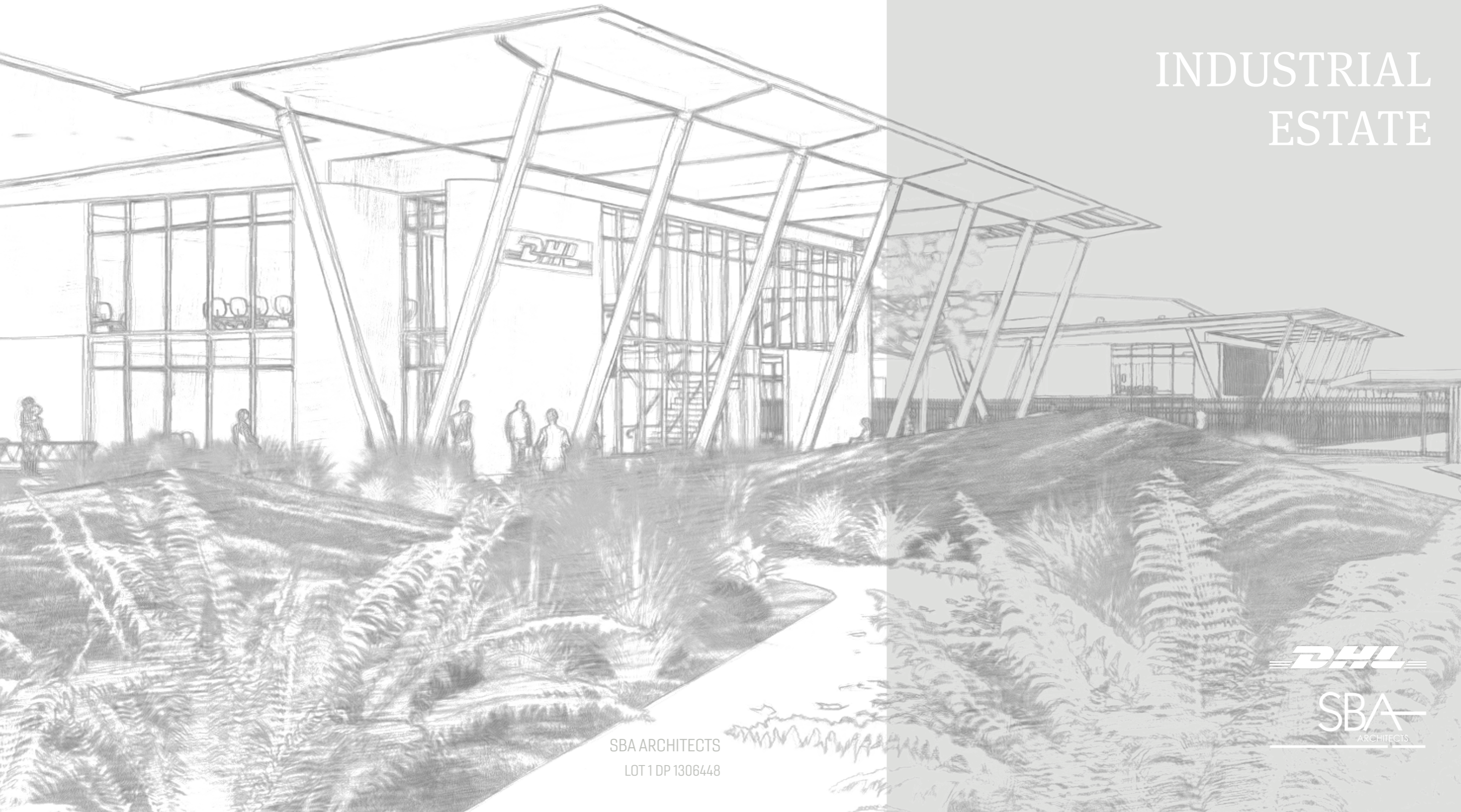


BADGERYS CREEK

INDUSTRIAL ESTATE



SBA ARCHITECTS
LOT 1 DP 1306448



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PART 1

PROJECT OVERVIEW



Entrance to office space
on boardwalk over water
and re-vegetation zone

DHL

SBA
ARCHITECTS

INTRODUCTION

SBA has worked closely and continuously with various consultants to achieve a high-quality design that appropriately responds to its place and context and provides a unique working environment for its users. The goal of this design presentation is to explain through written description and visual graphics the process and progression of the concept through all stages and how it responds to the established design excellence criteria.

CONSULTANTS

BCA	Certitude
Client	DHL
Civil	AT&L
First Nations	Yerrabingin
Landscape	Site Image Landscape Architects
Planner	URBIS
Traffic	Stantec
Stormwater	AT&L
Waste Management	SLR

PROJECT OVERVIEW



PROJECT VISION

The vision for the project is to deliver a high-end logistics and distribution centre in a prime location adjacent to future proposed infrastructure developments. The subject site is part of wider precinct known as "Burra Park", which occupies 171.84 hectares in the Badgerys Creek area. The proposal is a detailed application within the meaning of Section 4.22 of the Environmental Planning and Assessment Act. This detailed SSDA has been made with reference to and is linked with and relies on the Concept Proposal (SSD-70316465).

The selected site was chosen for its proximity to these future infrastructure developments to allow for easy connection to greater Sydney and provide business growth opportunities in the area. The warehouse facilities will not only provide functional spaces, but also large landscaped and amenity area to promote a healthy working environment that responds to its past, present and future context.



STAGE 2
NORTHERN
SITE

DHL SITE

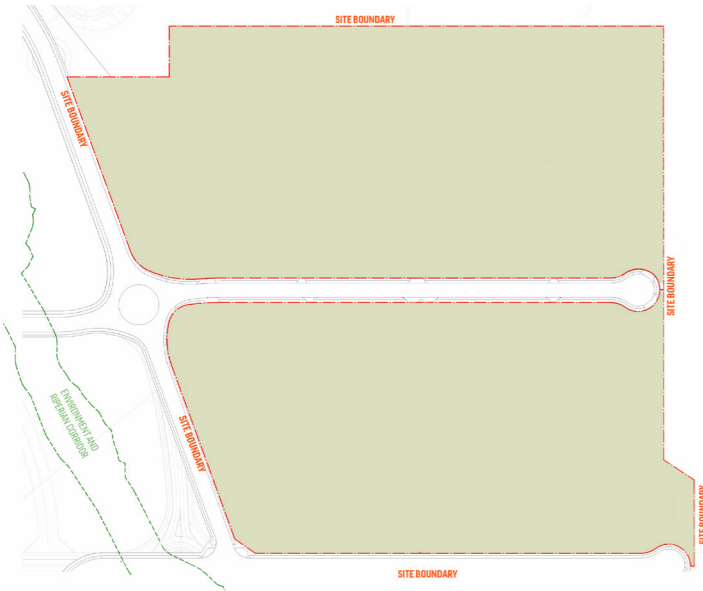
PROJECT OVERVIEW



INITIAL DEVELOPMENT

The development of the proposed masterplan was constructed through a series of site strategies, originating from the existing site boundaries and responding to the brief and site constraints. These elements were presented to the SDRP (State design review panel) and were used to develop the following detailed master plan.

BOUNDARIES



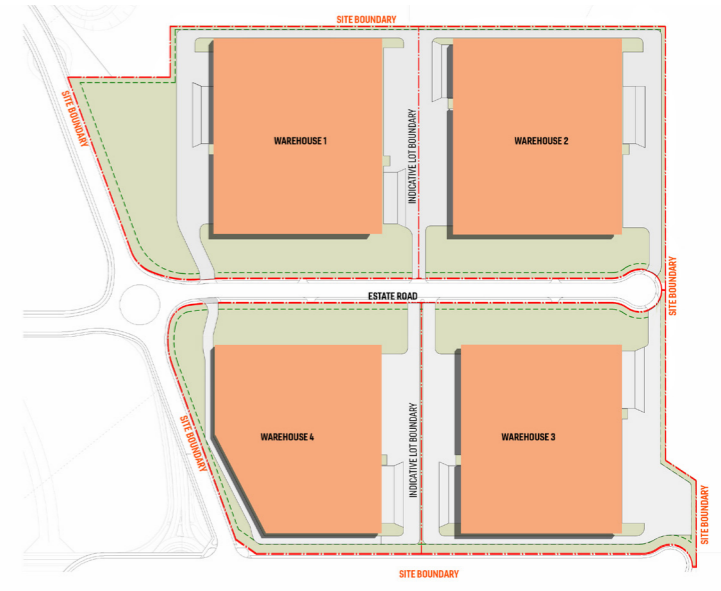
DEVELOPMENT LOTS



WAREHOUSES



HARDSTANDS



OFFICES



CARPARK



LANDSCAPE



TREE CANOPY



PROJECT OVERVIEW



INITIAL MASTERPLAN

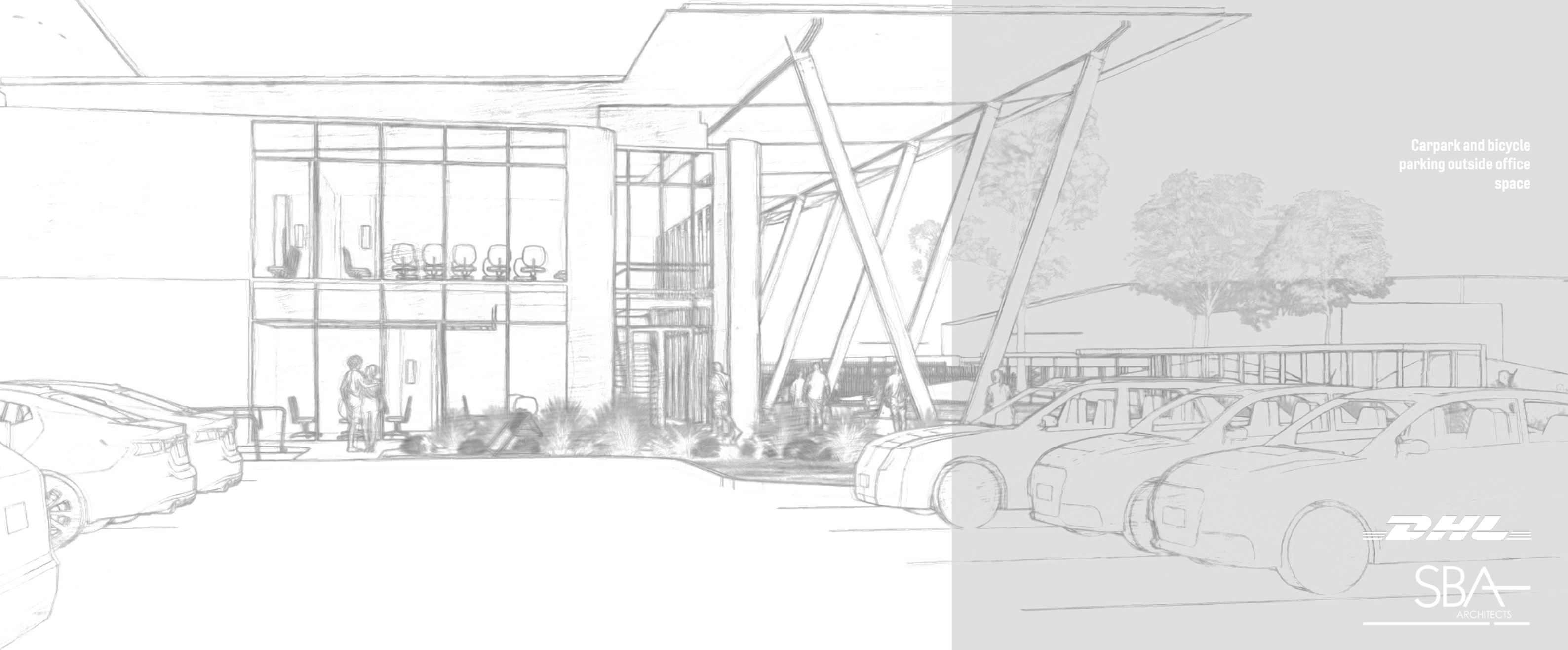
The initial detailed masterplan was constructed from the site strategies and presented to the SDRP as an expression of the design intent. From this the SDRP was able to formulate feedback and guidelines that would be used in the progression of the design. These criteria can be found on page 7 in the design excellence part of the presentation.



PART 2

DESIGN EXCELLENCE

Carpark and bicycle
parking outside office
space



DESIGN EXCELLENCE

STATE DESIGN REVIEW

Summary of notes provided by State Design Review Panel

Connecting with Country (pt 1-3)

- *Connecting with Country engagement strategy, and ensure there is room in the program for the feedback*
- *How the Connecting with Country process is informing the development*

Site strategy & landscape (pt 4-10)

- *Within the rigid programmatic requirements of the brief to break down the rigidity of the orthogonal layout and enhance the overall layout's relationship with the existing topography*
- *Incorporating and progressing analysis and strategies from consultant text information relating to the HBB development*
- *Integrated systems based approach to the site and its long term delivery*
- *Proposed targets for site cover, tree canopy cover, perviousness, streets and open space*
- *Larger scale sections of the edge conditions demonstrating how the built forms will connect into the landscape*
- *How works around the boundaries/interfaces of the DHL site will be delivered and integrated with neighbouring sites.*
- *Circulation and way finding strategy for pedestrians, bicycles and motor vehicles*

Public domain & staff amenity (pt 11-15)

- *Propose communal gathering, break out and recreational spaces in locations easily accessible for staff*
- *Incorporate modern workplace design approaches to the office spaces*
- *Design resolution of the street conditions and pedestrian experience*
- *Use of the spaces between the buildings as part of the overall open space strategy*
- *How the proposal is addressing Crime Prevention*
- *Through Environmental Design (CPTED) considerations*

Built form (pt 16-17)

- *3D visualisations demonstrating the scale of the development*
- *Introduction of undercrafts to buildings for parking to avoid cut and fill*

Sustainability (pt 18)

- *Sustainability strategy for the project*



CONNECTING TO COUNTRY

The design explores both on a macro and micro scale, an investigation into connecting with country. An exploration into country was first initialized through a visit to the site (22nd June 2022), to walk, experience, listen and appreciate the land and country we are currently on (see page 6). This was followed by an analysis of the land and its elements which were thoughtfully extracted and represented in both the built and landscape design throughout the site. Throughout the process, consistent collaboration and feedback has been achieved with First Nations people through Yerrabingin, to provide a high-quality design that appropriately responds to its past context as well as its present.

BUILT FORM

The built form emulates key natural features within the surrounding environment, the extended roof relates to the tree canopy of the adjacent vegetation, while the landscape rises around the user to provide an immersive experience. Landscaping and vegetation have been introduced into the carpark space to soften the visual impact and integrate it further into the site. This has all been visualised through 3D representations to understand the impact and experiential feeling of the design.

SUSTAINABILITY & SAFETY

The built form has been developed with key sustainable initiatives including rainwater collection systems and solar panel arrays to create an energy efficient site. In addition to this the office uses passive solar design to reduce energy consumption in operation and HVAC systems. Key security principles including lighting, access control, space management, surveillance and territorial reinforcement have been used to maintain safety within the precinct.

SITE STRATEGY & LANDSCAPE

The built forms of the master plan have been formed through a grid to provide a maximised efficiency along with a safe movement of separated light vehicles, heavy vehicles and pedestrian users. However, this grid is broken through the inclusion of large and dense landscaped areas which provide disconnections between the buildings and soften the sharp edges and corners within the site. To the west boundary, significant landscape setbacks have been produced in organic forms to provide open spaces between lots with large vegetated areas. In addition to this, the rigid grid is disrupted in the vertical plane through the rising mounded landscaped for the office amenity and the organic patterns featured along the warehouse facades. This increased landscape area has the added benefit of expanding the tree canopy, permeable surface and deep soil areas across the site, to create a more enjoyable and natural environment. Clear way-finding is created through signage and defined paths to allow for safe vehicle and pedestrian travel. In addition, pedestrian safety has been achieved by providing multiple pathways that connect from the parking to the office that are separated from the street.

PUBLIC DOMAIN & STAFF AMENITY

A large emphasis of the design proposal is the connection between the outdoor landscape and the built form, to achieve this a set of design principles was identified to create a blended indoor and outdoor space. The built form lightly connects with the ground, with an extended covered outdoor space that overlaps a landscaped area that was developed through frequent collaboration with Site Image Landscape Architects. The layering of loose natural surfaces on the ground plane has been utilised to provide inclusive and integrated landscape design that reflects the existing natural landscape. Sufficient outdoor seating and amenity for occupants has been provided in areas for the office as well as in the large spaces for communal gathering. The use of warm tones and materials in the fencing and built environment has been combined with appropriate lighting to foster an enjoyable and safe environment for its users.

STATE ENVIRONMENTAL PLANNING POLICY

PRECINCTS - WESTERN PARKLAND CITY

SECTION 4.33 - Consideration of Design Excellence

In considering whether development exhibits design excellence for the purposes of this Part, the consent authority must have regard to the following matter

- (a) whether the development responds to the physical and cultural connection of the local Aboriginal community to the land,
- (b) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
- (c) whether the form and external appearance of the development will improve the quality and amenity of the public domain,
- (d) whether the development detrimentally impacts on view corridors.

The consent authority must also have regard to how the development addresses the following matters

- (a) the suitability of the land for development,
- (b) the existing and proposed uses and use mix,
- (c) Aboriginal heritage,
- (d) the relationship of the development with other buildings (existing or proposed) on the same site or neighbouring sites in terms of separation, setbacks, amenity and urban form,
- (e) the bulk, massing and modulation of buildings,
- (f) street frontage heights,
- (g) environmental performance and amenity standards, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind and reflectivity,
- (h) the achievement of the principles of ecologically sustainable development,
- (i) pedestrian, cycle, vehicular and service access and circulation requirements, including the permeability of pedestrian networks,
- (j) the impact on, and proposed improvements to, the public domain,
- (k) the impact on special character areas,
- (l) achieving appropriate interfaces at ground level between the building and the public domain,
- (m) architectural diversity where the development is to consist of more than 2 buildings.

PART 1

During the initial stages of the design process, research was done to establish a connection between the indigenous principles of country and the architecture of the built environment. Physical notions were extracted to be represented through the conceptual forms of the building as well as spaces created to embody gathering and the intangible aspects of the Aboriginal culture.

An empathetic selection of materials that are appropriate to the existing context are used to create warm and inviting spaces within the amenity areas of the design. They are used with slender elements and elegant connections to give the sense that the building sits lightly within the landscape. Organic patterning has been provided to create interest and value to the facades and enhance the perspectives and views of the buildings from outside the site.

PART 2

The design presentation outlines a clear and concise development timeline beginning with initial research of the place and country, through to the visualisation and 3D representation. A brief summary of this narrative is detailed below as a response to the council authority's key development matters:

- a & b) A series of site analysis maps have been produced to assess the viability of location, access and context for the site.
- c) A series of connection to country maps have been used to extract key aspects of country that are crucial to First Nations heritage, and have been implemented into the design.
- d) Analysis of the estate and master plan in its relation to the built and natural elements surrounding the site has been produced to check the efficiency and function of the proposal.
- e) A series of massing diagrams have been created to show the progression of the concept through carefully thought-out and justified decisions.
- f) Sectional drawings to establish bulk, scale and landscaping have been created to allow for appropriate views and transitions from the street.
- g & h) Precedents and concept sketches have been developed to show the key design moves for passive solar strategies and responsive design.
- i) Thoughtful planning of all modes of transport has been mapped to increase safe and separated movement throughout the site.
- j-l) A key set of architectural drawings and diagrams to explain the internal spaces and their connection with outdoor amenity, with specific focus on merging indoor and outdoor spaces to blur the line between built and landscaped environment.
- m) The creation of design principles in both the built and landscaped forms allow for adaptability and variation across the different lots and facilities.

SEAR'S DESIGN CRITERIA

SEAR'S BUILT FORM & URBAN DESIGN

4.1

Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach.

The design of the built elements has been developed from a series of site analysis maps that investigate the surrounding context and access to the site **(SHOWN IN PART 4- SITE ANALYSIS AND CONTEXT)**, this is achieved in construction with elements that relate to First Nations **(SHOWN IN PART 3 - DESIGN FOR COUNTRY)**. The proposal's location has been strategically positioned to respond to the future infrastructure proposals, and the design concept is illustrated through a collage of precedent images that indicate the look and feel of the project **(SHOWN IN PART 5 - CONCEPT DEVELOPMENT)**.

SEAR'S BUILT FORM & URBAN DESIGN

4.2

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.

A progression of concept sketches and massing diagrams had been used to explain the development of the design in response to specific design principles **(SHOWN IN PART 5 - CONCEPT DEVELOPMENT)**. A collection of connection to country maps and principles has also been used to express key elements of First Nations people importance that have been represented in the built and landscaped forms **(SHOWN IN PART 6 - LANDSCAPE)**. A selection of floor plans and sections have been used to express the operation of the space within the site and estate, and also visualise the bulk and relationship to the human scale **(SHOWN IN PART 7 - ARCHITECTURAL RESPONSE)**.

SEAR'S BUILT FORM & URBAN DESIGN

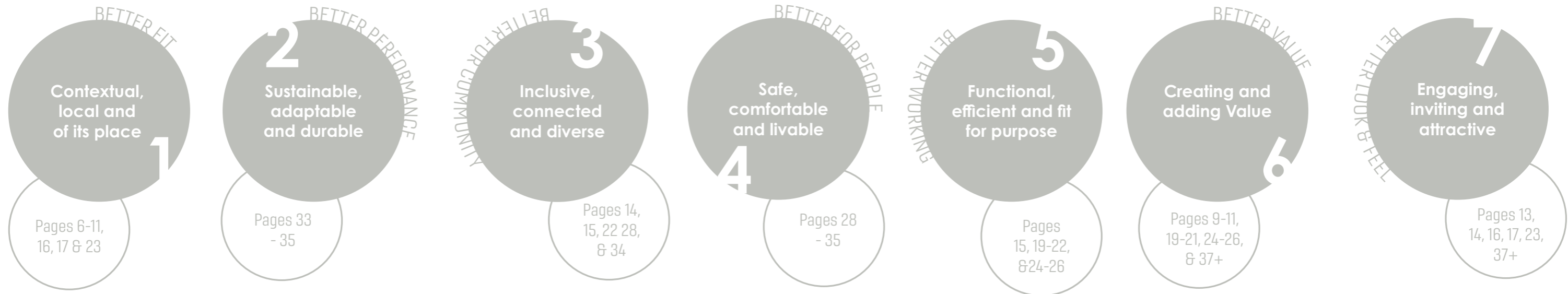
4.3

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

There is a clear indication of the material and finishes palette that has been selected to reflect the earthy and neutral tones of the context, with elevations to show their application along an organic and dynamic façade. Key plans have been used to identify appropriate signage and way finding throughout the site, along with appropriate surveillance and lighting to create an easily navigable and crime free space. The use of massing diagrams has been created to identify the sustainable measures being utilised throughout the site, and 3D renders give a realistic representation to the experience and feeling of the concept. **(SHOWN IN PART 7 - ARCHITECTURAL RESPONSE)**

BETTER PLACED OBJECTIVES

Better Placed design principles are key to ensuring good quality design that responds positively to the environment, occupants, and public amenity. Throughout the design statement, stamps will be placed where it is evident that these principles have been considered.



A series of context maps and site analysis diagrams have been used to establish the correct placement, orientation and layout of the site within the precinct. There is a series of maps that identify significant aspects of First Nations culture within the area that have translated into the built and landscape proposal to create a locally responding, high end development.

Key plans, sections and diagrams have been used to establish the renewable energy and water systems that have been integrated throughout the site to create a more efficiently operating precinct. In addition, the inclusion of passive solar design is evident in the office to reduce energy consumption and increase thermal comfort.

Plans and sections are used to illustrate the connection and diverse outdoor amenity both for the individual office spaces and the communal gathering points of the site. These points identify meeting areas that create an inclusive and positive work lifestyle for the occupants.

Diagrams are used to explain the key traffic and pedestrian flow throughout the site. These have been designed to minimise crossover and to separate different travel types to create a more efficient, adaptable and safe site for both vehicles and pedestrians. In addition, the inclusion of green space enhances the working experience for the user and creates a more comfortable and inviting space.

Key massing diagrams are used to explain the office concept and its relationship with the human scale and the street. These massing diagrams break down the key features of the built and landscape elements and exhibit their function in relation to the user experience. The plans also help explain the operation of the warehouse and offices through the allocation of spaces and planned movements of the facility.

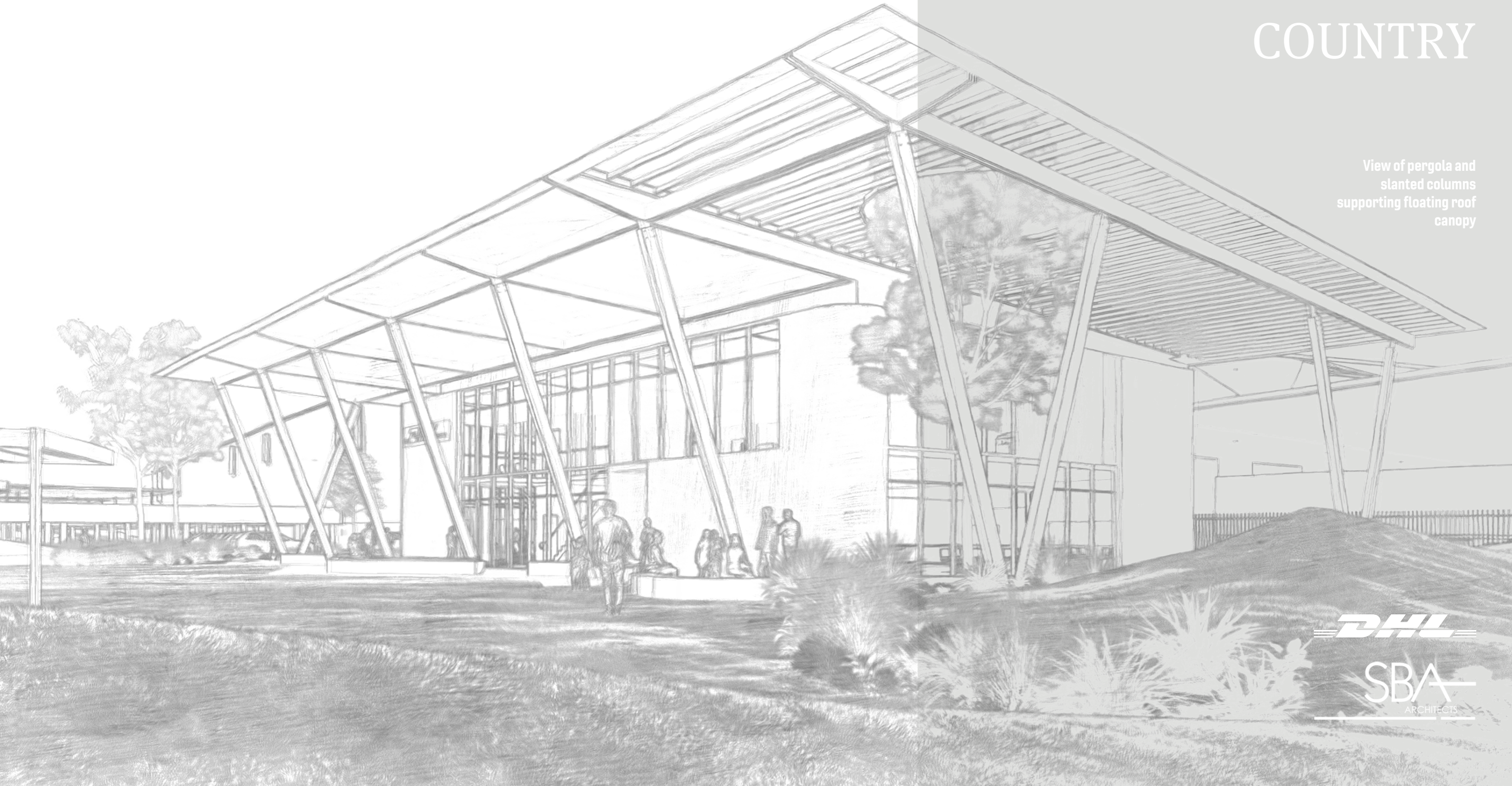
The proposal actively responds to the surrounding historic and present context to create an appropriate space that fits in the environment. It uses a combination of thoughtful design and careful material selection to deviate from the 'typical office and warehouse design', and develop a high valued space for its occupants.

Photomontages have been used to display a realistic representation of the 3D concept to explain the experience and feeling for the users within the space. A palette of colours and materials has been detailed in conjunction with 3D visuals and elevations to identify an accurate depiction of the finishes of the built elements.

PART 3

DESIGN FOR COUNTRY

View of pergola and
slanted columns
supporting floating roof
canopy



WALK ON COUNTRY

The walk through the country exposed the beauty and importance of the land on which the proposed development stands. It was a chance to experience the land from the perspective of the Traditional Owners, The Dharug People, and invite them to be part of the collaboration through their knowledge, stories and love of their country. From this gathering key concerns and considerations were relayed by the Dharug Elders that were integral to the development of the project.

ACKNOWLEDGMENT

Dharug land first; Connect with Dharug country;
Give back to people and country
Consider the impact on past and future generations
Considers the layers of the site; holistic sense of people, environment and animals.

WATER GENERATION AND WATERWAYS

Black swans *Mulgoa*, are a part of country
Water Basins should remain; displacement of water basins can disorientate birds
Underground water should be considered

SITE ACCESS / USE OF PUBLIC SPACE

Public space near Cosgrove Creek; Private space for ceremonies, gatherings and rituals; Limited privacy
Access to waterways; Maintain cultural practice on Country
History of displacement; No option to prove native title

CARE OF THE ENVIRONMENT

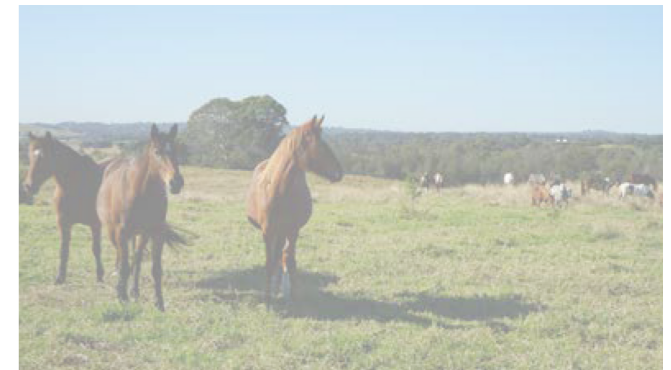
Food trails; protection of other life forms and species; animal movement on site
Importance of grassland and Cumberland Plain; layering of the landscape; access and management
Sustainable, native and non-invasive vegetation solutions; colours of the landscape
Riparian corridor protection; long-term native planting

COMMENTS FROM DHARUG ELDERS'

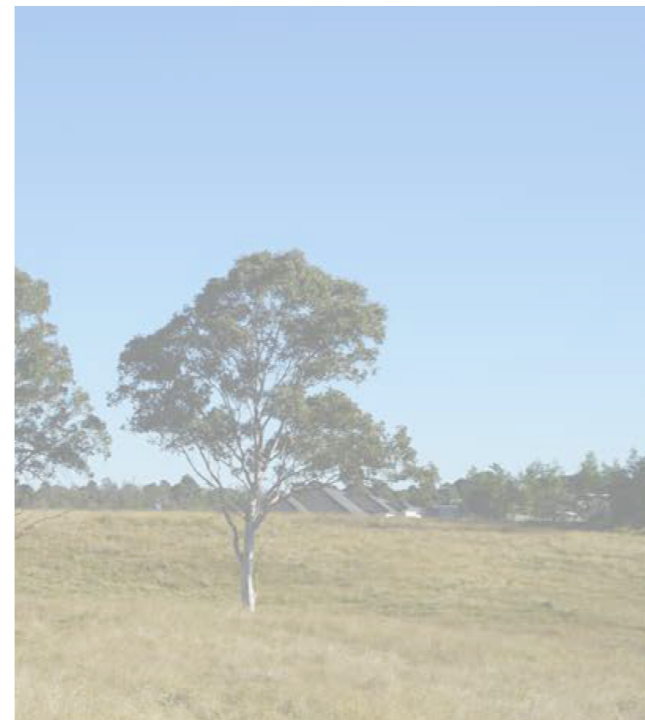
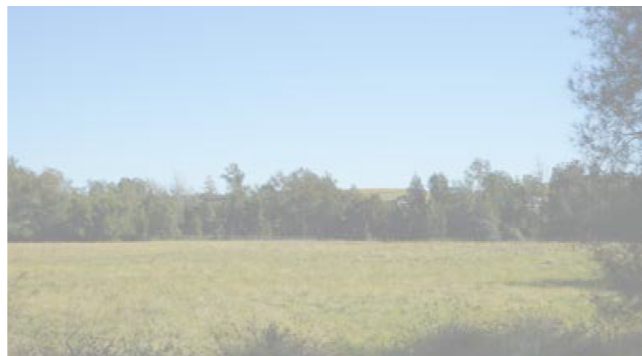
"What do we hear on Country now? – cars, planes, construction"



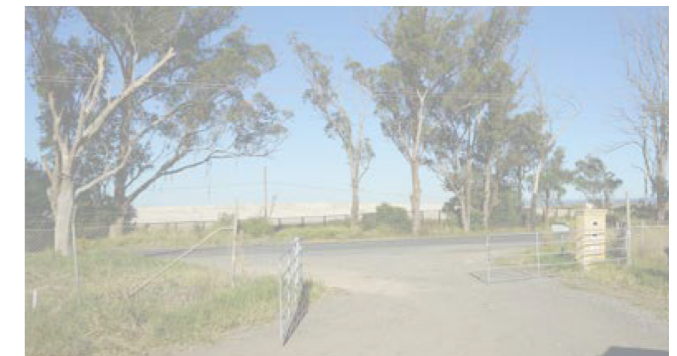
"waterway pollution...Not enough food for future generations"



"The spirit of Country is not always tangible"



"Currently there is no giveback to Country – only take"



"once these elements of Country are gone, they are gone"

FIRST NATIONS CONSULTANT

Yerrabingin was engaged as the First Nations consultant for the integration of First Nations principles into the built and landscape concept. They collaborated consistently throughout the entire project and were able to provide clear initiatives and feedback that progressed the concept towards a high quality and locally appropriate design.

ARCHITECTURE

“ The design principles are well conceived and integrated well. Precedents beautifully show how the building can blend into the natural environment. Office concept diagrams are great because they show the thought process with the principles. Great natural light into office buildings. ”

How rainwater will be treated on-site? Will the water be collected and reused?

Rainwater and other sustainability measure will be used to reduce the consumption of non-renewable sources, see page 46 for details.

The brown facade seems unconnected, potential to bring an ecotonal pallet reflecting ecology and geology.

A new dynamic facade has been developed with an organic pattern that utilise less bold finishes that aims to blend and reflect the landscape beyond, see page 47 & 48 for details.

Way-finding along path using environmental stencils, inlays or concrete engraving

Key signage and materials have been used as way-finding strategies to create easy identification and travel to office spaces. Key natural elements like water elements and trees have been utilised as recognisable gathering points for each individual space, see page 33, 37, 41, & 44 for details.

LANDSCAPE ARCHITECTURE

“ Mounds are nice to block views of roads and enclosed, (great for noise pollution from cars). Great tree canopy coverage. ”

Would be great to see how the principles have guided the design, looks like early draft and Site Image are aware of a number of references listed below from other collaborations with Yerrabingin.

Landscape principles were extracted from the existing natural topography and represented through conceptual massing diagrams and sketches, see pages 30-34 for details.

Refer to previous plant schedules. Endemic / native species, seasonality considered, bush tucker / medicinal species, pollinator beacons to attract insects.

The use of native flora species was gathered through collaboration with Yerrabingin and has been utilised into the landscape development, see pages 16 & 36 for details.

Recycled materials (recommended), natural stone / local geology of area in seating, rammed earth, recycled timbers, crushed sandstone / granites (also creates a sensory experience as you walk along)

A selection of raw, rough and earthy toned materials were used both on the facades and the ground plane to reflect the natural context of country, see pages 47-57 for details

SITE ANALYSIS

“ Masterplan; elements of Country diagrammed over plan. Which elements are expressed here? For example, open grass space (Sky), Water basin (Water Country), natural seating materials (deep Country), Planting endemic species (Non-Human Kin) which also creates habitat for local animals, spaces for people (Move with Country) ”

Describe how the site sits within Country; in relation to the creeks and surrounding areas

The site was researched in terms of its water, topography and wildlife to establish the Country the site sits within, see pages 13 & 16 for details.

Overlay iconography onto zoom-in plans to show specific connecting with Country activation.

Both the office and landscape spaces have been designed through extracting key principles from natural elements to create a local responsive concept, see pages 22 & 34 for details.

Open grass could be an event space for community (NAIDOC week for example), educational plaques about plants / area (QR codes for examples), foraging bush tucker species, sensory experiences, weaving species, path could tell a story specific to area, educate users on story of area

A variety of landscape areas have been introduced into the office amenity to allow for a large range of events and activities to take place, see pages 35, 36, 41, & 43 for details.

Sitting around water would be nice, movement of water would be nice to hear the sounds of water, could move water around the open space (blind creek bed)

A water and re-vegetation zone has been placed at every office point to allow for a diverse ecosystem to thrive as well as a recognisable meeting point for office amenity, see pages 33, 35, 36, & 53 for details.

CONNECTION TO COUNTRY MAPS

The site is located in Badgery's Creek between two significant water courses, Cosgrove Creek and Badgery's Creek, both of which connect to South Creek at a point north of the site. There is also some smaller unnamed minor creeks and water bodies that populate the area around the site and beyond.

Water is a highly significant part of country to the First Nations people, it provided seasonal fresh water points, crafting materials and food resources. Given the plentiful supply of natural water bodies throughout the Badgerys Creek site, it is likely this is a high place of significance to the First Nations people of this area. Water bodies such as these are significant to the diversity of wildlife and flora of the landscape which in turn would provide a bountiful supply of resources and healthy ecosystem to thrive in. Due the importance of this, the design of the outdoor amenity will aim to integrate water elements, to reflect the natural state of the existing landscape.

WATER BODIES & COURSE

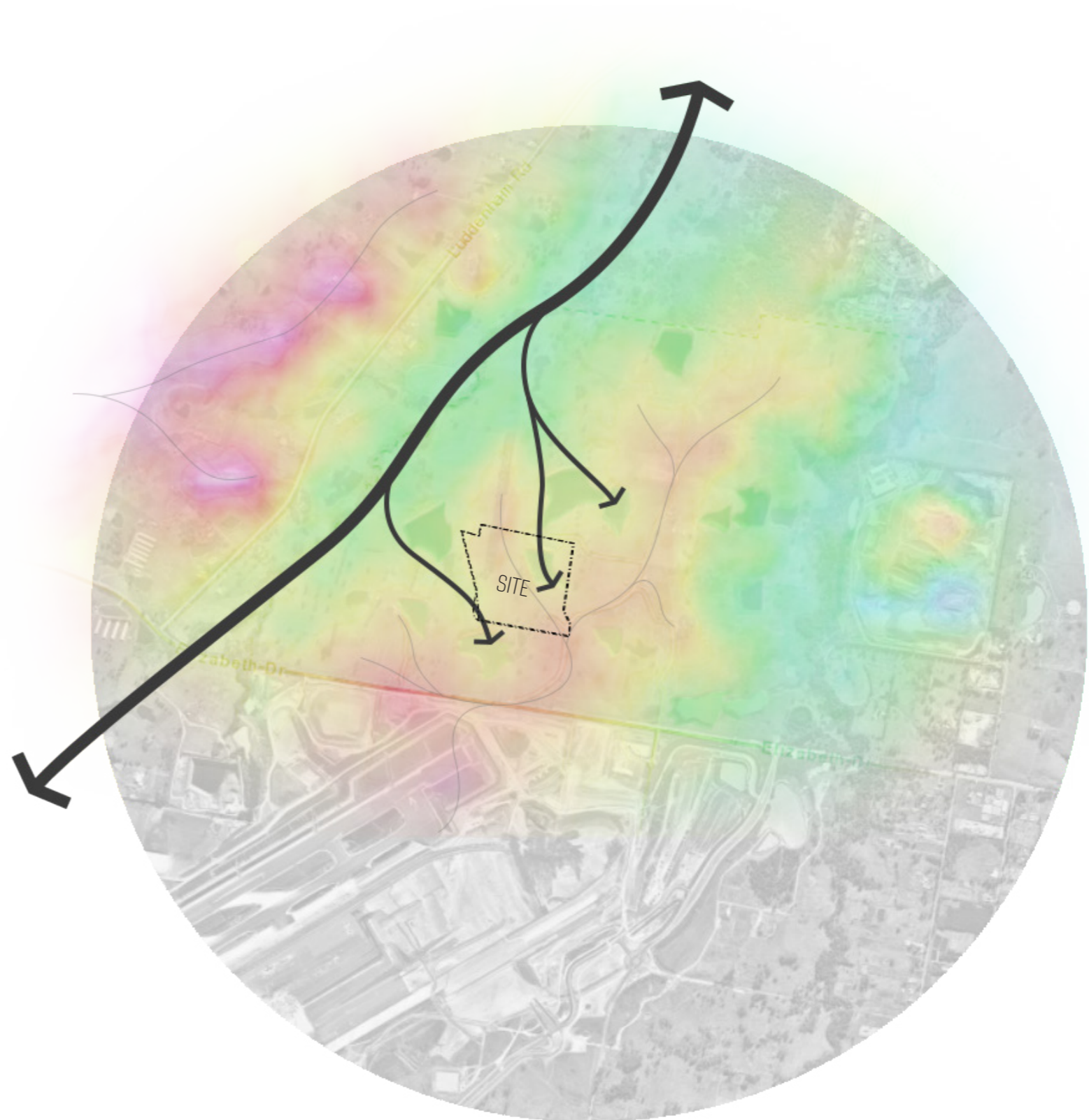


CONNECTION TO COUNTRY MAPS

Badgery's Creek has an undulating terrain that changes in elevation with shallow valleys, inlets and ridge lines created through water bodies and creeks.

This diversity in terrain would have been important to the First Nations people of this area, the inlets and valleys provide shelter against strong winds and opportunities for seasonal water bodies. The ridge formations offer ways to read the land and provide site lines across the terrain. As a derivation of this, the mounded landforms will be incorporated into the landscape and outdoor areas to allow for occupants to journey through a representation of natural environment.

TOPOGRAPHY & LANDSCAPE

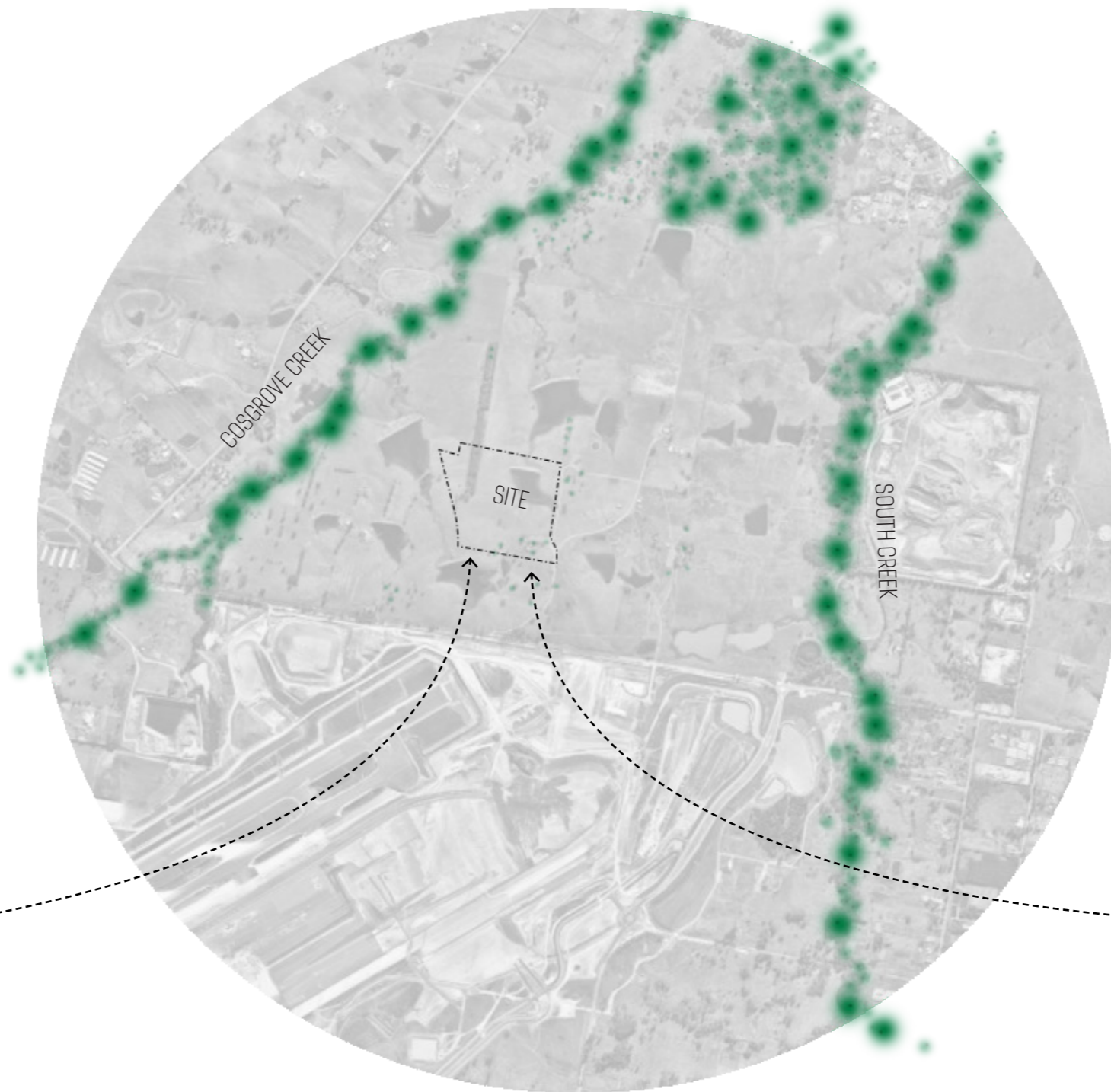


CONNECTION TO COUNTRY MAPS

The Western Parklands environment holds an abundance of native flora and fauna, which thrives off the natural environment. Exhibited are a small portion of the native species that can be found throughout this area, with of these many species being threatened by the consumption of land where their habitats and resources reside.

The significance of each these species plays an imperative roll to the ecosystem and is vital to the health of the land and country. The built form will aim to derive its form from the natural principles of this environment (explained in detail on pages 22-28), while the landscape will aim preserve and expand these species into its setting.

VEGETATION & WILDLIFE



Allocasuarina
Glareicola



Dillwynia
Tenuifolia



Micromyrtus
leptocalyx



Pultenaea
Parviflora



Angophora
Subvelutina



Australian
Black Swan



Glossy Black
Cockatoo



Eastern Grey
Kangaroo



Regent
Honeyeater

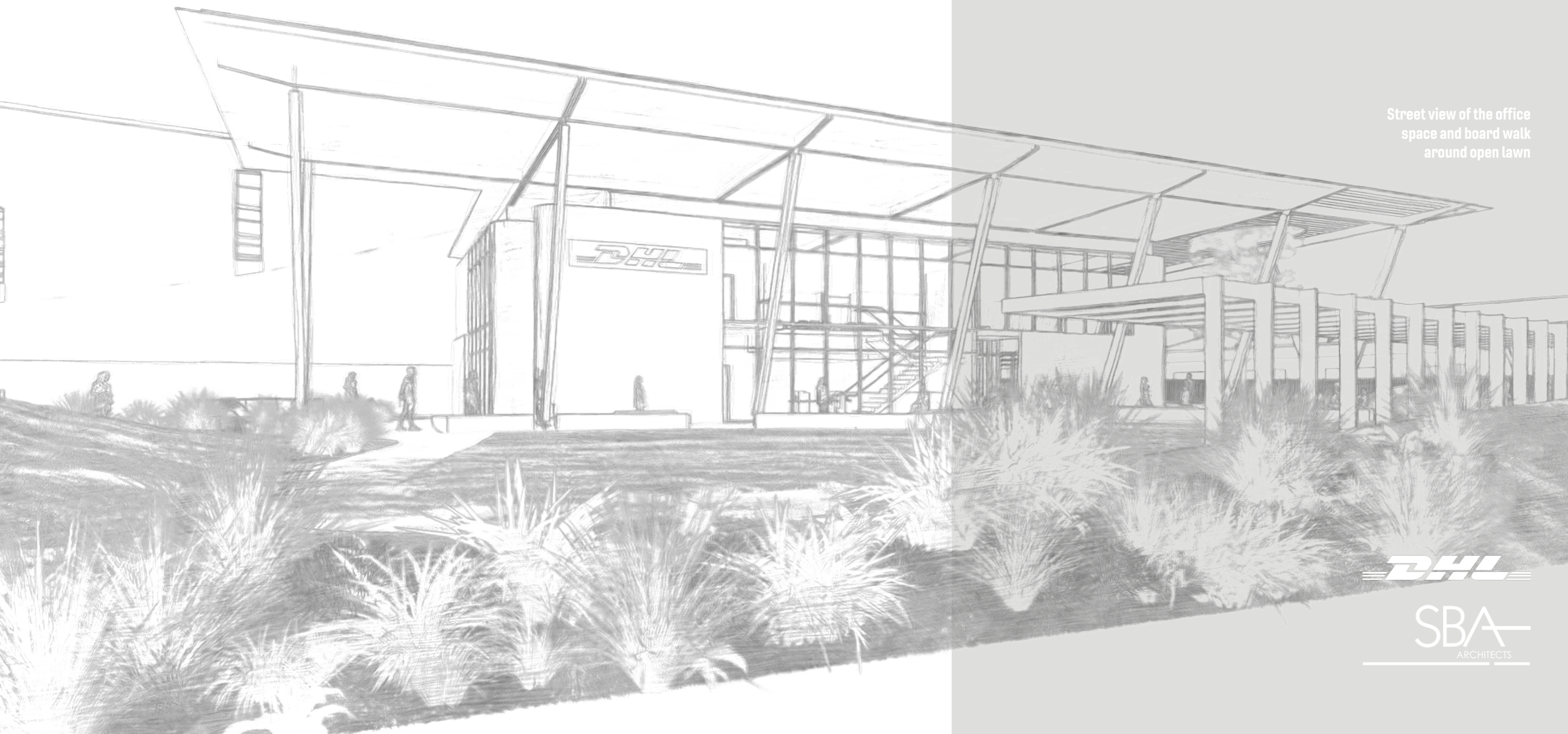


Large-eared
Pied Bat

PART 4

SITE ANALYSIS & CONTEXT

Street view of the office
space and board walk
around open lawn



DHL

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SITE ANALYSIS & CONTEXT



LOCATION PLAN

THE SITE

The site is part of Lot 1 DP 1306448 and is located in an enterprise land zone of the Northern Gateway precinct within Penrith Local Government Area. The site occupies approximately 25-hectares (ha) of the larger 171.84-ha site at 1953-2109 Elizabeth Drive, Badgerys Creek.

THE OPPORTUNITY

The proposed development will deliver four high-end temperature-controlled warehouse facilities with associated A-grade office space and outdoor amenity, in response to the market demand for precincts of this nature.

Given the sites prominent location within Badgerys Creek and its placement on Dharug land, this project provides a unique opportunity to showcase a development that is designed through collaboration with First Nation peoples, to appropriately respond to the needs of country.

PROJECT PROPOSAL

The proposed site has been split into two stages, the first stage having an area of 128,159 m² and the second stage having an area of 133,678 m², with the remaining site dedicated to an internal accessway.

The facility will provide warehouse and distribution opportunities within the Western Parklands area as well as providing a green and healthy work lifestyle through the inclusion of large landscaped areas and open outdoor amenity for staff.

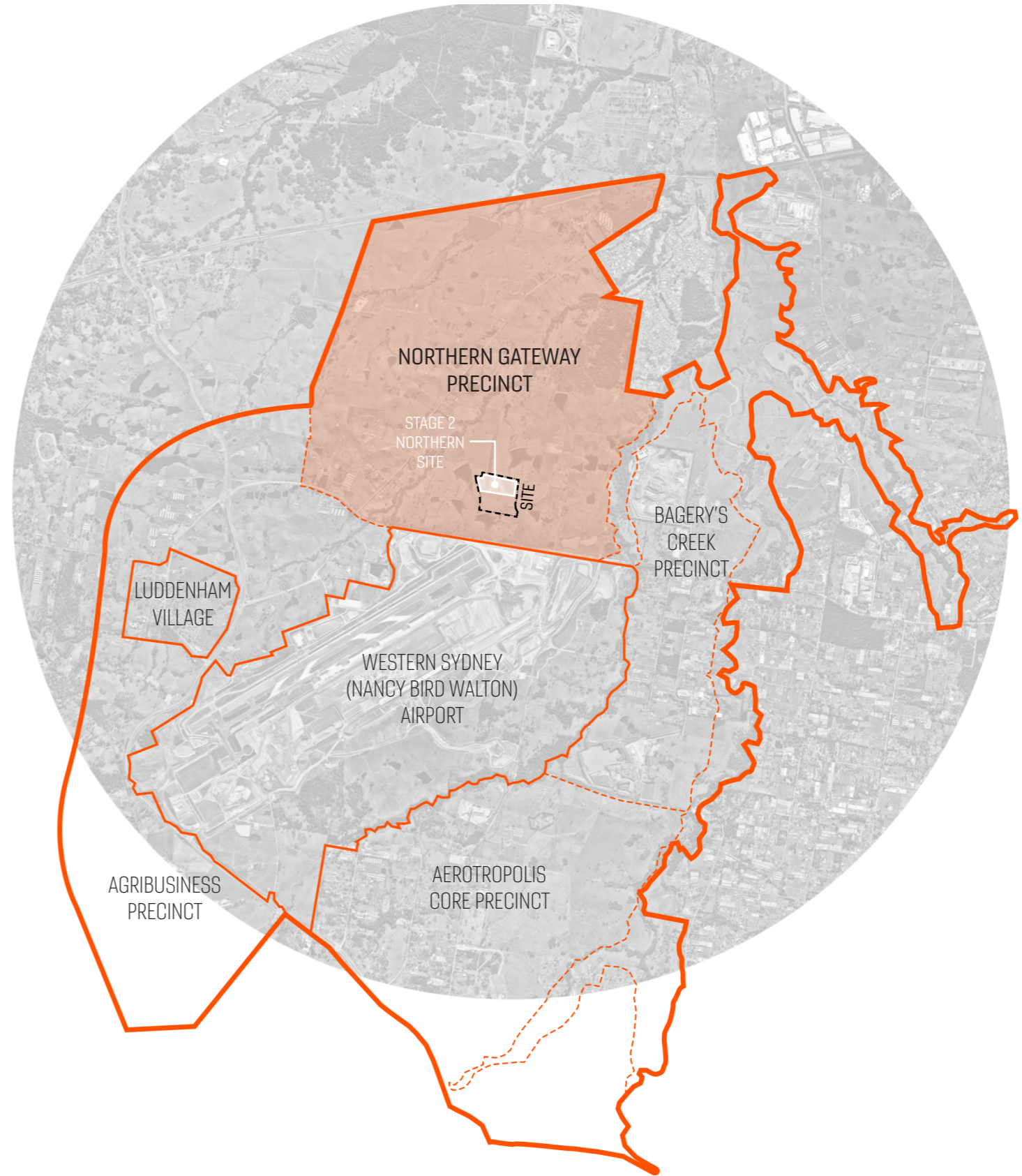
SITE INFORMATION

Stage 1 - Indicative representation only

Site Area	128,159 sqm
Warehouse & distribution Area	57,165 sqm
Ancillary Office Area	1,932 sqm

Stage 2

Site Area	133,678 sqm
Warehouse & distribution Area	63,908 sqm
Ancillary Office Area	1,932 sqm
Vehicle Carparks	440
Bicycle Parks	46
FSR	0.50:1
Landscape Area	24,195 sqm
Building Identification	Pylon Signage



SITE ANALYSIS & CONTEXT



ACCESS ANALYSIS

The primary vehicular access to and from the site comes from the major roads, Luddenham Road to the west which connects north bound towards Penrith and Elizabeth Drive to the south which links to the east towards Liverpool.

The north and east boundaries of the site are confined by the future M12 motorway proposal and the proposed metro line that connects into future Western Sydney airport. These proposed developments will increase the accessibility of both the private and public transport systems available into the site.



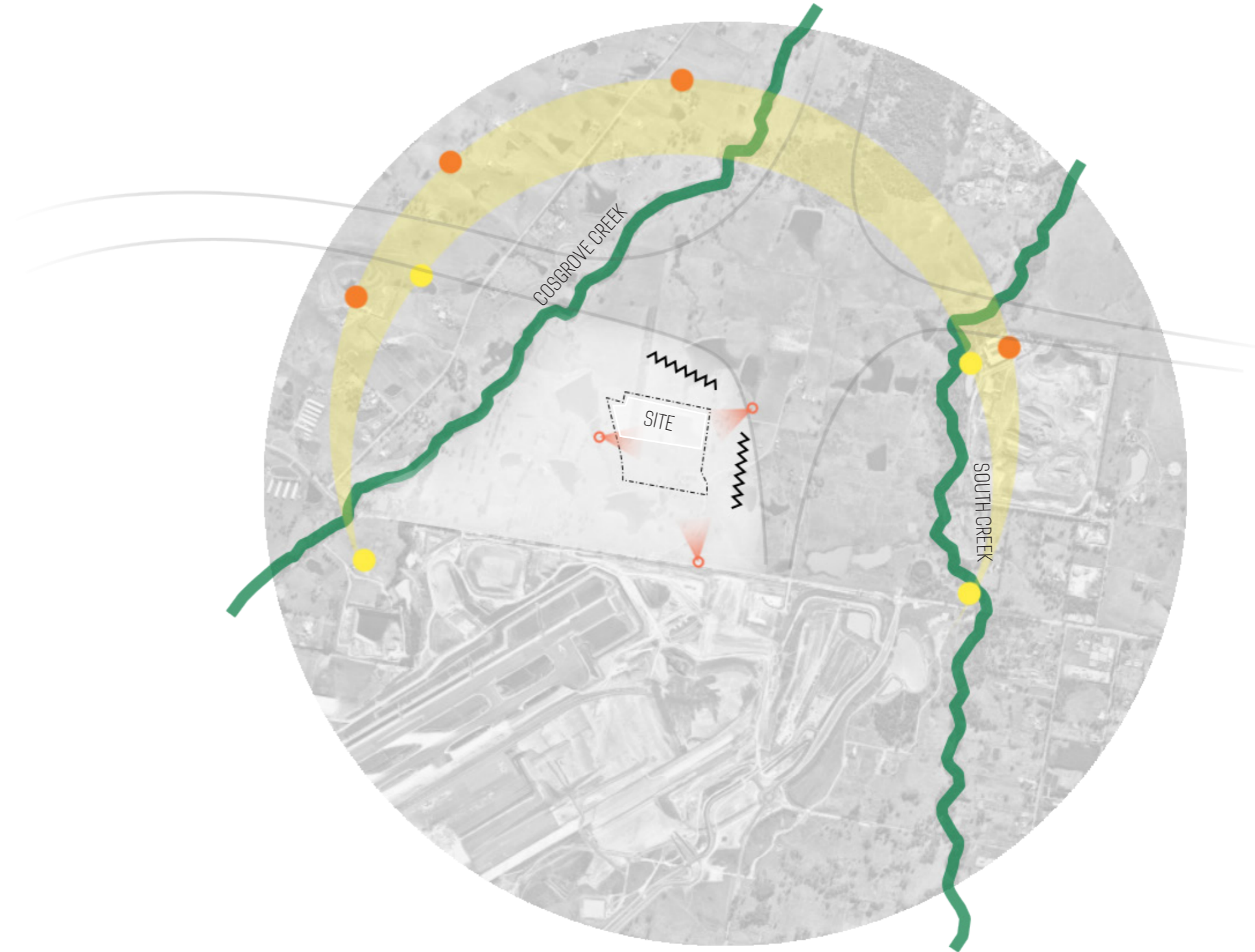
- LEGEND
- Site Boundary
 - Major Road Corridors
 - Proposed Estate Roads
 - Creek Corridor
 - Future Proposed M12 Motorway
 - Future Proposed Metro Line

SITE ANALYSIS & CONTEXT



CONTEXT ANALYSIS

The orientation of the development exposes the office and warehouse facilities to both northern and southern light which will require façade treatment for sun protection. In addition to this, the precincts' location in a prominent First Nations area will require the landscaping to respond appropriately to the surrounding natural water courses, terrain and environment. The future development of the M12 Motorway and metro line will present noise pollution towards the site which will be diffused through significant surrounding landscape barriers. Due to its prominence, appropriate design forms and finishes will be utilised to soften the impact from key viewpoints.



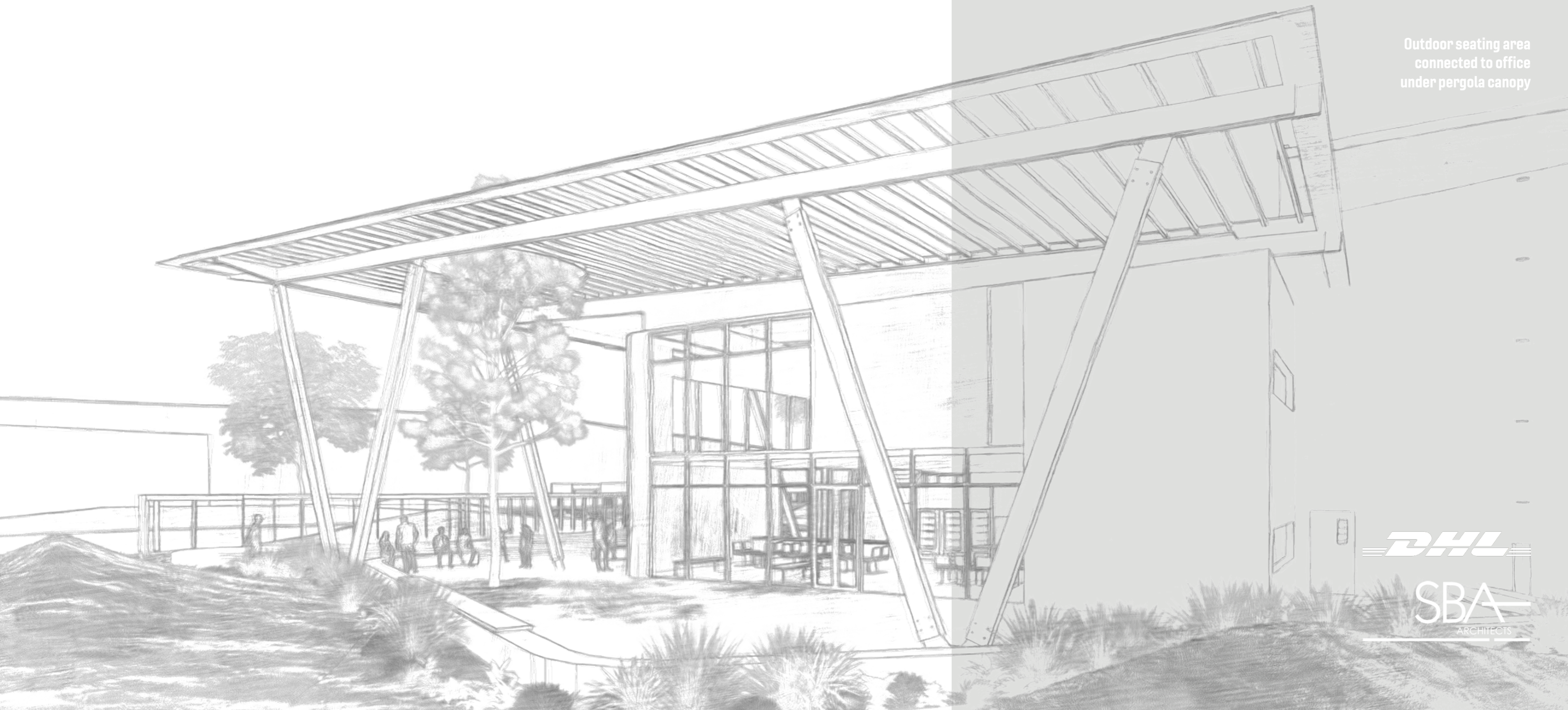
LEGEND

- Site Boundary
- Proposed Light Industry Zone
- Creek Corridor
- Prominent View Points
- Noise Pollution from Future Proposed M12 Motorway
- Summer & Winter Solstice Sun Path

PART 5

CONCEPT DEVELOPMENT

Outdoor seating area
connected to office
under pergola canopy



CONCEPT DEVELOPMENT



CONNECTION TO COUNTRY BUILT FORM PRINCIPLES

The building concept was derived from looking at key elements in nature found regularly within the Western Parklands area. This form of extracting principles from the landscapes creates a high-quality design that responds appropriately to the Badgery's Creek context.

CARVED FORM



ELEGANT CONNECTIONS



FLOATING CANOPY



FILTERED LIGHT



DYNAMIC MOVEMENT



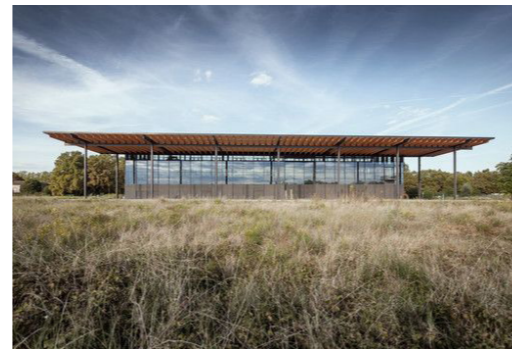
CONCEPT DEVELOPMENT



PRECEDENT FORMS

The built form comprises a set consistent themes including, the floating roof, lightweight structure and covered outdoor space, that relate back to the original principles established during the concept stage of the design.

Timber structure provides a lightweight and sense of warmth to the space and works in conjunction with the thin roof canopy that appears floating above the landscape. The openness of the colonnade allows for landscape to have a dynamic and seamless integration into the built form.

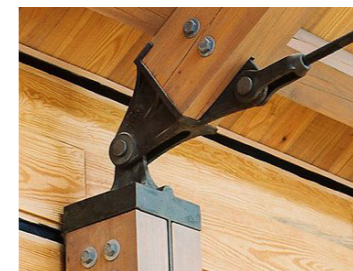
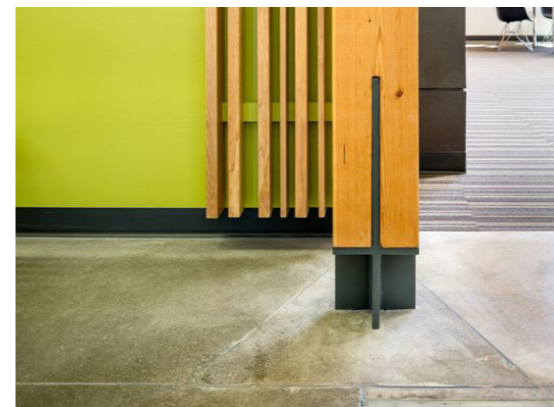
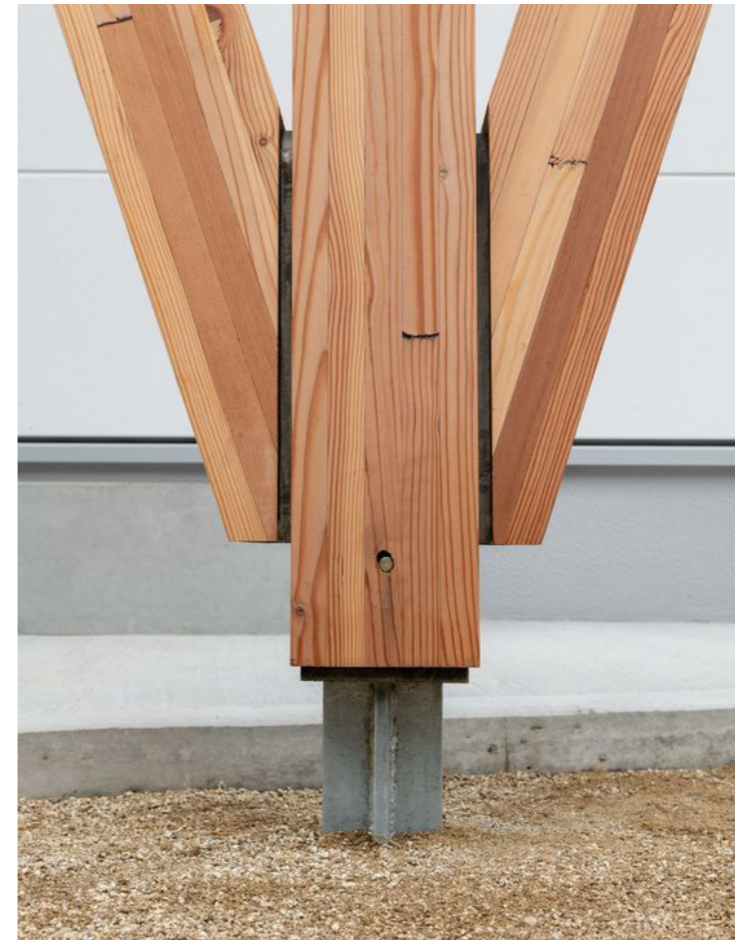
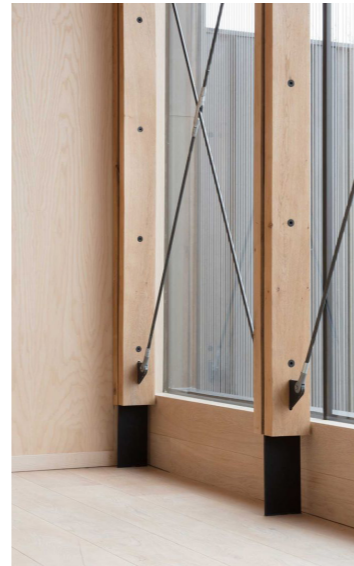


CONCEPT DEVELOPMENT



PRECEDENT FORMS

Structural joints were researched to find slender elegant connections that gave the sense of minimal impact to the landscape elements. Different precedents were used to analyse the form of connection and the change in surfaces the structure was connected to.



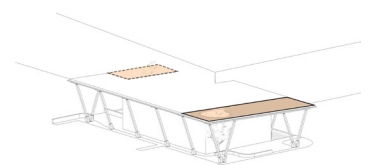
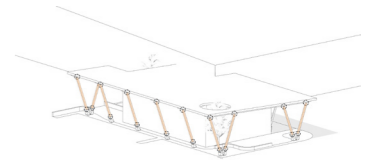
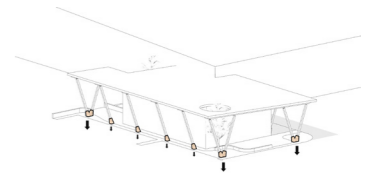
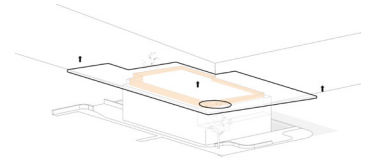
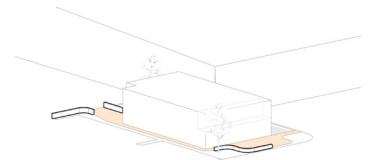
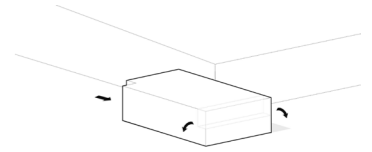
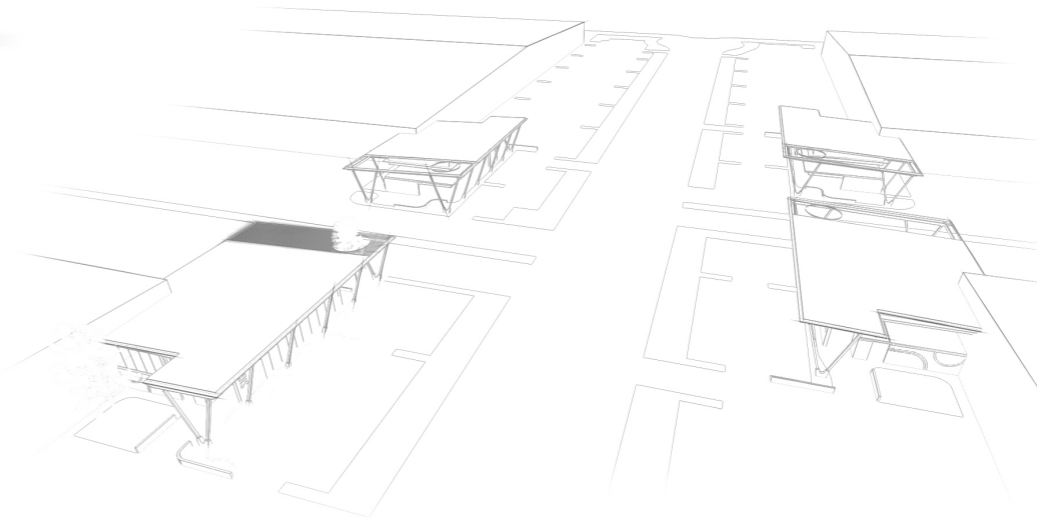
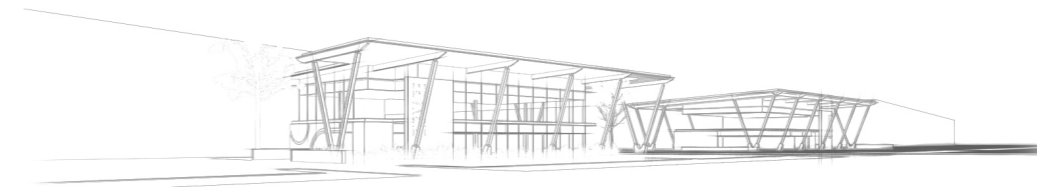
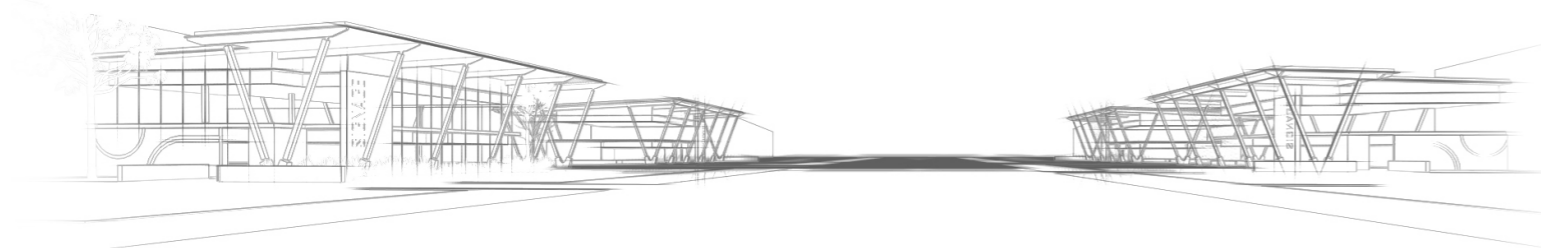
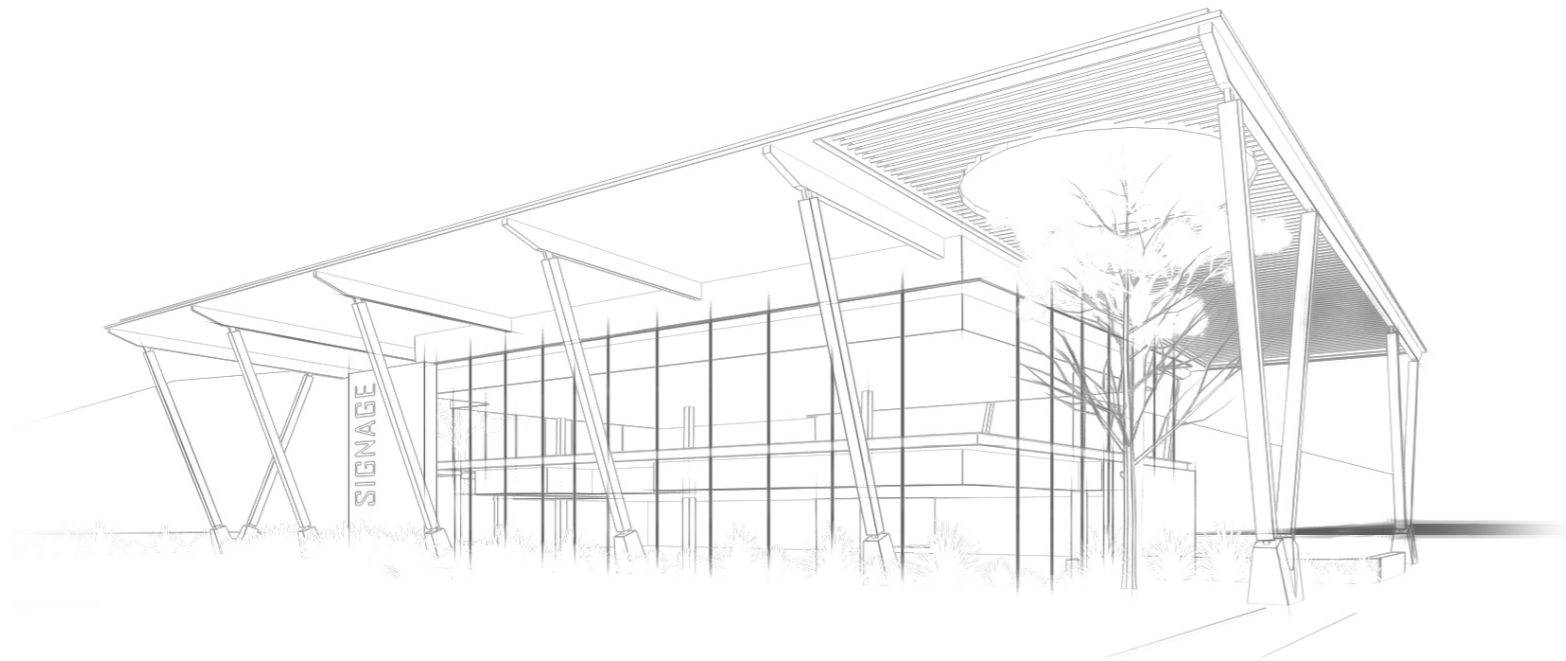
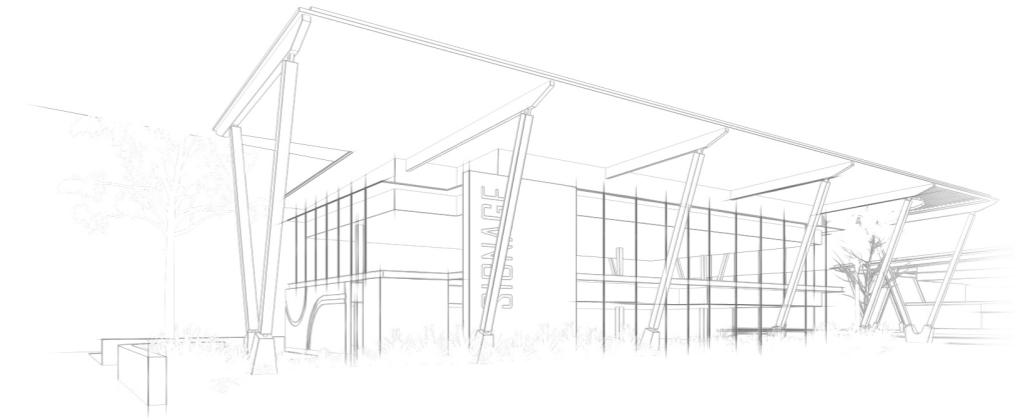
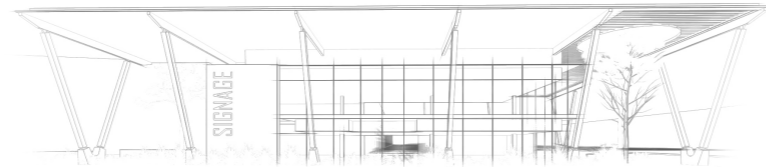
CONCEPT DEVELOPMENT



CONCEPT SKETCH & FORM

The office concept design went through a number of iterations and reviews that focused on the presence and impact of the built form in the environment. The concept aimed to reflect key principles present in the natural environment such as slender elements, lightly touching the ground plane and a dynamic movement.

From analysis of these principles, there were alterations to the design which included breaking the rigidity of the form through materials and recesses, more elegant and light connection points, and a more integrated landscape and outdoor amenity space.

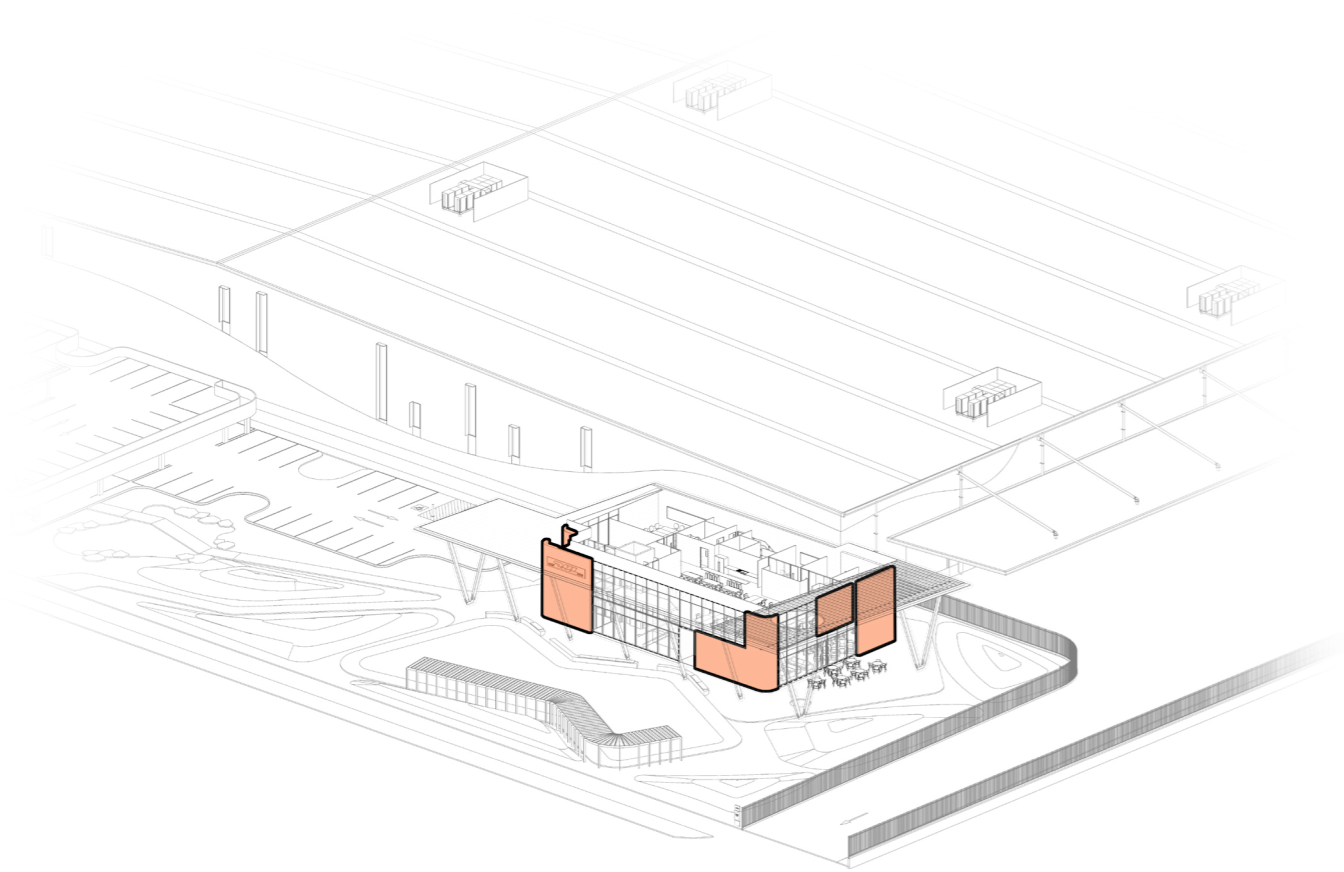


CONCEPT DEVELOPMENT



BUILT FORM DESIGN MASSINGS

Indicative representation

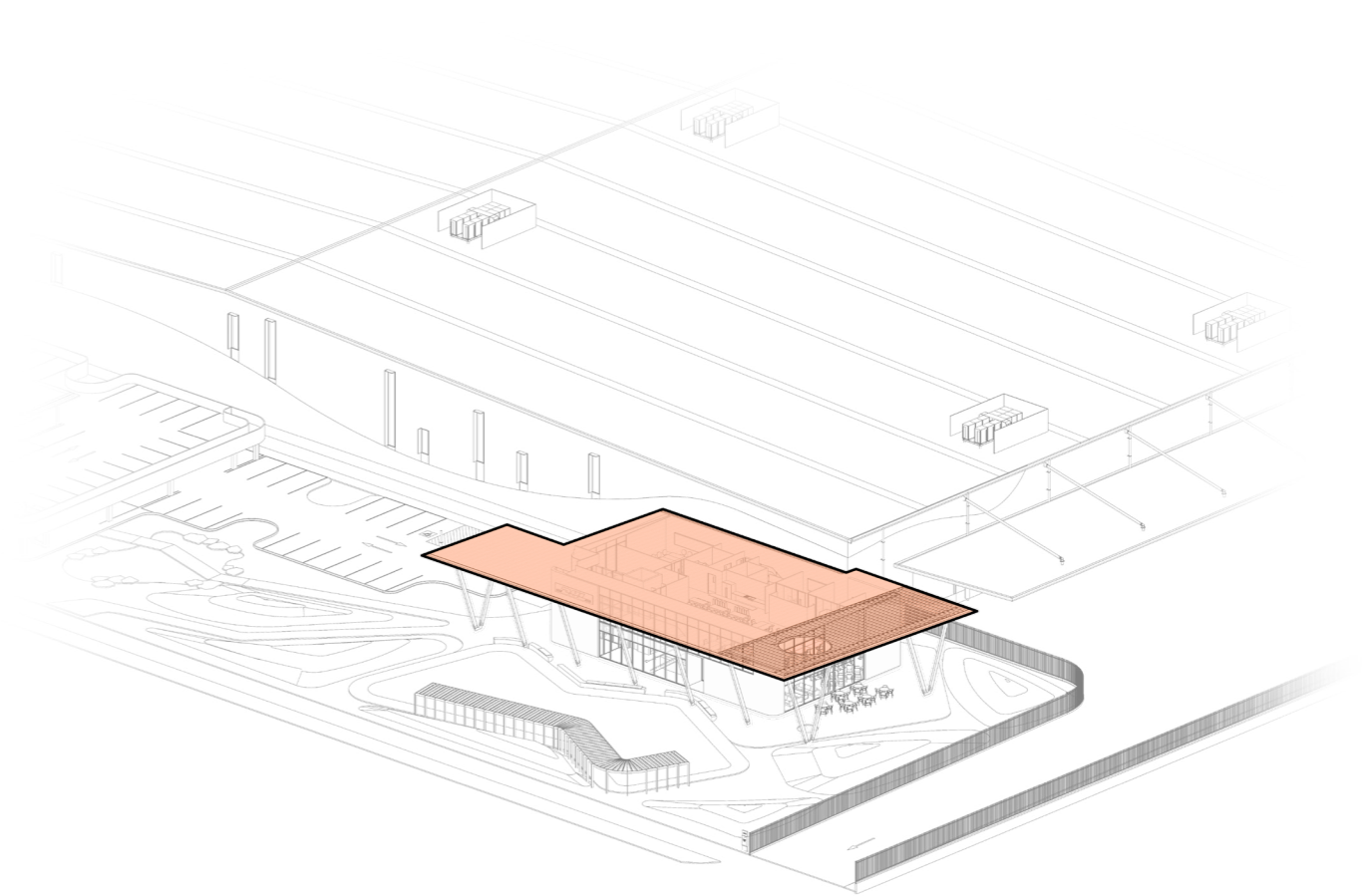


FLOATING CANOPY

The roof is lifted above the mass through a recessed layer, it also exposes the structure to give a sense of a lightweight floating canopy.

CARVED FORM

The carved space out of the base volume allows for the building to be integrated more with its surrounding space.

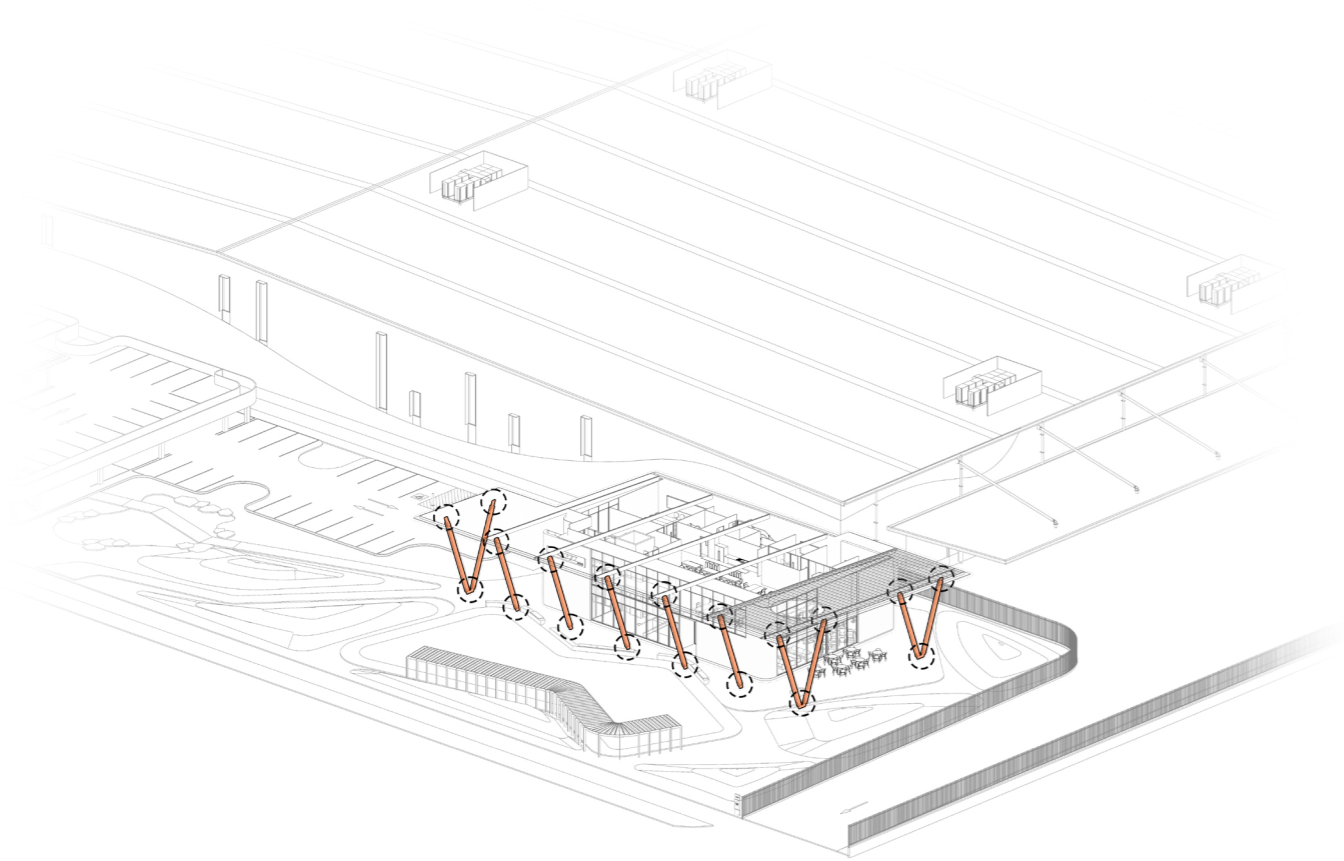


CONCEPT DEVELOPMENT



BUILT FORM DESIGN MASSINGS

Indicative representation

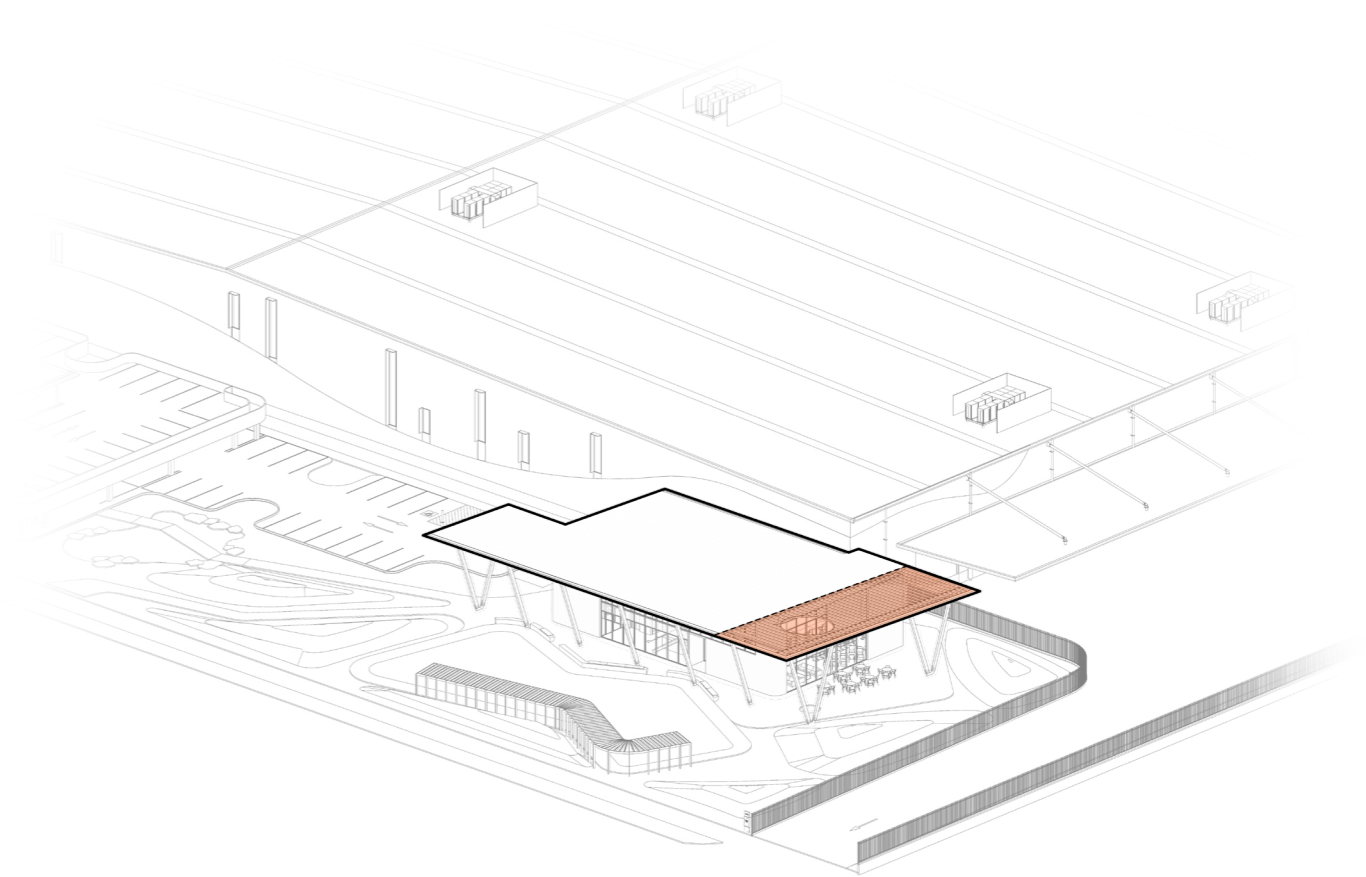


ELEGANT CONNECTIONS

The column members are connected by elegant slender plates to replicate the soft natural elements found throughout the Badgerys Creek landscape

FILTERED LIGHT

The connection to landscape is furthered by openings and perforations in the roof to allow for filtered light to enter from above and landscape to erupt from below

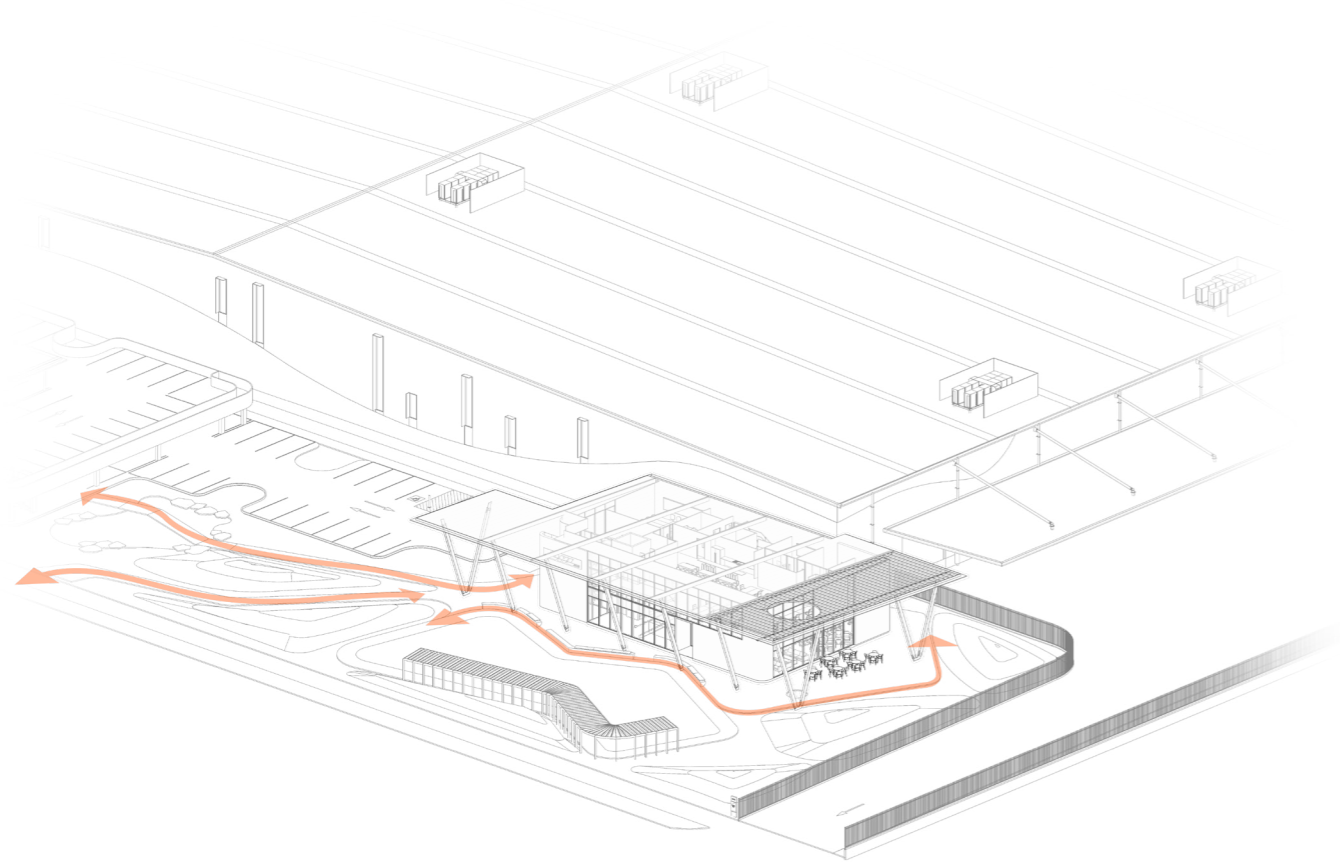


CONCEPT DEVELOPMENT



BUILT FORM DESIGN MASSINGS

Indicative representation

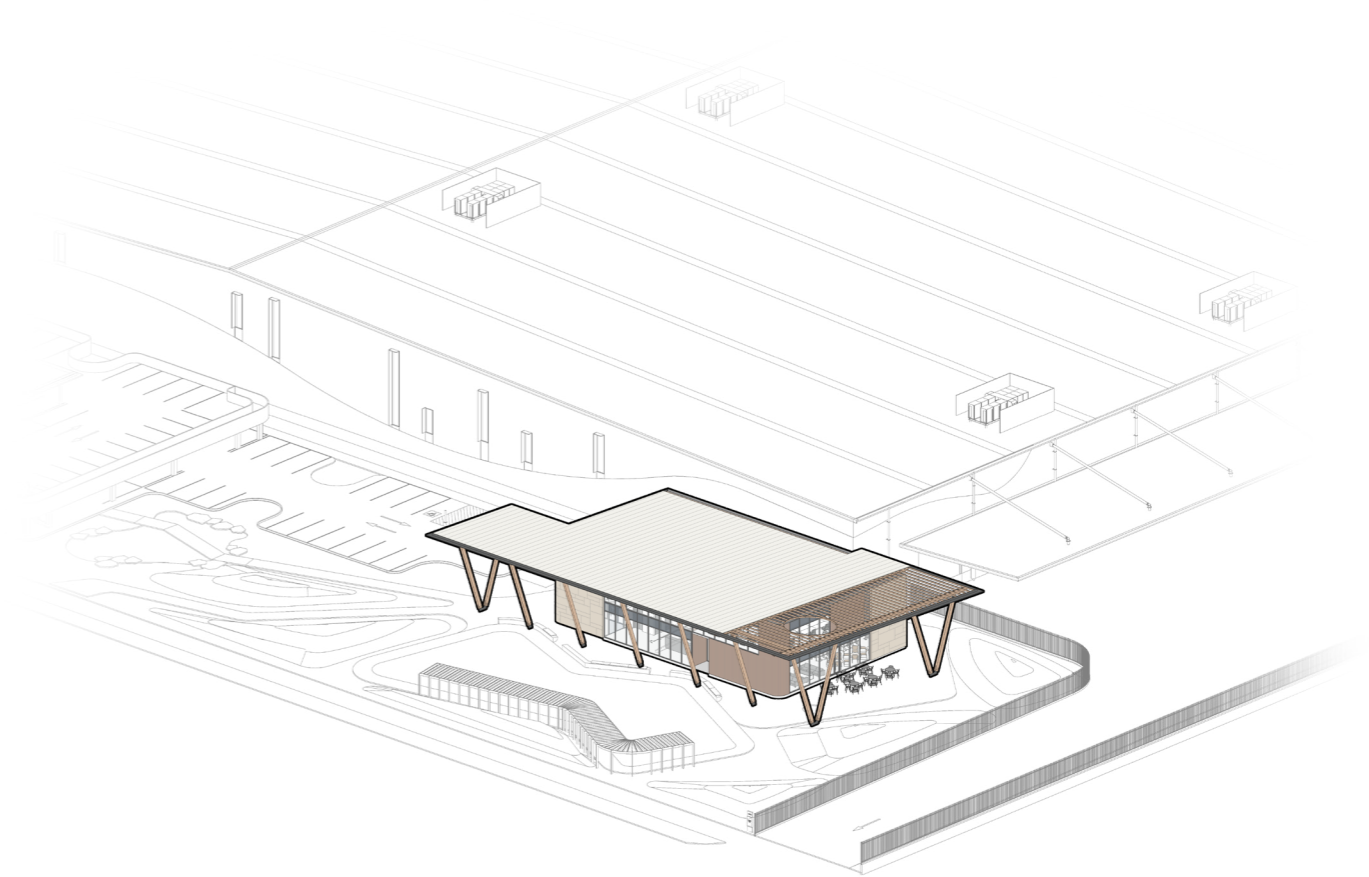


DYNAMIC FORM

The dynamic movement of the environment is woven in-between the columns to create an overlapping and connecting space.

FINAL MASSING

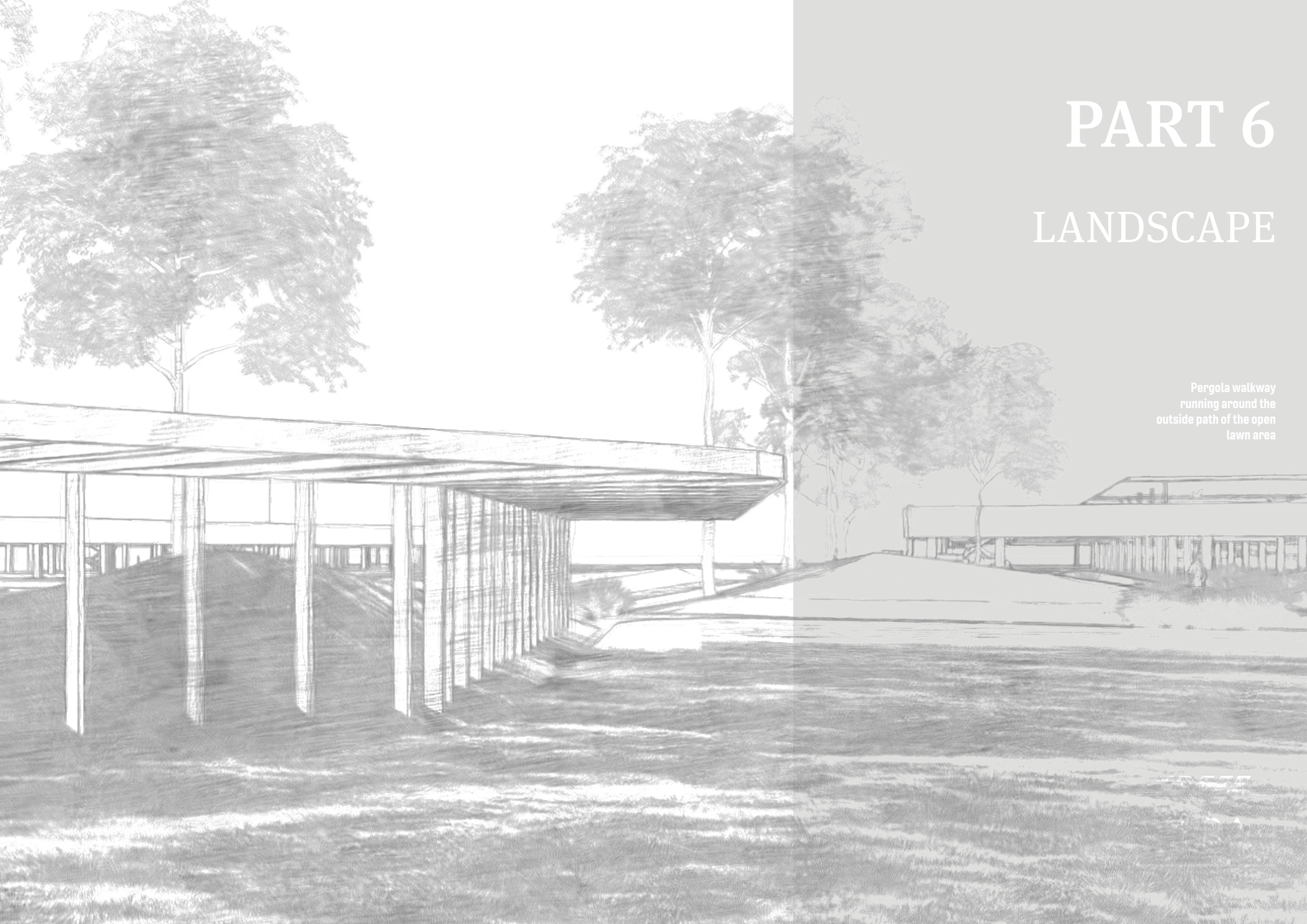
The final massing uses rough and raw textures with warm natural tones to further instill it within the local context



PART 6

LANDSCAPE

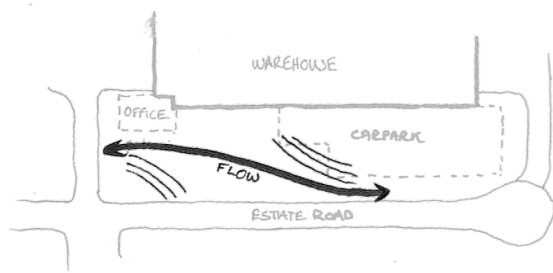
Pergola walkway
running around the
outside path of the open
lawn area



CONNECTION TO COUNTRY LANDSCAPE PRINCIPLES

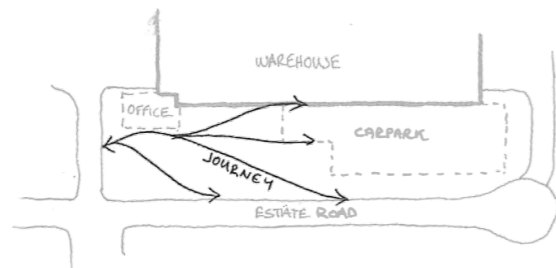
The landscape aims to reflect the existing natural terrain by recreating the forms and movements, and representing them on to smaller scale in relation to the office. This allows for a more real and meaningful transition from the natural landscape into the built environment.

NATURAL FLOW



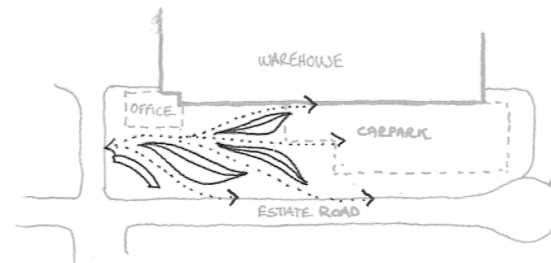
The terrain defines the natural flow of the landscape movement

JOURNEY



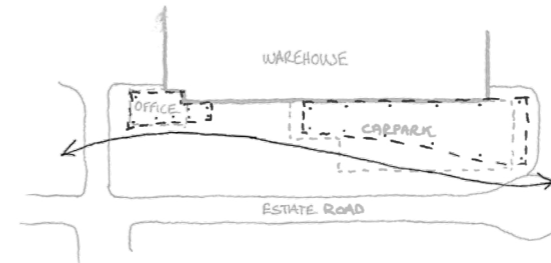
The landscape creates a journey and experience as you move through the space

RISING LANDSCAPE



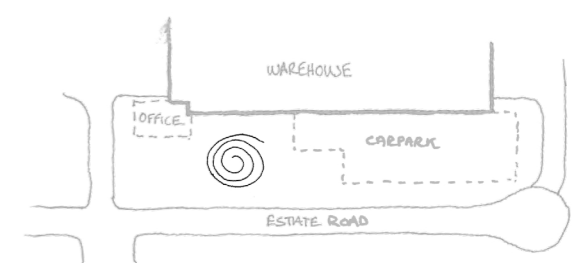
The rising landscape allows the user to be immersed in the surrounding vegetation

UNITING SPACE



The landscape unites and integrates the spaces beyond the built form

SIGNIFICANCE OF WATER



The water creates a central gathering and meeting place for all life.

LANDSCAPE



PRECEDENT FORMS

The landscaped area has focused on reflecting the existing natural form, by re-introducing a mounded landscape that creates winding paths through the rising landscape. The precedents also exhibit overlapping areas where the line between built form and open area has been blurred through openings in the canopy.

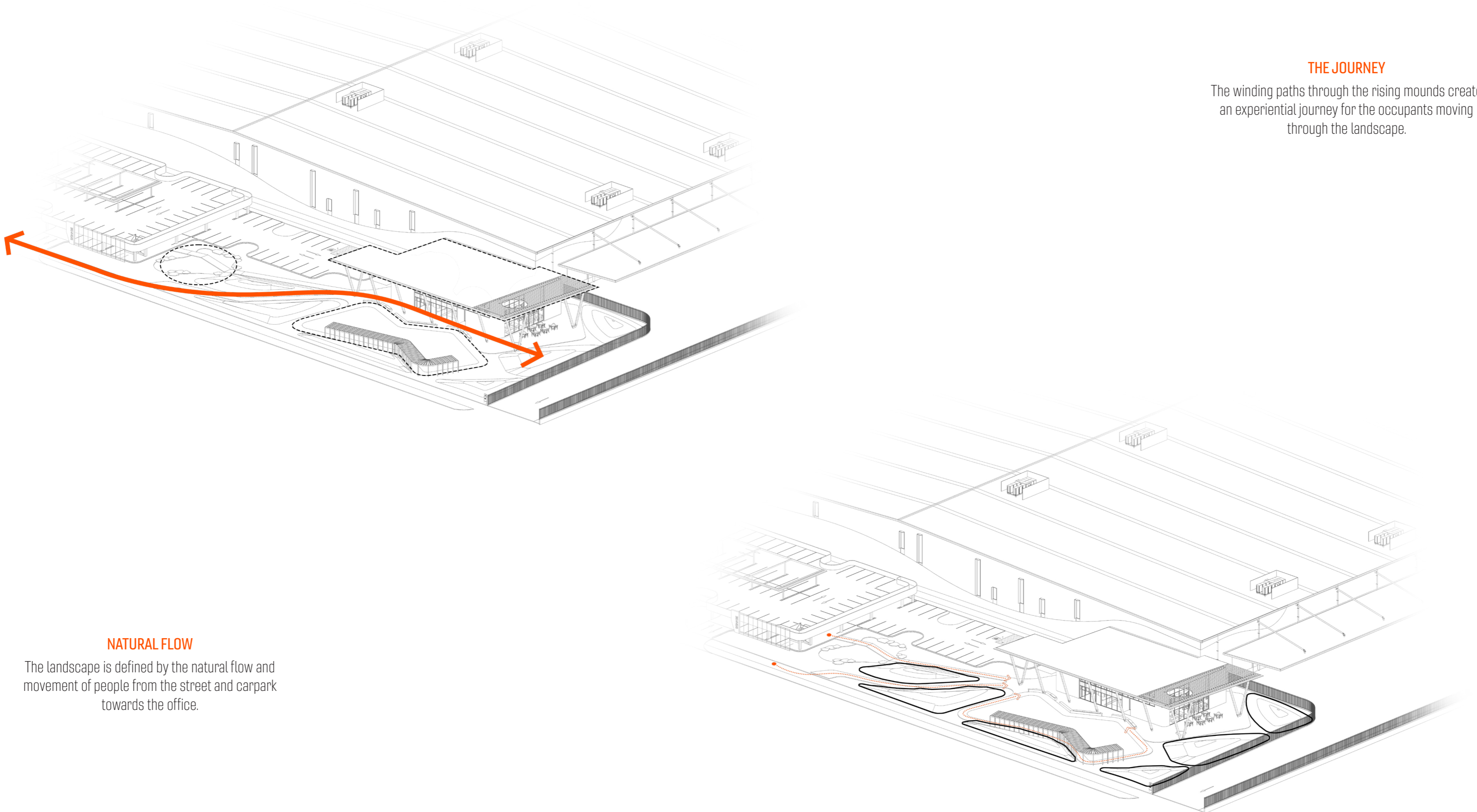


LANDSCAPE



CONNECTION TO COUNTRY LANDSCAPE MASSING

Indicative representation



THE JOURNEY

The winding paths through the rising mounds create an experiential journey for the occupants moving through the landscape.

NATURAL FLOW

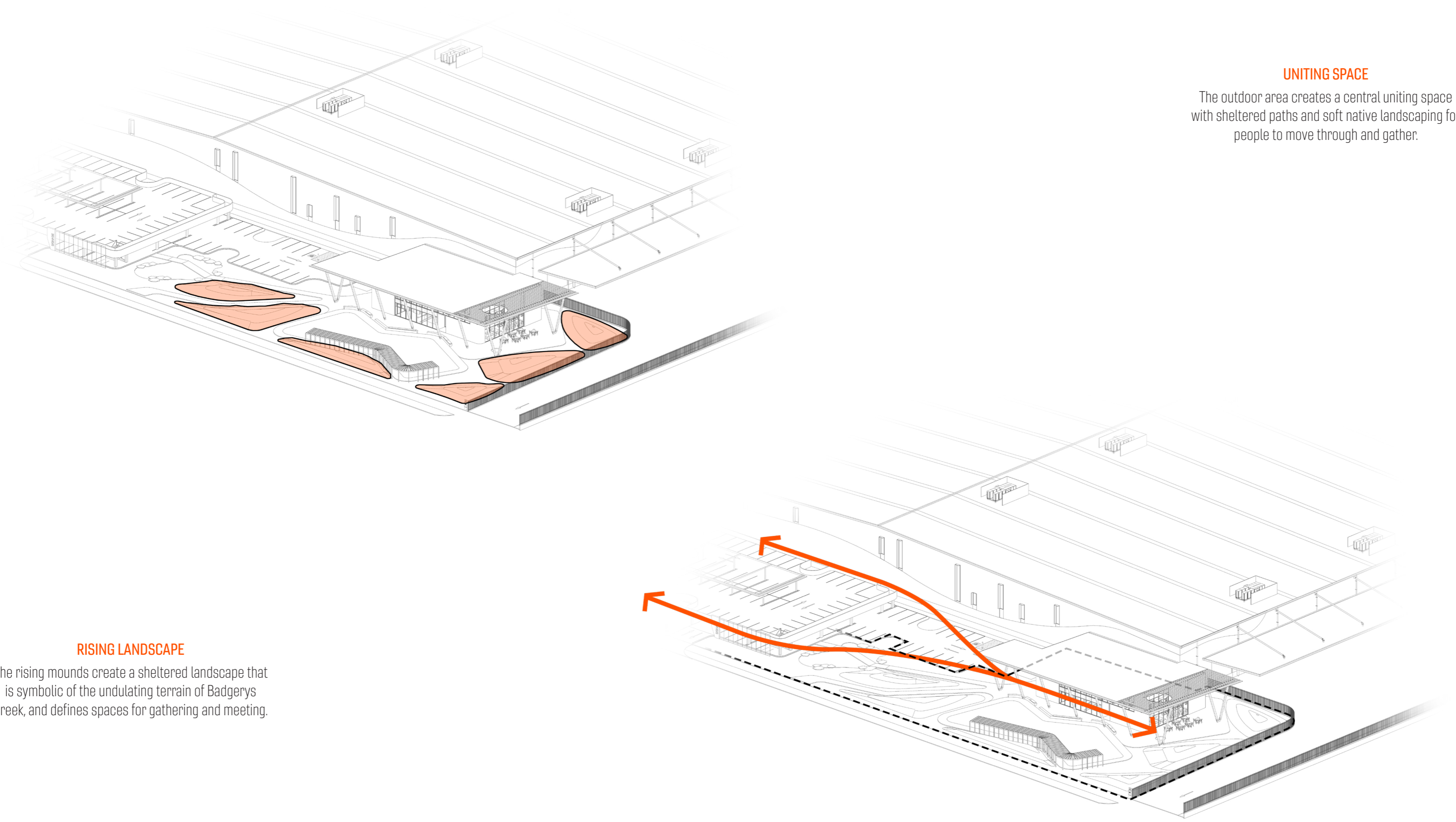
The landscape is defined by the natural flow and movement of people from the street and carpark towards the office.

LANDSCAPE



CONNECTION TO COUNTRY LANDSCAPE MASSING

Indicative representation



UNITING SPACE

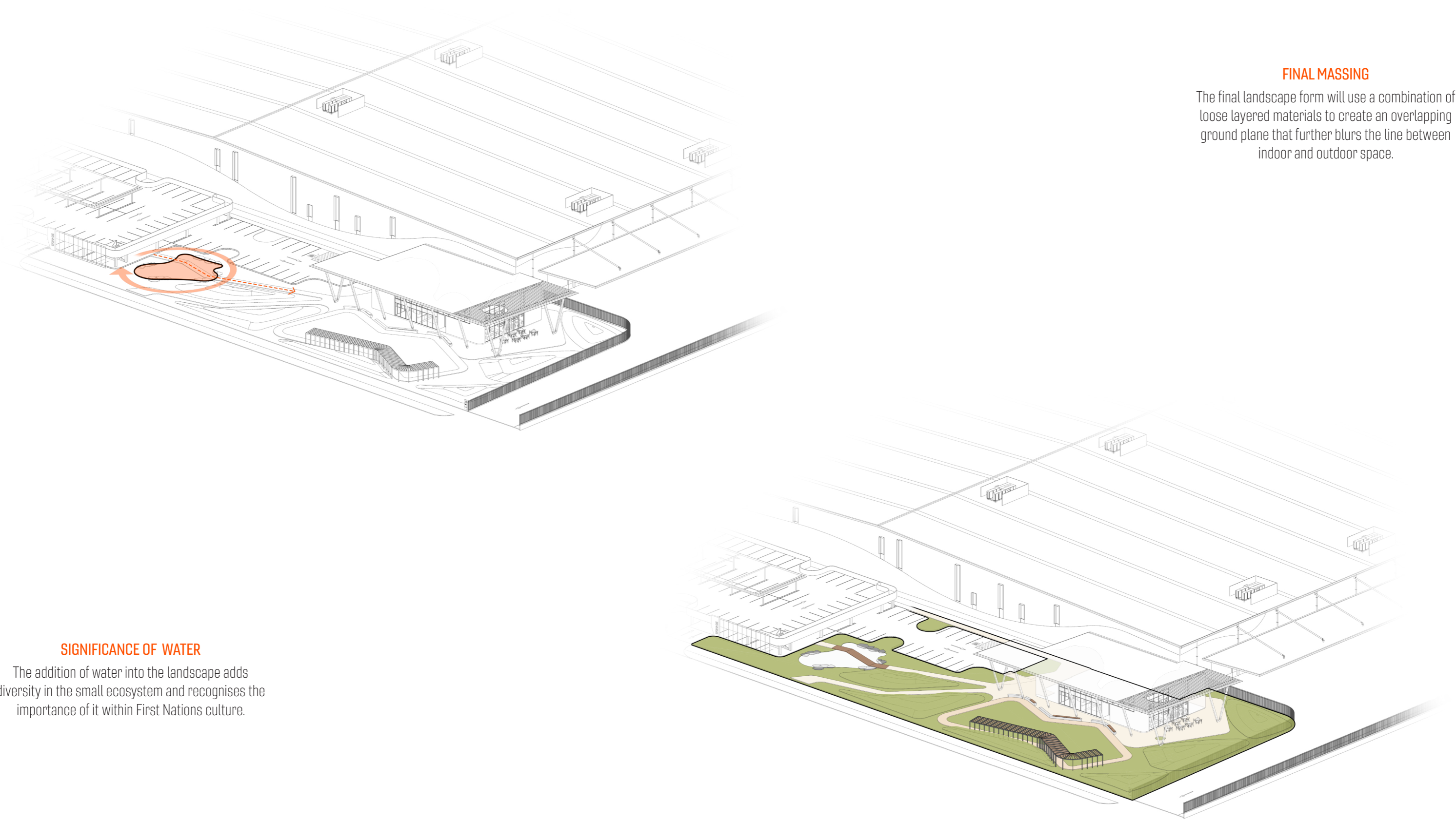
The outdoor area creates a central uniting space with sheltered paths and soft native landscaping for people to move through and gather.

RISING LANDSCAPE

The rising mounds create a sheltered landscape that is symbolic of the undulating terrain of Badgerys creek, and defines spaces for gathering and meeting.

CONNECTION TO COUNTRY LANDSCAPE MASSING

Indicative representation



FINAL MASSING

The final landscape form will use a combination of loose layered materials to create an overlapping ground plane that further blurs the line between indoor and outdoor space.

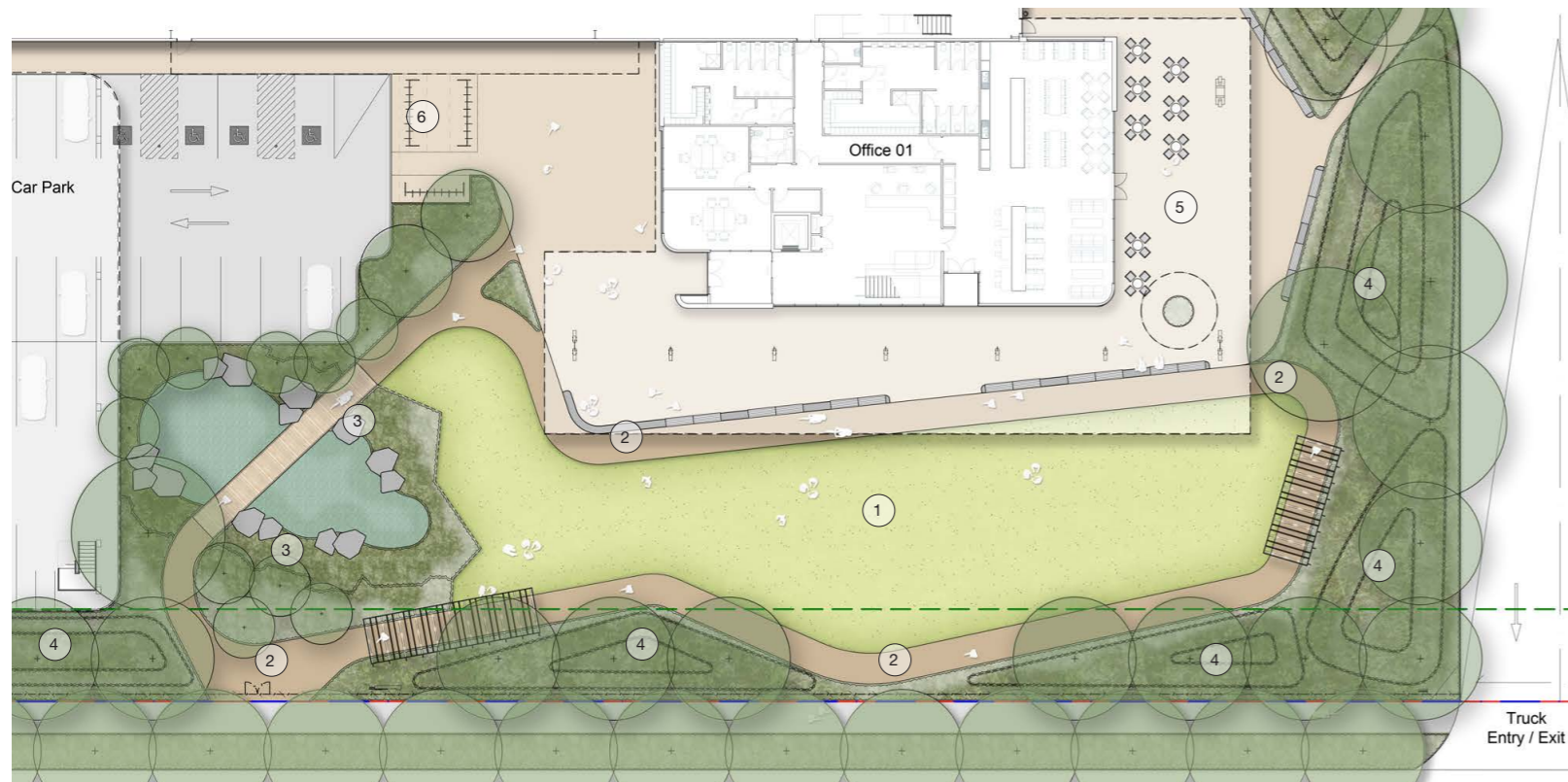
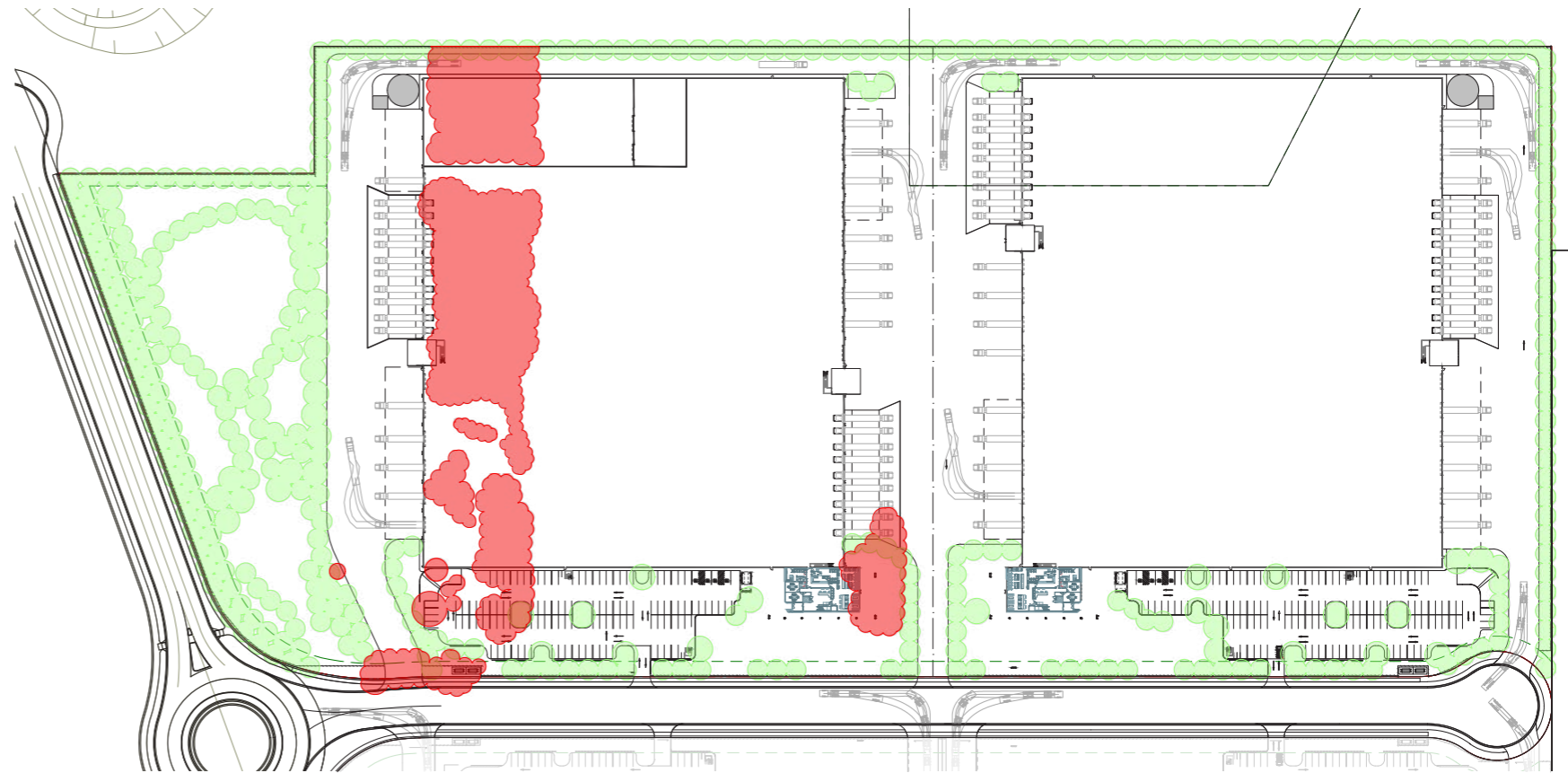
SIGNIFICANCE OF WATER

The addition of water into the landscape adds diversity in the small ecosystem and recognises the importance of it within First Nations culture.

SITE COVERAGE

The individual landscaped areas in front of the offices are formed through rising mounds, loose layered surfaces, water features and walkways. These are formed to create experiential movement and outdoor spaces for occupants to escape the interior work lifestyle.

In addition to this, there is significant natural shading provided by the extensive proposal of 481 trees in stage 2 to replace the removed canopy of 183 trees that populate an area of approximately 9312.75 sqm. The new proposed tree canopy coverage achieves 16.00% of the area and also provides a separation of pedestrian pathways from the internal access road.



TREE CANOPY

Proposed tree canopy area	22,138 sqm
Removed canopy cover	9312.75 sqm (183 Trees)
Total difference tree canopy area	12,825.25 sqm
Canopy site coverage	16.00%
Proposed Trees	481

OUTDOOR AMENITY

- 1 Open Lawn Area
- 2 Circulation Pathway
- 3 Water Management and Re-vegetation Zone
- 4 Mounding with Massed Planting
- 5 Office Breakout and Amenity
- 6 Bike Parking

SITE LANDSCAPE

Due to the position of the site within Badgery's Creek and its significance to First Nations peoples, the need for large landscaped space and a tree canopy coverage is paramount. The target for the site is to achieve 15% landscape coverage across the site, during stage 2 the site achieves 18.1% landscape area which equates to 24,195 sqm. This is made up of large deep soil zones, mounded landscape, buffers and permeable pathways.



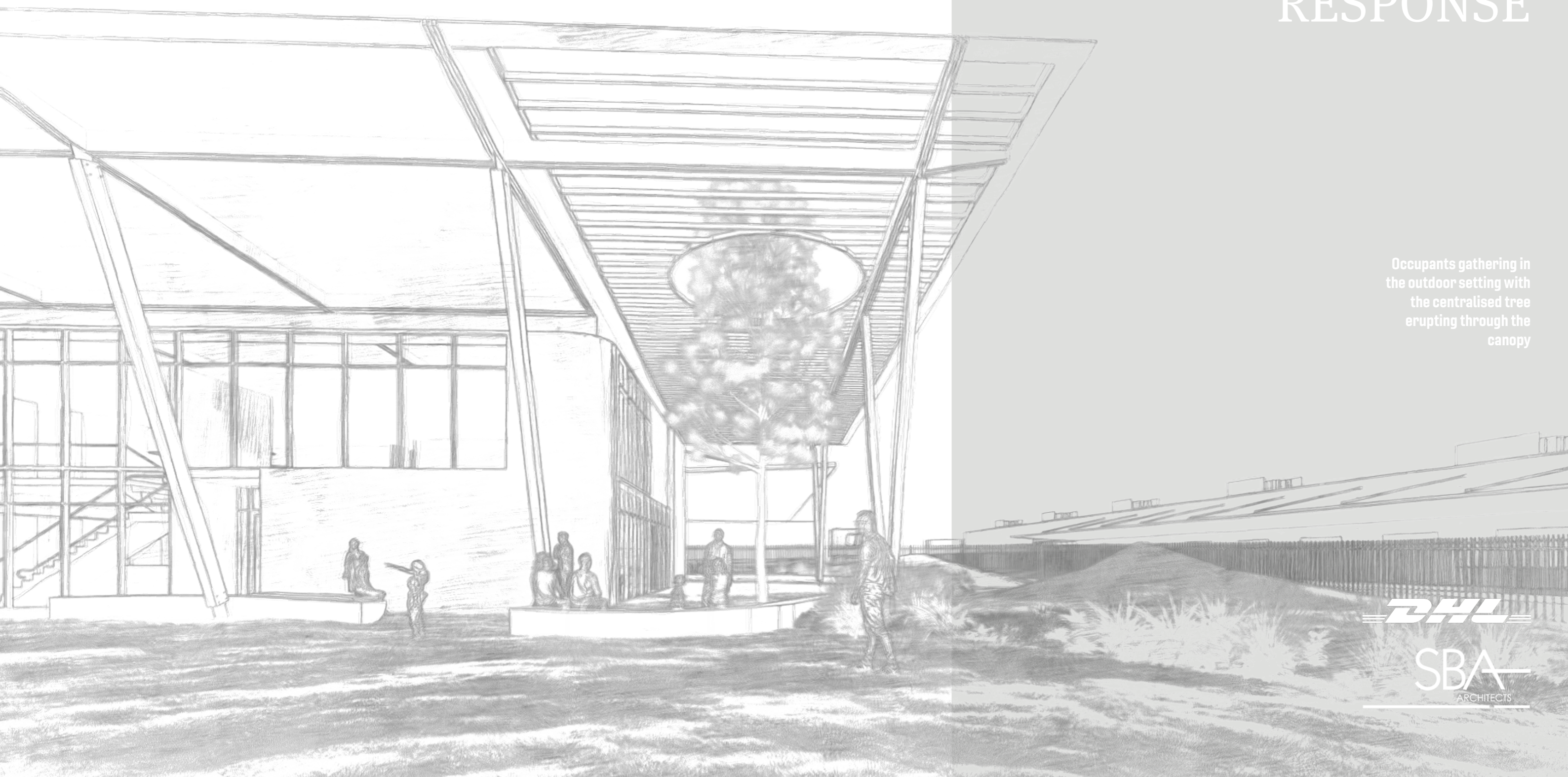
STAGE 2 LANDSCAPE

Stage 2 Site Area	133,678 sqm
Stage 2 Landscape Area	24,195 sqm
Stage 2 Site Coverage	18.1%

PART 7

ARCHITECTURAL RESPONSE

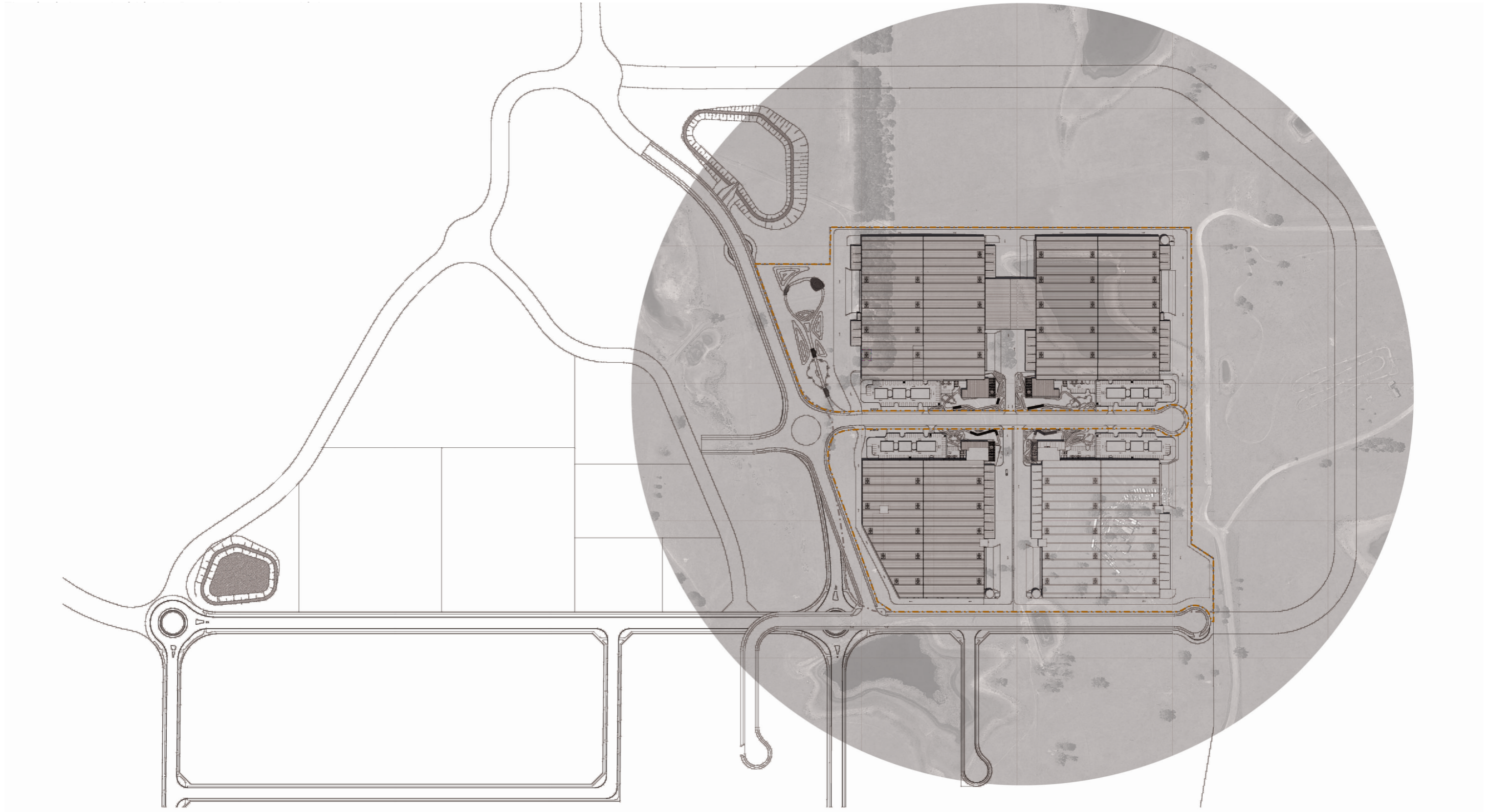
Occupants gathering in
the outdoor setting with
the centralised tree
erupting through the
canopy



ARCHITECTURAL RESPONSE



ESTATE PLAN

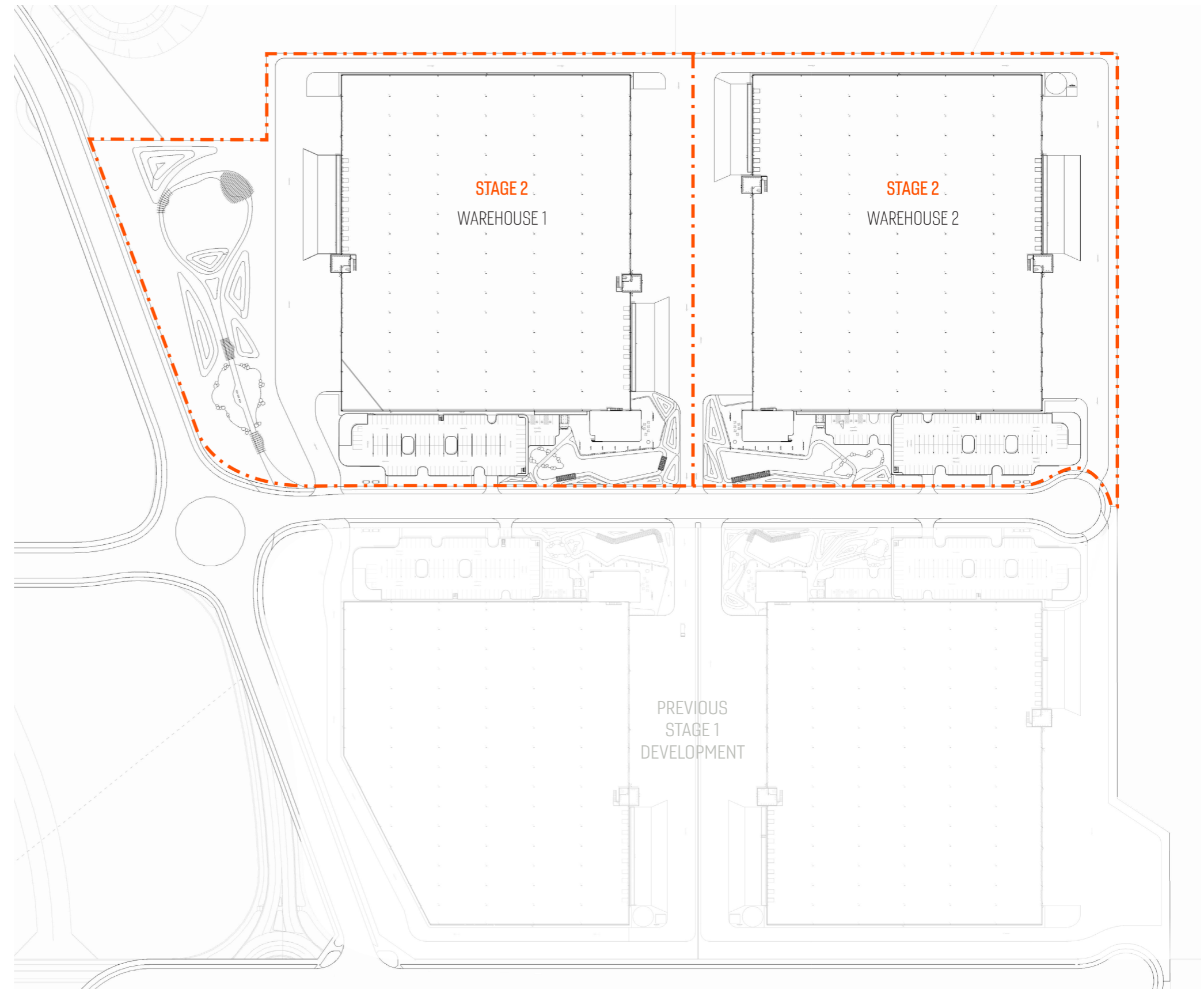


MASTERPLAN

The masterplan seeks consent to provide a staged construction of warehouse buildings for distribution and logistics centre that will operate 24 hours a day, 7 days a week. Stage 2 of the project will commence with warehouse 1 and 2 on the northern side of the internal access road after the completion of stage 1 warehouse 4 and 3 on the southern part of the site.

Stage 2 will be comprised of 2 temperature-controlled warehouse facilities, warehouse 1 with a total of 31,954 sqm, and warehouse 2 with 31,954 sqm. Both warehouses have access to a 70-meter shared hardstand between the buildings as well as each having a secondary 38 meter hardstand on there opposite facades. Each of these hardstands is accompanied by an additional dock office space. Both warehouses include 966 sqm of ancillary office space across 2 levels, that front the internal access road. This office space will provide significant outdoor amenity through the landscaped elements that intersect with the built form. This landscape in conjunction with signage will create notable way-finding elements for easy navigation around the site.

In stage 2, on-grade and recessed docks will be provided on the hardstands to allow for versatility in the function, as well as significant parking attached to the office space. At each of these driveway locations appropriate signage will be used to create safe and easily identifiable travel routes for vehicles.



PEDESTRIAN & VEHICLE ACCESS

The vehicle circulation is all accessed via a two-way internal road, with truck access through separate entry and exit driveways for each facility, which is located strategically to allow for right hand circulation around the warehouse.

There is a singular car entry and exit point for each facility centralised to each of the internal lots and separated from heavy vehicles to allow for minimal crossover and easy identification.

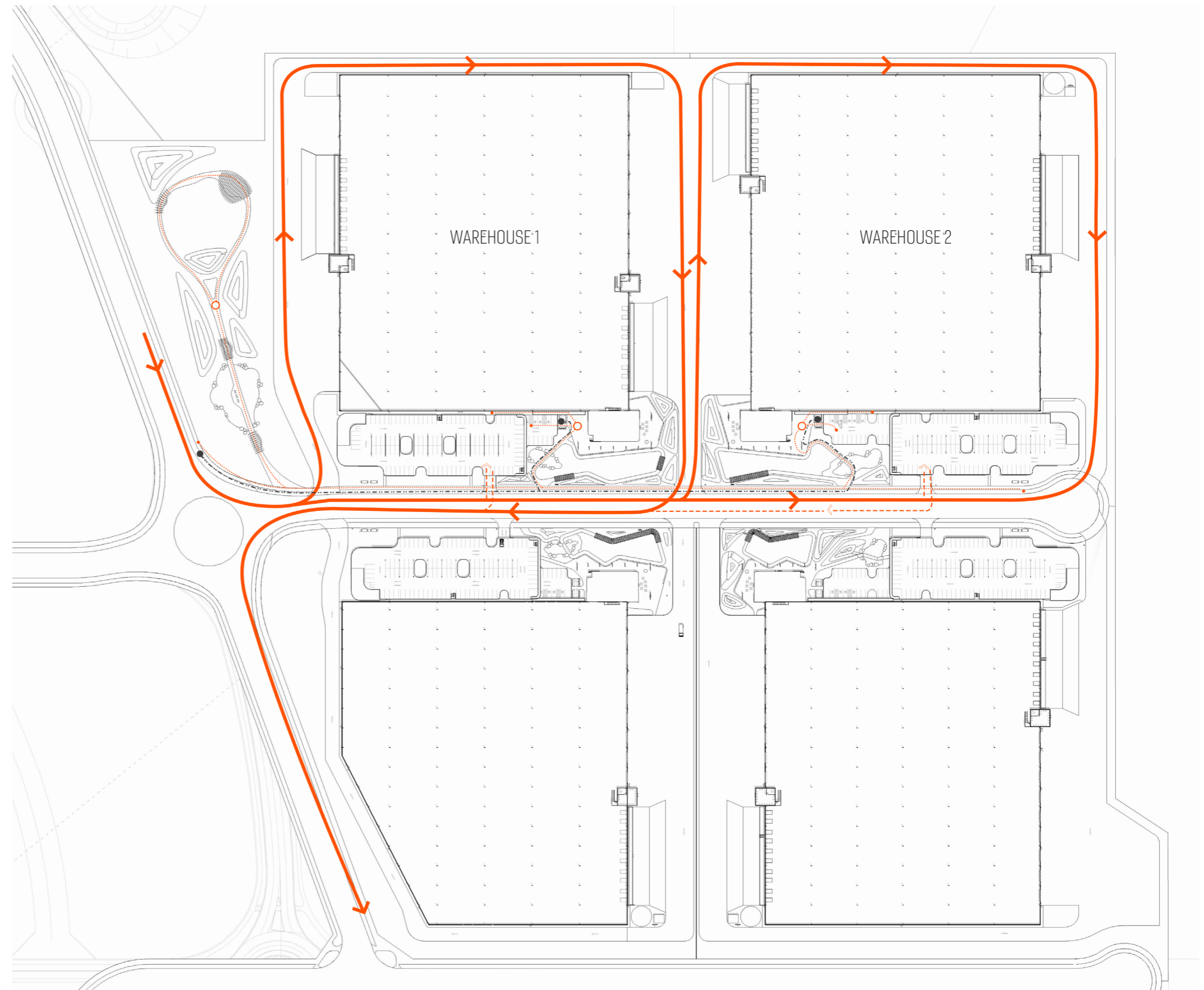
Walkways have been created on either side of the road with crossings to allow for easy pedestrian access, in addition to this bike paths have been created to connect the existing track along Elizabeth drive into the individual bike parking at each of the office facilities.

STAGE 1 ENTRY AND EXIT POINTS

- 2 Truck entry points
- 2 Truck exit points
- 2 Car entry and exit points
- 2 Bike parking points

LEGEND

-  Heavy Vehicle Path - One Way Travel
-  Light Vehicle Path - One Entry/Exit
-  Pedestrian Path
-  Bike Path



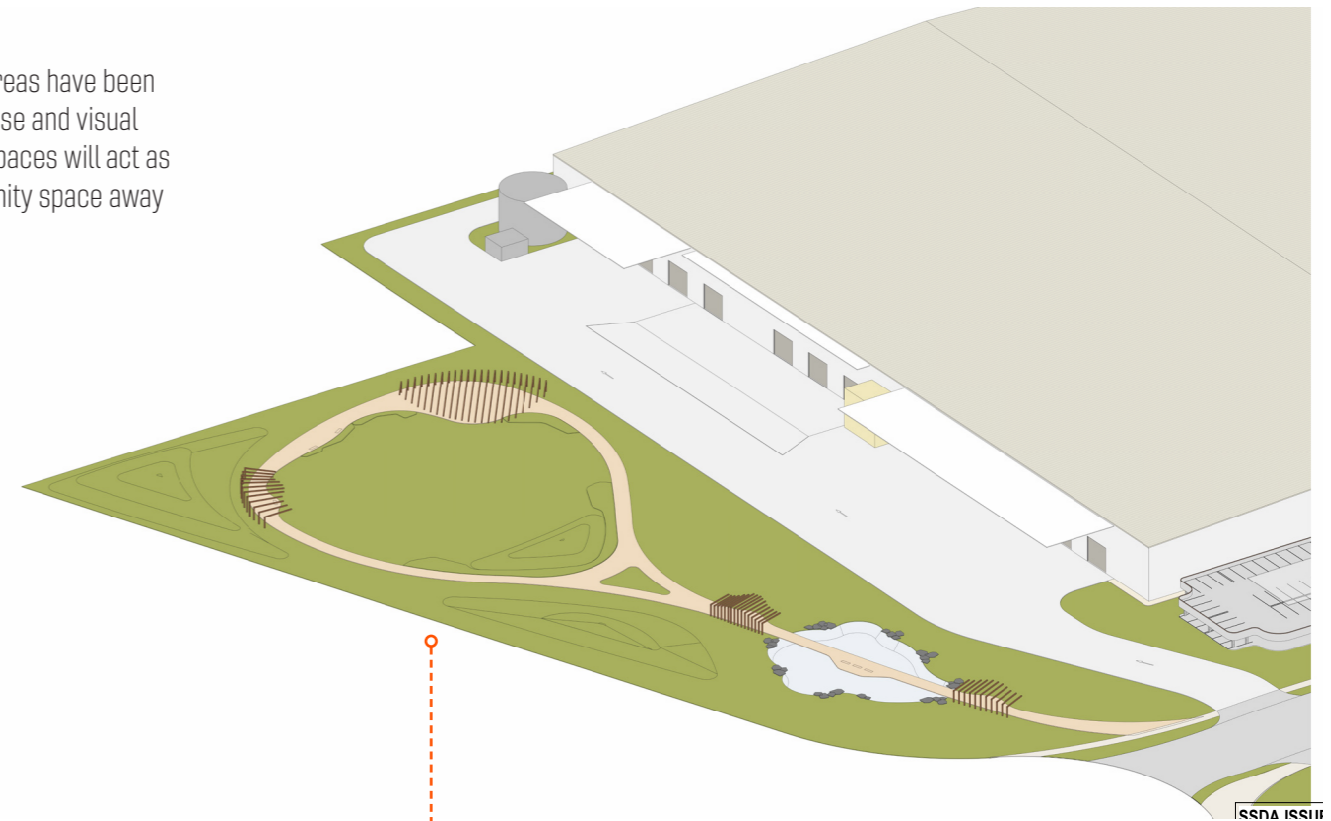
ARCHITECTURAL RESPONSE



OUTDOOR AMENITY

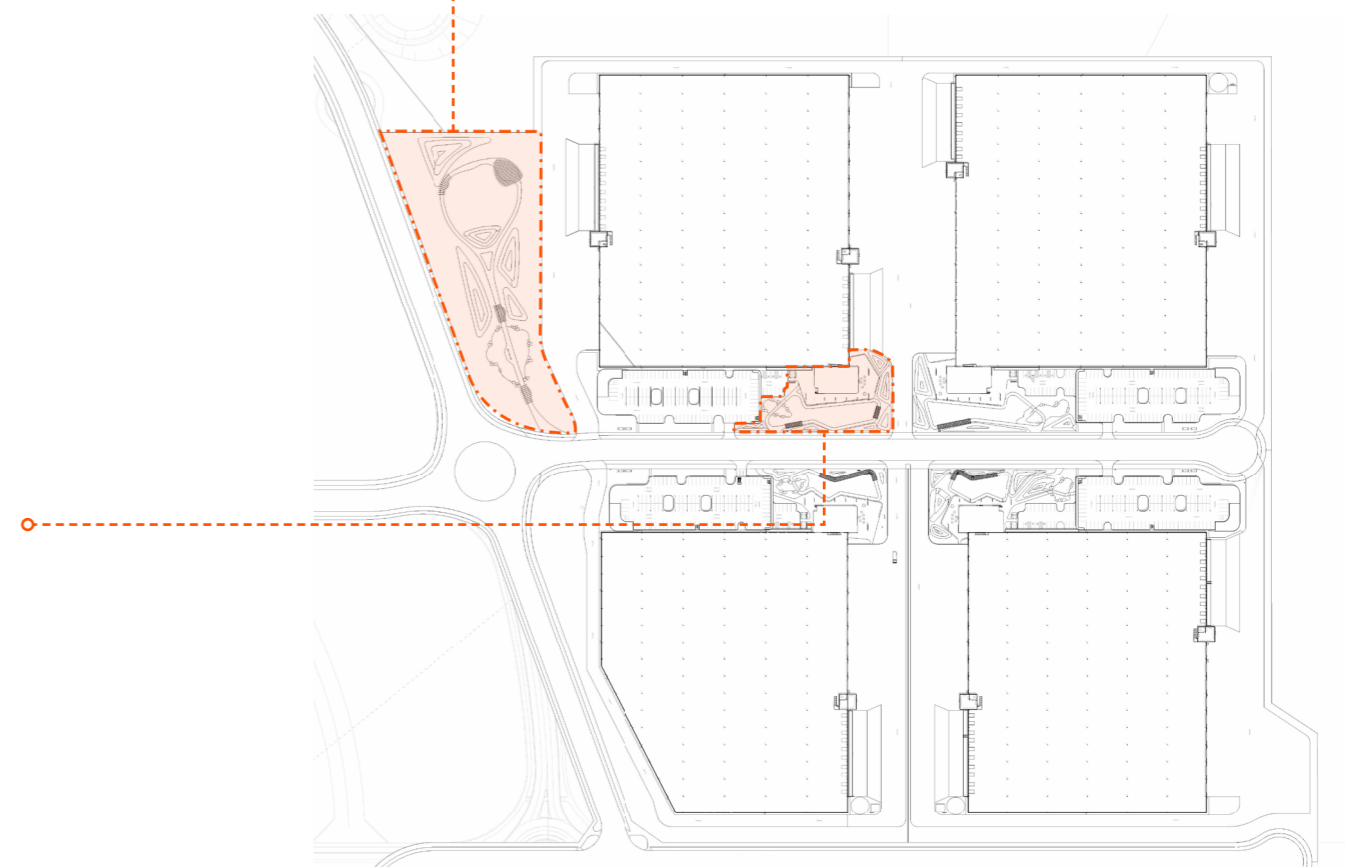
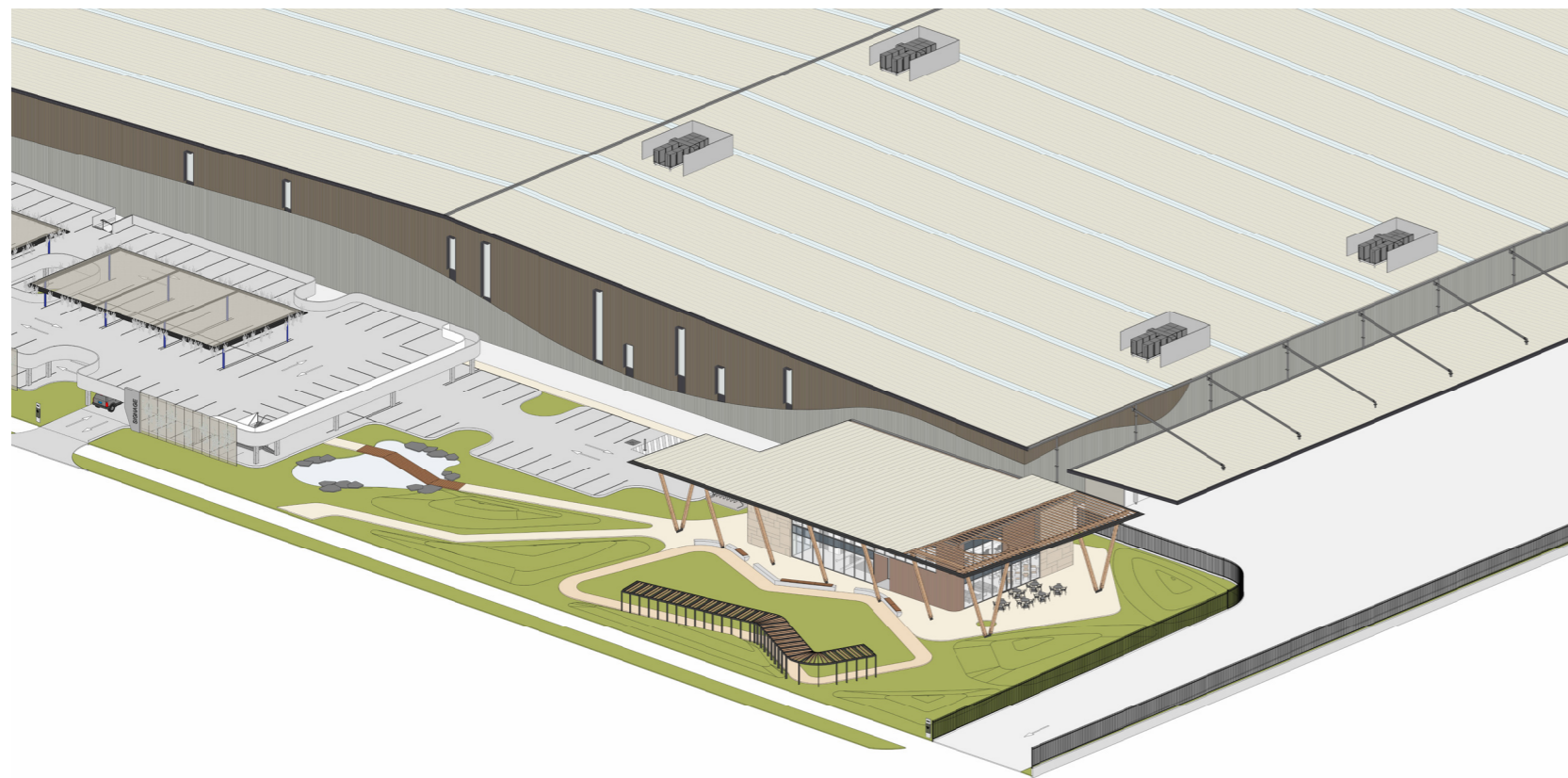
COMMUNAL OUTDOOR AMENITY

Along the west boundary of the site, landscaped areas have been provided as part of the setback to reduce the noise and visual impact of the estate road. In addition to this these spaces will act as large communal gathering points and outdoor amenity space away from the workplace environment.



INDICATIVE OFFICE OUTDOOR AMENITY

The office has been orientated to extend the roof canopy partially over the landscaped area to develop an overlapping indoor-outdoor space. This canopy extends to provide shaded seating and is opened in places to allow for landscape integration and dappled light to the space below.



ARCHITECTURAL RESPONSE

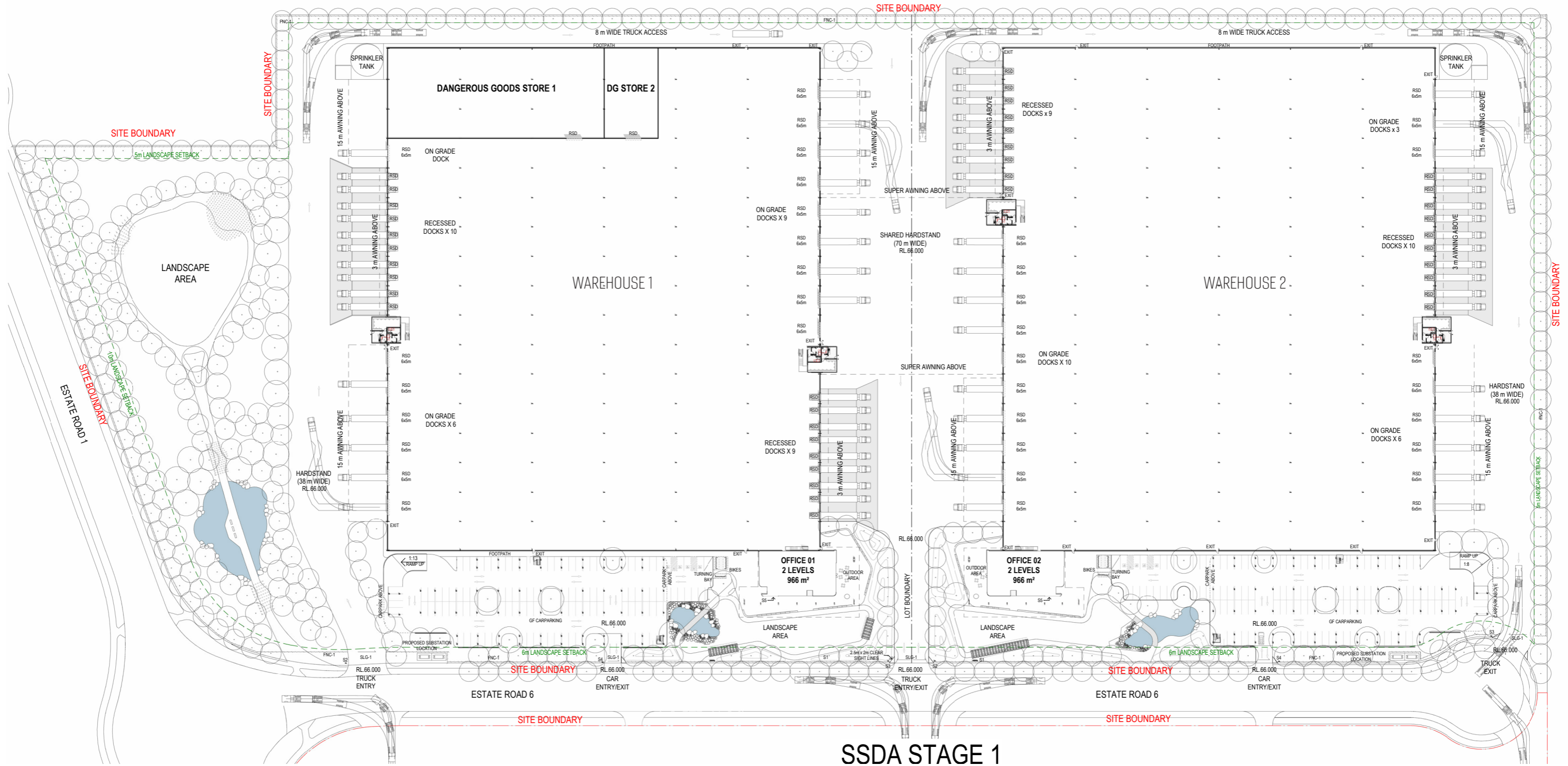


BEST PRACTISE DESIGN APPROACH - WAREHOUSE FLOOR PLANS

The warehouses are temperature-controlled facilities with dual hardstands located on the east and west façades of the building and a shared hardstand between them. Each warehouse have on-grade and recessed docks, typical for distribution facilities of this size. Each warehouse has a singular directional flow for heavy vehicle movement to allow for safer and more efficient use of the hardstand.

WAREHOUSE GROUND FLOOR PLAN

Scale 1:1500



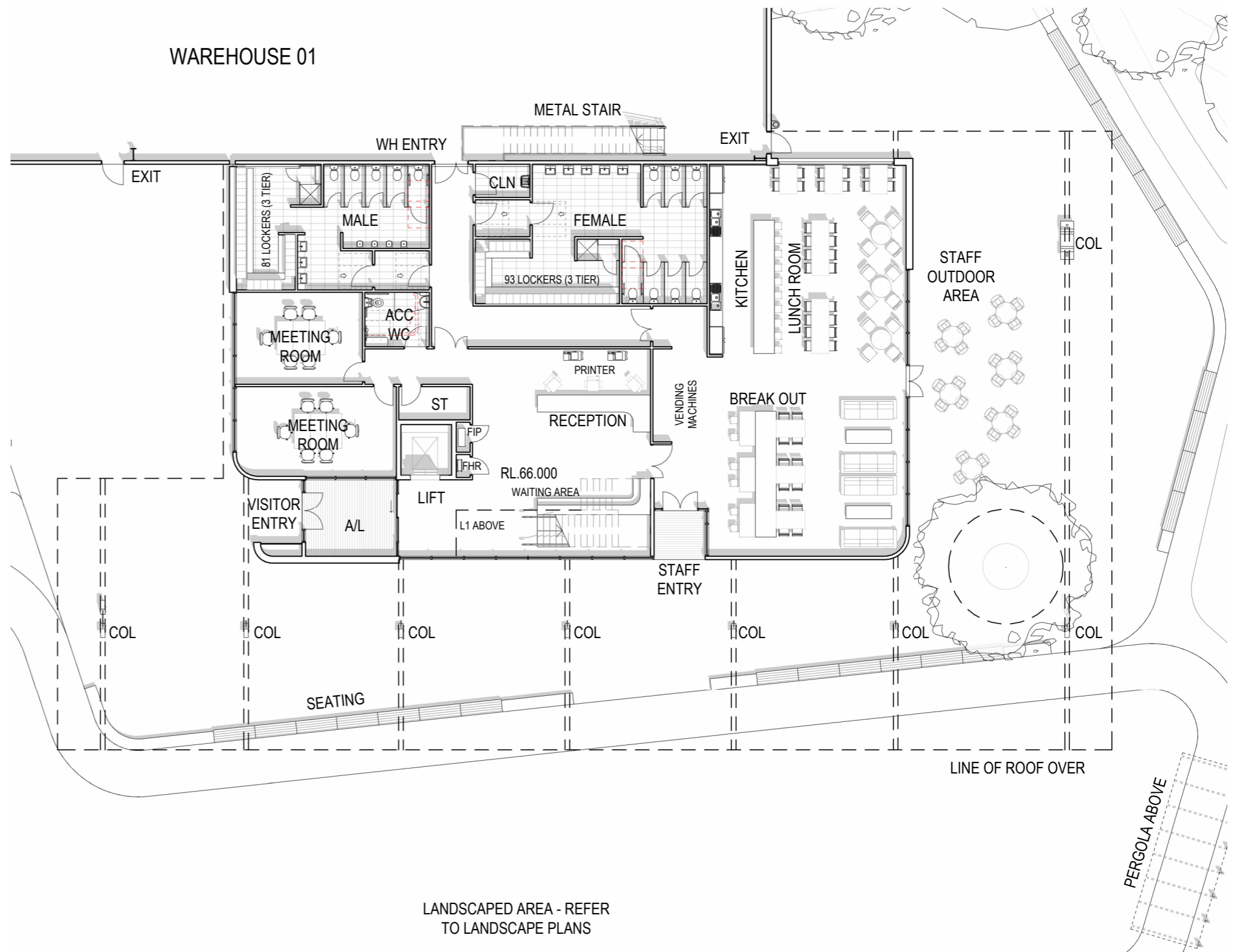
SSDA STAGE 1

BEST PRACTISE DESIGN APPROACH - OFFICE FLOOR PLANS

The office design is spread across two levels with separated staff and visitor entry points. The ground floor hosts reception, bathroom amenities and a large breakout space that flows into the staff outdoor area. While the first floor is dedicated to office units and a large open workstation space. The design utilizes glazing walls to offer significant natural lighting and views into the landscape, and contrasts this in key places with solid elements made of a raw and rough materiality.

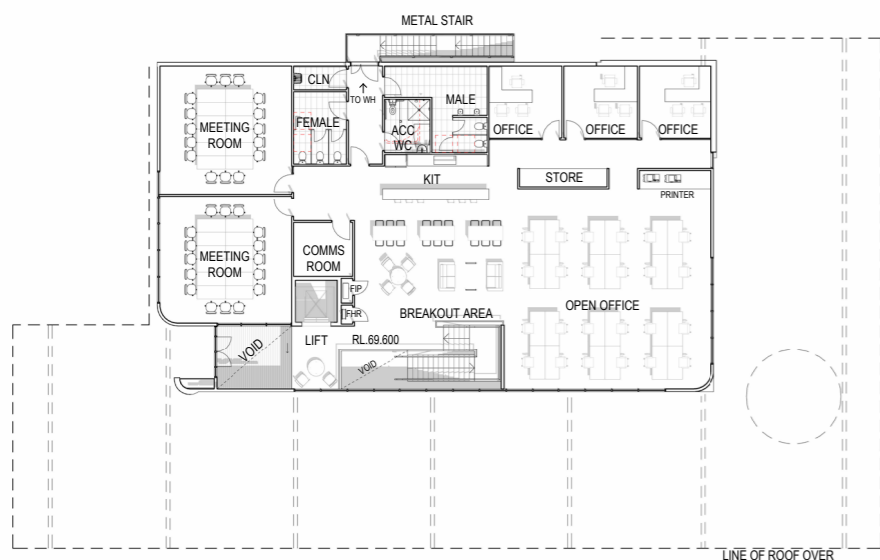
GROUND FLOOR OFFICE PLAN

Scale 1:200



FIRST FLOOR OFFICE PLAN

Scale 1:400

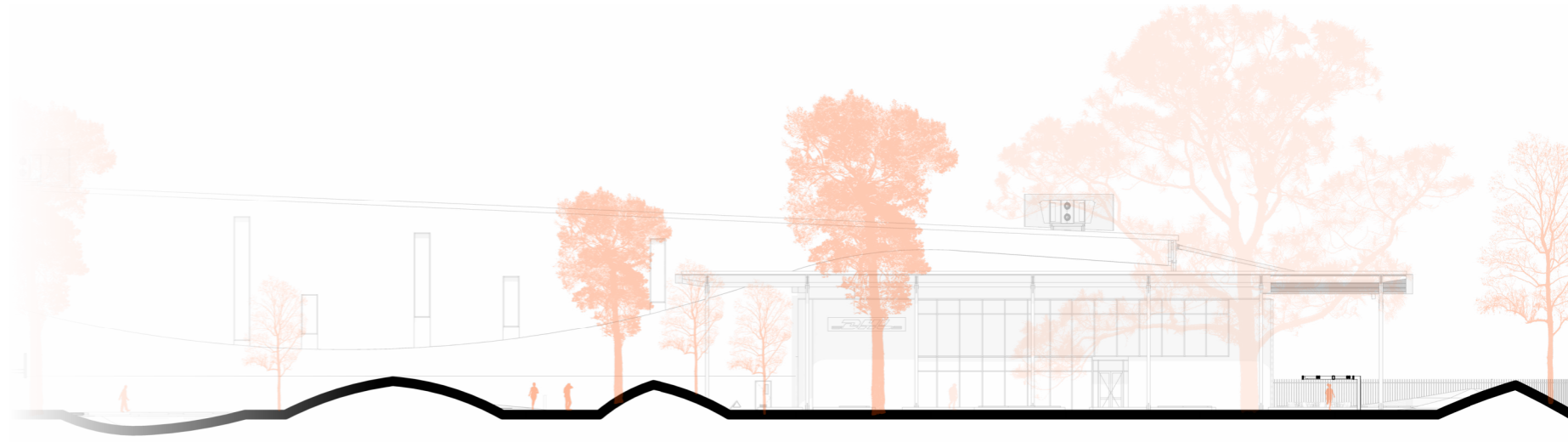


ARCHITECTURAL RESPONSE



BUILT ENVIRONMENT SCALE

The mounded landscape creates a gentle and gradual approach from the street, accompanied by low level vegetation that creates a better relationship with the human scale. The larger roof canopy welcomes the occupants by overlapping the undulating landscape and providing a presence to the entry. The outdoor double height space defined by the floating roof and the 'V' – columns is designed to relate to the ceiling of the tree canopies and large-scale vegetation of the Western Parklands.

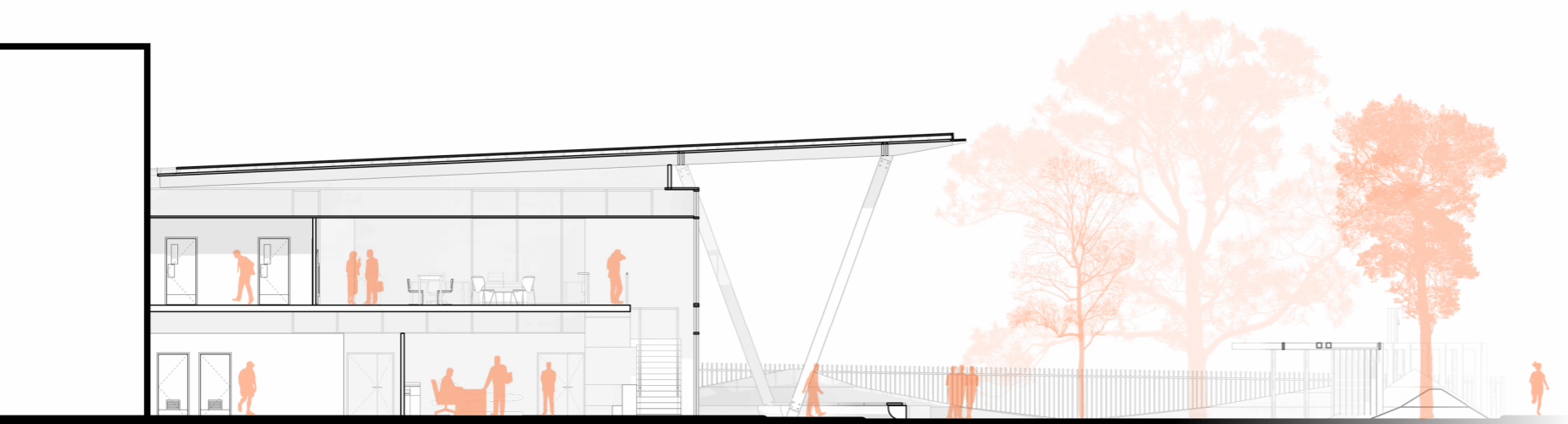


LANDSCAPE SECTION

Scale 1:400

OFFICE SECTION

Scale 1:200



SIGNAGE & CPTED

Pylon signage for the estate and individual lots has been established throughout the site to increase the efficiency of movement and identification. Vehicle entry and exit indicators and the use of directional arrows has also been employed to make sure there is a consistent flow of movement.

Crime prevention strategies have been introduced within the site to create a safer workplace for the occupants. These are orientated around 4 principles:

Principle 1: Natural surveillance

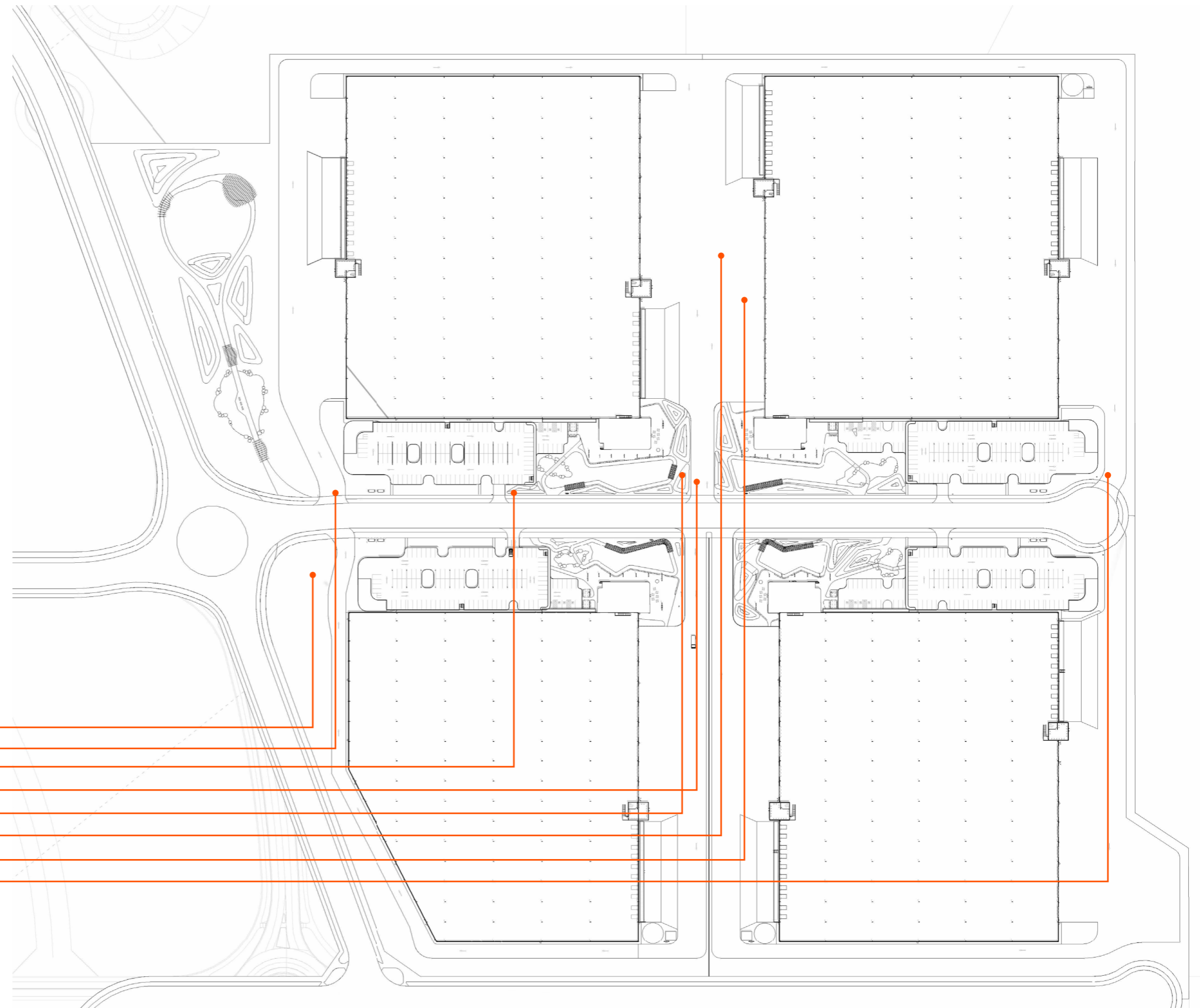
Principle 2: Access Control

Principle 3: Territorial Controls

Principle 4: Space Management

The site has been created with visible site lines to allow for natural surveillance on hardstands and in office spaces, in addition to this each office and amenity space is tenant controlled with the option for a communal space being located on the street frontage of the site. The site areas will be controlled through security equipment with gates and controlled access into specific areas.

- Site Signage
- Truck Entry Signage
- Carpark Signage
- Truck Exit Signage
- Fence & Gate Security
- Directional Arrows
- Open Hardstand for Sight Lines
- Truck Entry Signage

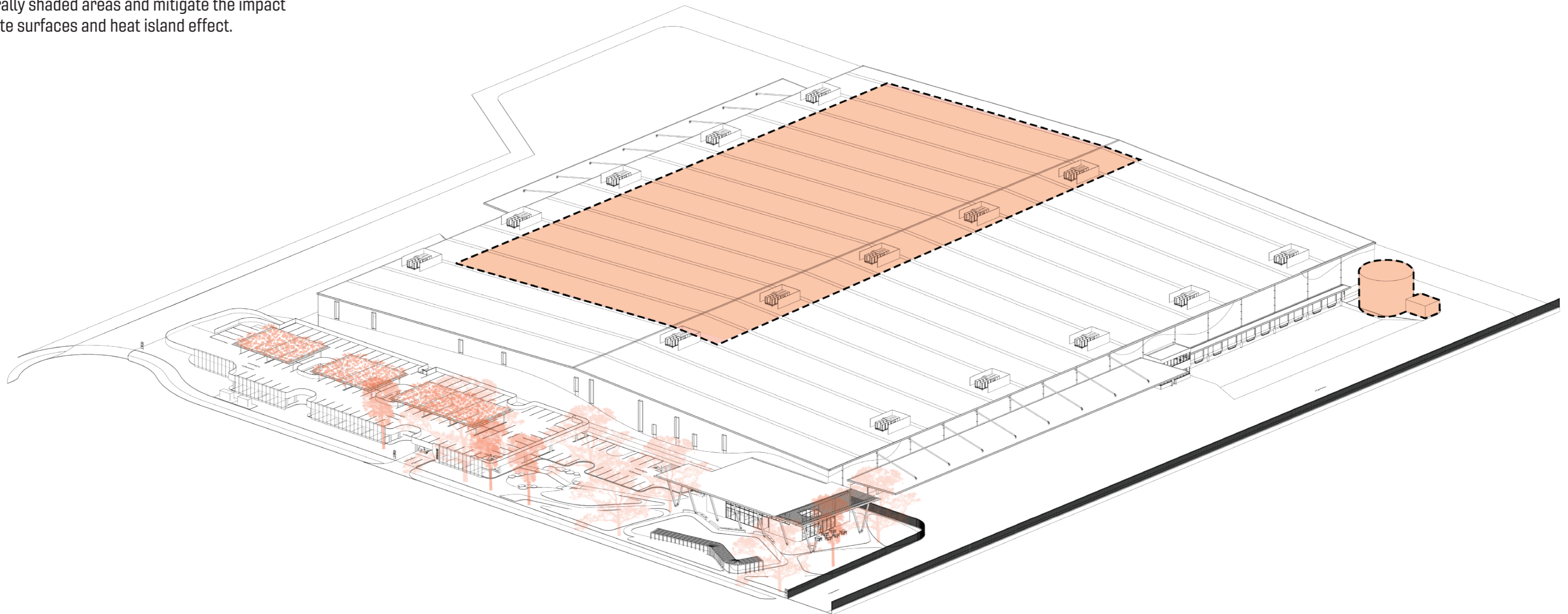


SUSTAINABILITY STRATEGIES

Each of the warehouse facilities will have a significant portion of roof spaces dedicated to a PV solar array which will reduce the consumption of non-renewable energy sources, in addition to this each building will be fitted with rainwater catchment systems and tanks.

The office spaces have been carefully designed to incorporate passive solar heating and cooling strategies to reduce the energy consumption needed for HVAC and increase thermal comfort.

The facility also utilizes the large landscaped areas with significant tree canopy, and green roofs over the carpark to create naturally shaded areas and mitigate the impact of hard concrete surfaces and heat island effect.



ARCHITECTURAL RESPONSE



MATERIAL SELECTION

The material selection for the building puts an emphasis on raw and rough materials to relate to the natural landscape of Badgerys Creek. The use of timber is incorporated both into the structure and wall cladding to give warmth and light tones to the space. The ground plane uses a combination of loose surfaced materials to blur the edges and create a natural layering of surfaces.

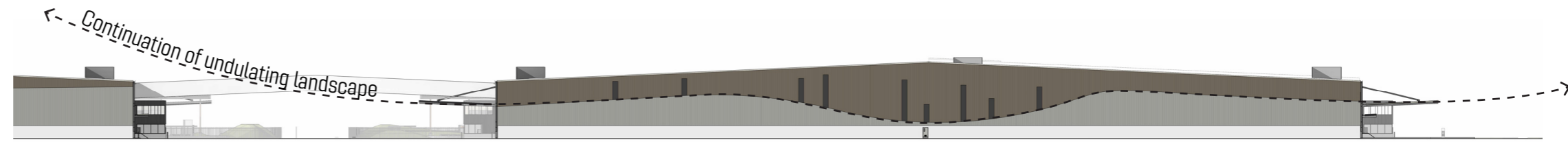


1. Engineered timber beams and columns
2. Raw ceramic tile finish
3. Slender powder coated steel connections
4. Two-toned profile metal cladding
5. Weathered timber wall cladding
6. Lightly tinted glazing
7. Pre-cast concrete natural finish
8. Timber paneled soffit

FACADE ELEVATIONS

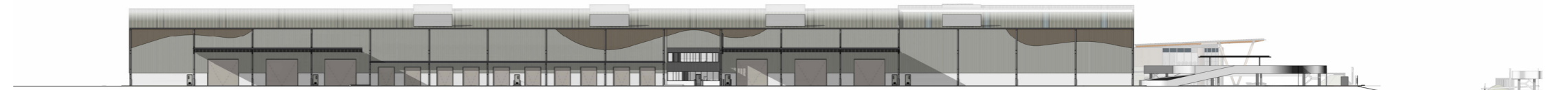
The warehouse pattern is created using a curved form that responds to the built spaces below it, the use of the curve is a more dynamic and organic element that softens the length of the building. It is also utilised to create a symbolic representation to the undulating landscape of the land and country of Badgerys Creek.

Additionally, the use of glazed elements also helps to break up the solidity of the warehouse elevation. The façade employs the use of neutral and earthy tones to allow for the buildings to blend and relate back to the surrounding environment, with occasional glazed elements to allow the penetration of natural light.



NORTH ELEVATION

Scale 1:1000



WEST ELEVATION

Scale 1:1000



EAST ELEVATION

Scale 1:1000



SOUTH ELEVATION

Scale 1:1000

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



Winding walkway through the rising mounds to the office entry

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



Car park area leading in to the office entry

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



Filtered light roof
canopy extending over
the landscape

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



Street view of the office
behind the open lawn
area

ARCHITECTURAL RESPONSE



3D VISUALISATIONS

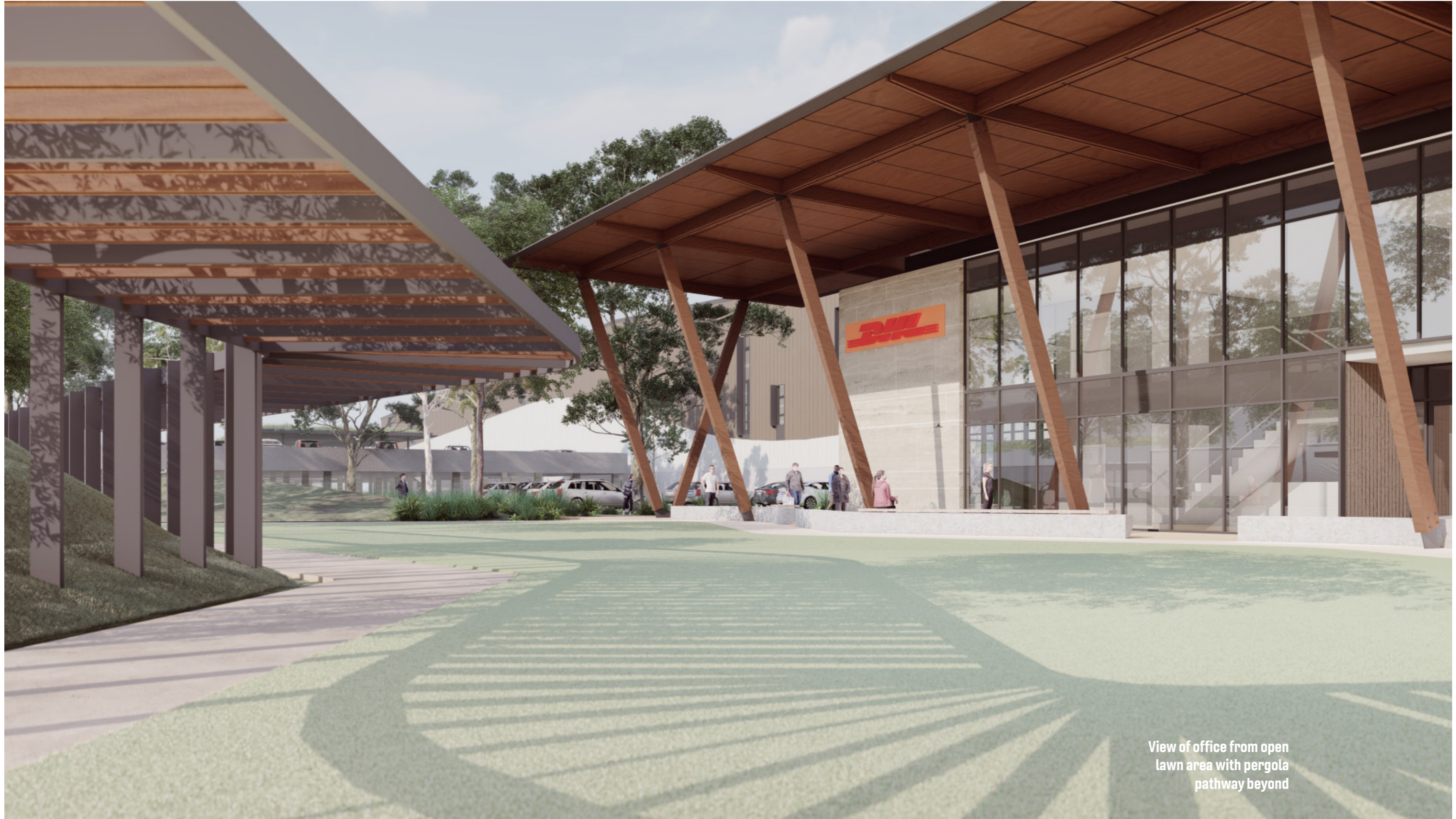


View of office from
across the water re-
vegetaiton zone

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



View of office from open lawn area with pergola pathway beyond

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



Outdoor seating area
extending from the
office space

ARCHITECTURAL RESPONSE



3D VISUALISATIONS



Aerial view of the outdoor landscape connecting to the office space

ARCHITECTURAL RESPONSE



3D VISUALISATIONS

Aerial view of the precinct with the variation in landscape forms



KEY DESIGN RESPONSE

A concise summary of the key points has been collated in response to the design excellence part of the design presentation, with a specific focus to the State Design Review Panel comments.

- A set of diagrams and plans to outline the initial proposal and masterplan submitted to the SDRP.
- A clear understanding of the design excellence criteria from 4 different organisations, SDRP, SEPP, SEAR's and Better Placed.
- Key analysis and consistent collaboration with First Nations consultants created a deep response to Country in the early stages of the design, that was carried through the design process.
- A clear understanding of the site through contextual analysis to allow for a more locally responsive proposal.
- A carefully planned masterplan to maximise function and efficiency of the site, while breaking down the harsh edges and rigidity with soft landscaping and dynamic forms.
- Inclusion of significant landscaping and tree canopy area, with native species to provide natural shading, a healthy ecosystem and longevity in the planting solution.
- Thoughtful planning of the circulation systems from all transport modes when entering the site, and when navigating through each of the facilities.
- Large areas for both communal and individual outdoor amenity space that will promote a healthy working environment and places to meet and gather.
- A clear and concise set of diagrams that show the design principles of the built form and landscaping, that has been developed to create a high-quality architectural solution.
- A clear mapping of crime prevention strategies along with signage identification to allow for easy navigability and movement.
- A selection of elevations and material palette to illustrate the application of finishes to the building.
- A set of 3D renders to provide a realistic representation of the design proposal experience.

