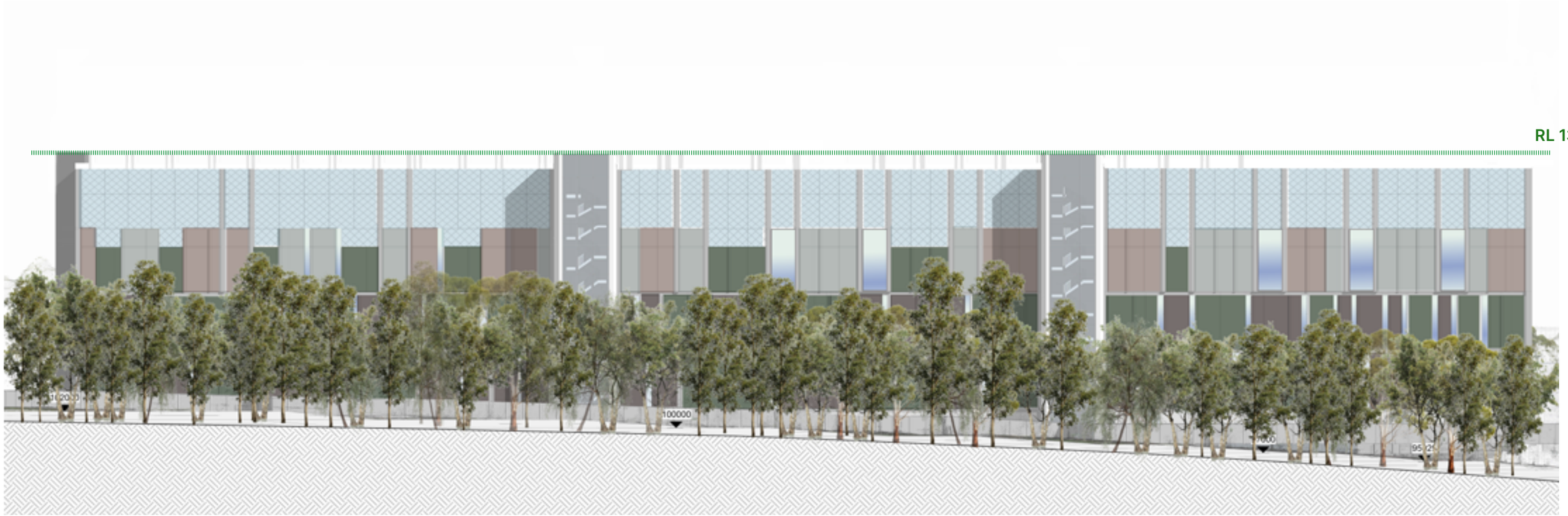


VIEW FROM BROOKHOLLOW AVENUE

5. Facade Design and Materiality

Proposed Scheme - North Elevation





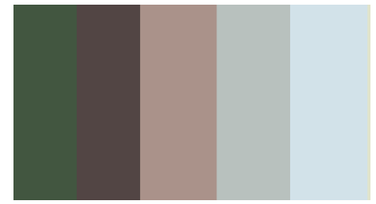
5. Facade Design and Materiality

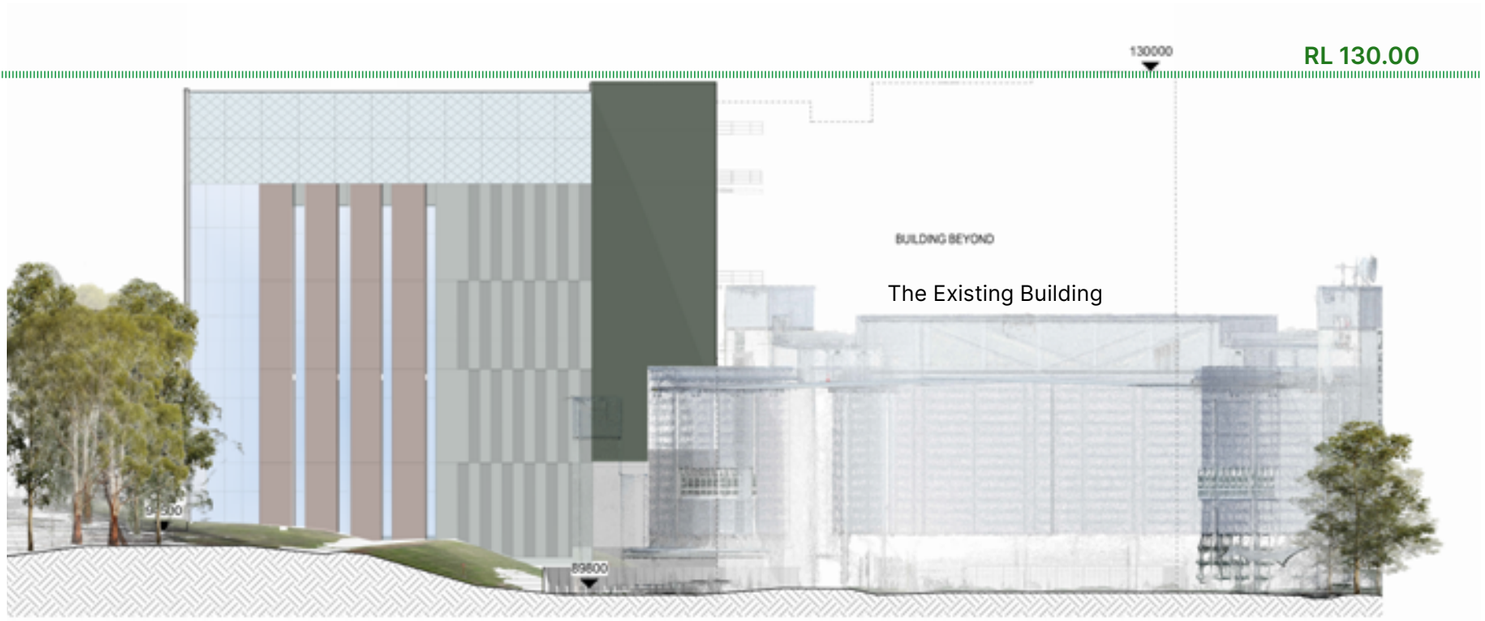
Proposed Scheme - East Elevation



5. Facade Design and Materiality

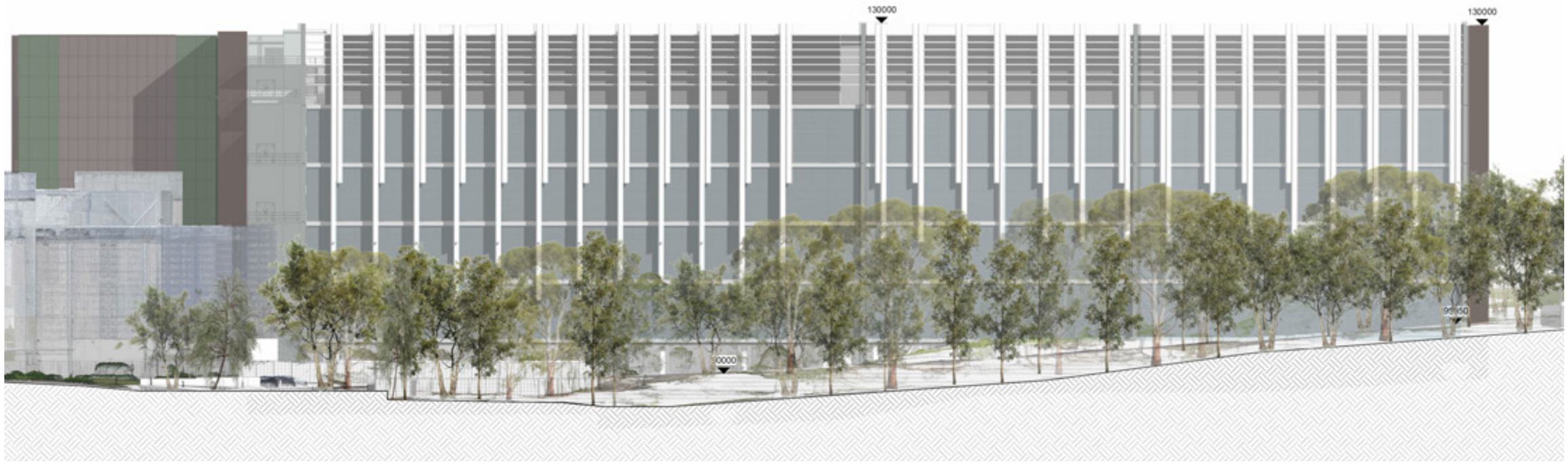
Proposed Scheme - West Elevation





5. Facade Design and Materiality

Proposed Scheme - South Elevation



5. Facade Design and Materiality



ARTIST IMPRESSION - VIEW FROM NORWEST BOULEVARD

5. Facade Design and Materiality



ARTIST IMPRESSION - VIEW FROM BROOKHOLLOW AVENUE

5. Facade Design and Materiality



ARTIST IMPRESSION - VIEW FROM NORWEST BOULEVARD

5. Facade Design and Materiality



ARTIST IMPRESSION - AERIAL VIEW

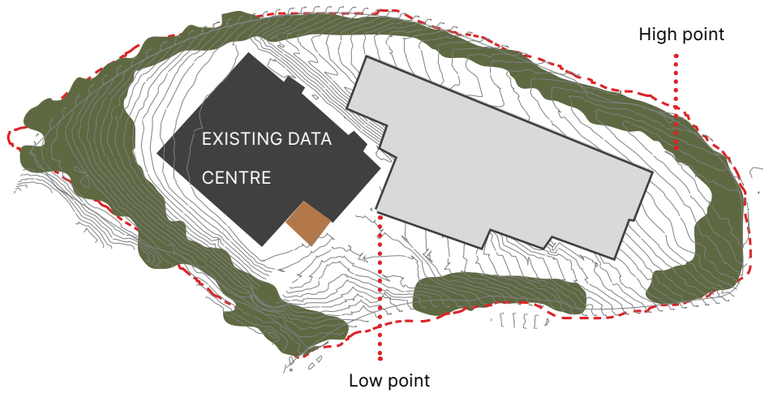
06

Response to GANSW’s comments on the SDRP 1

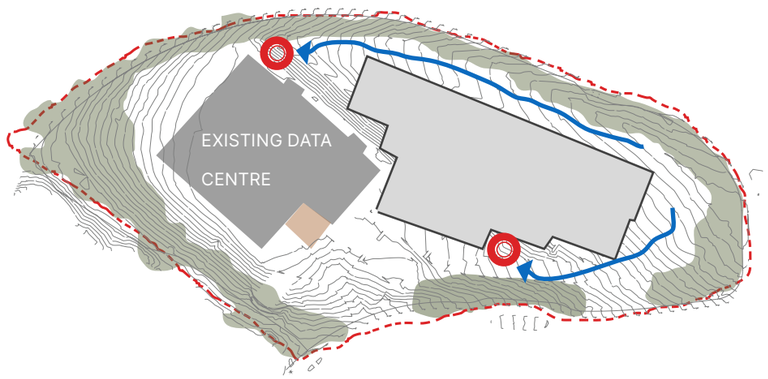
6. Response to GANSW’s comments on SDRP 1

Site Strategy and Landscape

5. Demonstrate how changes to the hydrology of the site, via earthworks and the reduction of permeable surfaces, will be mitigated. Maintain or improve the performance of the site’s hydrology to support the health of existing and new trees and manage stormwater efficiently.







OSD Tanks

Built form response to topography and green belt

The proposed built form responds directly to the site’s topography and the existing tree belt. To minimise impact on the green belt, the building footprint was reduced, which in turn required an increase in height.

The massing also follows the natural fall of the land, locating the car park and tank room at the lower point of the site, with the data halls positioned at the higher.

Deep soil provision and tree health

In terms of tree health, the landscape design provides 19,987.73 m² of deep soil—38.5% of the site—which supports healthy root growth for large canopy trees and improves on-site stormwater infiltration.

Stormwater management

Water will follow the natural fall of the site. As well as the existing site drainage, On-site stormwater detention (OSD) is proposed to manage any runoff and prevent adverse impacts on tree health.

The OSD tanks have been designed to capture runoff from all roof catchments as well as the hardstand and landscaped areas

6. Response to GANSW’s comments on SDRP 1

Site Strategy and Landscape

5. Demonstrate how changes to the hydrology of the site, via earthworks and the reduction of permeable surfaces, will be mitigated. Maintain or improve the performance of the site’s hydrology to support the health of existing and new trees and manage stormwater efficiently.

a. Integrate water-sensitive design strategies, such as retention basins and controlled discharges.

Response:

As part of the ESD initiatives, Water Sensitive Urban Design (WSUD) principles are embedded in the site design to manage stormwater and protect surrounding waterways. Key strategies include:



Roof water capture

To reduce runoff and supplement non-potable supply



Filtration Systems

To treat harvested water before reuse



Landscape irrigation

Using harvested water to support native, heat-tolerant species

6. Response to GANSW's comments on SDRP 1

Site Strategy and Landscape

6. Review the extent and location of walkways within the green belt, prioritising habitat integrity and ecological connectivity. Ensure areas with public walkways comply with CPTED principles.

Response:

Crime Prevention Through Environmental Design or CPTED. Key Principles of CPTED are Natural Surveillance, Natural Access Control, Territorial Reinforcement, Space Management.

CPTED Principles and Design Response

Natural Surveillance

Walkways are located in areas with clear sightlines and managed vegetation to maintain visibility and reduce concealed spaces.

Natural Access Control

Pedestrian movement is directed along clearly defined paths, discouraging access into sensitive ecological areas and restricted site zones.

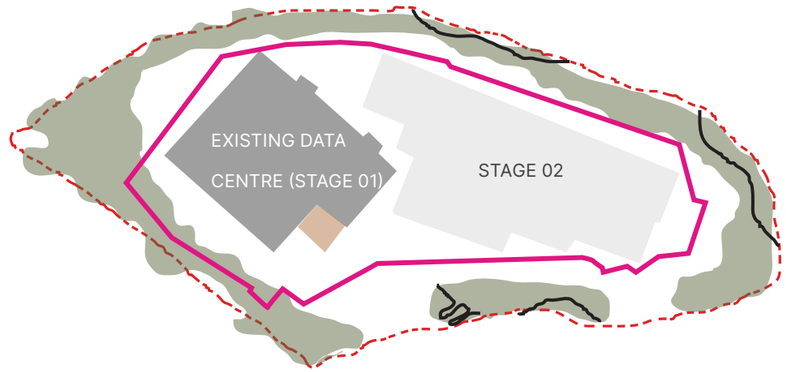
Territorial Reinforcement

Landscape design and path definition clearly distinguish public access areas from private and restricted spaces.

Space Management

The trail and surrounding landscape are designed for ease of maintenance, supporting long-term safety, usability, and visual quality.

Through this integrated approach, the proposed walkways support public amenity and connectivity while maintaining the environmental function of the green belt and achieving compliance with CPTED principles.



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6. Response to GANSW’s comments on SDRP 1

Site Strategy and Landscape

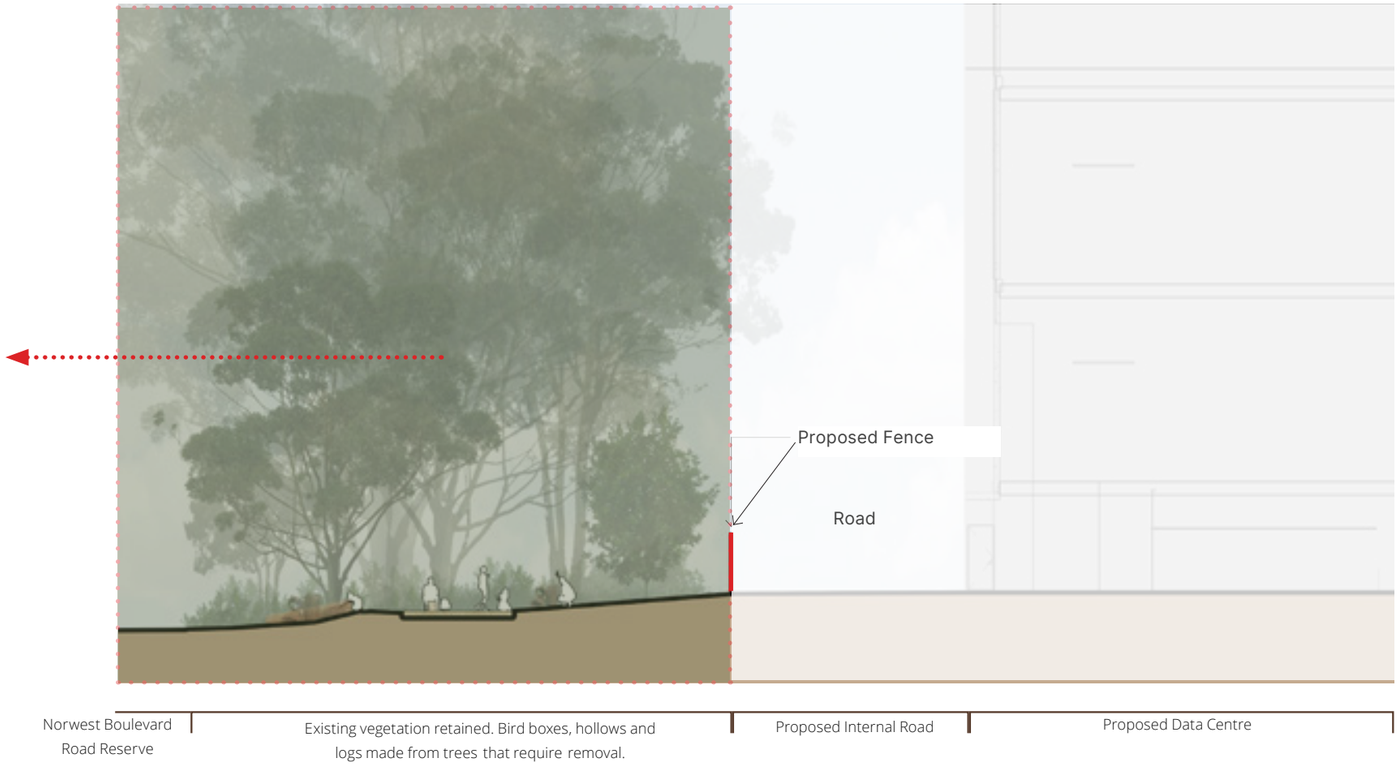
7. Position fences as close as possible to the proposed building to maximise the width of the green belt.

Response:

A 2.4-metre-high anti-cut, anti-climb weld-mesh security fence is proposed along the perimeter of the development site to ensure appropriate protection of critical infrastructure and restrict unauthorised access. Notwithstanding, the 20m buffer has been retained around the perimeter of the site. A total of 60 trees are required to be removed in order to facility the proposed development. To offset the required tree removals for the proposed development, 60 trees will be replanted across the site to maintain, and potentially enhance, canopy coverage. The planting strategy focuses on the introduction of locally native species to support local ecosystems and reinforce connections to country.

The fence is located as close as practicable to the proposed building, with its position determined by the minimum clearance required for the perimeter access road serving servicing, and operational needs.

The 20-metre buffer has been retained around the site perimeter, softening the fence interface with the public domain.



6. Response to GANSW’s comments on SDRP 1

Architecture

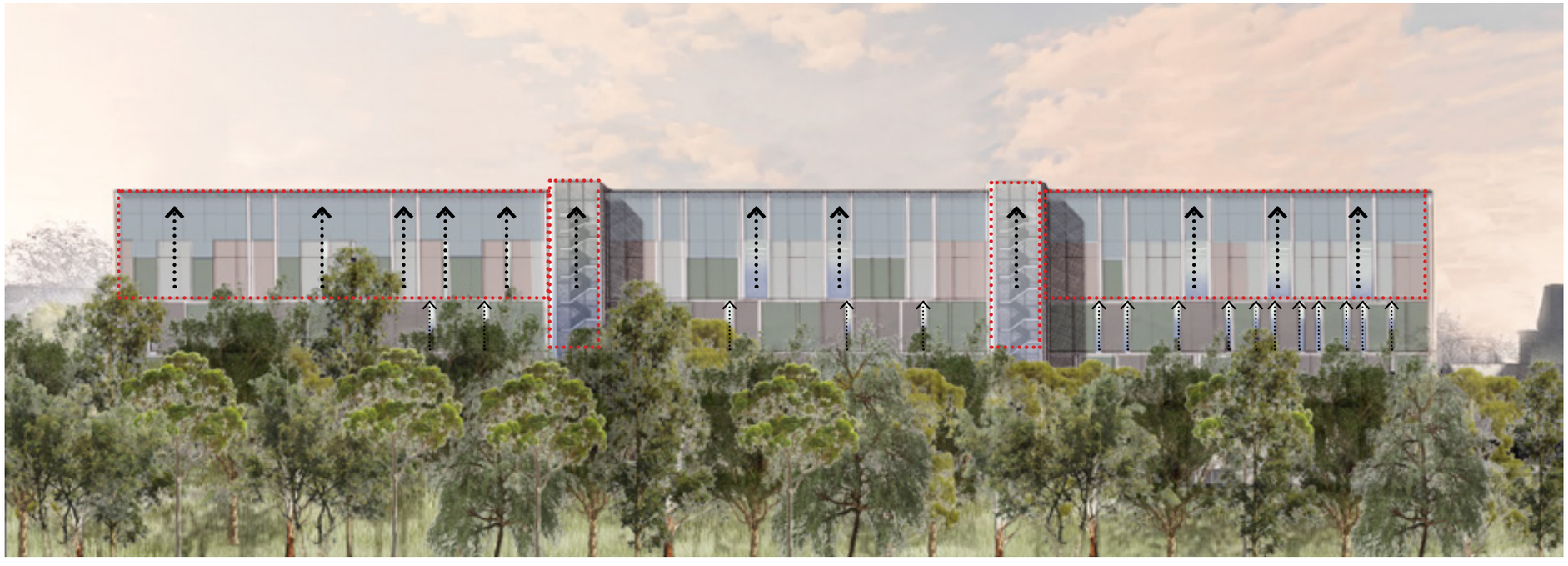
11. Ensure building elements visible from public areas and adjacent buildings contribute positively to the character of Norwest Boulevard, the pedestrian experience and the amenity of neighbouring towers. Mitigate the visual dominance of upper levels extending above the tree line.

a. Clarify the architectural expression, materiality, and colour palette of the building upper levels, including the integration of any required air intake components.

Response:

The proposed neutral material palette, complemented by carefully selected accent tones, reflects guidance from Traditional Knowledge Holders and allows the building to sit comfortably within its surrounding context. At the upper levels, the building adopts a lighter and more open expression above the tree canopy through the use of additional openings, louvres, and mesh elements, enabling the built form to visually recede against the sky.

While a solid acoustic screen is required around the roof perimeter as informed by the Acoustic and Noise Impact Assessment prepared by Aurecon [Revision 2026-03-04], the design maintains this sense of lightness by positioning a mesh screen in front of the acoustic wall. This approach softens the visual impact of the roof-level elements and allows the upper portions of the building to continue to visually recede within the skyline.



6. Response to GANSW’s comments on SDRP 1

Architecture

12. Manage the visual impact of the rooftop services on adjacent residential and mixed-use developments.

a. Design the rooftop as an integral part of the architectural expression.

b. Integrate rooftop plant equipment into the architectural composition. Avoid visual clutter.

c. Provide plans and perspective views of the proposed rooftop design.

Response:

Data centres has a highly technical and organised rooftop plant space that services the key components of the building. The chillers on the plant roof and other fixtures that associated with the roof top plant are generally well designed and maintained comparing to a commercial or residential rooftop.

Below are some of the examples of rooftop plant of data centres in dense urban environment where the views from adjacent residential and commercial buildings are an important design factor.







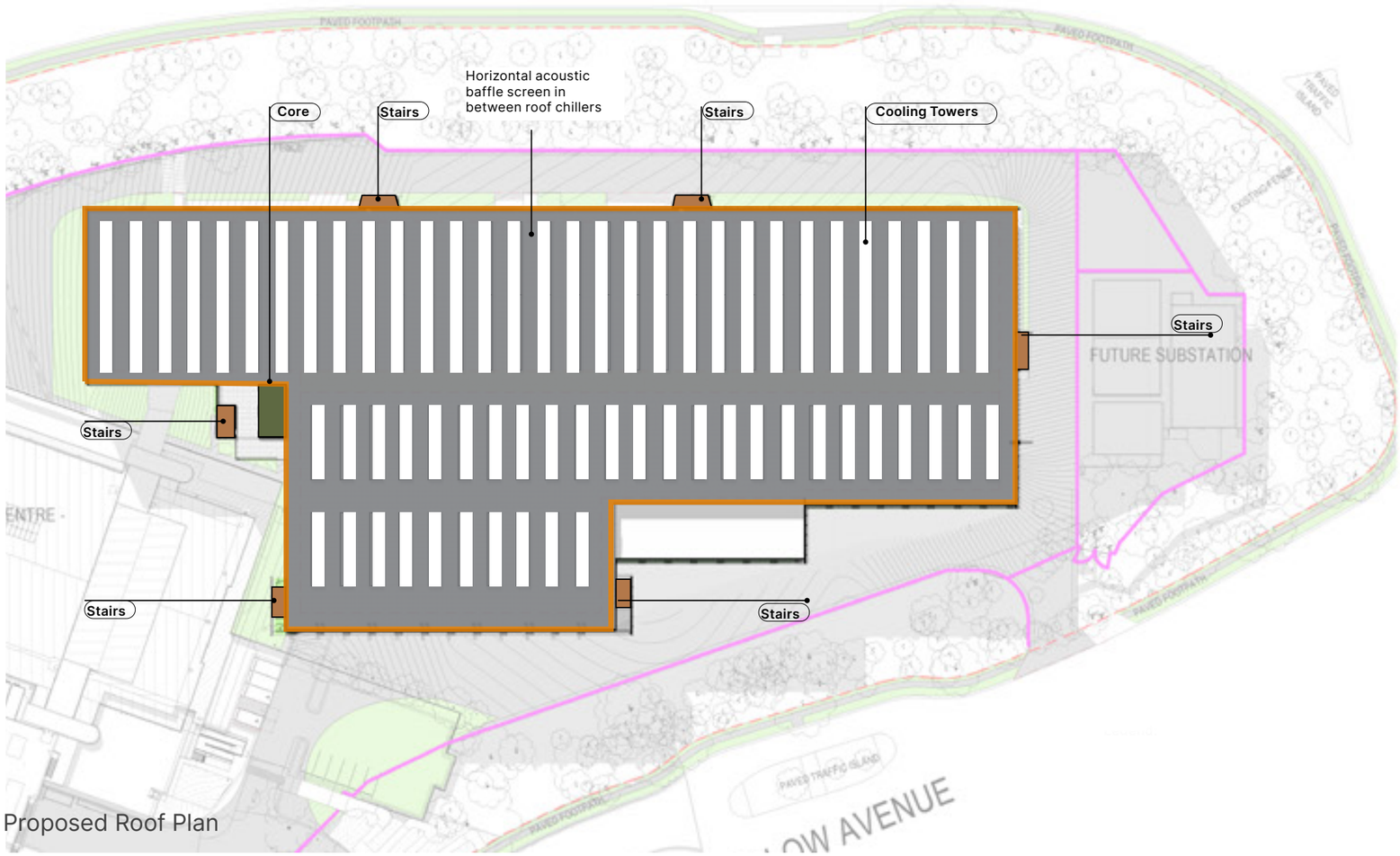
Data Centre Roofs

6. Response to GANSW’s comments on SDRP 1

Architecture

Response:

As identified in the Acoustic and Noise Impact Assessment prepared by Aurecon (Revision 2026-03-04), horizontal baffle screens are required between rooftop chillers to mitigate noise impacts on surrounding sensitive receivers. This requirement has been integrated into the architectural design of the rooftop.
All rooftop services are consolidated and screened as part of a coordinated roof-level enclosure, with only the tops of the chillers remaining open to sky to allow for ventilation. This approach minimises visual clutter, integrates plant equipment into the overall architectural expression, and reduces the visual impact of rooftop services when viewed from surrounding residential and mixed-use areas.
Plans and perspective views illustrating the integrated rooftop design are provided with this submission.



Proposed Roof Plan

6. Response to GANSW’s comments on SDRP 1

Architecture

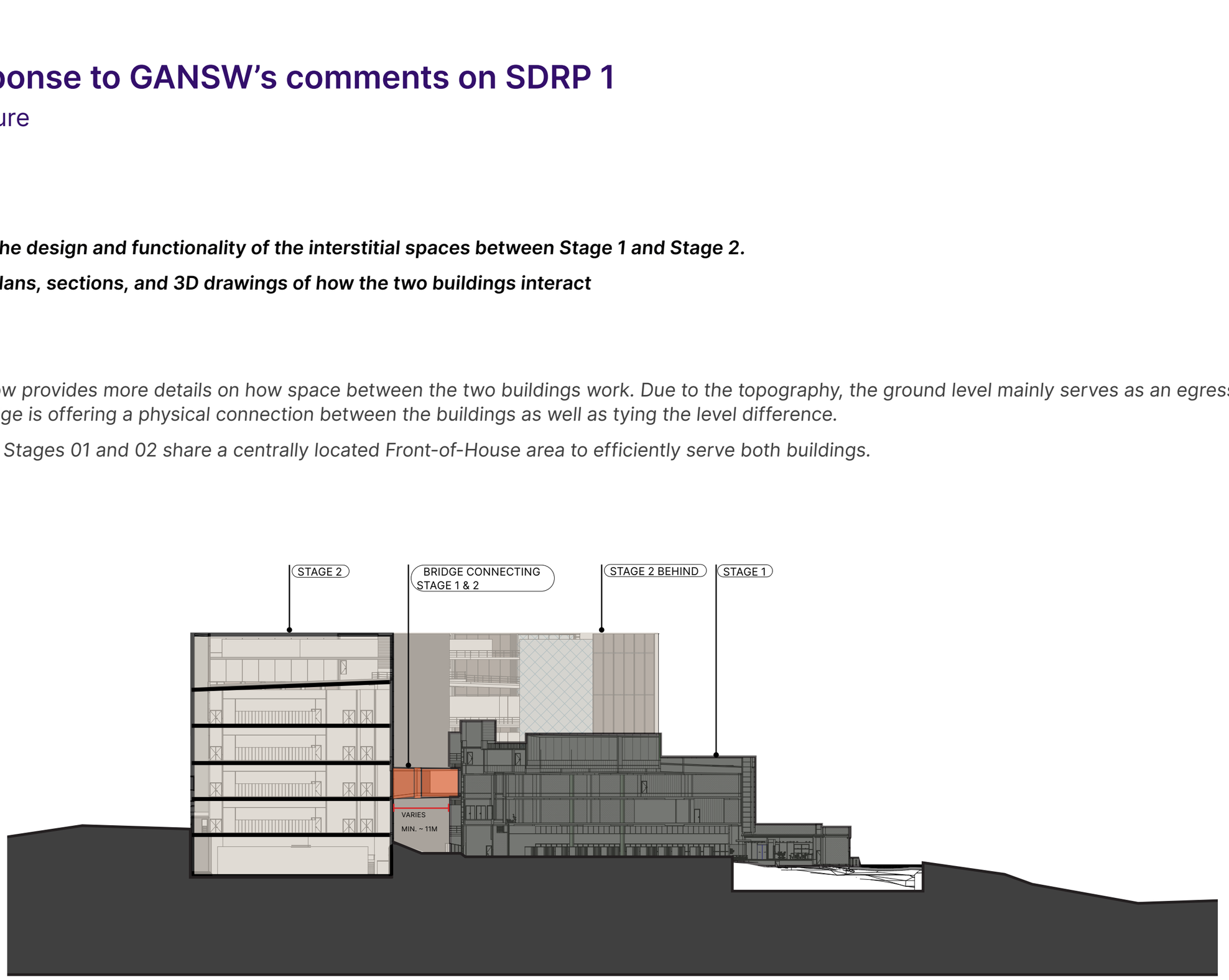
13. Review the design and functionality of the interstitial spaces between Stage 1 and Stage 2.

d. Provide plans, sections, and 3D drawings of how the two buildings interact

Response:

Section below provides more details on how space between the two buildings work. Due to the topography, the ground level mainly serves as an egress route. The link bridge is offering a physical connection between the buildings as well as tying the level difference.

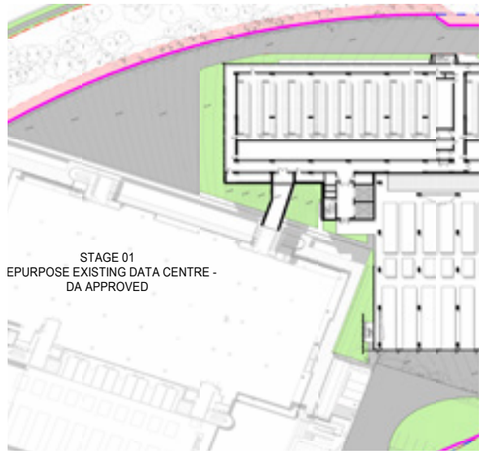
Additionally, Stages 01 and 02 share a centrally located Front-of-House area to efficiently serve both buildings.



Section cutting through Stage 01 and 02

6. Response to GANSW’s comments on SDRP 1

Architecture





Plan and 3D view of the space between Stage 01 and 02

07

Design Iteration

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7. Design Iteration

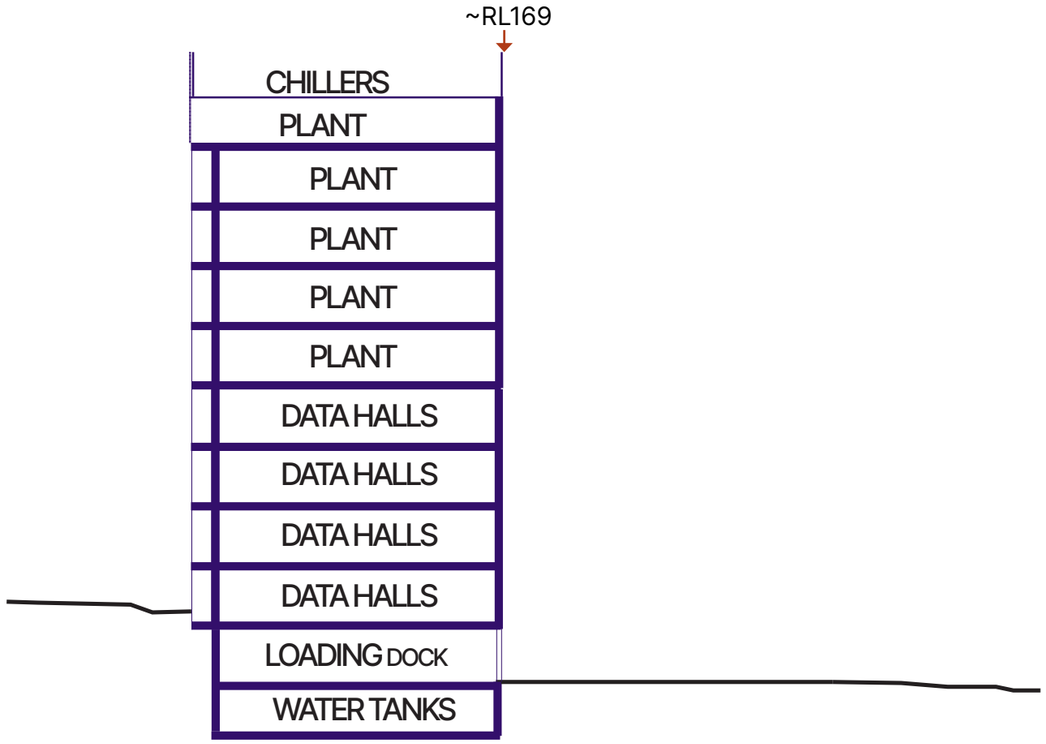
This section summarises the design iterations undertaken during the project and outlines the rationale for the selected layout and architectural approach.
The design was informed by key considerations including relevant planning controls, site topography, sensitive receivers, traffic conditions, site access, the existing and future surrounding context, and input from specialist consultants.

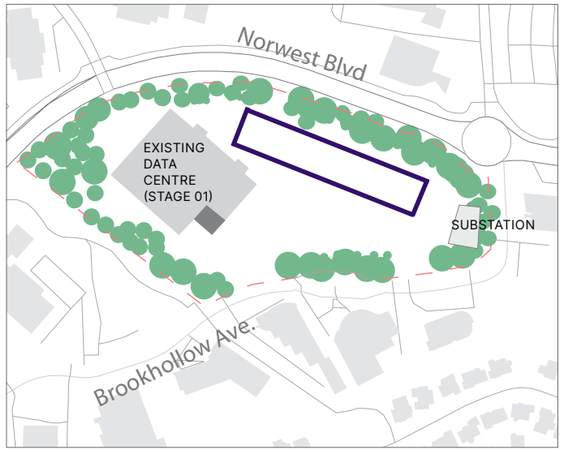
The comparisons between the design iterations and the current proposed scheme are intended to illustrate the evolution of the design and incorporate the updated photomontages

7. Design Iteration

The design team explored various building and site configurations.

Option 01 proposed stacking the data halls and plant levels; however, while this reduced the building footprint, it resulted in a building height that exceeded the RL116 limit by approximately 53 metres.



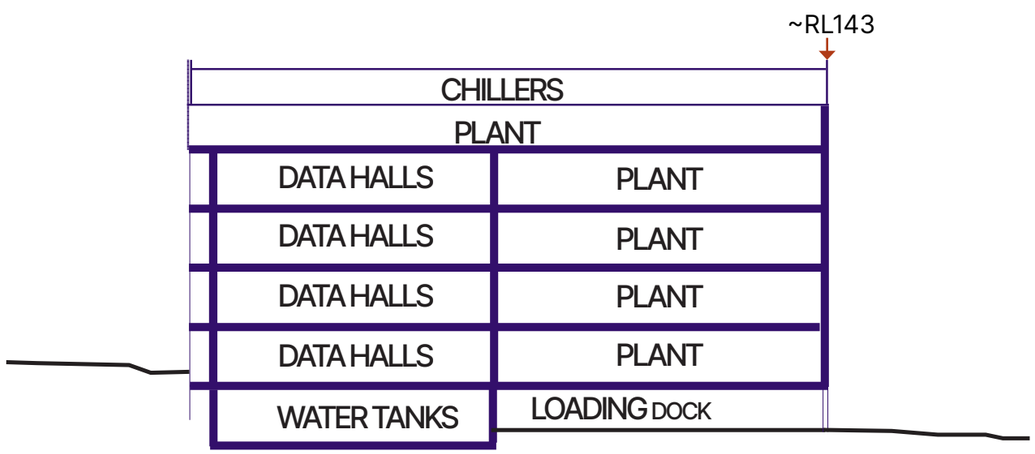


Building footprint

Option 2 involved locating the plant on the same levels as the data halls. While this increased the overall building footprint, it reduced the building height by approximately 26 meters.

Importantly, this option still retains the required 20 m green belt around the site.

As a result, Option 2 provides an optimal outcome, achieving a reduced building height while maintaining the green buffer.





Building footprint

7. Design Iteration

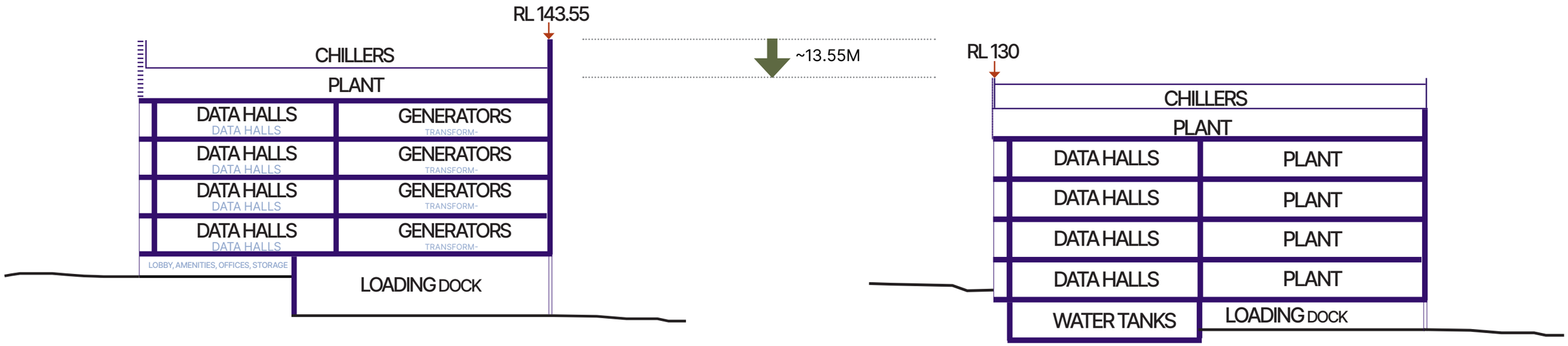
Design Development and Height Reduction

Subsequent design iterations focused on reducing the overall building height while maintaining the key planning principle of locating data halls and plant on the same levels, rather than stacking them.

Early schemes incorporated a dedicated Front-of-House (FoH) area at ground level within the proposed building. Following further design assessment, it was determined that the FoH facilities could be shared with the existing on-site data centre (Stage 01). This consolidation allowed the FoH to be removed from the proposed building, resulting in a reduction in overall height.

Further refinements included lowering the base level of the water tanks, which provided an additional reduction in building height.

Collectively, these design refinements have reduced the building height by approximately 13.55 metres since the first SDRP meeting.



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7. Design Iteration

Visual Impact Assessment within the existing context

In this section, we focus on refinements to the building envelope informed by the Visual Impact Assessment (VIA). Targeted reductions in building height and massing were implemented to minimise visual impacts on the surrounding area.

The maximum building level was reduced from RL 143.55 to RL 130, significantly decreasing the perceived bulk and scale of the development. As shown in the VIA photomontages, this reduced height—together with the retained 20 m green belt—ensures the building sits lower within the landscape, becoming largely screened by existing tree vegetation when viewed from surrounding vantage points.

7. Design Iteration

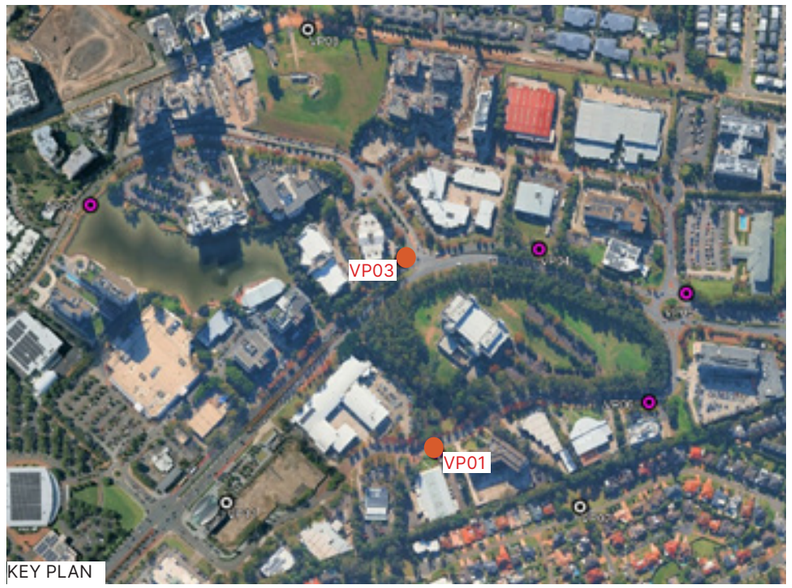
Visual Impact Assessment within the existing context



PREVIOUS SCHEME - VP01



CURRENT SCHEME - VP01



KEY PLAN



PREVIOUS SCHEME - VP03



CURRENT SCHEME - VP03

7. Design Iteration

Visual Impact Assessment within the existing context



PREVIOUS SCHEME - VP04



CURRENT SCHEME - VP04



KEY PLAN



PREVIOUS SCHEME - VP05



CURRENT SCHEME - VP05

7. Design Iteration

Visual Impact Assessment within the existing context



PREVIOUS SCHEME - VP06



CURRENT SCHEME - VP06



KEY PLAN

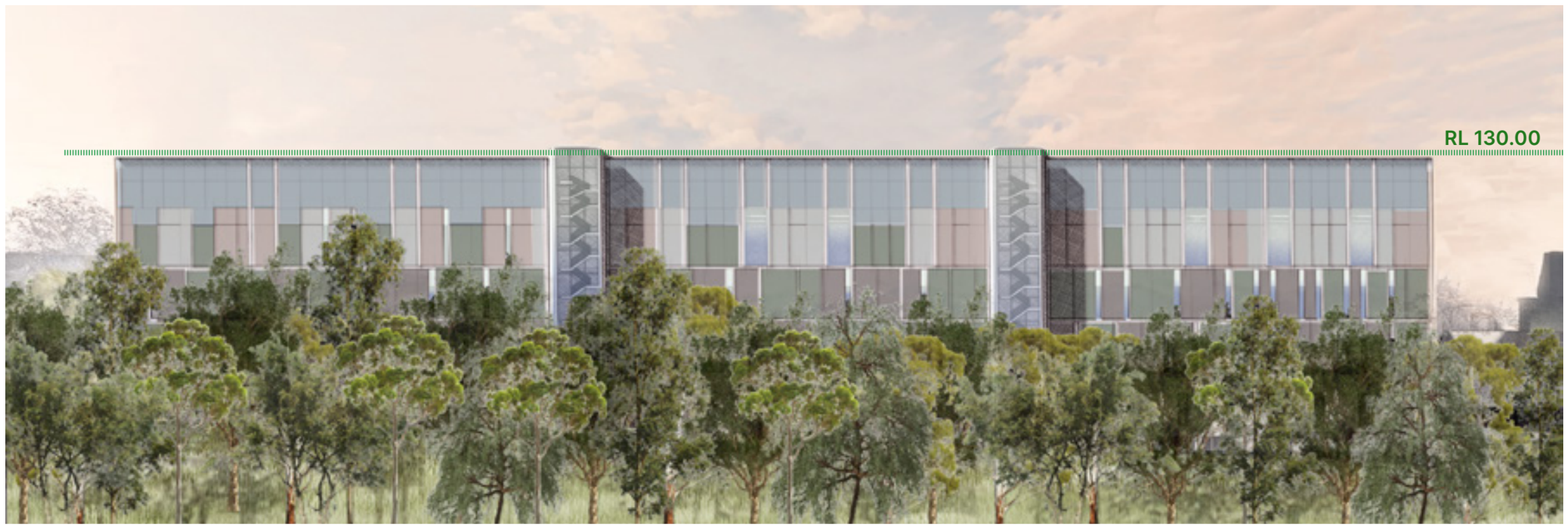
7. Design Iteration

Proposed Scheme - View from Norwest Boulevard

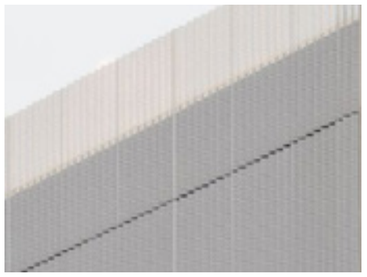


HOB reduced by **13.55m**

VIEW FROM NORWEST BOULEVARD - PREVIOUS SCHEME

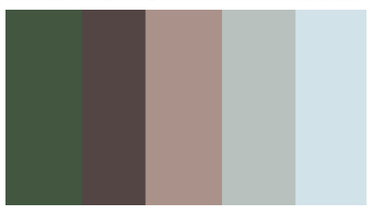


VIEW FROM NORWEST BOULEVARD - NEW SCHEME



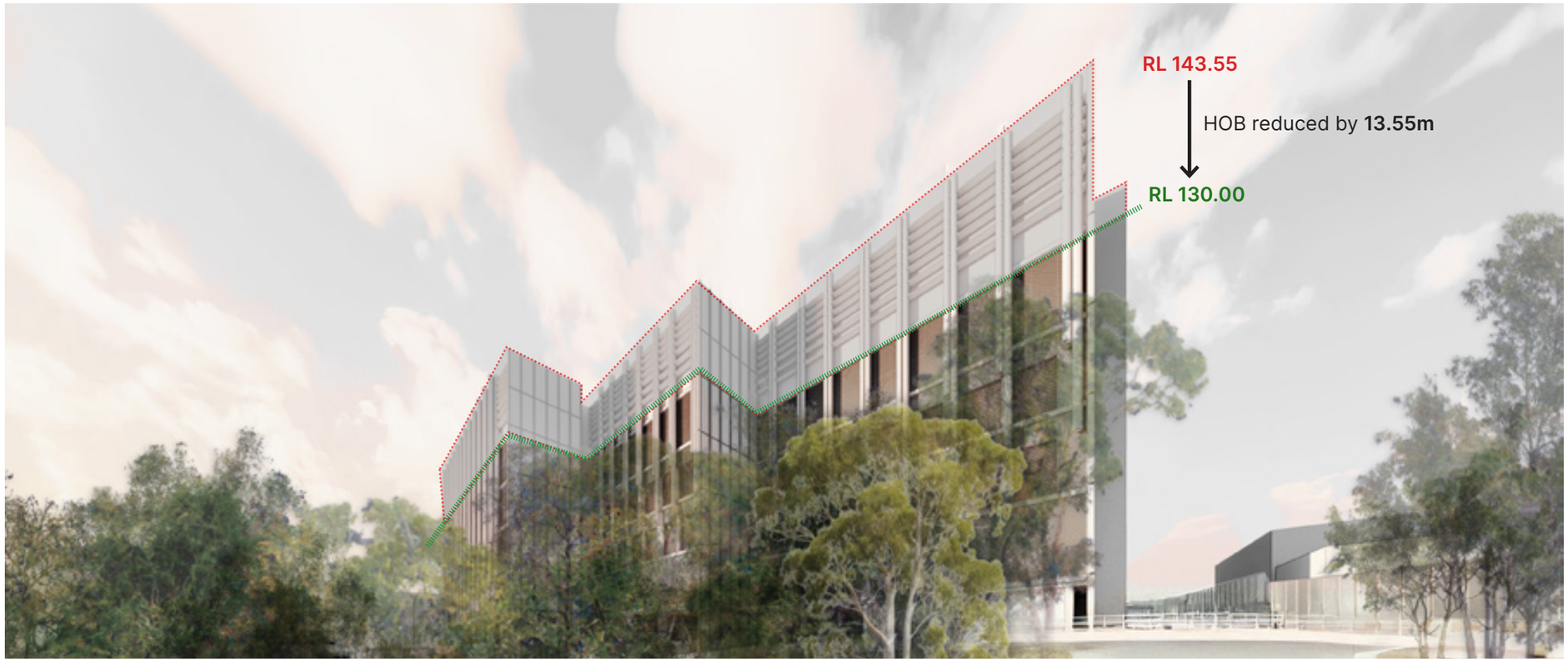




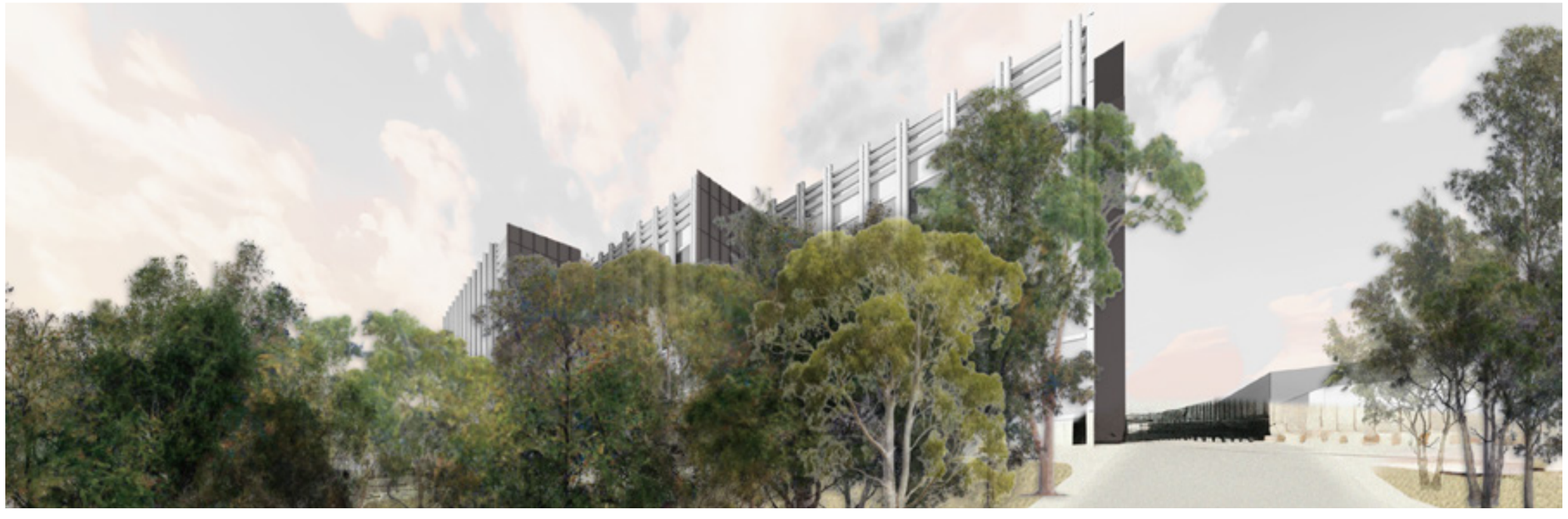


7. Design Iteration

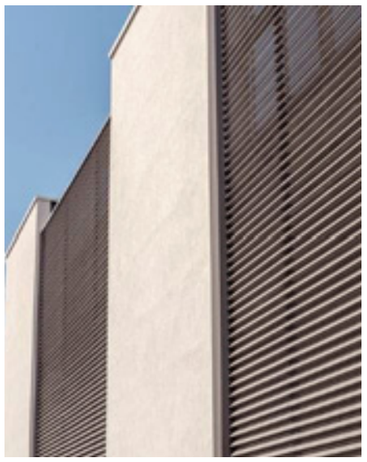
Proposed Scheme - View from Brookhollow Ave



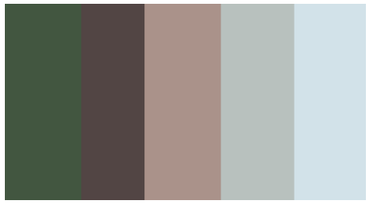
VIEW FROM BROOKHOLLOW AVENUE - PREVIOUS SCHEME



VIEW FROM BROOKHOLLOW AVENUE - NEW SCHEME

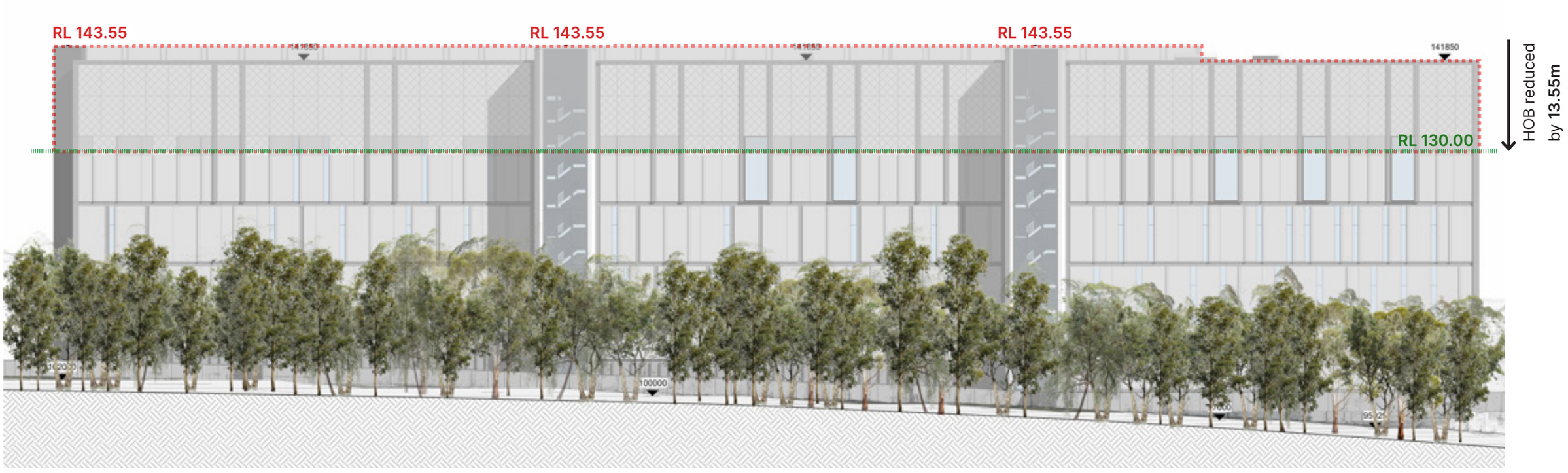




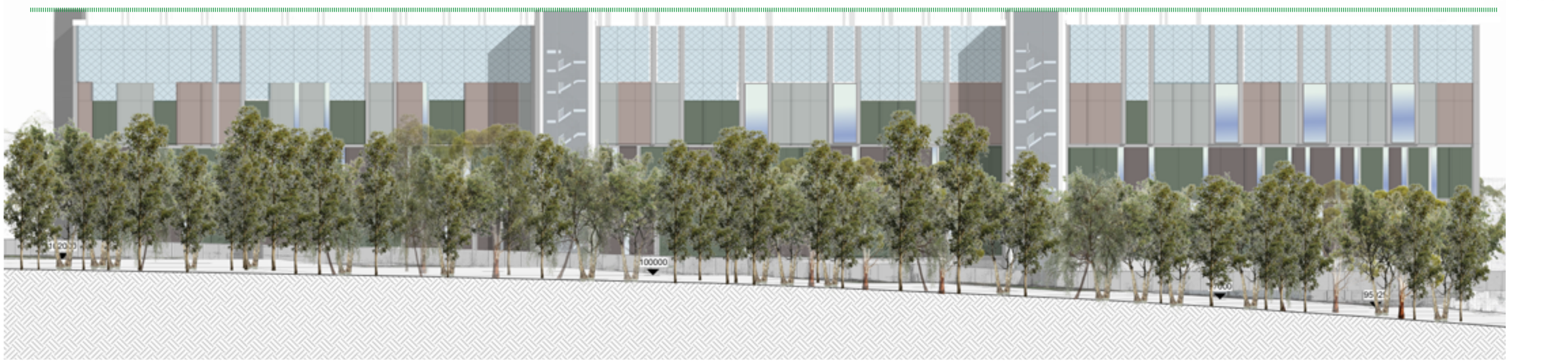


7. Design Iteration

Proposed Scheme - North Elevation



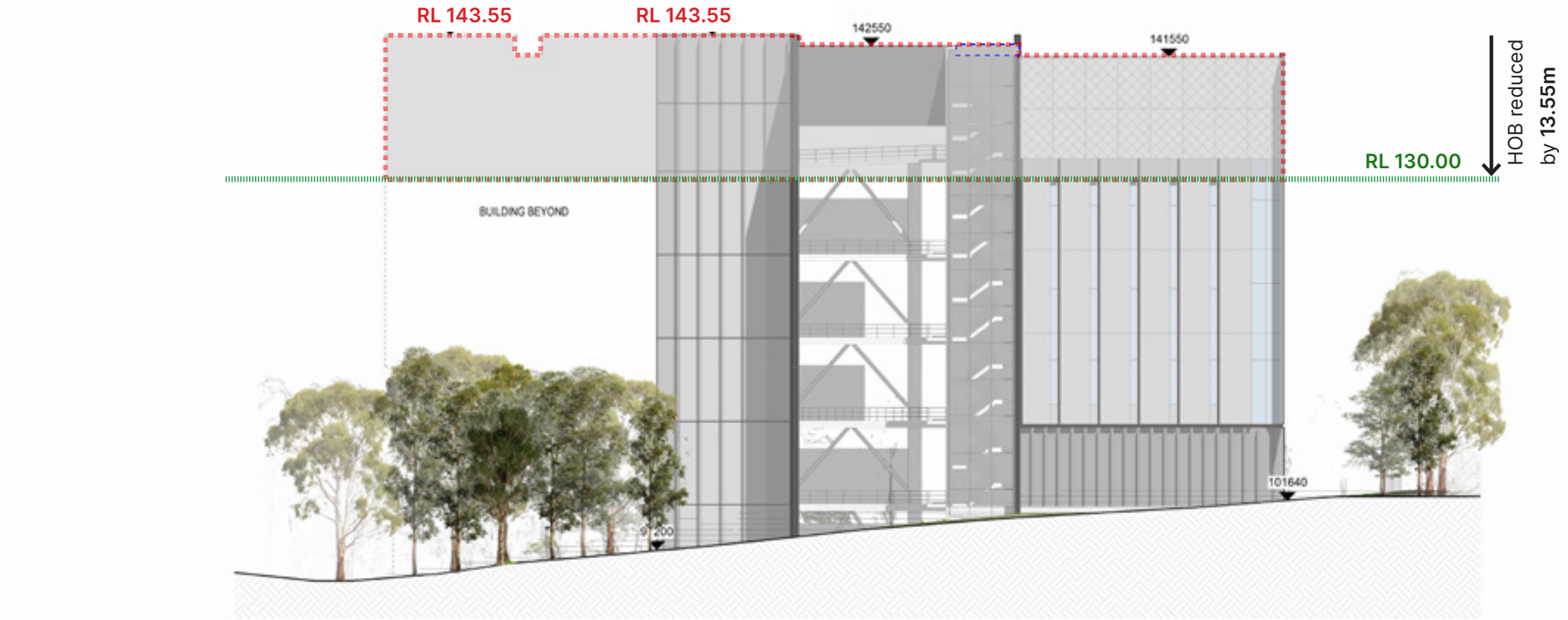
NORTH ELEVATION - PREVIOUS SCHEME



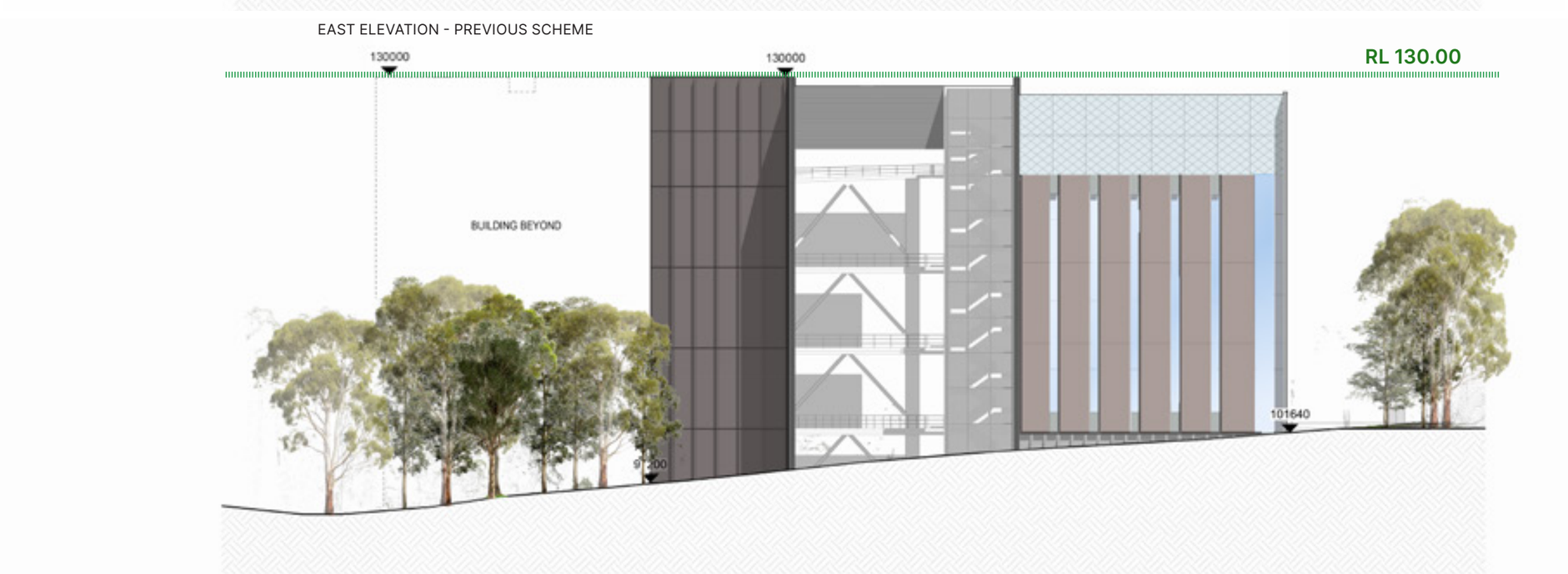
NORTH ELEVATION - NEW SCHEME

7. Design Iteration

Proposed Scheme - East Elevation



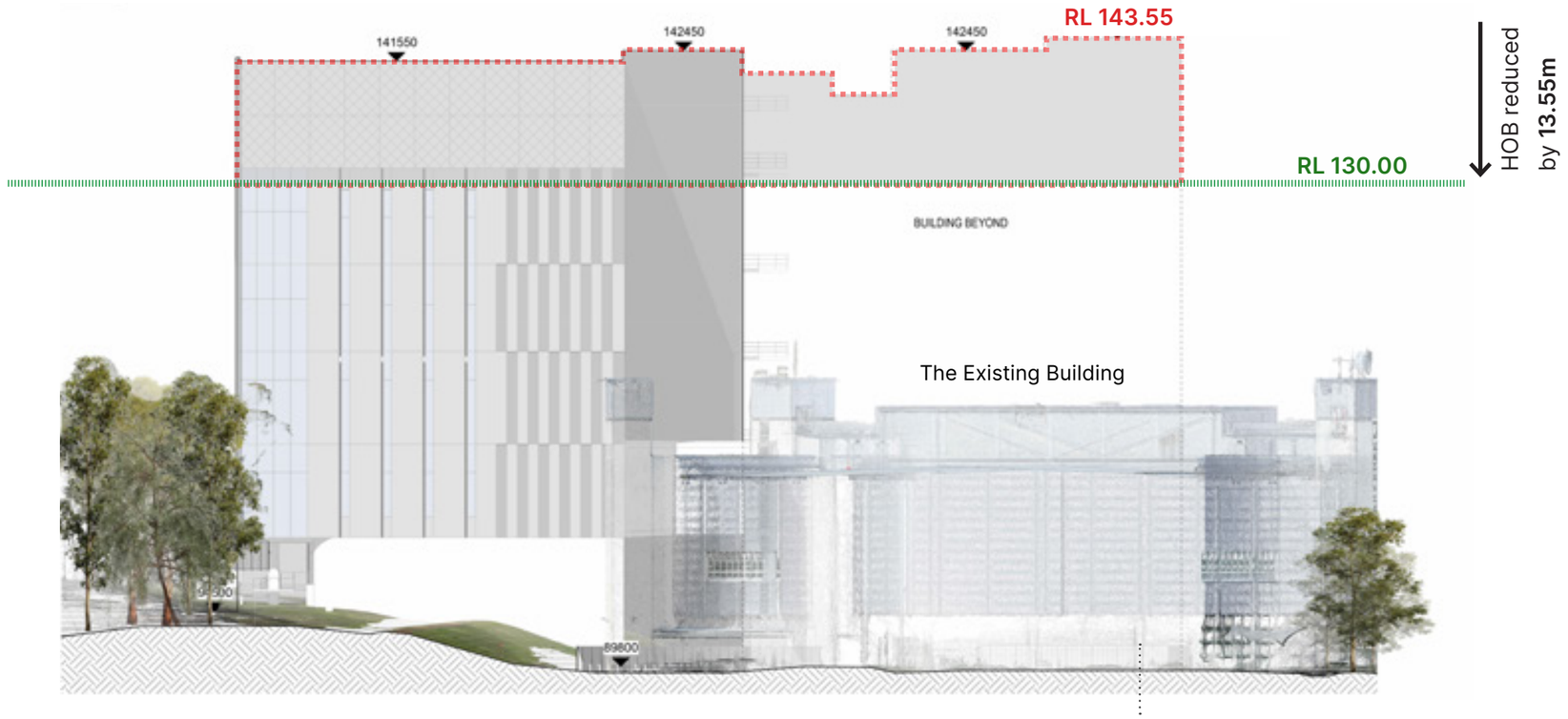
EAST ELEVATION - PREVIOUS SCHEME



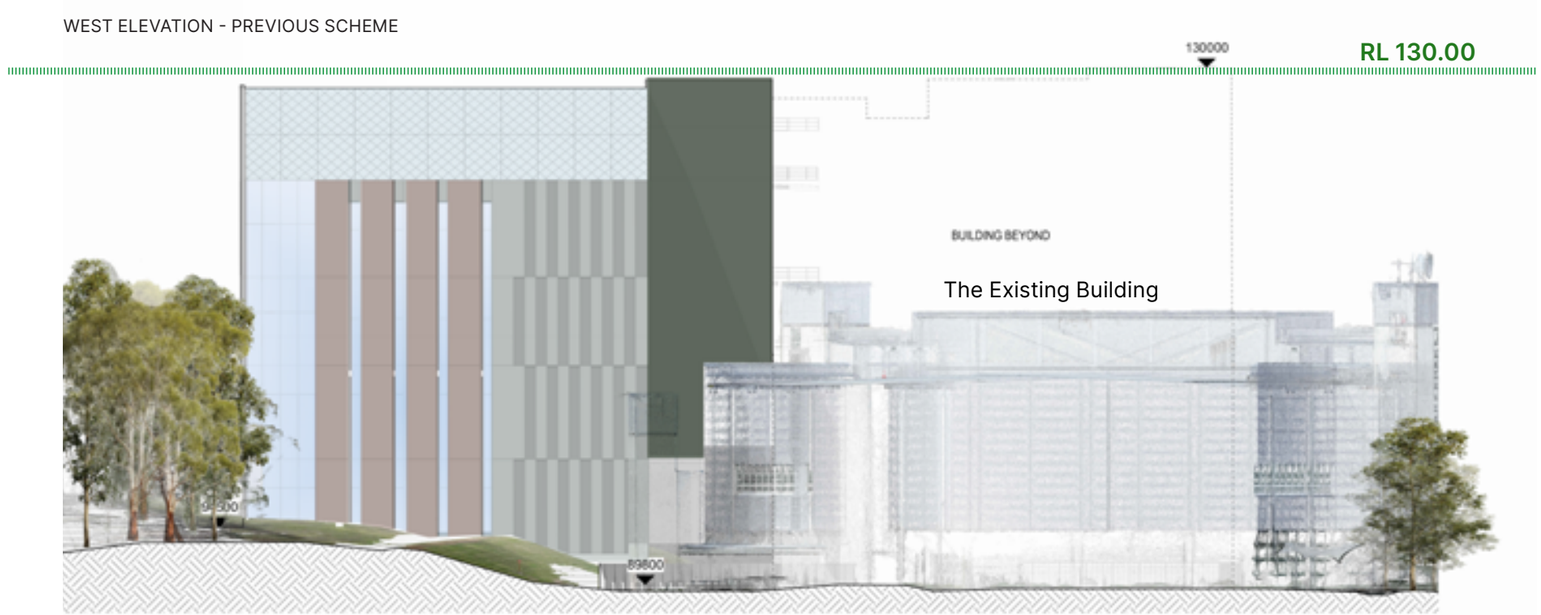
EAST ELEVATION - NEW SCHEME

7. Design Iteration

Proposed Scheme - West Elevation



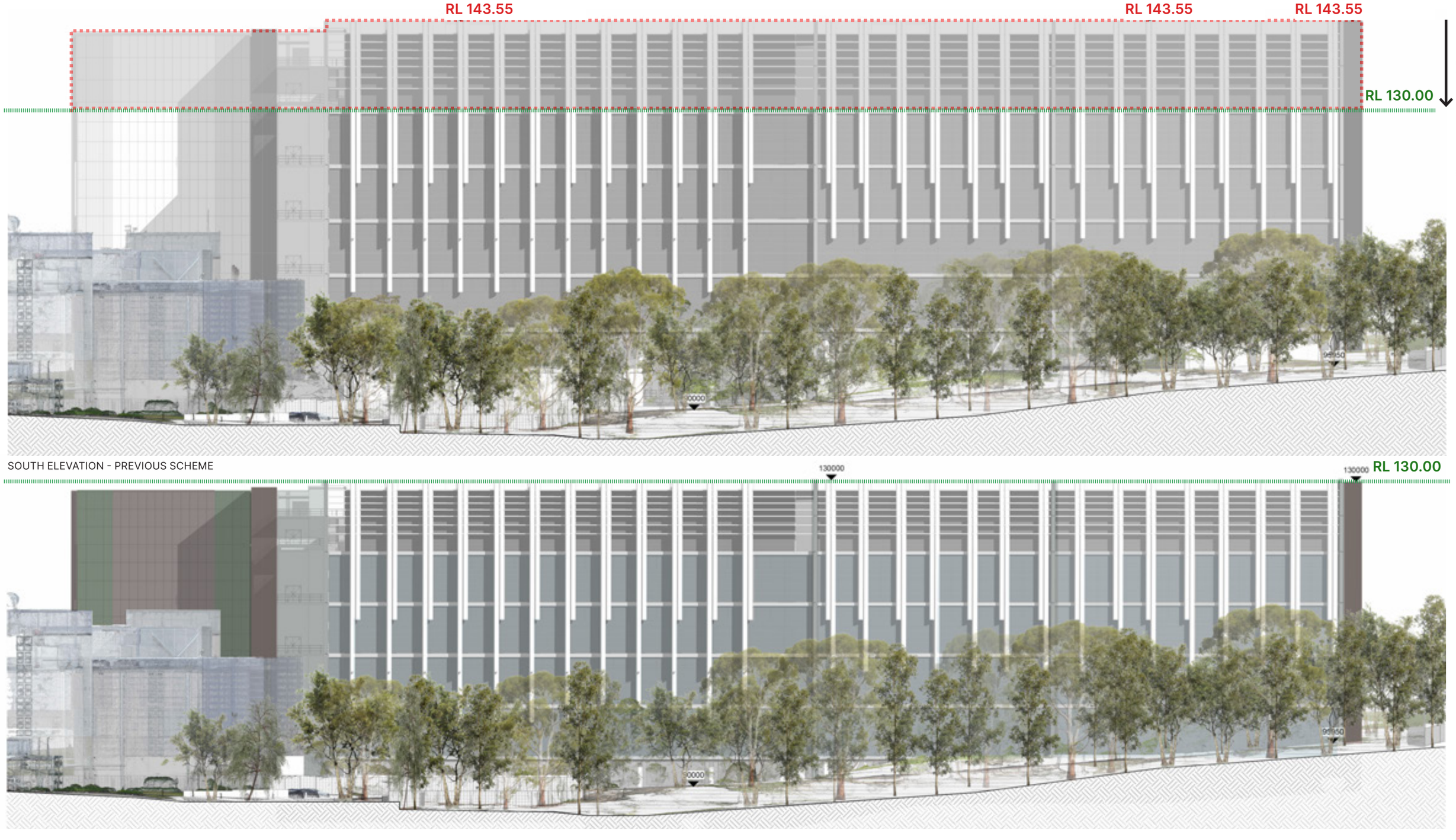
WEST ELEVATION - PREVIOUS SCHEME



WEST ELEVATION - NEW SCHEME

7. Design Iteration

Proposed Scheme - South Elevation



SOUTH ELEVATION - PREVIOUS SCHEME

SOUTH ELEVATION - NEW SCHEME

7. Design Iteration

Proposed Scheme



PREVIOUS SCHEME

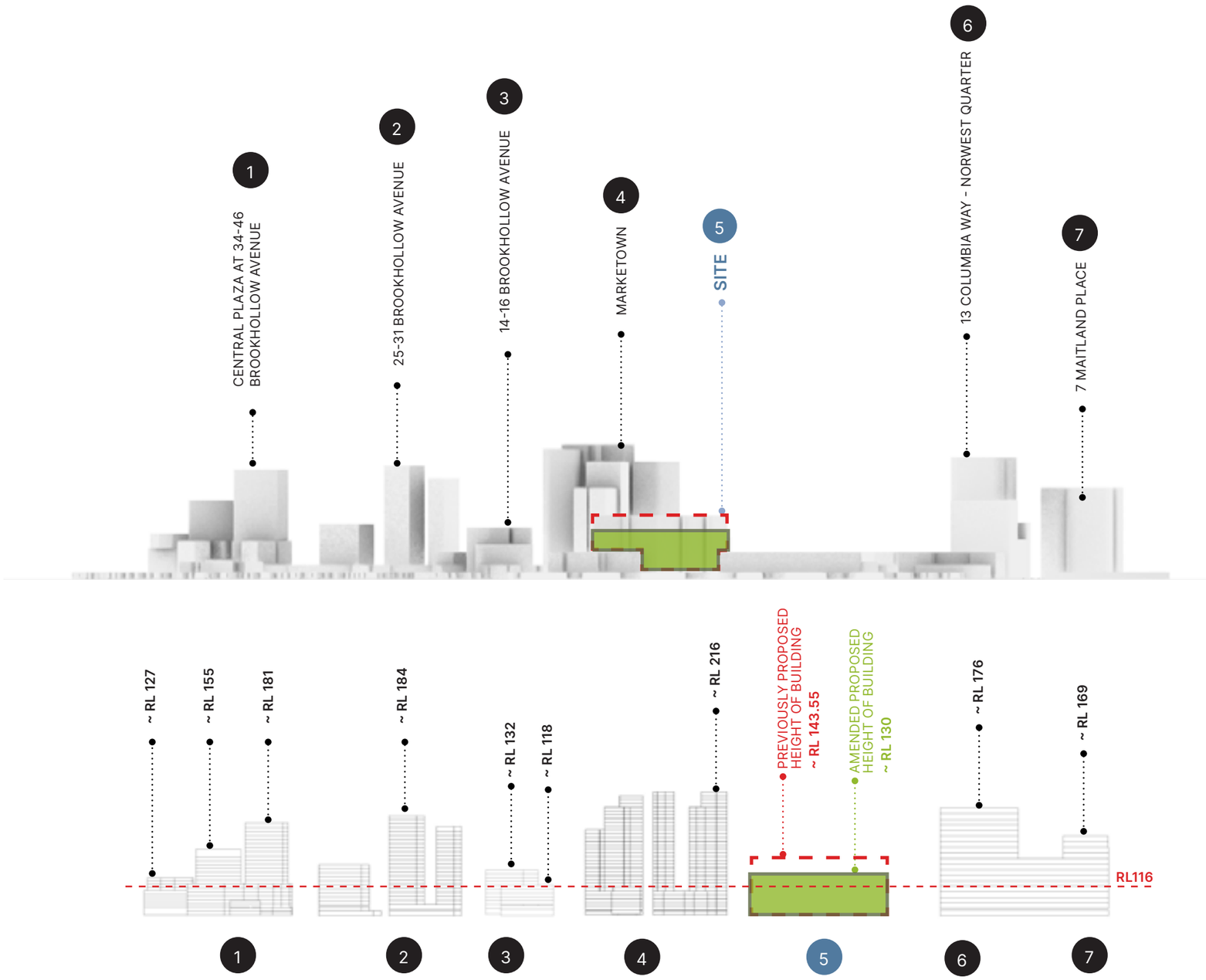


NEW SCHEME

Horizontal acoustic baffle screen and roof-perimeter acoustic walls, as informed by the Acoustic and Noise Impact Assessment by Aurecon (Revision 2026-03-04).

7. Design Iteration

Proposed Built Form within the Future Context



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7. Design Iteration

Shadow Diagrams Analysis - Current Vs Previous Scheme

This section compares shadow impacts between the previous scheme (maximum RL 143.55) and the current design (maximum RL 130.0).
Through design iterations, detailed shadow studies assessed impacts on surrounding sensitive receivers and Strangers Creek, with the aim of minimising overshadowing. The diagrams illustrate that reducing the building height by 13.55 m significantly reduces shadow impacts on the creek and sensitive receivers to the south of the site.

7. Design Iteration

Shadow Diagrams Analysis - Current Vs Previous Scheme

PREVIOUS SCHEME



SHADOW DIAGRAMS - SUMMER SOLSTICE - 9AM



SHADOW DIAGRAMS - SUMMER SOLSTICE - 12PM

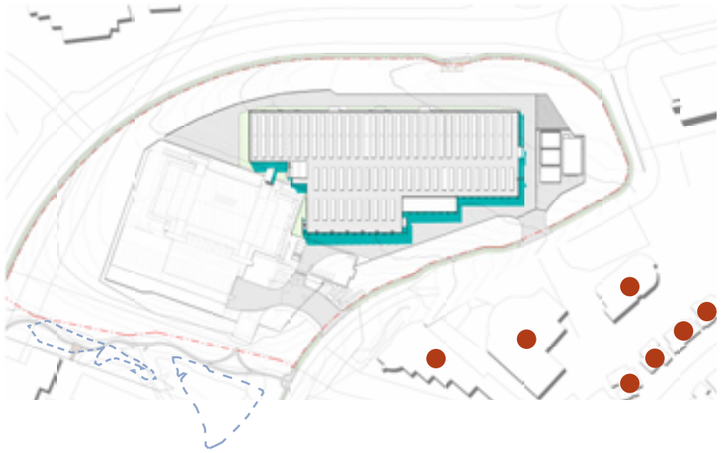


SHADOW DIAGRAMS - SUMMER SOLSTICE - 3PM

CURRENT SCHEME



SHADOW DIAGRAMS - SUMMER SOLSTICE - 9AM



SHADOW DIAGRAMS - SUMMER SOLSTICE - 12PM



SHADOW DIAGRAMS - SUMMER SOLSTICE - 3PM

SENSITIVE RECEIVERS

APPROXIMATE EXTENT OF THE STRANGERS CREEK

SHADOW - CURRENT SCHEME

REDUCED SHADOW BY LOWERING BUILDING HEIGHT

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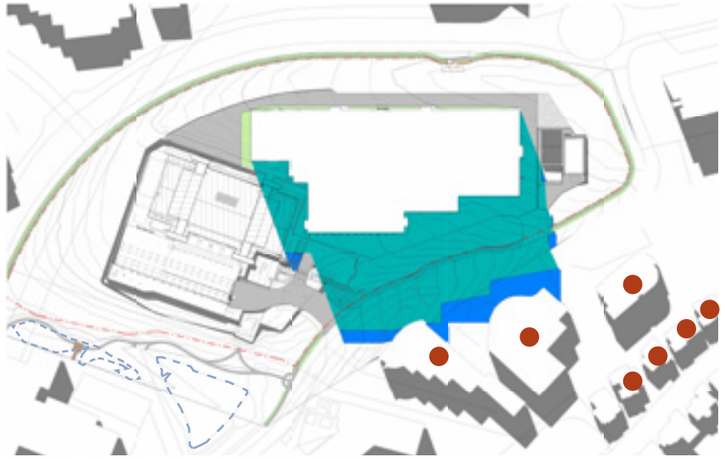
7. Design Iteration

Shadow Diagrams Analysis - Current Vs Previous Scheme

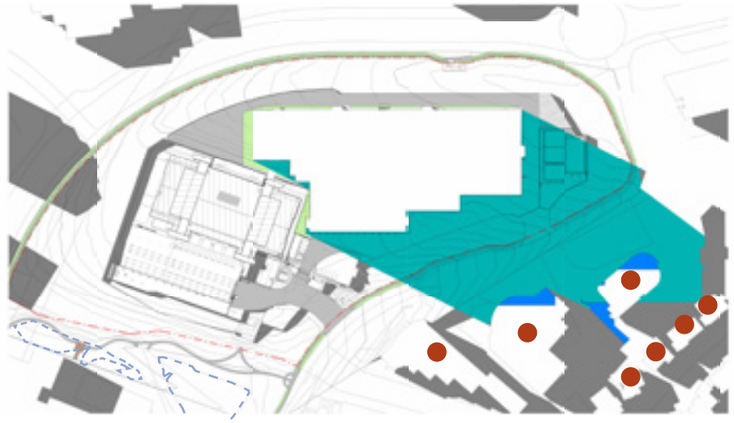
PREVIOUS SCHEME



SHADOW DIAGRAMS - WINTER SOLSTICE - 9AM

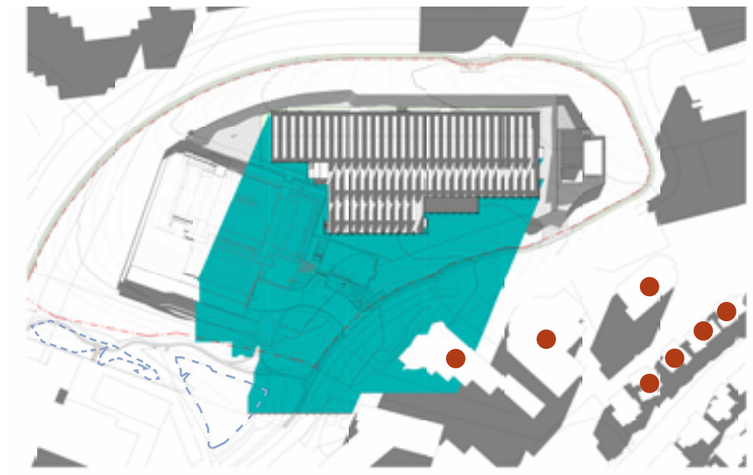


SHADOW DIAGRAMS - WINTER SOLSTICE - 12PM

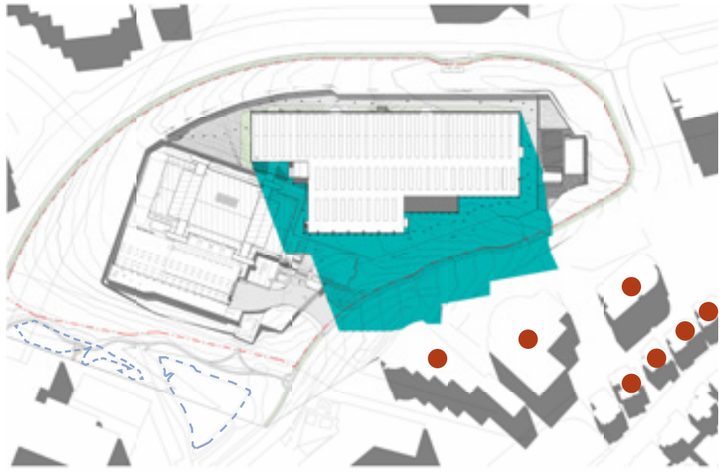


SHADOW DIAGRAMS - WINTER SOLSTICE - 3PM

CURRENT SCHEME



SHADOW DIAGRAMS - WINTER SOLSTICE - 9AM



SHADOW DIAGRAMS - WINTER SOLSTICE - 12PM



SHADOW DIAGRAMS - WINTER SOLSTICE - 3PM

SENSITIVE RECEIVERS

APPROXIMATE EXTENT OF THE STRANGERS CREEK

SHADOW - CURRENT SCHEME

REDUCED SHADOW BY LOWERING BUILDING HEIGHT

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7. Design Iteration

View From Norwest Boulevard - Current Vs Previous Scheme

While the current scheme introduces a solid acoustic wall behind the mesh for acoustic performance requirements, the original design intent has been retained. The solid element is positioned behind the mesh screen, ensuring that the façade continues to read as a lightweight and articulated façade rather than a solid barrier.

The visual language remains consistent with the previously supported scheme: the façade reads as more solid and grounded at the lower levels and progressively becomes lighter with height through the use of mesh panels. This transition maintains the intended feathering effect against the sky, preserving visual permeability and reducing perceived bulk.

The introduction of the solid acoustic wall responds to the amenity requirements of sensitive receivers surrounding the site and has been informed by Acoustic and Noise Impact Assessment prepared by Aurecon [Revision 2026-03-04]. As such, the design balances functional acoustic performance with the established architectural intent, ensuring both compliance and visual quality are achieved.



ARTIST IMPRESSION - VIEW FROM NORWEST BOULEVARD CURRENT SCHEME



ARTIST IMPRESSION - VIEW FROM NORWEST BOULEVARD PREVIOUS SCHEME

7. Design Iteration

Proposed Scheme - View from Norwest Boulevard



ARTIST IMPRESSION - VIEW FROM NORWEST BOULEVARD

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