

Prepared for State Significant Development Application (SSDA)



Mamre Road Data Centre Campus

Prepared for **Plan Project Management**
28th November 2025

Acknowledgement of Country

We acknowledge the Dharug peoples, the Traditional Custodians of this land, and pay our respects to their Elders past and present. 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 on behalf of Plan Project Management to accompany a State Significant Development Application (SSDA) for **Mamre Road Data Centre Campus** development.

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) dated 30 September 2025 issued for the SSDA (**SSD-92743706**).

Team Introduction

CLIENT	●	Plan Project Management Pty Ltd
ARCHITECT	●	Greenbox Architecture
PLANNER	●	Willowtree Planning
LANDSCAPE	●	Geoscape
WASTE	●	MRA Consulting
TRAFFIC	●	Ason Group
STRUCTURE	●	WSP
SERVICES	●	Aurecon
CIVIL/ STORMWATER	●	AT&L
SURVEYOR	●	MNG Landpartners
ESD	●	E-Lab
ACOUSTIC	●	Renzo Tonin
BCA	●	MBC Group
ARBORICULTURE	●	CPS Planning
SECURITY	●	SCG (Security Consulting Group)
QS	●	Linesight
CONNECTING WITH COUNTRY	●	Yerrabingin

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Project Overview

Project Overview

1.1 Project Introduction

This Architectural Design Report has been prepared by Greenbox Architecture on behalf of Plan Project Management to accompany a State Significant Development Application (SSDA) for a data centre campus development.

The project area for the proposed development, **706-752 Mamre Road, Kems Creek (Lot 10 DP 1280592)**, constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kems Creek (Lot 40 in DP 709347).
- GPT Group site to the South known as 754 Mamre Road, Kems Creek (Lot 180 in DP 1290397).

Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure.
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.



Figure 1 Aerial Photograph of Site

Source: Vexcel, 2025

Project Overview

1.2 Project Details

Descriptor	Project Details
Project Area	The data centre development relates to the Lot 10 DP1280592, part Lot 180 DP1290397 and part Lot 40 DP 708347 and comprises an area of approximately 522,477sqm (Cadastral area).
Proposed Use	Data centre with ancillary office space.
Project Description	The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising: - Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office. - Incoming and internal electrical substations and associated infrastructure. - Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.
Building Height	40m measured from ground floor level; when measured from natural ground level - the maximum building height is 53.5m
Proposed Tree Canopy Cover	West Campus = 27,233m2 East Campus = 18,435m2 Total = 45,668m2 (10.4% of on lot area)
Deep Soil Landscape Area (Calculated at 100%)	West Campus = 45,597m2 East Campus = 32,040m2 Total permeable area = 77,637m2 (17.8% of on lot area)
Car Parking	619 car spaces
Motorbike Spaces	6 spaces
Bicycle Spaces	30 bicycle spaces
Operations and Management	The facility will be operated on a 24-hour, 7 day a week basis.

Project Overview

1.3 Response to SEARs

This report has been prepared in response to the requirements contained within the Secretary’s Environmental Assessment Requirements (SEARs) dated.

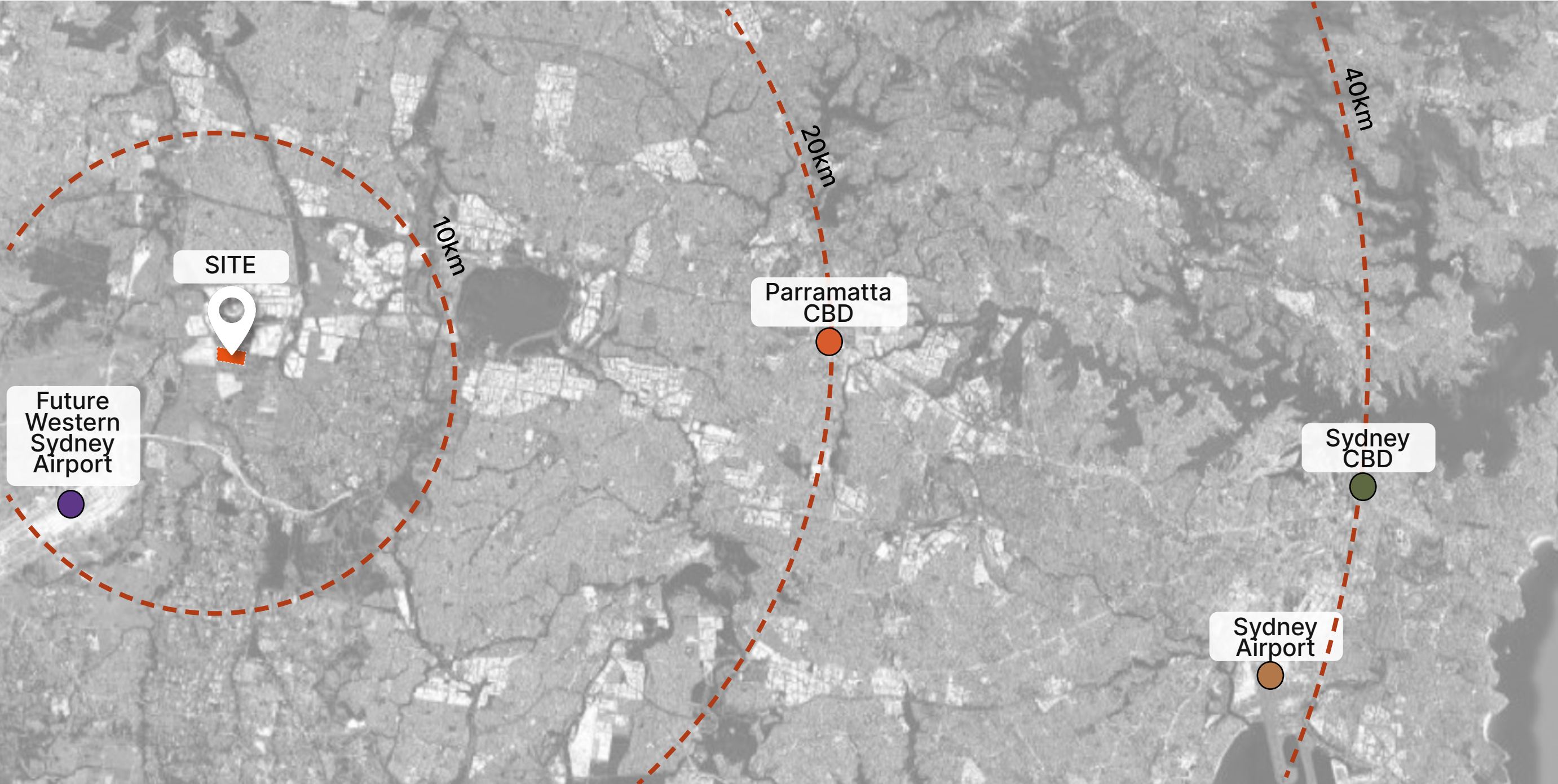
Specifically, this report has been prepared to respond to the SEARS requirement issued below.

Item	Description of Requirement	Section Reference (this Report)
Built Form and Urban Design	Demonstrates how the proposal responds to the urban design objectives and controls of the MRP DCP, including: - Consistency with the relevant height control of 20 metres from existing ground level - Provision of a setback of at least 20 metres to Mamre Road and the future Southern Link Road that does not include built form components, such as plant and equipment, driveways or fire access roads, in this area.	Refer to Section “3. Built Form and Design Strategies”, pages 21-34
	Identifies design options considered during the iterative design process and demonstrates the proposed development has been optimised to provide an integrated landscape design and minimises amenity impacts by having regard to the relevant evaluation criteris in <i>Better Placed</i> (GANSW, 2017)	Refer to Section “3. Built Form and Design Strategies”, pages 21-34
	Demonstrates how the development will achieve good design in accordance with the seven objectives for good design in <i>Better Placed</i> .	Refer to Section “6. Design Response to GANSW”, pages 53-55
	Demonstrates that Aboriginal culture and heritage is considered and incorporated holistically in the design proposal consistent with the NSW Government’s <i>Connecting with Country Framework</i> (2023).	Refer to Section “2. Site Context & Analysis”, pages 10-20
	Explains and illustrates the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach.	Refer to Section “2. Site Context & Analysis”, pages 10-20
	Demonstrates how the building design will deliver a high-quality development, including considerations of facade design, articulation, materials, finishes, colours, any signage and integration of services.	Refer to Section “4. Building Envelope”, pages 35-48 & “5.Street View Montages”, pages 49-52
	Assesses how the development complies with the relevant accessibility requirements.	Refer to BCA & Accessibility Report by NBC

Site Context and Analysis

Site Context and Analysis

2.1 Regional Context



- Legend:
- Future Western Sydney Airport
 - Sydney CBD
 - Parramatta CBD
 - Sydney Airport

Site Context and Analysis

2.2 Site Description

The site is located at 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), in the Penrith LGA and forms part of the MRP. The MRP is subject to significant industrial and commercial development and investment, with numerous development applications having been determined or under assessment in the region.

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

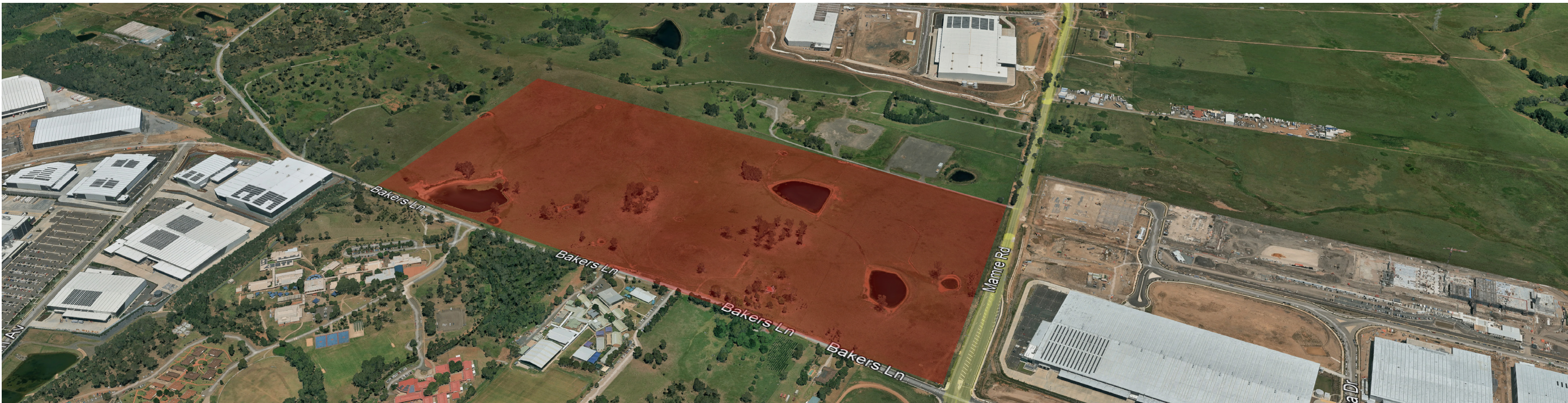
- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

The project area for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kemps Creek (Lot 40 in DP 709347).
- GPT Group site to the South known as 754 Mamre Road, Kemps Creek (Lot 180 in DP 1290397).

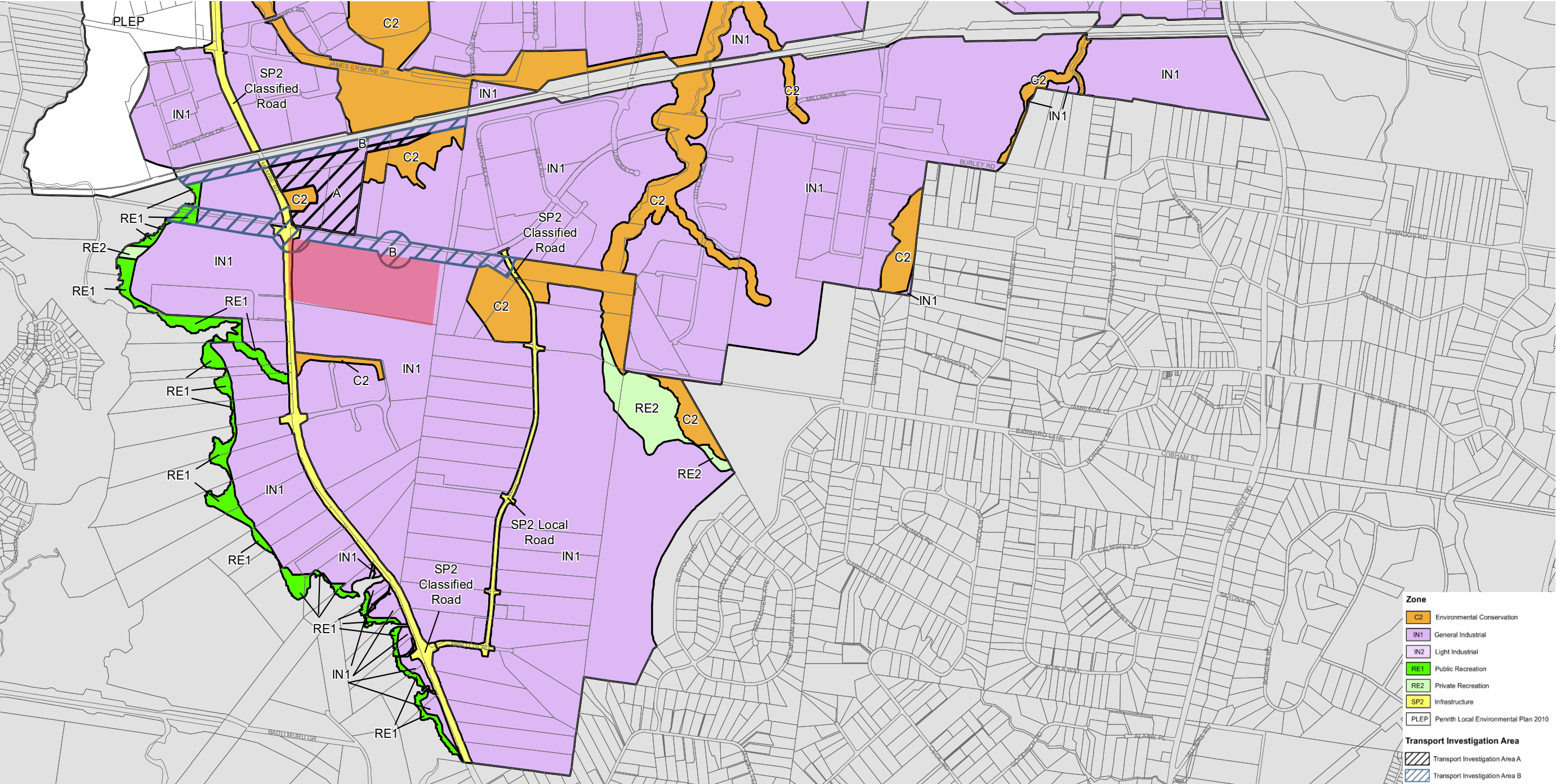
Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.

Feature	Description
Street Address	706-752 Mamre Road, Kemps Creek
Legal Description	Lot 10 DP 1280592
Land Ownership	IFM Investors Pty Ltd
Existing Development	The site is currently vacant, with six (6) dams and small patches of vegetation.
Local Context	Surrounding development to the east, south and west of the site consists of existing and emerging industrial, commercial developments, including warehouses, logistics hubs and data centres. Mamre Anglican School, Trinity Catholic Primary School, Emmaus Catholic College, and Emmaus Retirement Village, all accessible via Bakers Lane, are located to the north of the site. Three residential properties are located north of the site along Mamre Rd and Bakers Ln, which are anticipated to facilitate industrial land uses in the future.
Regional Context	The site is located at the corner of Mamre Road and Bakers Lane and has an approximate area of 52 hectares. The site is within the Penrith Local Government Area (LGA) and forms part of the IN1 General Industrial zoned land within the WSEA, pursuant to the <i>State Environmental Planning Policy (Industry and Employment) 2021</i> (Industry and Employment SEPP).
Site Access	Situated at the intersection of Mamre Rd and Bakers Ln (the future Southern Link Road) and has a 1.1km frontage to Bakers Ln and a 480m frontage to Mamre Rd. The site is located 8.5km northeast of the Western Sydney Airport, 20km from the Parramatta CBD and 40km from the Sydney CBD.



Site Context and Analysis

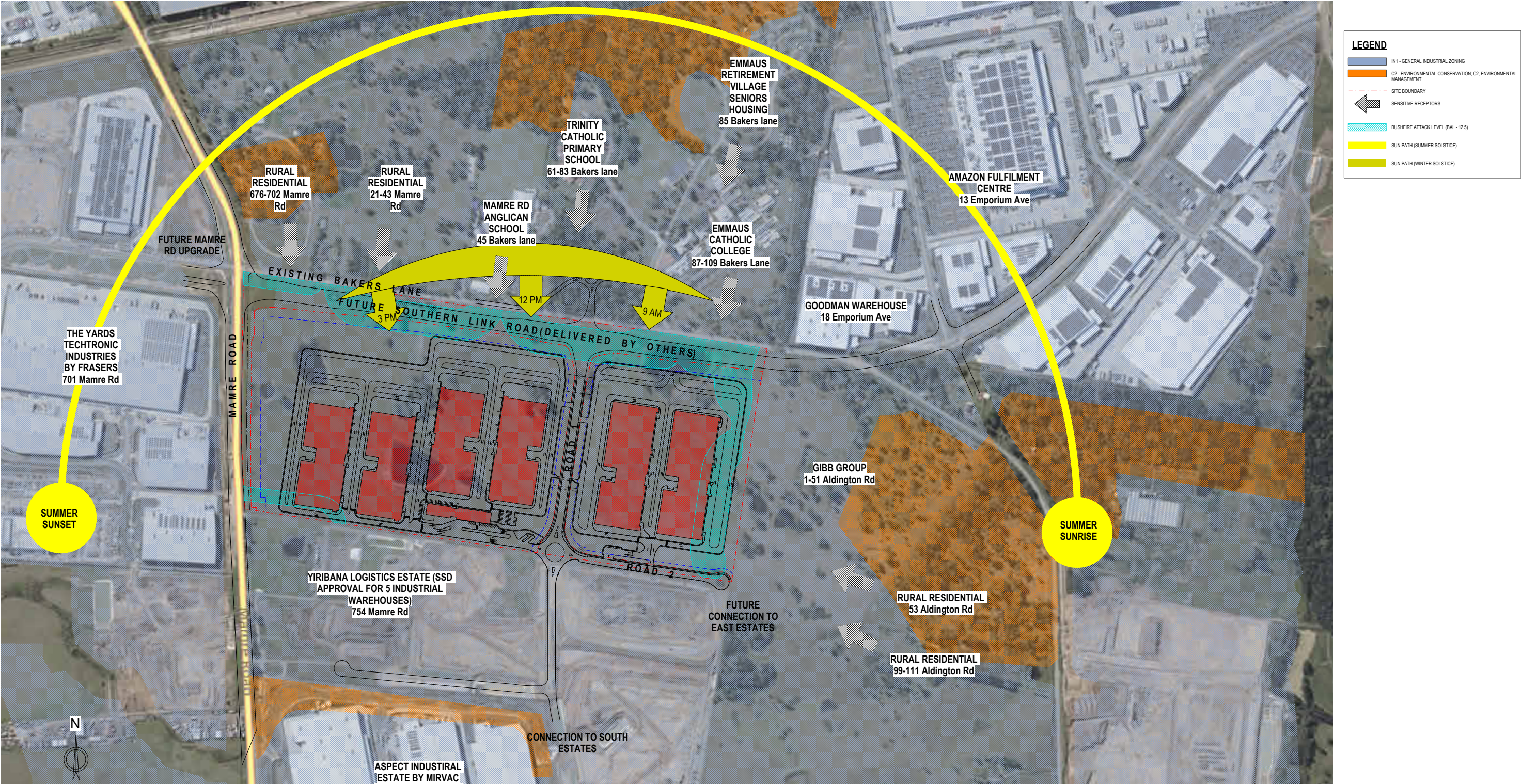
2.3 Planning Controls



The land parcel is located in the local Government Area of Penrith and is part of the Mamre Road Precinct and Western Sydney Employment Area and is zoned General Industrial IN1, allowing for 24/7 operations. The site is currently connected via Mamre Road, zoned SP2 Local Road, and under Transport Investigation Area 2 along the Northern boundary

Site Context and Analysis

2.4 Site Analysis



Site Context and Analysis

2.5 Site Character



1 Amazon Fulfillment Centre BWU2



2 Aldington- GIBB Group



3 Yiribana Logistics State



4 Aspect Industrial Estate



5 Symbion Kemps Creek Warehouse

Site Context and Analysis

2.5 Site Character



6 The YARDS Techtonic Industry



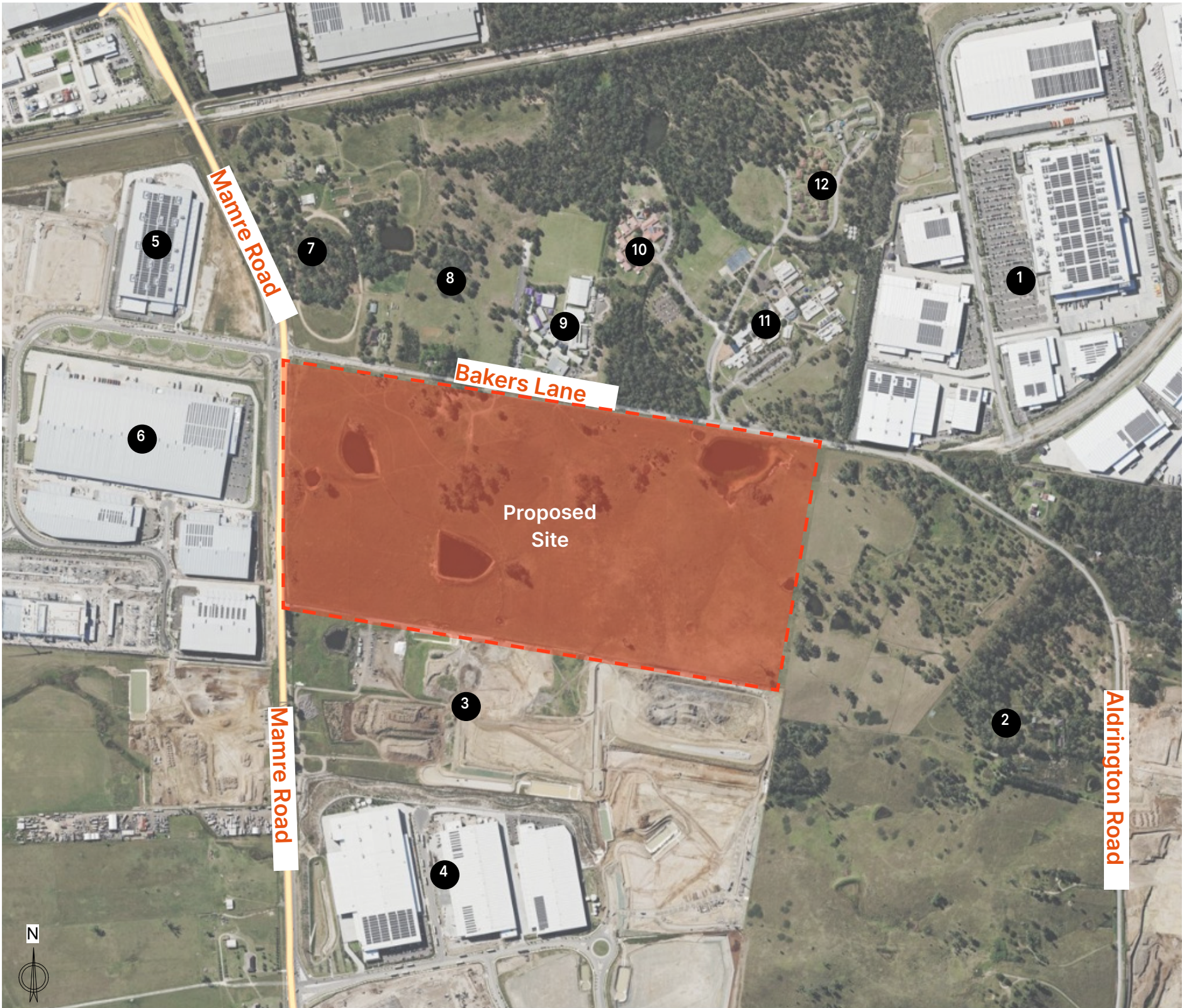
6 The YARDS Techtonic Industry



6 The YARDS Techtonic Industry

Site Context and Analysis

2.5 Site Character



7 Rural residential



8 Rural residential



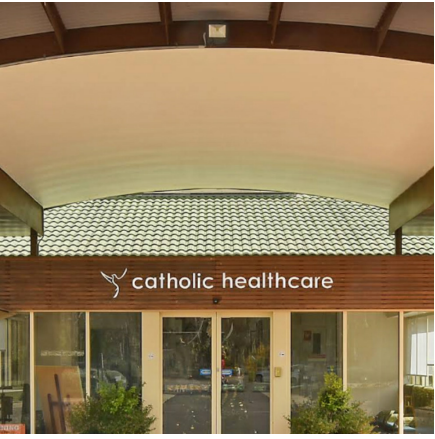
9 Mamre Anglican School



10 Trinity Catholic Primary School



11 Emmaus Cholic College



12 Catholic Healthcare Emmaus Retirement Village

Site Context and Analysis

2.6 Connecting with Country

Connecting Country Process

The Designing with Country process has been formally initiated in alignment with relevant statutory requirements and cultural heritage obligations. Specialist consultants have been appointed to undertake the required assessments and provide recommendations to inform the design and delivery of the project.

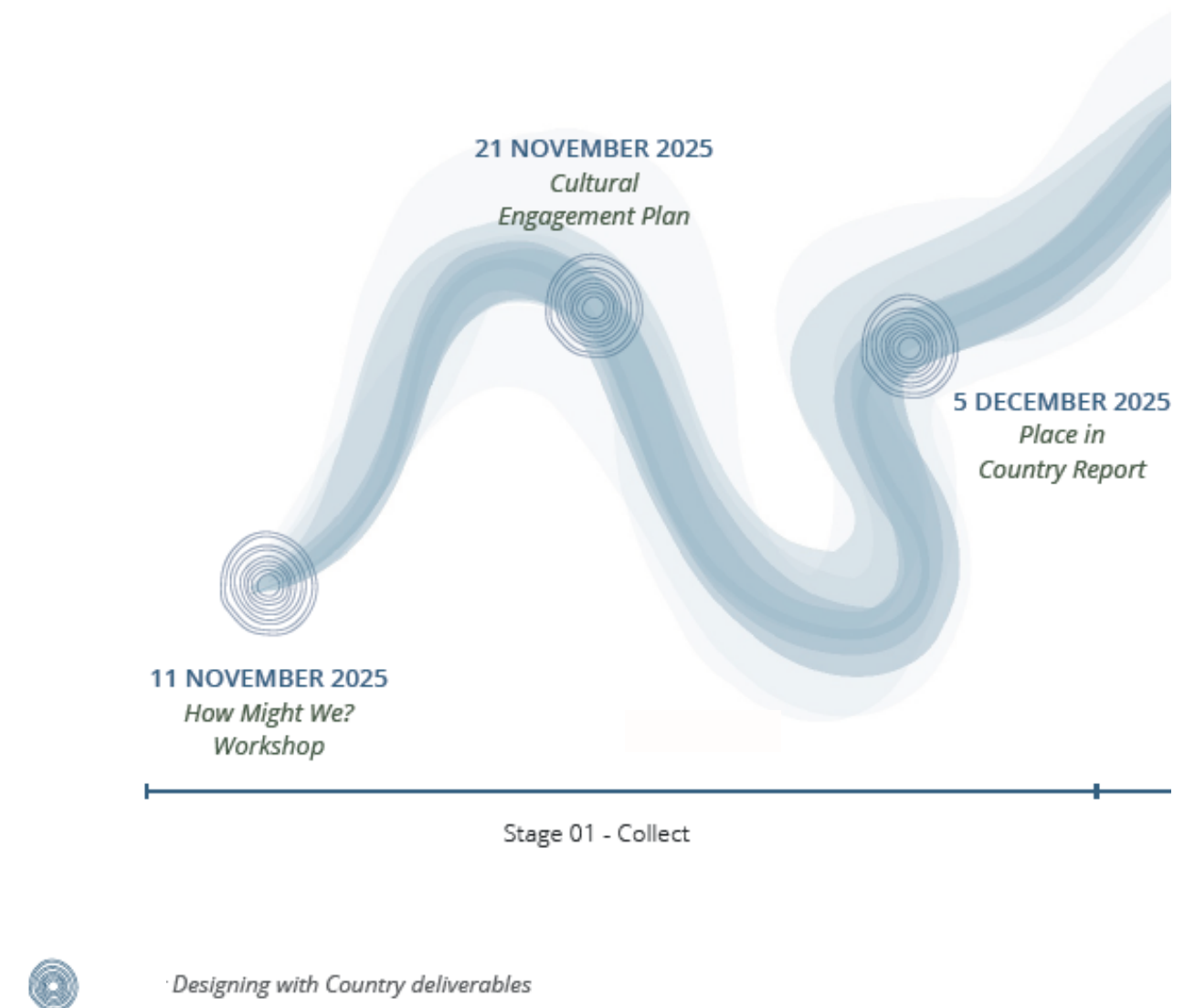
While the project is in a preliminary design stage and specific Country-led and collaborative design engagement with the First Nations community have not yet been undertaken, work with Yerrabingin has begun to surface key aspects specific to exploring a Place in Country contextual analysis that will shape the next phases. These insights will be progressively integrated as the design develops to ensure the project reflects, respects, and responds to this Country, integrating the thoughts, ideas, and voices of the First Nations community through collaboration in the next stages.

The project team is committed to embedding the outcomes of the Designing with Country engagement into future design development and decision-making. This includes ensuring that guidance the First Nations community and Country informs project objectives, design principles, and implementation measures, in accordance with planning frameworks and cultural responsibilities.

YERRABINGIN TIMELINE

Designing with Country deliverables

The illustration on this page shows Yerrabingin's deliverables for the Mamre Road Data Centre Campus project



DESIGNING WITH COUNTRY COMMUNITY ENGAGEMENT PLAN | YERRABINGIN

Site Context and Analysis

2.7 Existing Site Conditions



— — — SITE BOUNDARY

Site Context and Analysis

2.8 Existing Site Topography

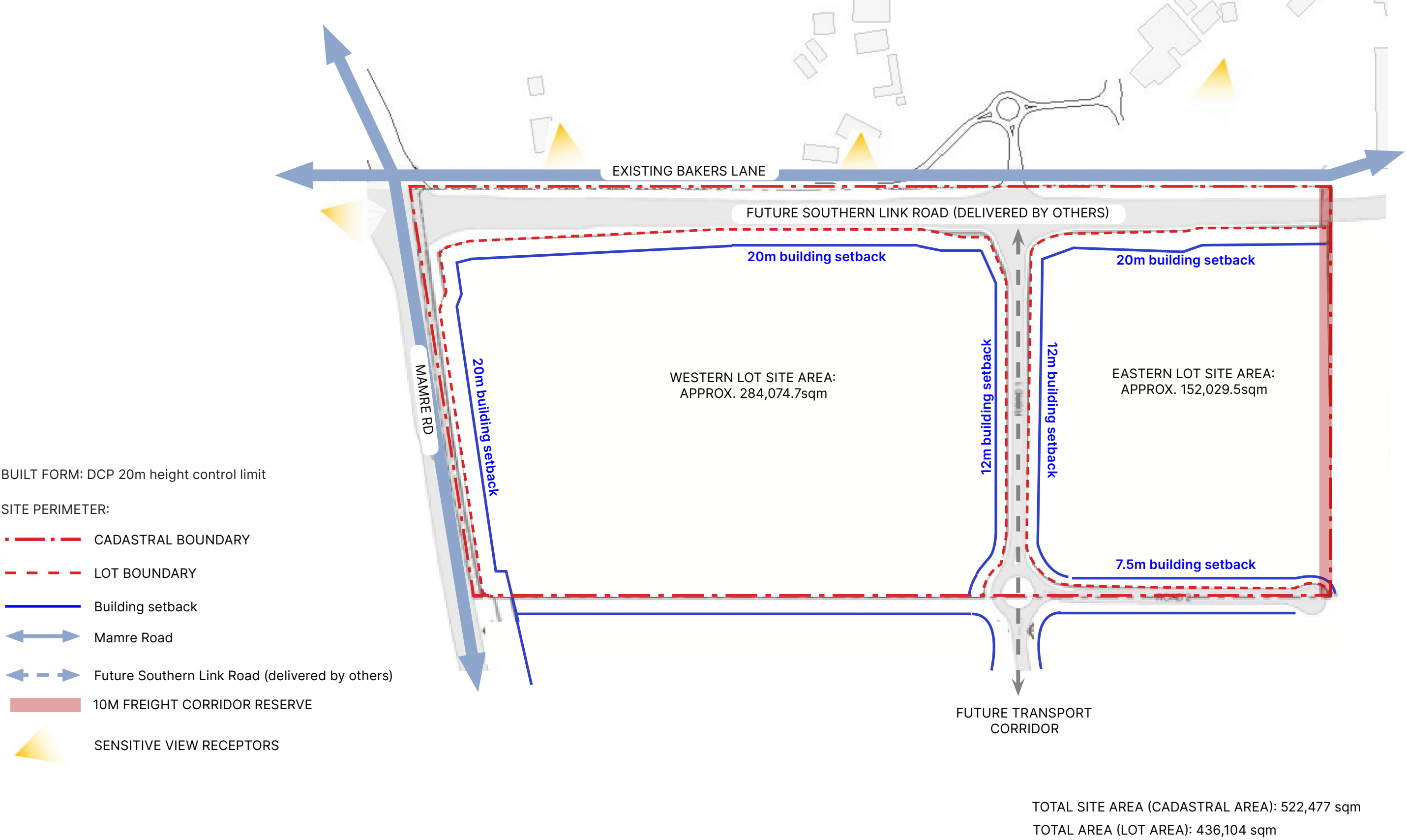


- - - - - SITE BOUNDARY
- ~~~~~> SITE FALLING DIRECTION

Built Form And Design Strategies

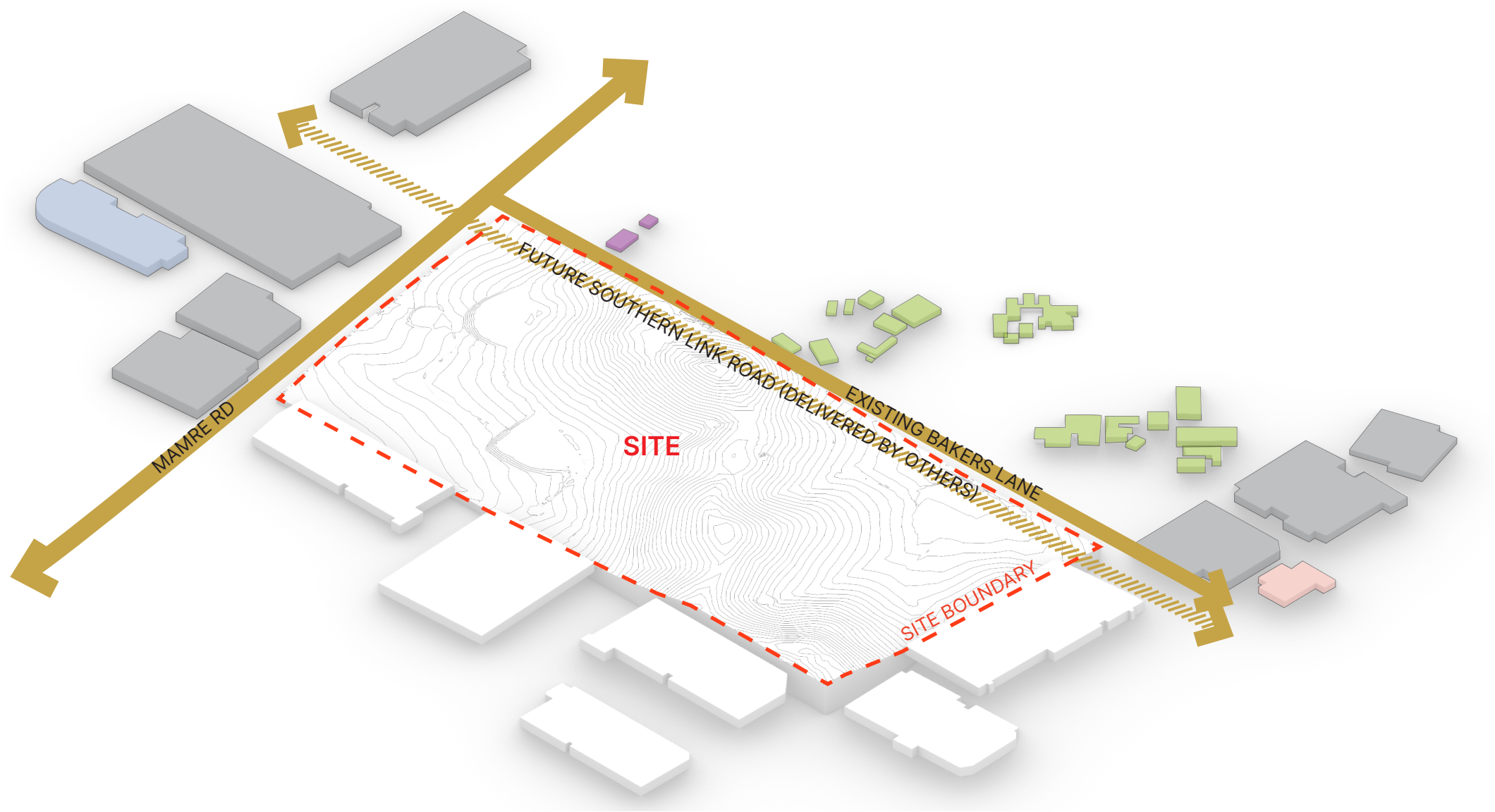
Built Form and Design Strategies

3.1 Context & Constraints



Built Form and Design Strategies

3.2 Surrounding Building Typologies



- | | | |
|---|---|---|
|  Data Centre |  Storage/Warehouse |  Rural Residential |
|  Commercial |  Educational |  Adjoining buildings (Not yet built) |
| | | Subject to approved DA |

Built Form and Design Strategies

3.3 Building Mass Methodology

Greenbox's design philosophy focuses on the thoughtful use of perspective and planes of view to integrate architectural forms seamlessly within their surroundings.

Through careful manipulation of visual elements - such as taller buildings appearing smaller and less dominant from street level - and effective sense of depth and scale is achieved, integrating structures within the broader landscape.

This considered approach to proportion and spatial hierarchy enhances visual interest and contributes to a cohesive, engaging streetscape that balances form, function, and context.

DCP Building Massing

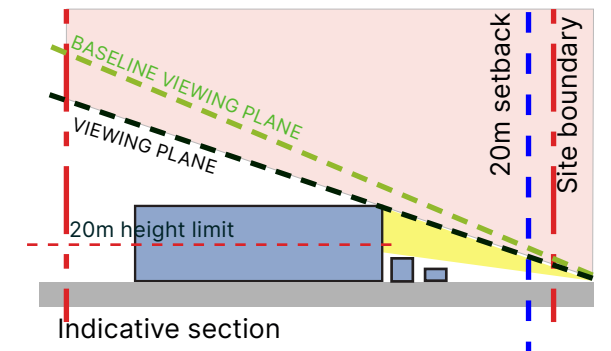
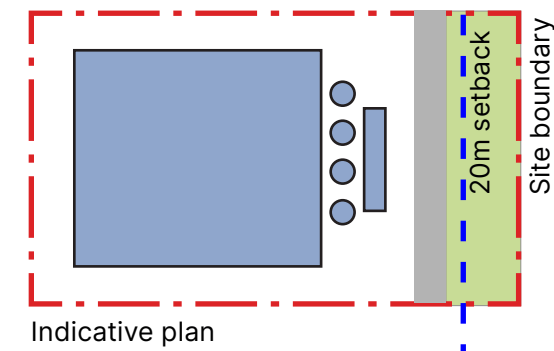
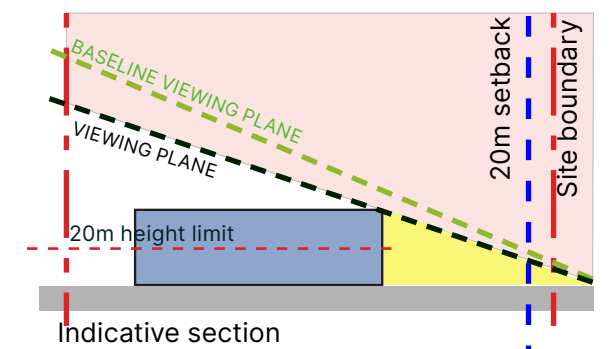
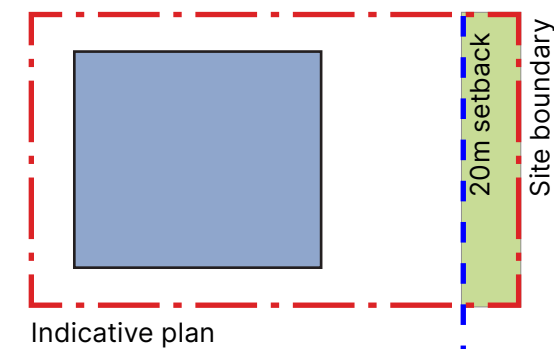
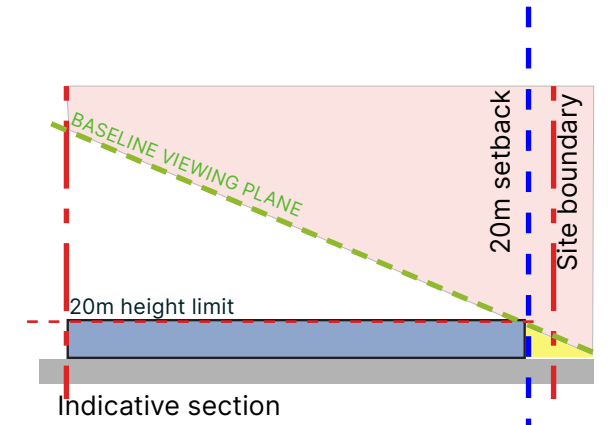
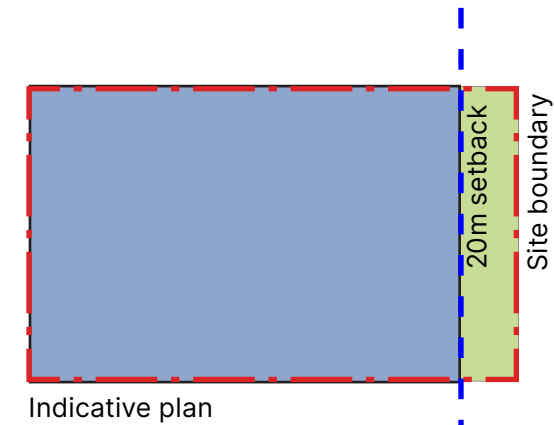
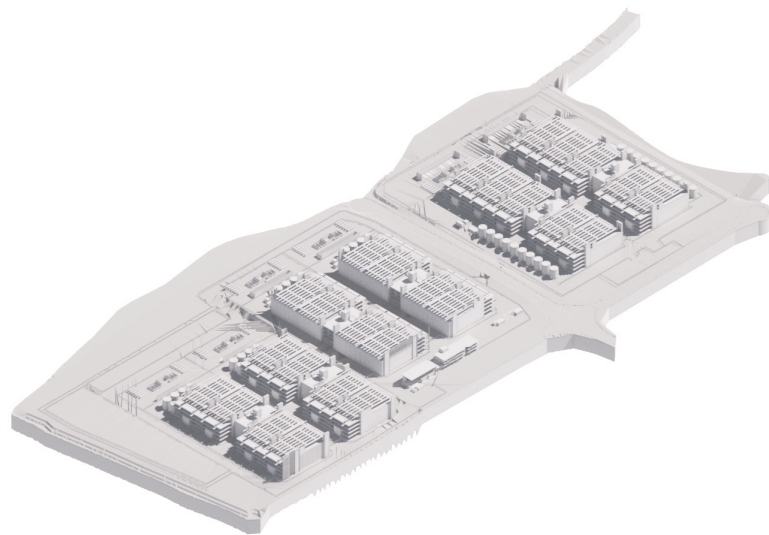
The building footprint driven by a minimum 20m setback from the north dictates a bulky building mass with a hard interface along the street. Such massing would create the strongest visual obstacle viewed from the public space.

Proposed Data Centre Massing

The proposed design approach transforms an initially bulky and oversized mass into a more human-scale structure further setback from streetscape from the critical north west intersection and northern boundary streetscape.

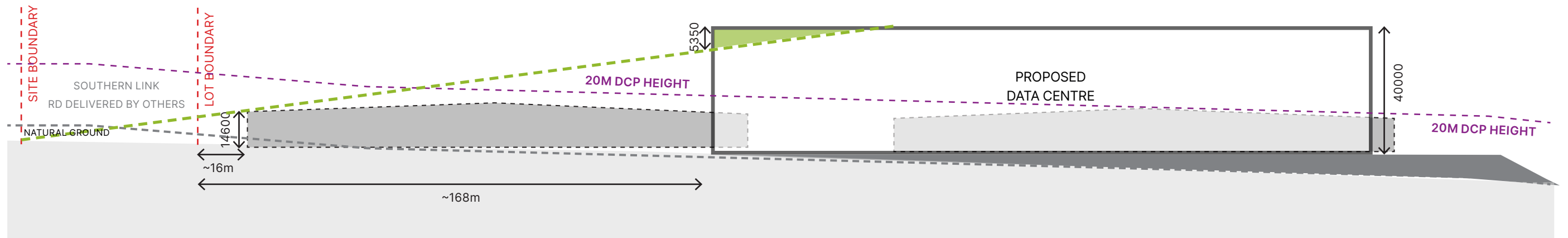
Proposed Data Centre with activation towards the street

Positioning the road, substation, water tanks, and associated utility infrastructure in front of the main building allows for an increased setback to the data centre. This spatial arrangement softens the building's visual impact, enhances its approachability, and ensures a more cohesive relationship with the surrounding built environment.

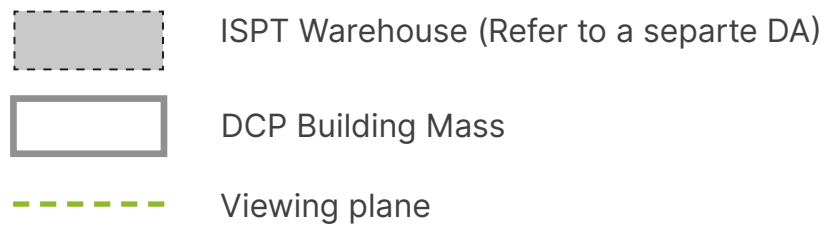


Built Form and Design Strategies

3.4 Site DCP Height Comparison

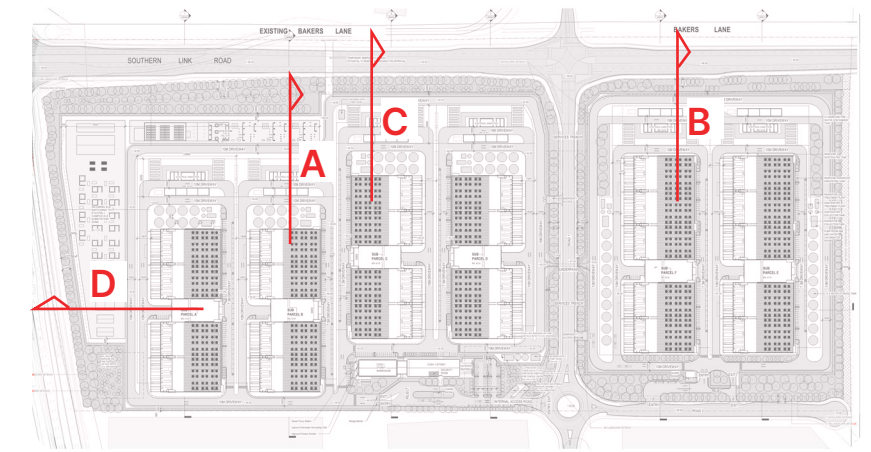
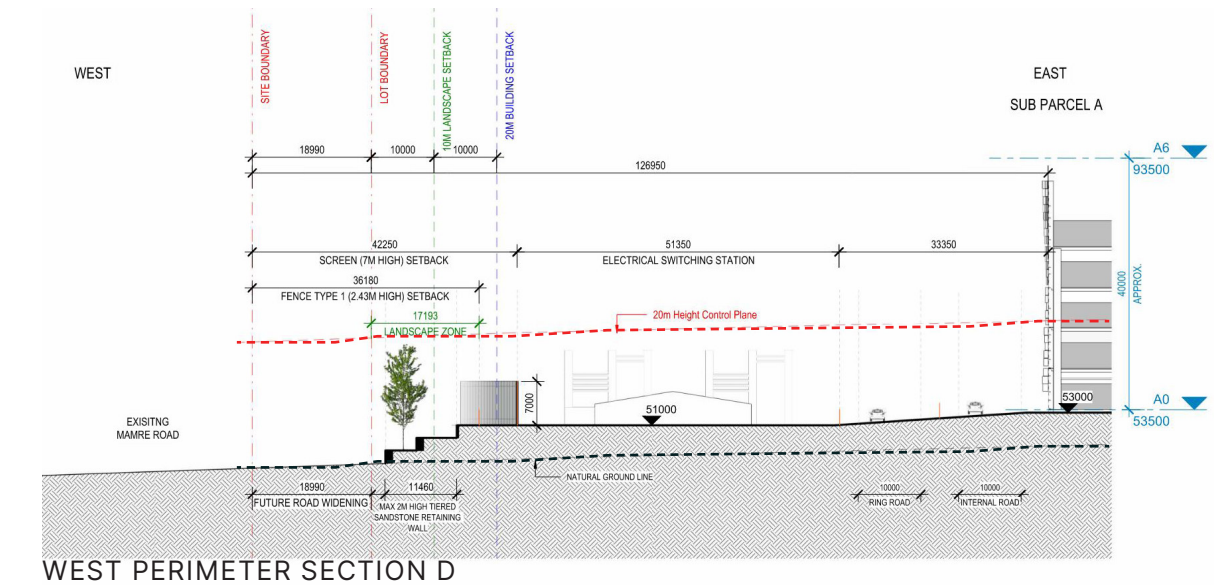
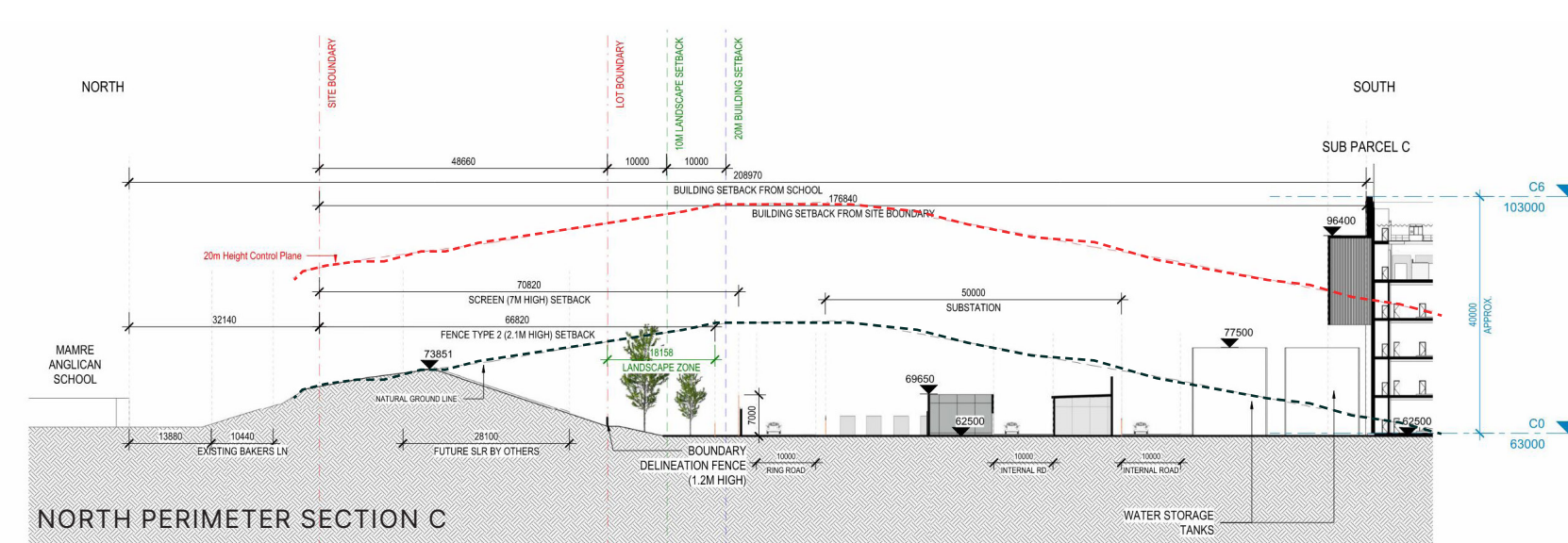
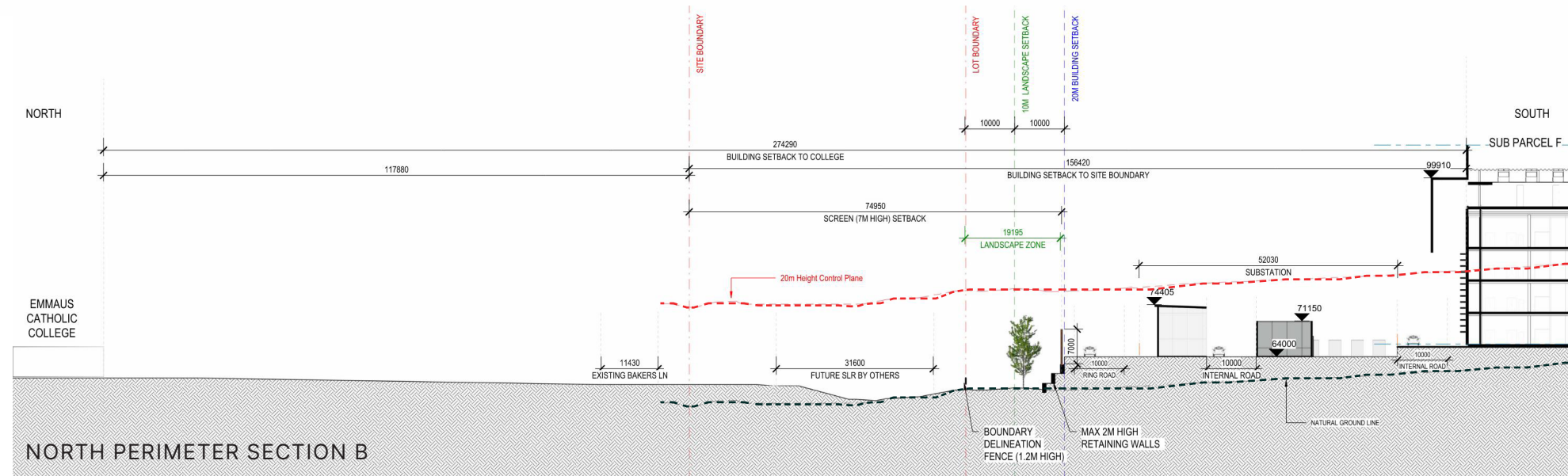
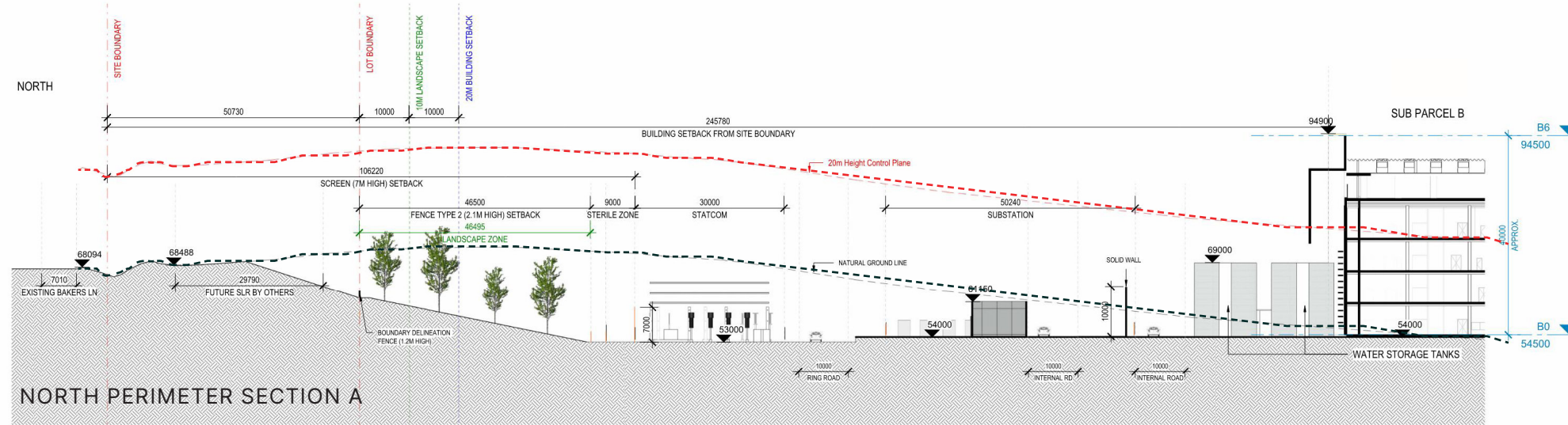


NORTH-SOUTH SECTION



Built Form and Design Strategies

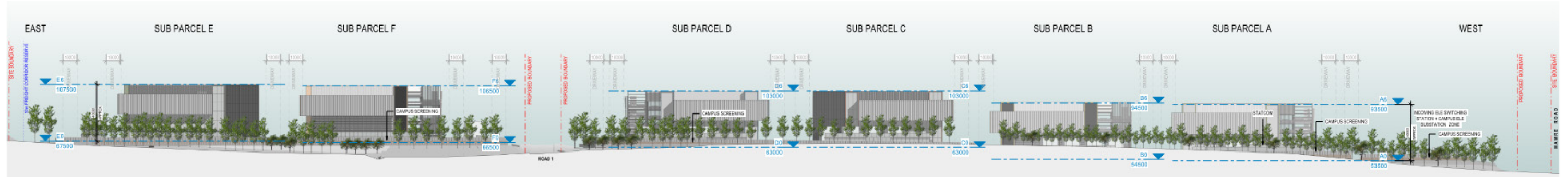
3.5 Proposed Site Perimeter Sections



KEY PLAN

Built Form and Design Strategies

3.5 Proposed Site Elevations



NORTH SITE ELEVATION



SOUTH SITE ELEVATION



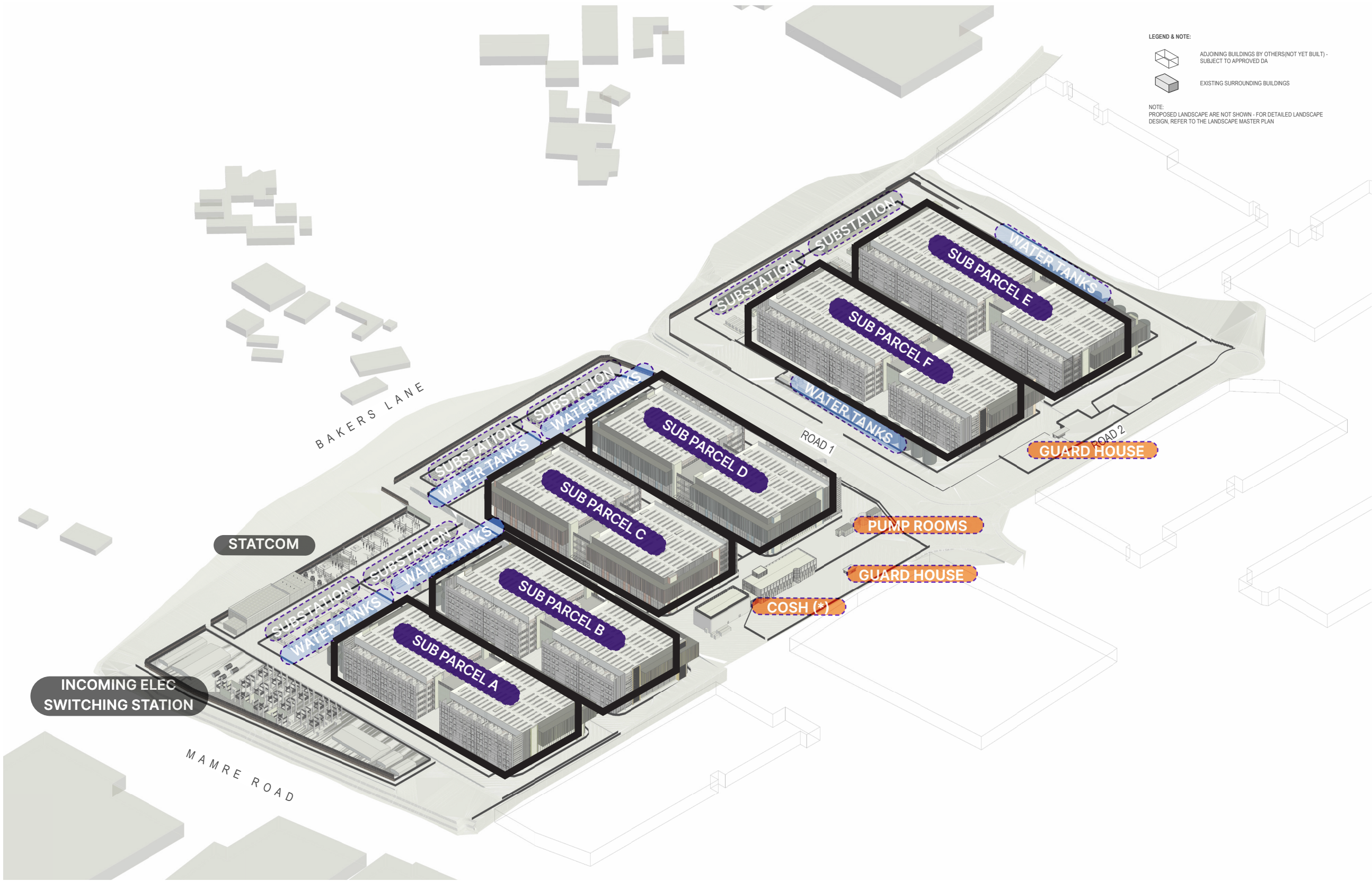
WEST SITE ELEVATION



EAST SITE ELEVATION

Built Form and Design Strategies

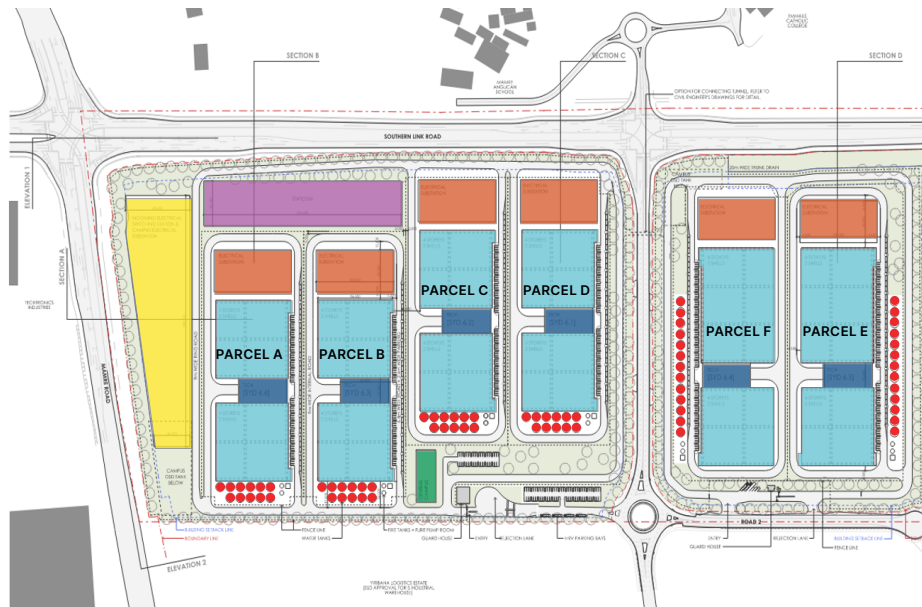
3.6 Campus Program



(*) COSH = Campus Operations & Support Hub

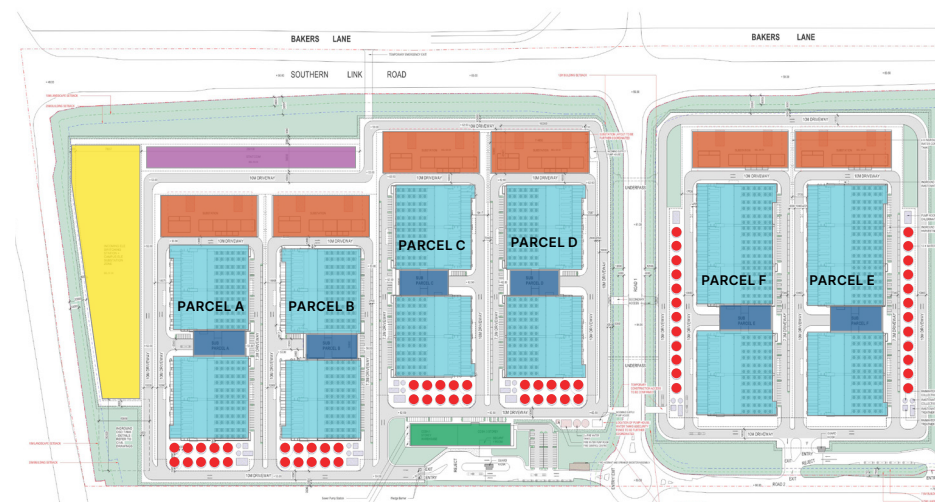
Built Form and Design Strategies

3.7 Design Development & Evolution



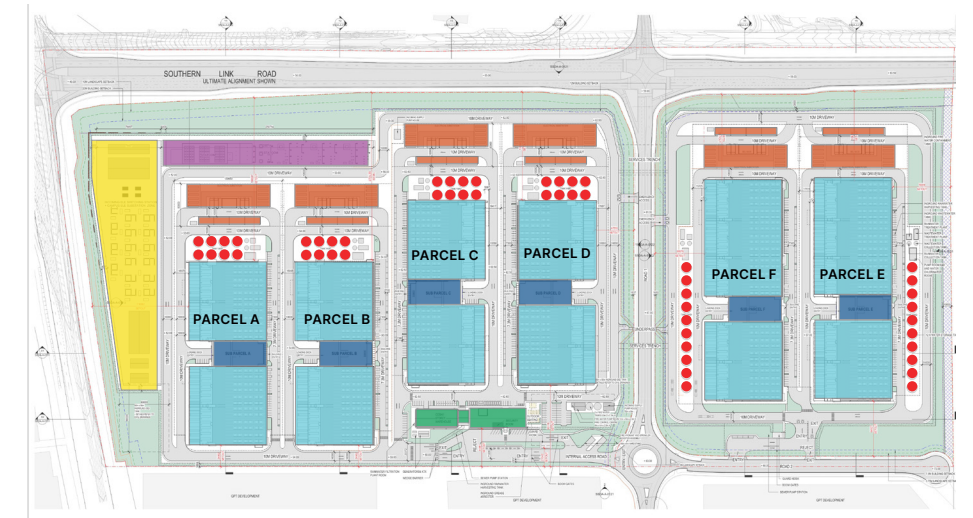
INITIAL SCHEME

1. SEARs submission overall layout.



REVISED SCHEME

1. Parcel C & Parcel D shifted southward approximately 11.5m allowing for more building setback from northern boundary.



FINAL SCHEME

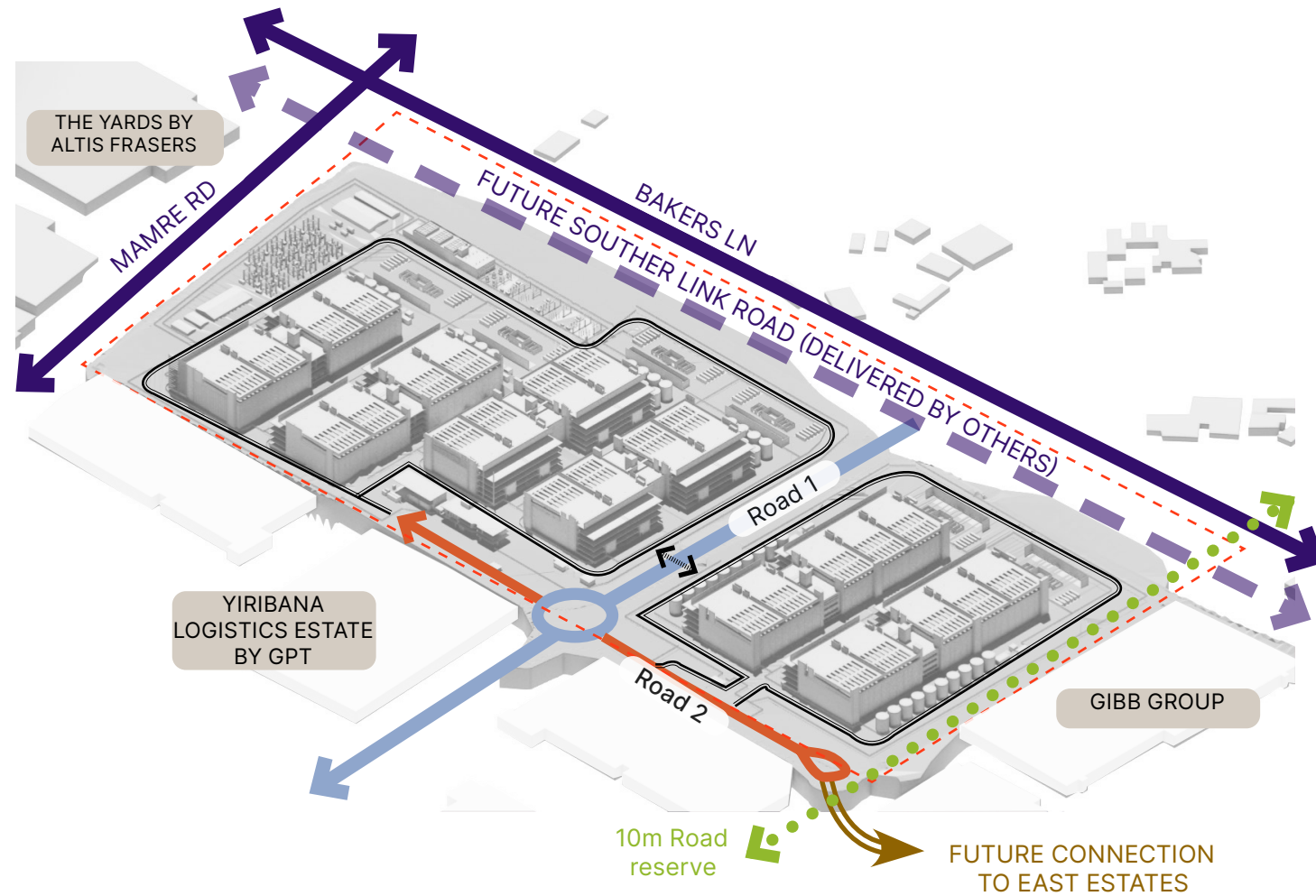
1. Western lot parcel water tanks shift north creating more building setback from the northern boundary.

- Data Halls
- Tech Building
- Centralised Switch Sub
- Statcom
- Parcel Substation
- Campus Central & Gatehouse
- Water Storage Tanks

Built Form and Design Strategies

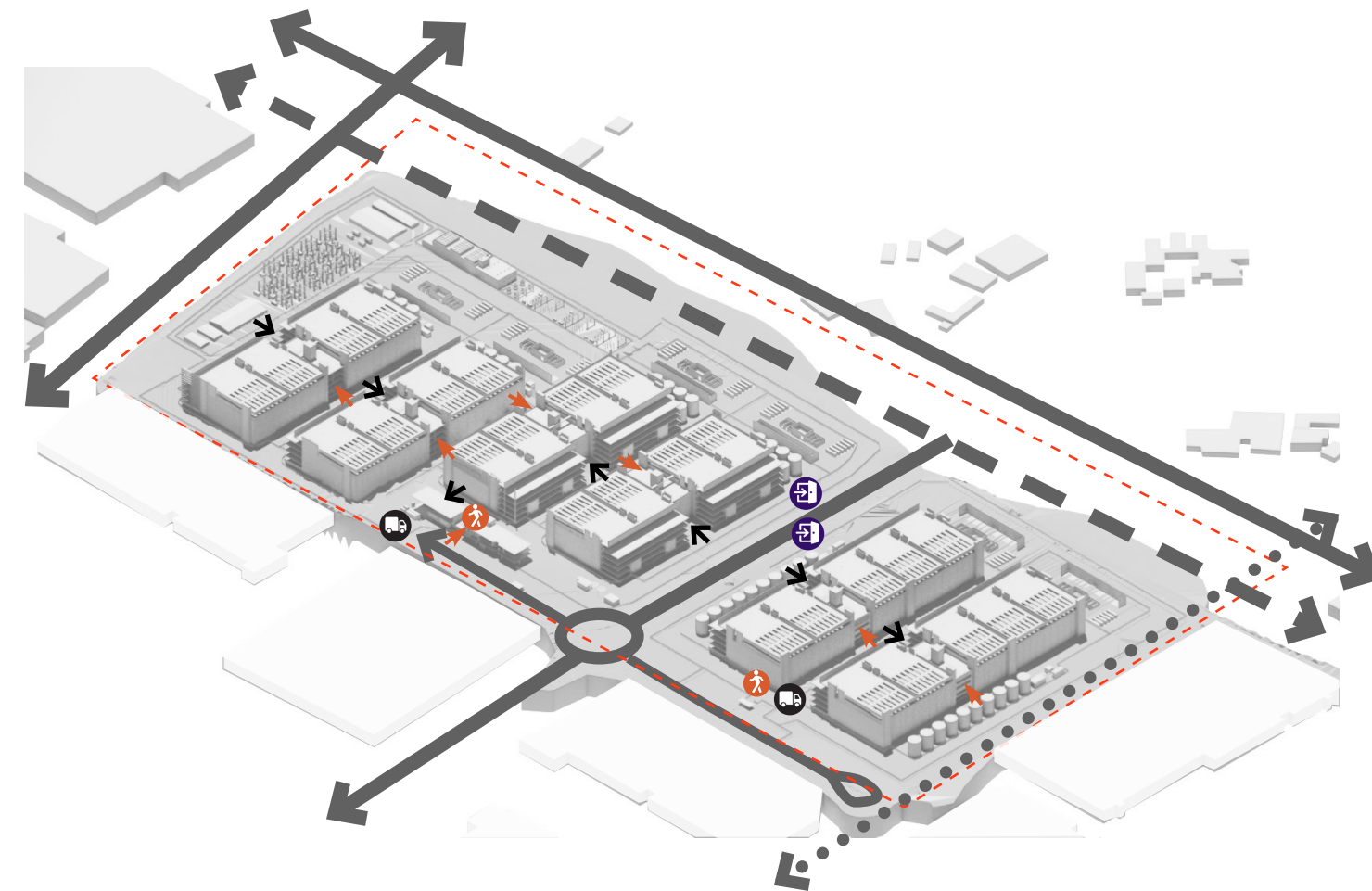
3.8 Site Access Strategy & Traffic Road Network

ROAD NETWORK



- - - SITE BOUNDARY
- ↔ Major roads
- - - Future SLR by others
- ↔ Precinct collector roads
- ↔ Internal industrial roads
- ⋯ 10m road reserve - Future AGV network
- ↔ Future connection to east estates
- ⏏ Underpass
- Internal ring road within site

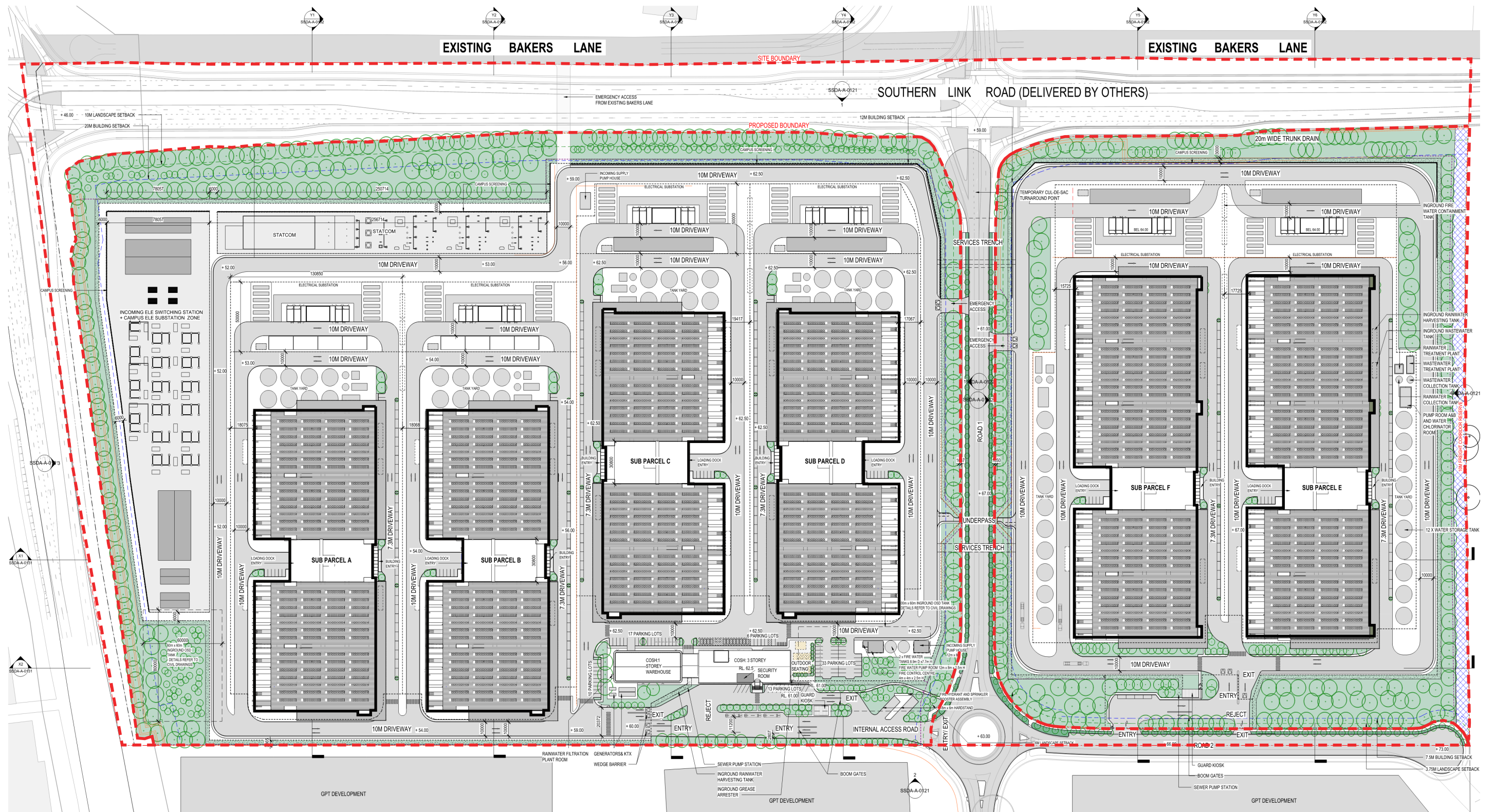
PHYSICAL ACCESS



- Office access
- Loading dock access
- ⦿ Pedestrian access to site
- ⦿ Vehicular access to site
- ⦿ Emergency access

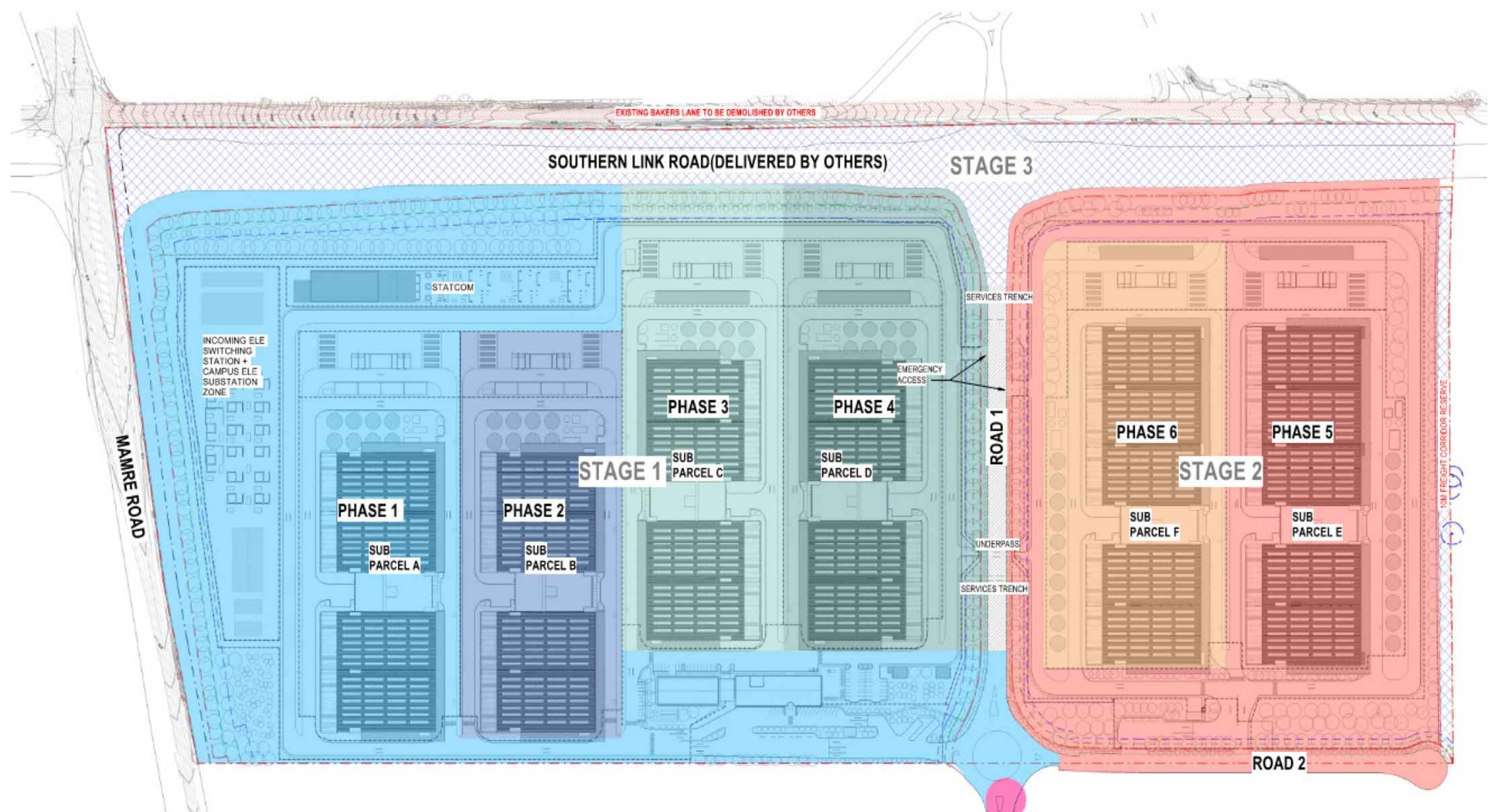
Built Form and Design Strategies

3.9 Proposed Masterplan



Built Form and Design Strategies

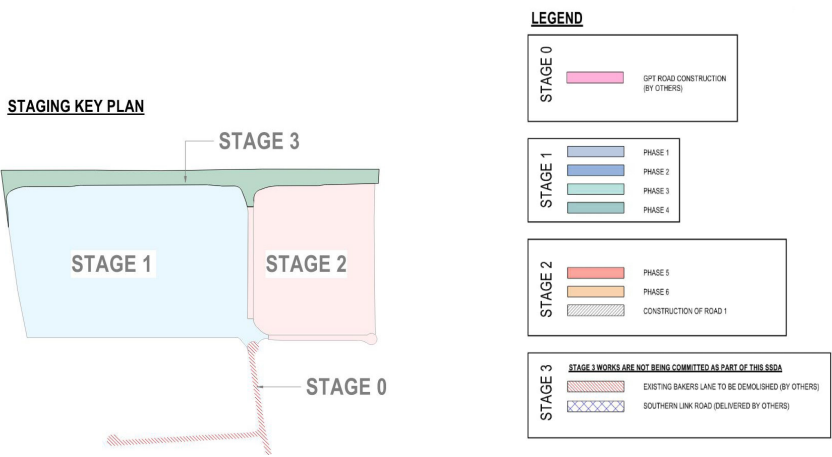
3.10 Staging & Phasing Plan



The staging and phasing plan provides a structured approach to construction, minimising disruption while enabling the progressive delivery of critical infrastructure.

The site is divided into three stages: **Stage 0** (GPT Road construction by others), **Stage 1** (comprising Phases 0, 1, 2, 3, and 4), **Stage 2** (comprising Phases 5 and 6), and **Stage 3** (demolition of the existing Bakers Lane and construction of the southern link road, both by others).

In total, the site includes seven main phases, as illustrated in the diagram, with each phase aligned to specific parcels and their associated works.



Built Form and Design Strategies

3.10 Staging & Phasing Plan

Stage	Project Phase	Drawing Reference	Description
Stage 0	-	-	Construction of a temporary turning head off the North- South Collector Road within Yiribana Logistics Estate (under construction as of October 2025) to provide vehicular access to the site off Mamre Road via Darrabarra Vanue (Access Logistics Estate)
-	-	-	Civil bulk earthworks and Temporary Access - Refer to Civil Project stage Phase 0
Stage 1	Phase 1	SSDA-A-0031	Western Zone Development Key Components: *West site entry including guard house and carparking. *COSH building and parking lots. *Statcom and incoming switchyard. *Parcel A, consisting of four data hall shells, a technical support building, and associated infrastructure including electrical substation, water and fuel storage tanks, loading dock, access road and carparking *Construction of campus access roads to provide vehicular access to and from Sub Prcel A, as well as the substation and Statcom. *Two OSD tanks (southwest corner and adjacent to COSH). *Boundary fence and sub-fencing for Parcel A, Statcom, and switchyard. *Temporary fencing for interim security. *Fire pump room, control centre, fire hydrant, and hydraulic pump houses. *Emergency access from Bakers Lane (removable later if required).
	Phase 2	SSDA-A-0032	Parcel B Development *Parcel B, consisting of four data hall shells, a technical support building, and associated infrastructure including electrical substation, water and fuel storage tanks, loading dock, access road and carparking
	Phase 3	SSDA-A-0033	Parcel C Development *Parcel C, consisting of four data hall shells, a technical support building, and associated infrastructure including electrical substation, water and fuel storage tanks, loading dock, access road and carparking *Continuation of internal road network.
	Phase 4	SSDA-A-0034	Sub Parcel D Development *Parcel D, consisting of four data hall shells, a technical support building, and associated infrastructure including electrical substation, water and fuel storage tanks, loading dock, access road and carparking *Continuation of internal road network. *Construction of Temporary road to provide emergency access out of site.

Built Form and Design Strategies

3.10 Staging & Phasing Plan

Stage	Project Phase	Drawing Reference	Description
Stage 2	Phase 5	SSDA-A-0035	Eastern Zone Development Before Phase 5 starts, all earthworks and retaining walls for the eastern portion will be completed. A sediment control basin is also proposed in the southwest corner at this stage. Key Components: *Parcel E, consisting of four data hall shells, a technical support building, and associated infrastructure including electrical substation, water and fuel storage tanks, loading dock, access road and carparking *Construction of Road 2 including temporary turning head at the eastern end of the road. *Construction of the trunk drainage channel *East site entry and guard house. *Full outer ring road for perimeter access. *Parcel E and associated works. *Inground services for Parcels E and F.
	Phase 6	SSDA-A-0036	Sub Parcel F Development *Parcel F, consisting of four data hall shells, a technical support building, and associated infrastructure including electrical substation, water and fuel storage tanks, loading dock, access road and carparking
-	-	-	Completion of civil work: Construction of Road 1 between the roundabout and the corridor dedicated to the Future Southern Link Road (Delivered by others), including a temporary turning head at the northern end of Road 1. - Refer to Civil Project Stage Phase 7

Built Form and Design Strategies

3.11 Landscape & Permeability

The proposed scheme allocates:

On lot canopy cover:

- West campus = 27,247 m²
- East campus = 18,859 m²

Total = 46,106 m² (10.7% of on lot area)

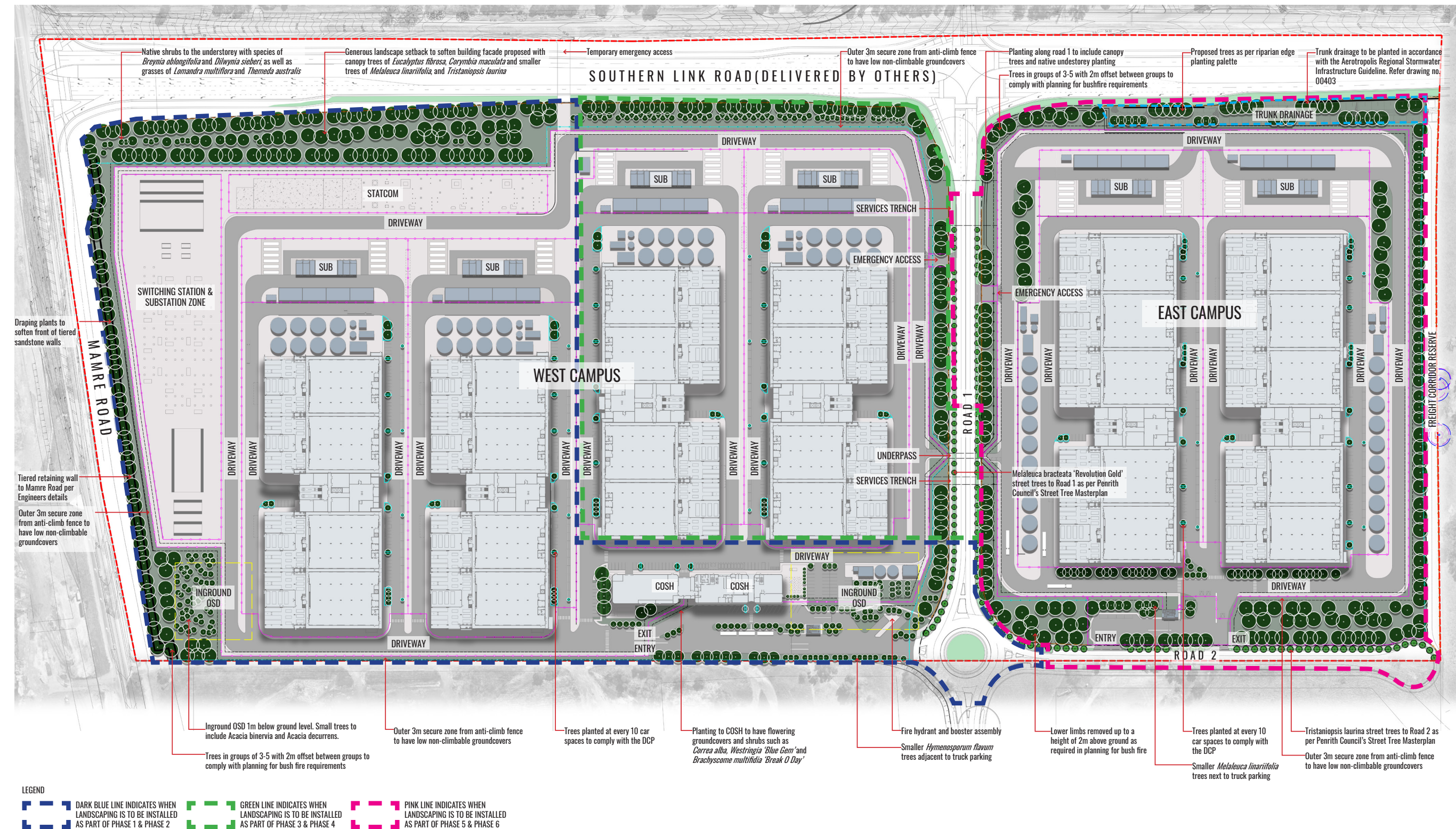
Canopy cover within cadastral boundary:

- Cadastral boundary = 522,477 m²
- Canopy cover = 46,106 m² (8.8%)

On lot deep soil landscape area:

- West campus = 45,540 m²
- East campus = 32,223 m²

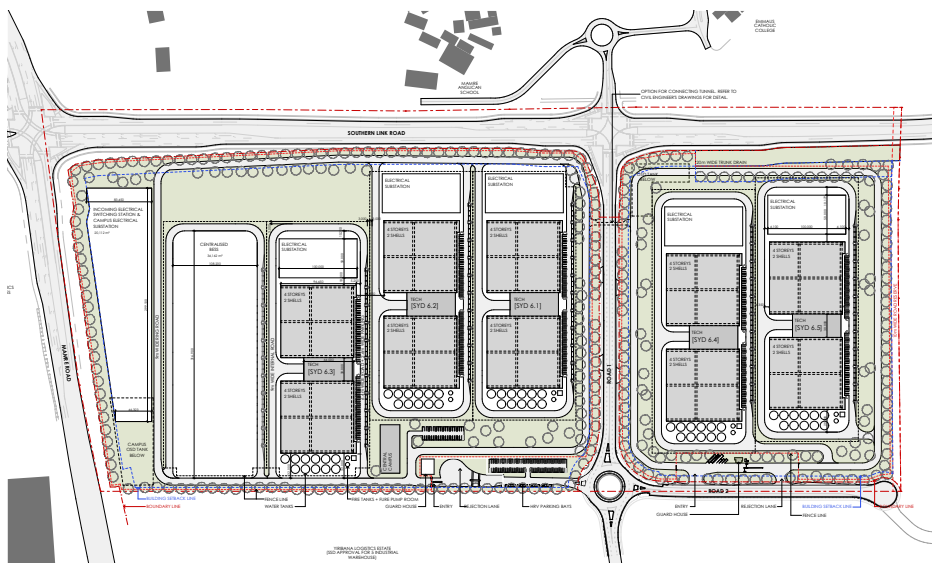
Total permeable area = 77,763 m² (18% of on lot area)



Building Envelope

Building Envelope

4.1 Design Options Analysis - Site Layout Development

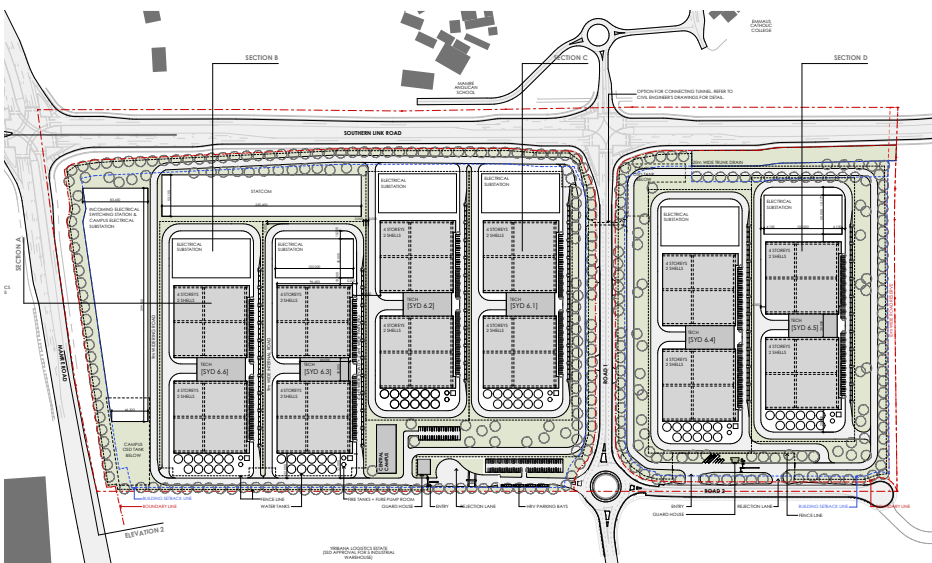


Option 1: Business Case (with Centralised BESS)

Description: Centralised Building Envelope Strategy (BESS) with core infrastructure grouped in the centre.

Advantages: Compact footprint, efficient core services.

Disadvantages: Limited flexibility for staged expansion.

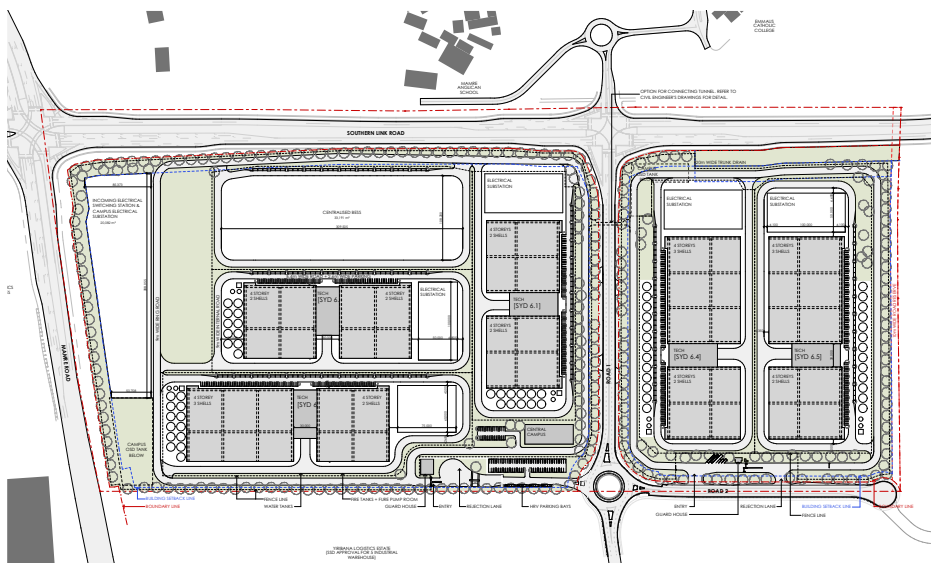


Option 2: Business Case (with Statcom)

Description: Distributed station integration for redundancy.

Advantages: Improved resilience and operational reliability.

Disadvantages: Increased complexity in site circulation and infrastructure routing.

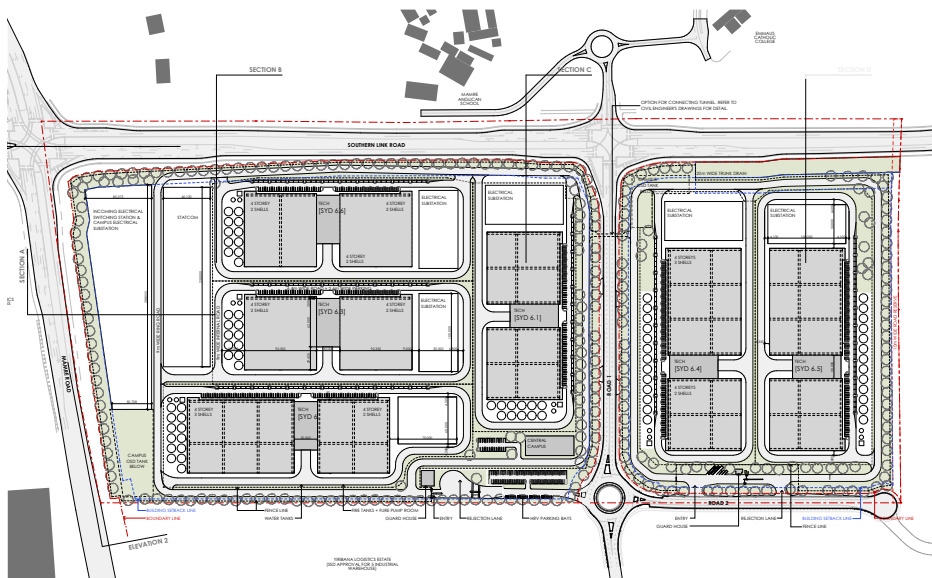


Option 3: Sweet Spot (with BESS)

Description: Balanced layout optimising operational and spatial efficiency.

Advantages: Good access and service corridors, moderate land use.

Disadvantages: Requires careful coordination for infrastructure distribution.

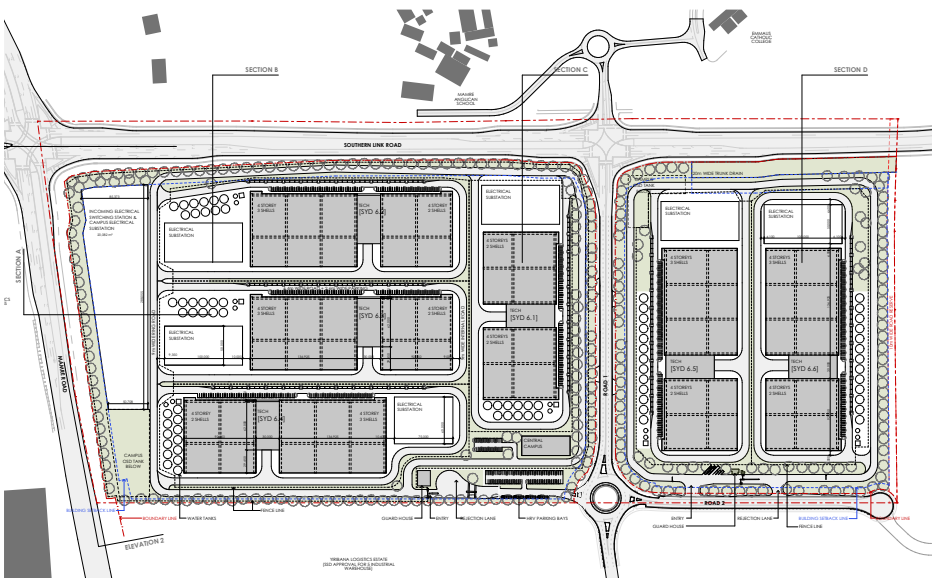


Option 4: Sweet Spot (with Statcom)

Description: BESS integrated with a new configuration.

Advantages: Centralised infrastructure with improved flexibility.

Disadvantages: Staging complexity for future phases.



Option 5: Use Spy 200 BES (No BESS or Statcom)

Description: Larger BESS footprint combined with station integration.

Advantages: High capacity for future growth and scalability.

Disadvantages: Greater initial land take and higher infrastructure cost.

The analysis considers operational efficiency, compliance with planning controls, infrastructure integration, and future adaptability. Each option reflects a different approach to organizing the building envelope and associated infrastructure within the site constraints.

The design process followed a iterative approach, informed by:

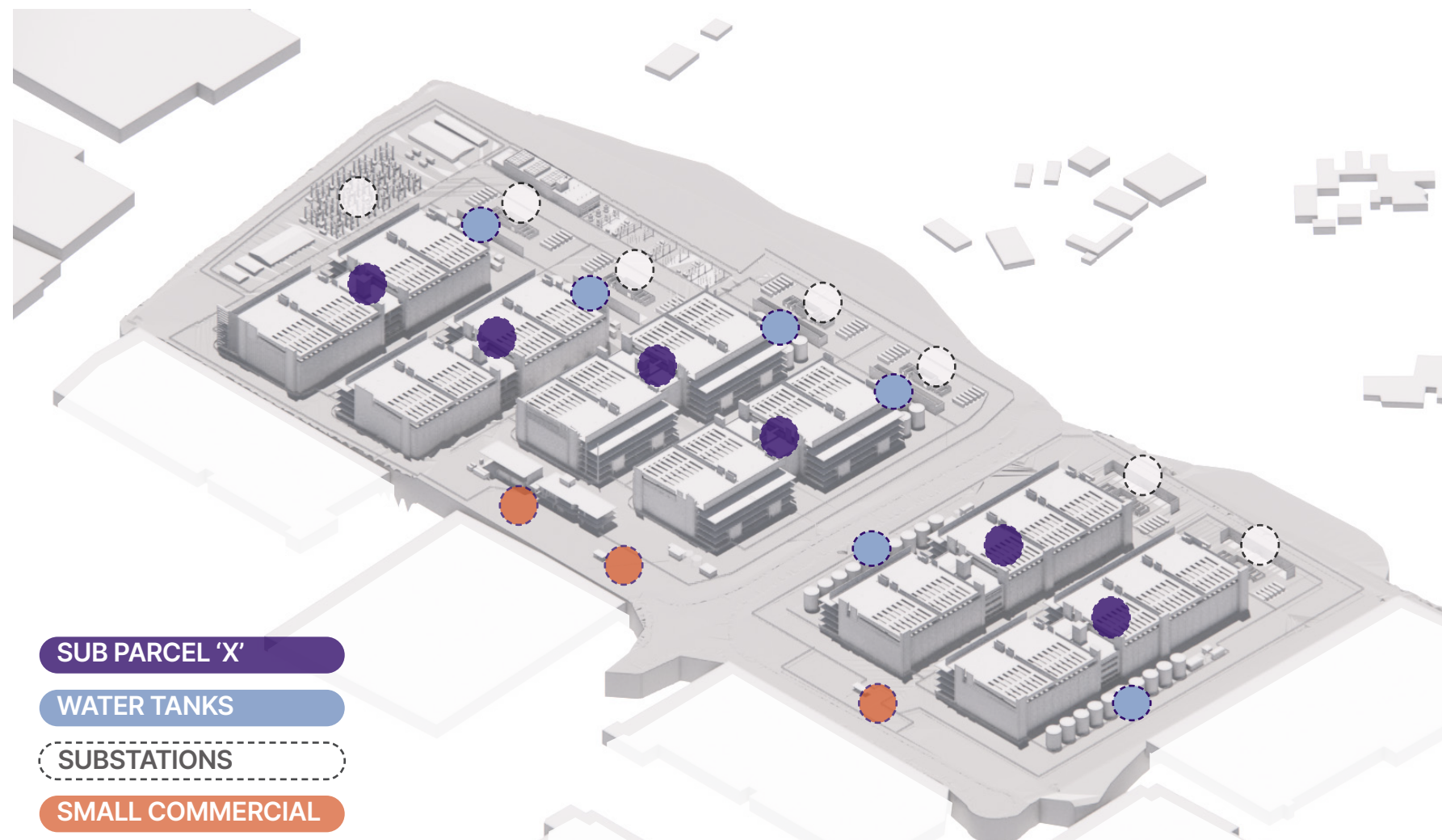
- ***Site constraints:** Access points, easements, and topography.
- ***Regulatory requirements:** Setbacks, building envelopes, and SSDA guidelines.
- ***Operational needs:** Data center functionality, redundancy, and scalability.
- ***Sustainability objectives:** Stormwater management, landscaping, and energy efficiency.

Evaluation criteria included:

- ***Operational efficiency:** Internal circulation and service access.
- ***Infrastructure integration:** Placement of substations and utilities.
- ***Environmental performance:** Green space and stormwater solutions.
- ***Future expansion potential:** Ability to accommodate growth without major disruption.

Building Envelope

4.1 Campus Benchmark, Design Principles



DESIGN PRINCIPLES:

1 / CONSISTENT

Buildings and sites of all scales should follow a coherent design language and geometric solutions.

2 / ROBUST

Proposed facade systems should work at any campus location, be easily procured, delivered and installed on site and be cost-efficient.

3 / CONVENIENT (WAYFINDING)

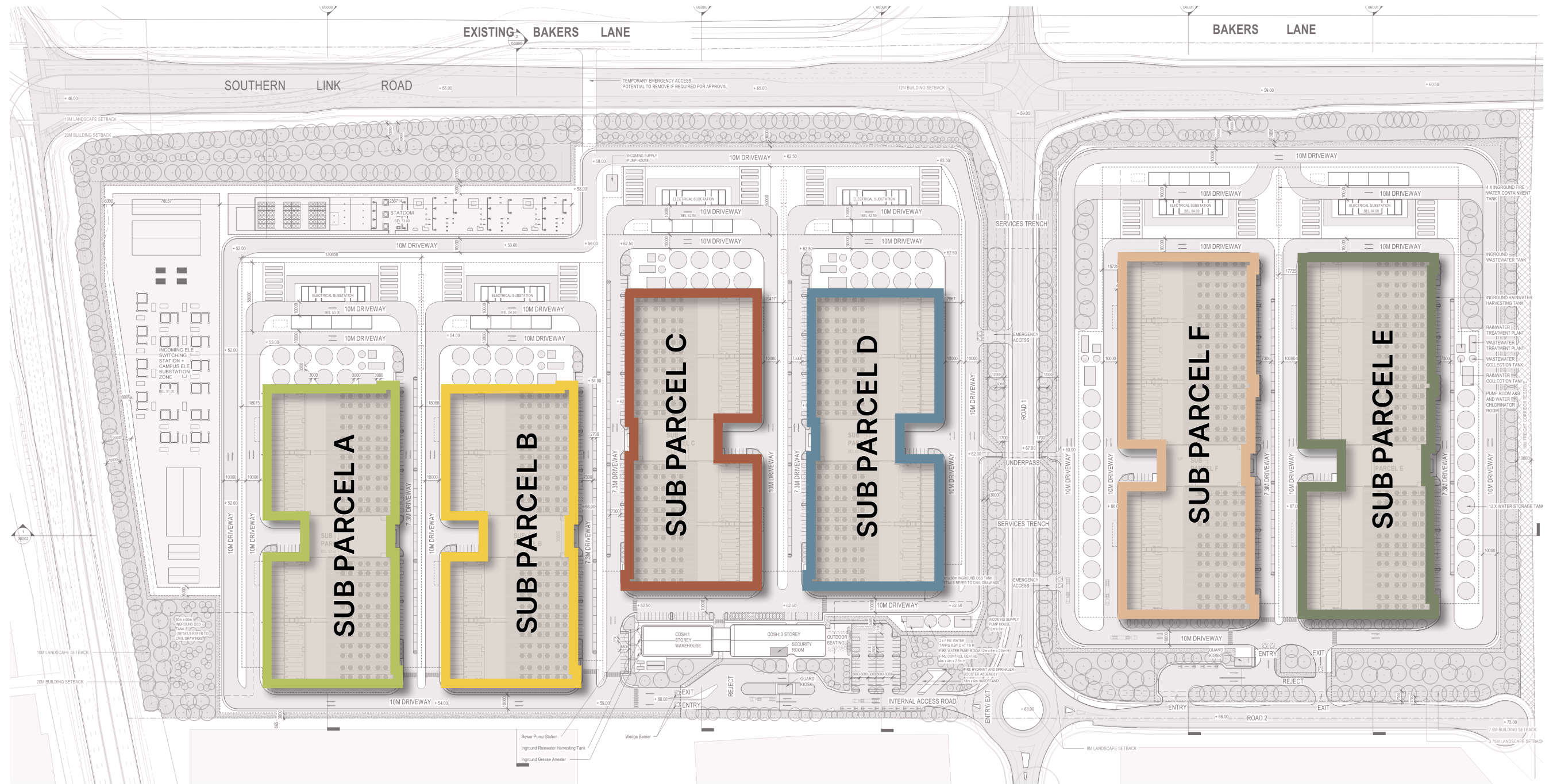
Due to campus scale and repetitive, modular nature of the masterplan, buildings should be diverse enough to clearly inform campus users of how to get around the site.



Built Form and Design Strategies

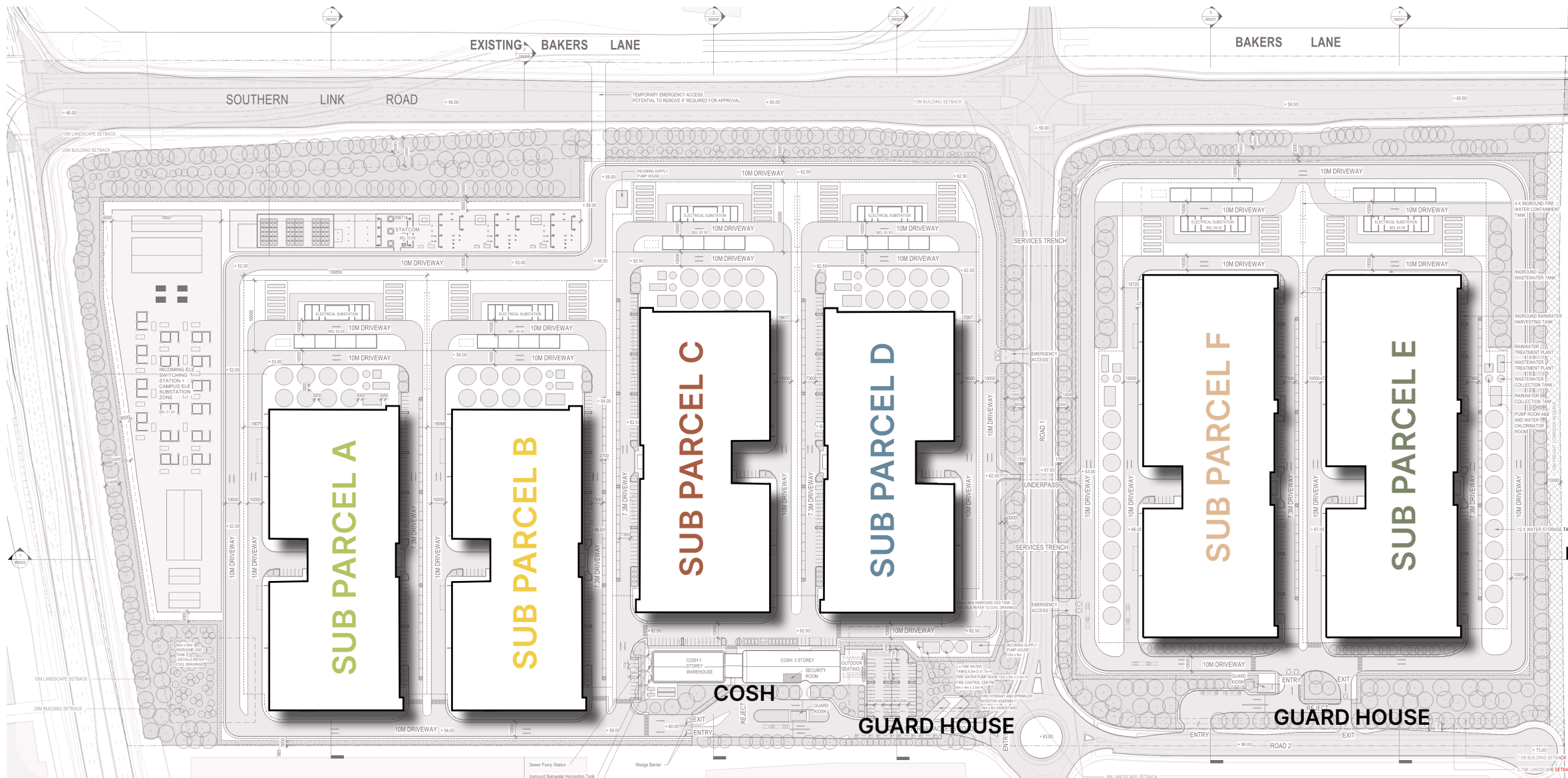
4.2 Wayfinding strategy

WAYFINDING STRATEGY = FEATURE COLOURS FOR EACH SUB PARCEL



Built Form and Design Strategies

4.3 Facade Colours - The story of Six Dharug Seasons



SUB PARCEL A
Species: Sydney Golden Wattle



HOT PERIOD
Period: March- April

SUB PARCEL B
Species: Kangaroo Grass



WARM AND WET PERIOD
Period: January-February

SUB PARCEL C
Species: Grey Box



COLD AND FROSTY PERIOD
Period: July- August

SUB PARCEL D
Species: Blue Flax Lily



COOL GETTING WARMER PERIOD
Period: November- December

SUB PARCEL F
Species: Grey Gum



WET AND COOLER PERIOD
Period: May- June

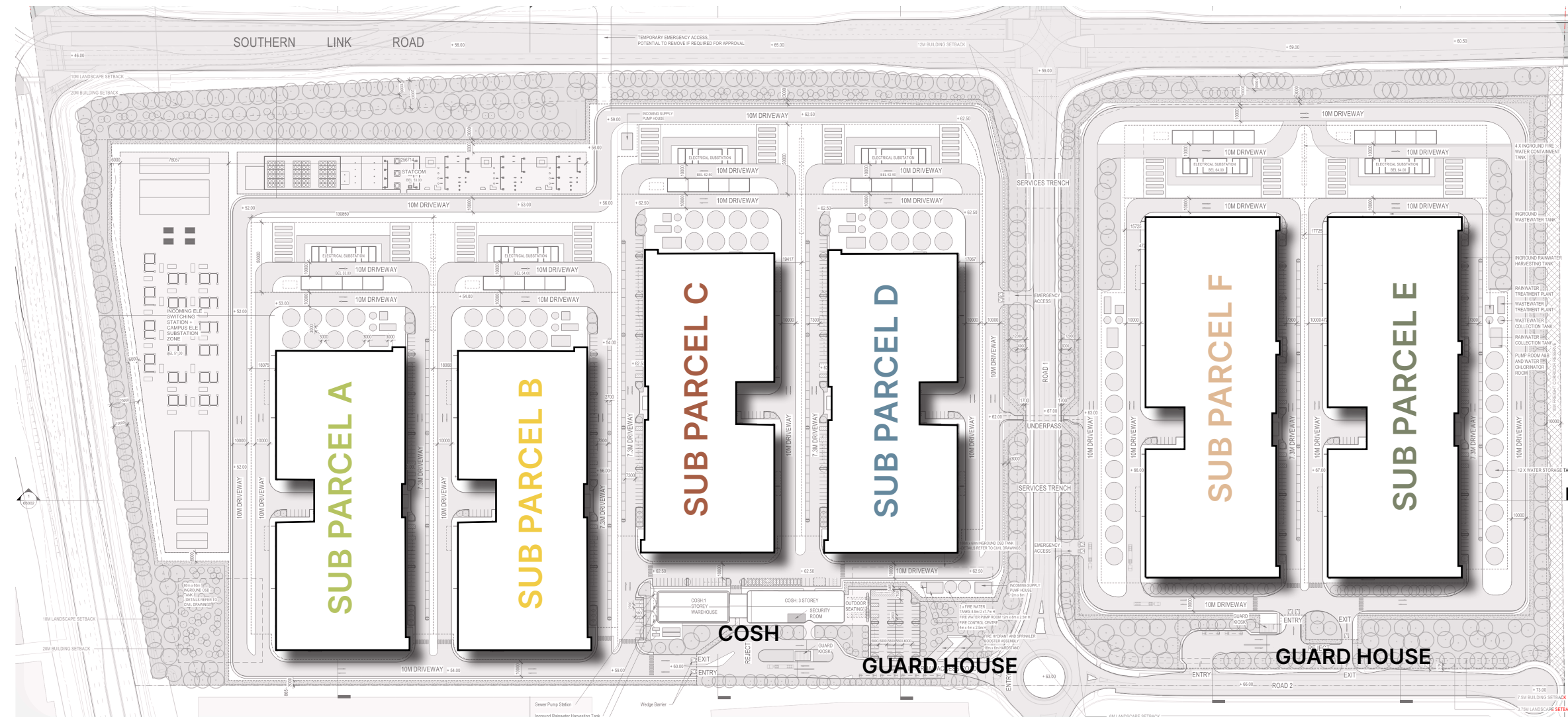
SUB PARCEL E
Species: White Feather Honey Myrtle



COLD AND WINDY PERIOD
Period: September- October

Built Form and Design Strategies

4.3 Facade Colours - The story of Six Dharug Seasons



NOTE: This is a conceptual approach and will be developed in collaboration with local First Nations community through the Community Engagement process.

SOURCE: The subparcel colors are inspired by Gabrugal Yana bushwalk, that connects with Dharug Country and culture, and the story of six Dharug Seasons.



SUB PARCEL A

HOT PERIOD
The annual migration of barra (eel) from the rivers to the ocean marks the start of this season, signalling a time for communities to come together. This natural event inspires the design concept, drawing on the barra's ability to blend with its surroundings through earthy tones of brown, green and yellow.

The building will reflect this connection to Country and the seasonal rhythms of First Nations culture, creating a space that honours gathering and harmony with the environment



SUB PARCEL B

WARM AND WET PERIOD

The concept draws inspiration from the mugadung, the blue-tongue lizard, a creature that embodies resilience, renewal, and quiet strength. As warmer days arrive, the mugadung emerges, signalling energy and new life, and at the peak of summer, it brings forth the next generation. Its calm nature contrasts with its powerful defence—opening its mouth wide to reveal a striking blue tongue and strong jaws capable of crushing slow-moving prey.

This duality of gentleness and strength informs a design language that balances openness and protection, creating spaces that nurture life while standing firm against challenges.



SUB PARCEL C

COLD AND FROSTY PERIOD

The distinctive call of the garad (black cockatoo) heralds the arrival of rain and serves as a powerful reminder that our Ancestors remain part of Country.

This concept embraces the enduring connection between people, land, and spirit, ensuring that every design decision honours ancestral values and aligns with the cultural principles that have guided this place for generations.



SUB PARCEL D

COOL GETTING WARMER PERIOD

Inspired by the Dianella plant, which bursts into vibrant blue, purple, and yellow blooms at the start of summer, this concept draws on its cultural significance to First Nations people. The plant's strong, flexible leaves—traditionally dried, soaked, and woven into string, nets, and baskets—inform the design's emphasis on craft and connection. Its berries, valued as bush tucker and for creating natural purple dyes, symbolise resourcefulness and sustainability.

The architecture reflects these qualities through organic forms, tactile materials, and a colour palette echoing Dianella's hues, creating spaces that honour Country and celebrate enduring traditions of making and gathering.



SUB PARCEL F

WET AND COOLER PERIOD

This concept is grounded in the First Nations practice of dyarraba (firestick burning), a sustainable method for caring for and restoring ngurra (Country). The design reflects the cyclical nature of renewal, drawing on the imagery of buru (kangaroo) moving through grasslands during cultural burning.

Through materiality, form, and spatial experience, the building seeks to embody principles of regeneration and connection to Country, creating a place that honours traditional knowledge and fosters harmony between people and landscape



SUB PARCEL E

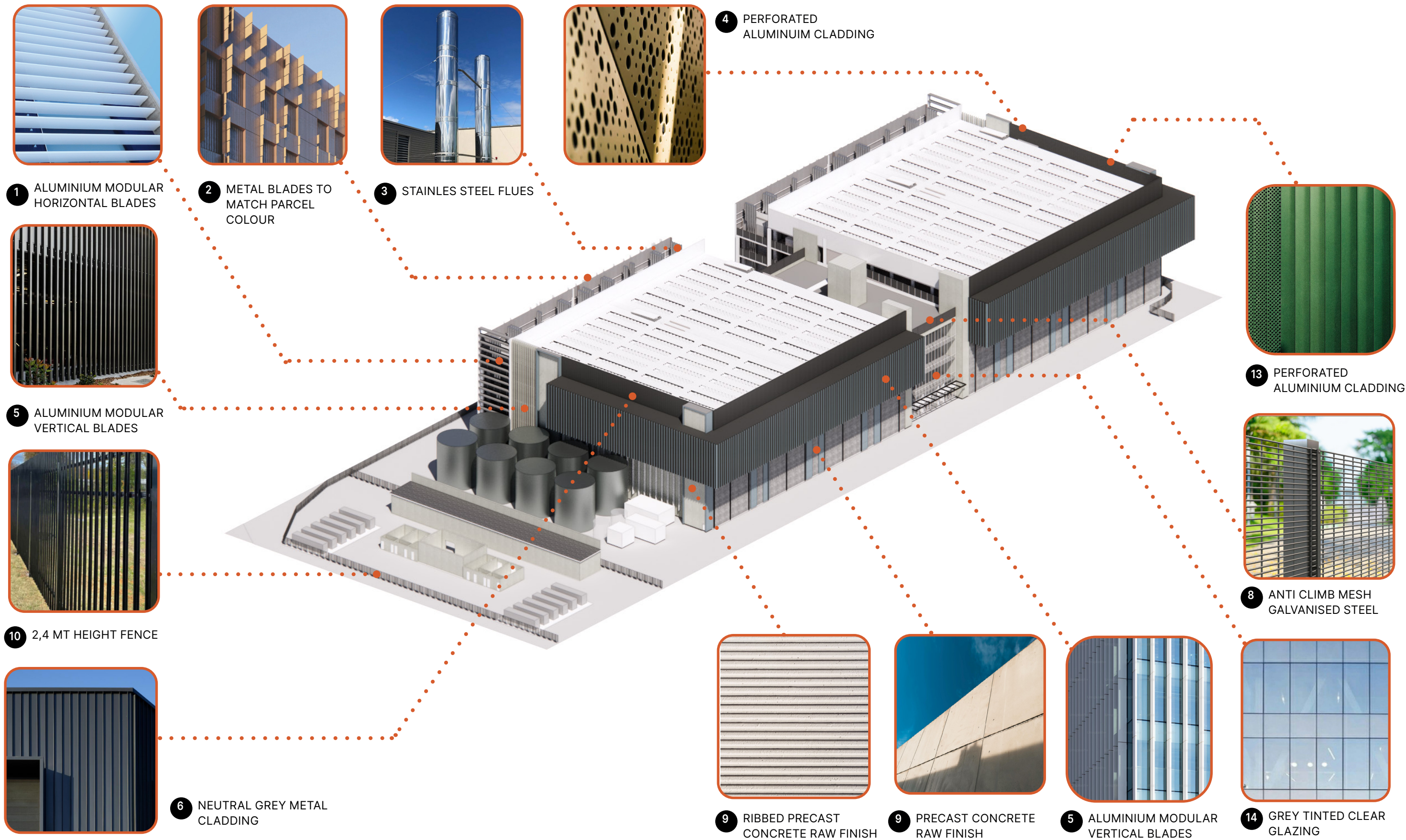
COLD AND WINDY PERIOD

Inspired by Dugara Guwara, the cold and windy season, the design reflects renewal and resilience as the maliya (diamond python) awakens and seeks its mate. Native to Western Sydney and the Blue Mountains, the python symbolises survival and connection to Country for the Dharug people.

The architecture captures this rhythm through flowing forms and tactile materials, creating a space that honours First Nations knowledge and the enduring bond between climate, culture, and place.

Building Envelope

4.4 Sub Parcel



Building Envelope
4.4 Parcel Renders



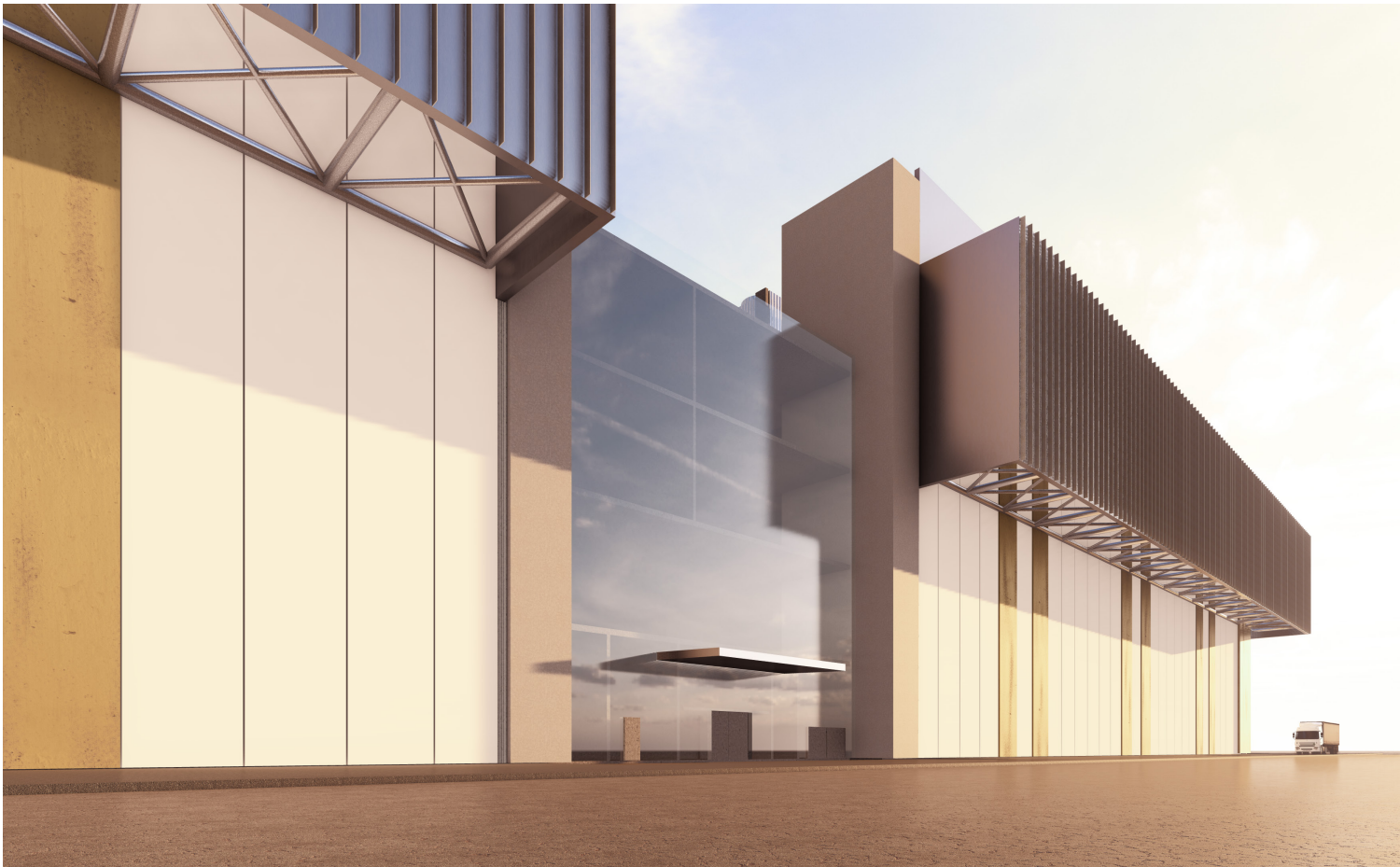
CORNER NORTH- EAST FACADE



NORTH SHORT FACADE



CORNER NORTH- WEST FACADE



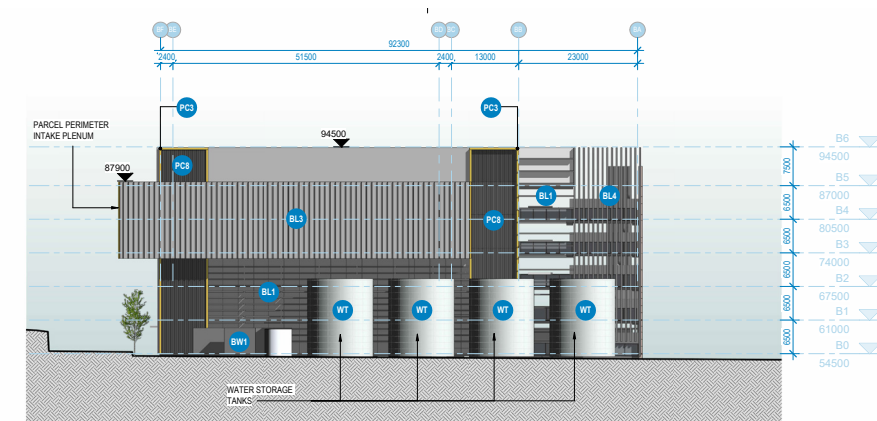
FRONT OF HOUSE -LONG FACADE



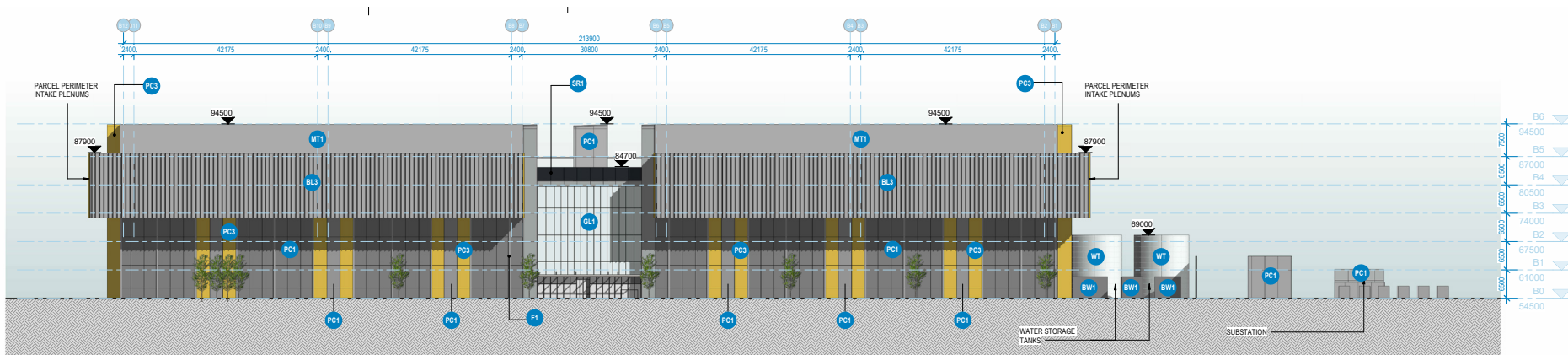
TECH BUILDING MAIN FACADE

Building Envelope

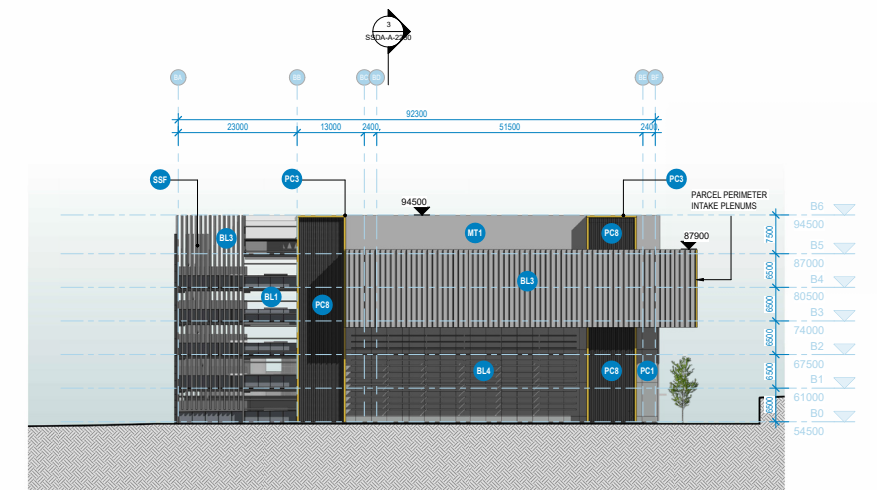
4.4 Parcel Elevations, Finishes



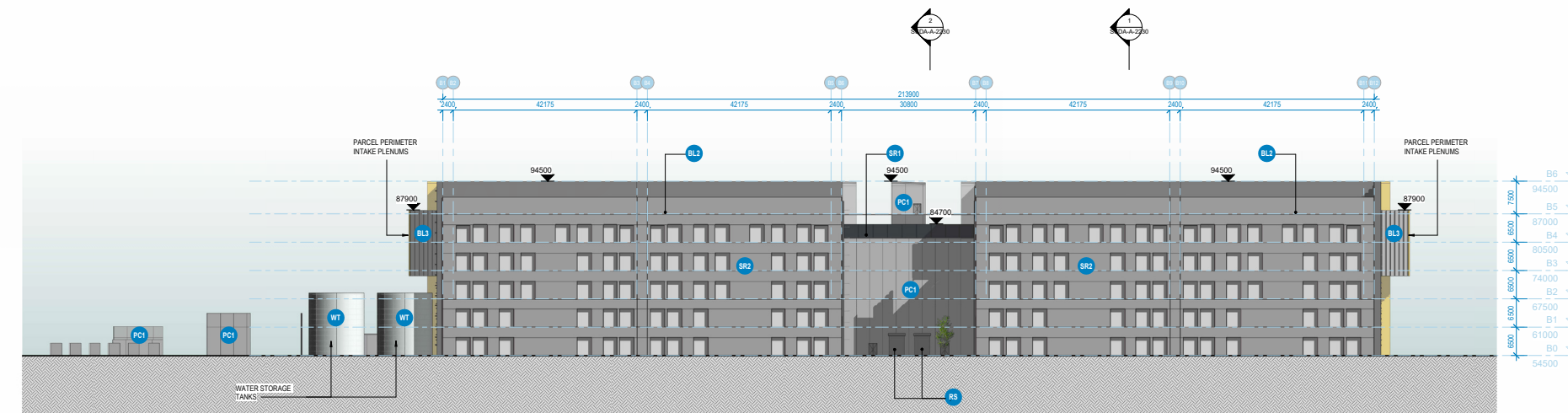
1 PARCEL B - NORTH ELEVATION
1:500



2 PARCEL B - EAST ELEVATION
1:500



3 PARCEL B - SOUTH ELEVATION
1:500



4 PARCEL B - WEST ELEVATION
1:500

PARCELS - EXTERNAL FINISHES SCHEDULE

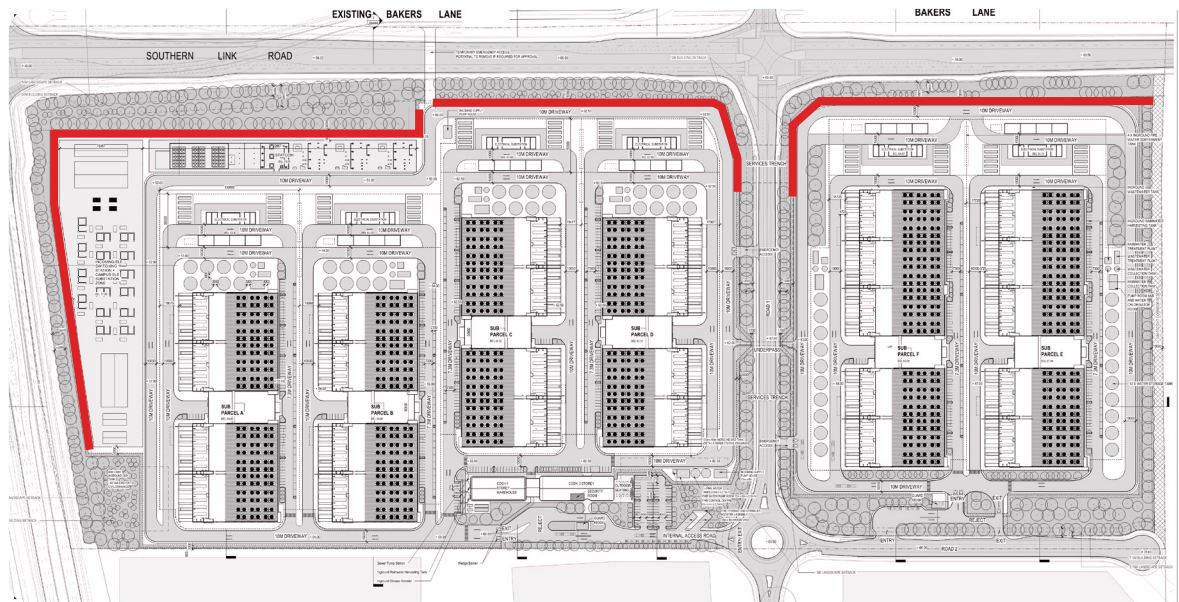
PC1 - PRECAST CONCRETE RAW CONCRETE FINISH	PC2 - PRECAST CONCRETE GREEN FINISH	PC3 - PRECAST CONCRETE YELLOW FINISH	PC4 - PRECAST CONCRETE TERRACOTA FINISH	PC5 - PRECAST CONCRETE BLUE FINISH	PC6 - PRECAST CONCRETE SALMON FINISH	PC7 - PRECAST CONCRETE GREEN OLIVE FINISH	PC8 - RIBBED PRECAST CONCRETE RAW FINISH	BW1 - BLOCKWORK/ UNFINISHED	GL1 - GREY TINTED CLEAR GLAZING	GL2 - HORIZONTAL GLAZING WITH ALUMINIUM SHROUD, COLOUR TO MATCH NON COMBUSTIBLE WINDOW FRAME	F1 - GUTTER/ DOWNPIPE PAINTED POWDER- COATED BLACK COLOUR	F2 - EXTERNAL PLANT & EQUIPMENT PAINED GREY/ POWDER COATED	MT1 - FLAT NEURAL GREY COLOUR METAL CLADDING
SSF - STAINLESS STEEL FLUES	WT - GALVANISED STEEL WATER STORAGE TANKS	RS - ROLLER SHUTTER DOOR GREY POWDER- COATED	BL1 - ALUMINIUM MODULAR HORIZONTAL BLADES	BL2 - POWER COATED METAL BLADES TO MATCH PARCEL COLOUR	BL3 - ALUMINIUM MODULAR VERTICAL BLADES TO MATCH PARCEL COLOUR	BL4 - ALUMINIUM MODULAR VERTICAL BLADES	AL1 - PERFORATED ALUMINIUM CLADDING	AL2 - PERFORATED ALUMINIUM CLADDING	SR1 - SCREENING (ANTI- CLIMB) MESH GALVANISED STEEL	SR2 - VERTICAL BAFFLE (CUSTOM ORB PROFILE) POWDER-COATED	SR3 - METALLIC MESH SCREEN WITH BRONZE COLOUR FINISH. MODULAR MESH SCREENS TO HAVE THREE OPENING SIZES AND COLOUR TONES.	LV1 - GANTRY GENERATOR LOUVER / POWDER-COATED	AGF - ALUMINIUM GLAZED FRAME WITH DARK COLOUR MATT POWDER COAT FINISH

Building Envelope

4.6 Site Screening Design



CORNER SITE SCREENING VIEW



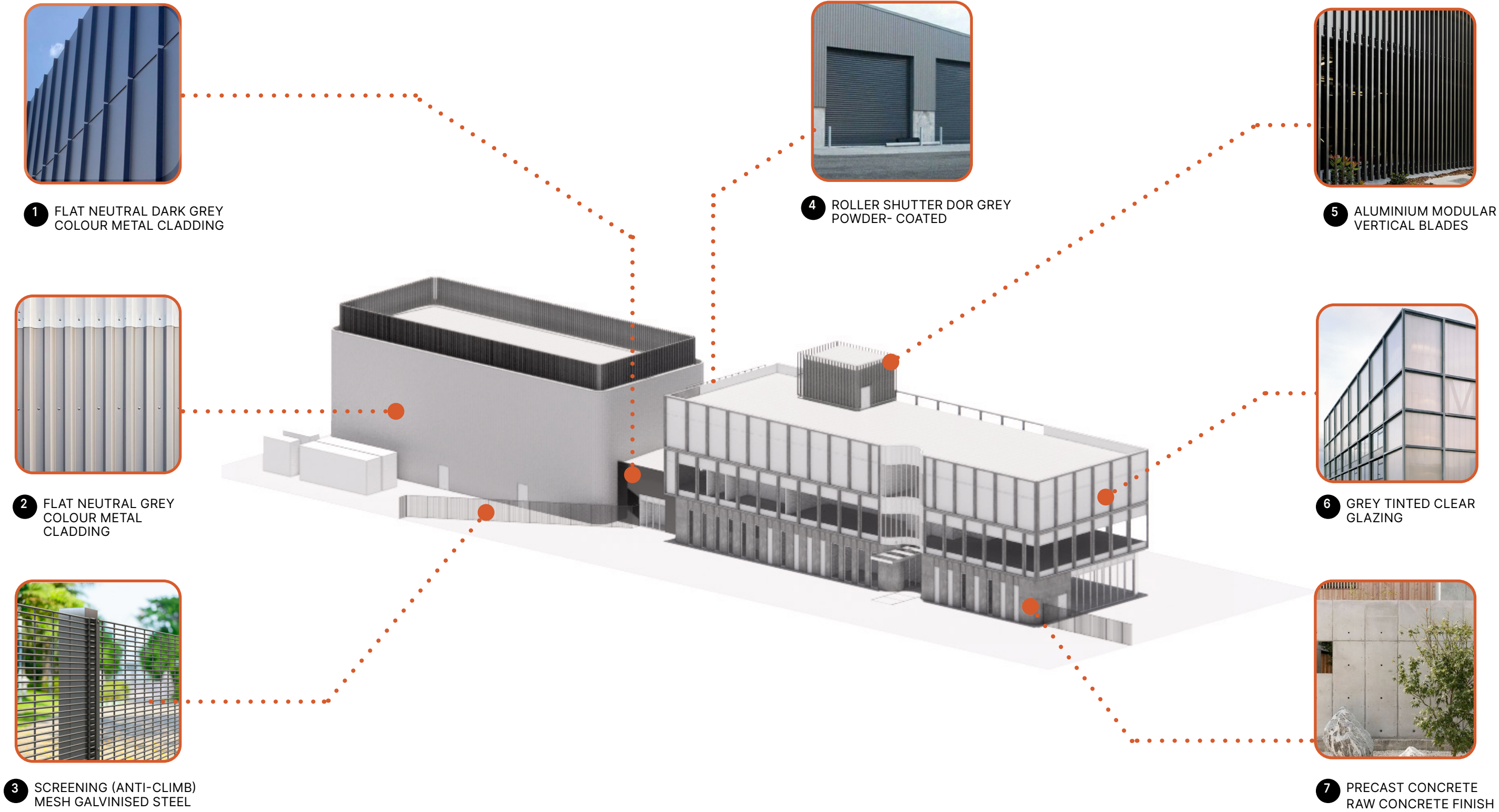
KEYPLAN



FRONT SITE SCREENING VIEW

Building Envelope

4.7 Campus Operations & Support Hub



Building Envelope

4.7 Campus Operations & Support Hub



COSH BUILDING - SOUTHERN FACADE

Building Envelope

4.8 Campus Operations & Support Hub - Entry Design



COSH BUILDING - NORTHERN FACADE



COSH BUILDING - SOUTHERN FACADE

Building Envelope

4.9 Proposed Design Summary

The proposed development comprises a master-planned campus designed to accommodate critical digital infrastructure while responding to its environmental and urban context.

The campus will include six parcels of four-storey data centre buildings, integrated with six technical office buildings and a dedicated campus office building, creating a cohesive and functional environment for high-performance operations.

Supporting infrastructure includes incoming and internal electrical substations, associated services, and comprehensive site preparation works such as earthworks, stormwater management, sewer connections, internal road networks, and landscaping.

The design approach prioritises operational efficiency, scalability, and resilience, ensuring the campus can meet future technological demands while maintaining a strong commitment to sustainability and environmental stewardship.

Architectural principles focus on functional clarity, modularity, and adaptability, with building forms and materials selected to balance technical requirements with visual integration into the surrounding landscape.

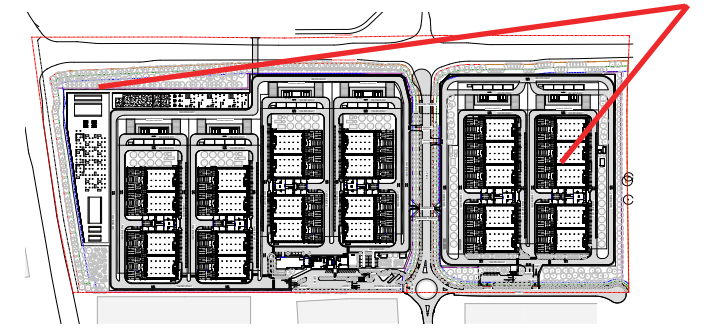
The proposal also incorporates strategies for stormwater management, energy efficiency, and biodiversity protection, aligning with planning objectives and best-practice guidelines for large-scale infrastructure developments.



Street View Montages

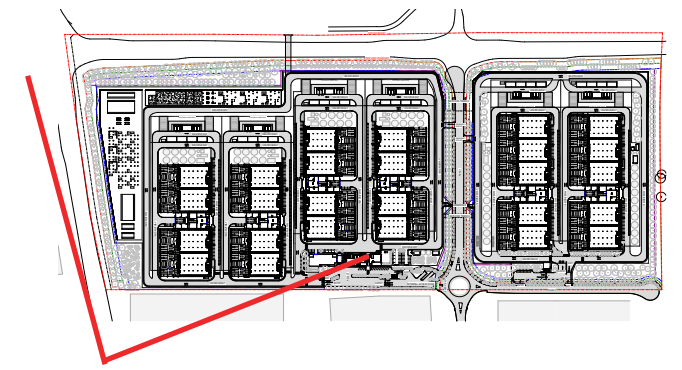
Street View Montages

4.0 View point 1



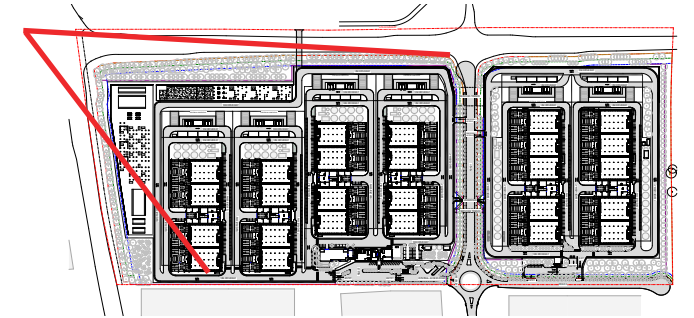
Street View Montages

4.0 View point 2



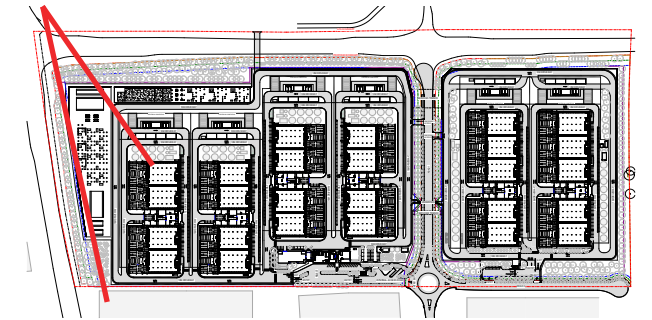
Street View Montages

4.0 View point 3



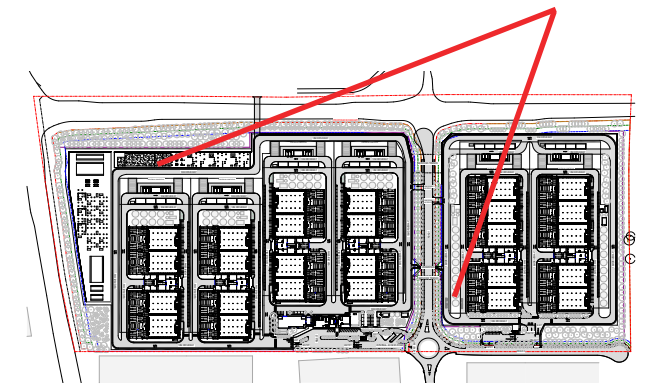
Street View Montages

4.0 View point 4



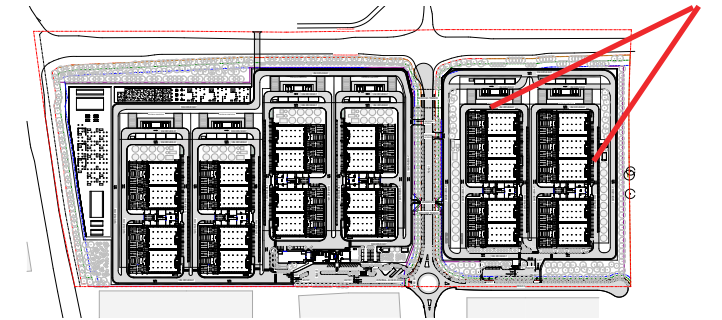
Street View Montages

4.0 View point 5



Street View Montages

4.0 View point 6



Design Response to GANSW

Design Response to GANSW

Better Placed - Implementing Good Design

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:

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**

Objective 01.

Better fit

Contextual, local and of its place:

The proposed scheme aligns with the Better Placed Policy under the 'Better fit' objective, as it presents a unique opportunity to deliver a high-quality data centre within Kemps Creek, an area designated for significant industrial uses and large-scale development.

The proposal represents a logical and appropriate outcome that will generate employment opportunities and support economic growth. It is consistent with key strategic and statutory planning frameworks, responding sensitively to its location, context, and social setting.

Through considered design strategies, such as: significant building setbacks, clear massing delineation, facade design diversification, site screening along north boundary, the development integrates with its surroundings, reduces perceived buildings scale and contributes positively to the evolving local character and emerging data centre landscape in NSW.



Objective 02.

Better performance

Sustainable, adaptable and durable

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.



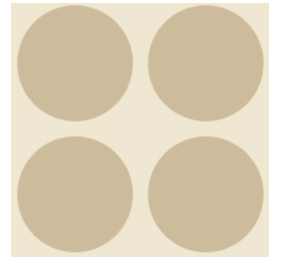
Objective 03.

Better for community

Inclusive, connected and diverse

The proposed scheme meets the Better Placed criteria by addressing technological needs, connectivity, and diversity. The proposed data centre is in major cloud availability zones and well connected telecommunications infrastructure. This aids the increasing demand and adoption of cloud technology.

The project will generate high skilled employment opportunities in the precinct and improve the day-to-day lives of the community, strengthening the community's economic well-being.



Design Response to GANSW

Better Placed - Implementing Good Design

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.

Acoustic screening is featured around the plant equipment on roof and upper levels to reduce and mitigate noise pollution. Operating 24/7, the project ensures constant activity on-site, fostering a safe and secure environment.

Landscaped setbacks and the site screening, predominantly along north boundary, have been thoughtfully designed to activate the precinct, soften site boundaries and create a visual interest.

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 development promotes efficient use of the site and maximises the potential output of a hyperscale data centre. It is designed as a state-of-the-art data storage centre facility incorporating campus administration office space, staff canteens, large meeting rooms, data storage halls and plant and equipment areas.

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.

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 a new data centre will:

- Provide a secure location for data storage within the area
- 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



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. Through masterplanning and architectural design, it reduces perceived buildings scale seen from public space and blends with surrounding context.

The activation of the facades along Mamre Rd and Bakers Ln 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 well-defined, articulated architectural forms, along with landscaped areas, and green spaces, the design enhances the aesthetic quality of the environment, creating a more inviting and visually appealing atmosphere.

THANK YOU

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