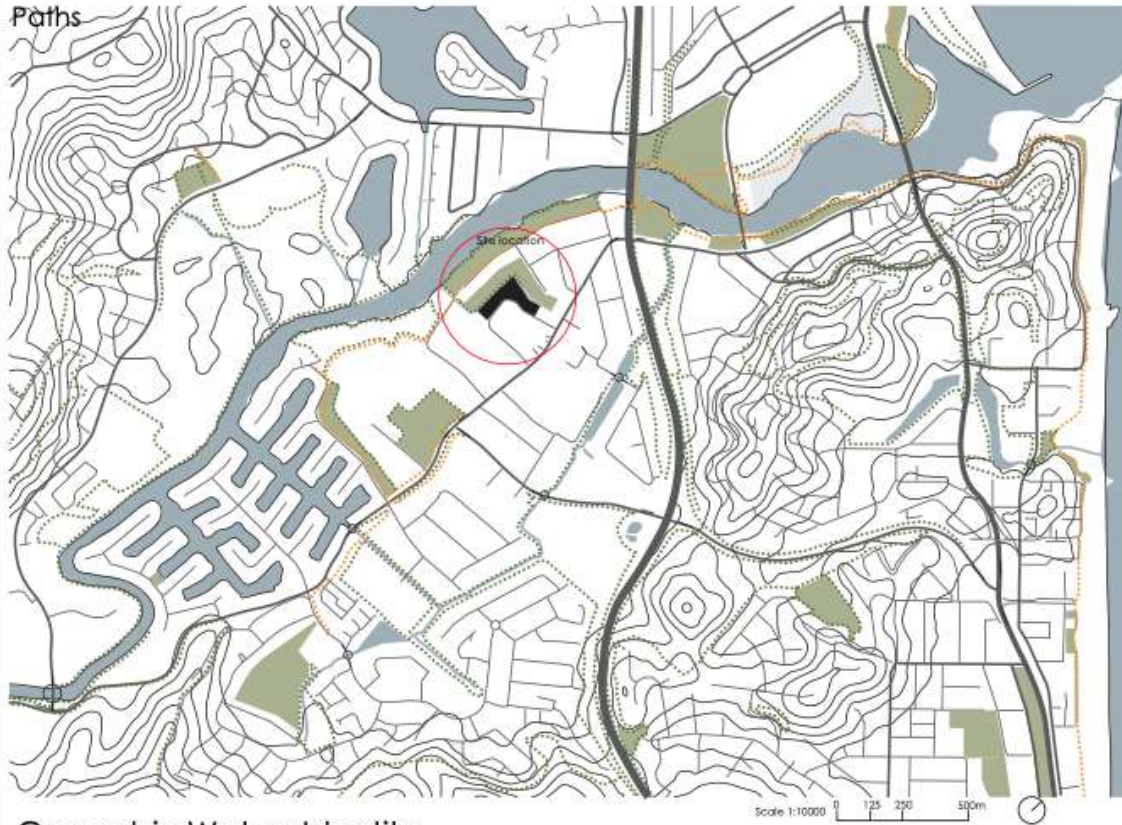


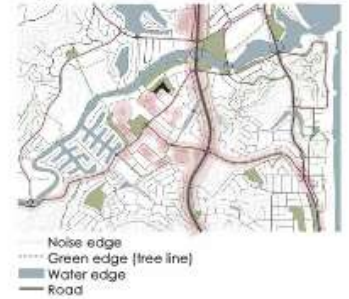


The indigenous to South East Queensland, boast a rich cultural heritage intricately tied to their environment. Their profound connection to the land, waterways, and natural resources underpinned their traditional way of life, centered around hunting, gathering, and fishing. Harnessing the creek networks as essential lifelines, they not only secured sustenance but also fostered connectivity between Yugambel clans and neighboring indigenous communities. These waterways, acting as natural highways, facilitated not just transportation but also served as conduits for social and cultural exchanges, including ceremonies, trade, and resource sharing.

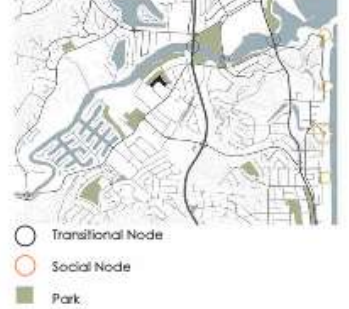
Paths



Edges



Nodes



Districts



Landmarks



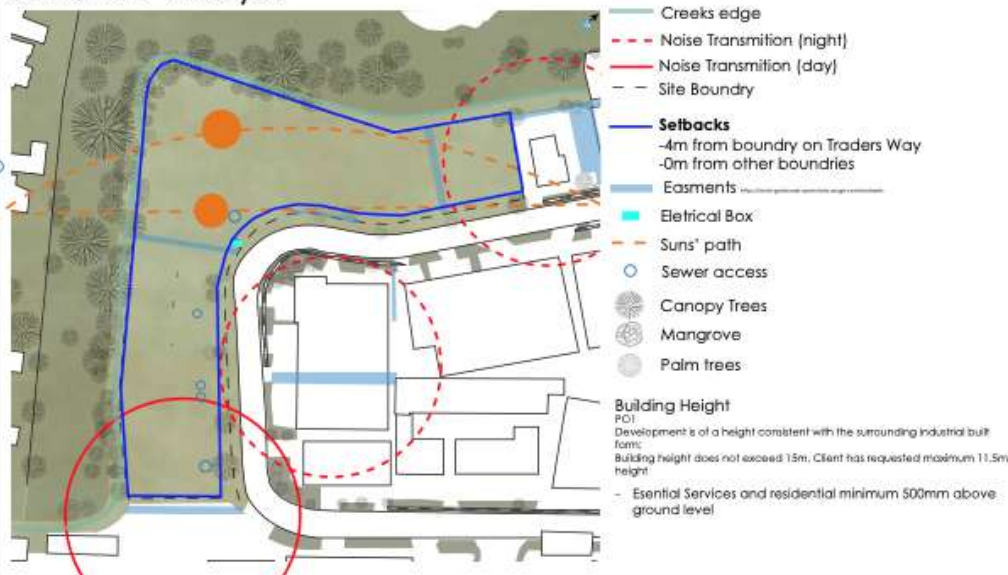
Currumbin Waters Identity

The identity of Currumbin waters can be characterised post 1970 as a cluster of residential and commercial districts attempting to make the most of the available space. The landscape of the Currumbin region consists of beach, marshland and hills. Malleable surfaces and not suitable for building large structures on. Prior to 1970 the architecture of the region consisted of mainly small fibre cement sheet beach houses used as temporary holiday homes. An impact on the surrounding landscape which was loose soil and sand. However, when development started to rise the foundations of the site were required to be stronger and not move or reshape due to erosion, landslides or tidal currents. Thus, infrastructure intended to stunt the natural evolution of the landscape begun and lead to a mass boom of large beach front properties, roads and high-rise development right on the beach front and on the creeks edge to maintain the status quo with the rest of the city. This has had a massive change on the way that the local communities connected with each other and has led to gentrification of old heritage architecture and a large impact on the natural ecosystem with flood water and storm water drainage not being sufficient.

Key Objectives

- Project Goals:**
- Oppose development of hard Urban Foundations along waterfronts.
 - Adapt structures and landscaping to changing creek edges.
 - Embrace ecological opportunities (Flora and Fauna, flood mitigation).
 - Integrate cultural impacts and social gathering spaces influenced by the Yugambel people.
- Residence Experience:**
- Assist up to 50 low-risk female prisoners in reintegration.
 - Provide safe, accommodating spaces with classes, workshops, and cultural lessons.
 - Design for collaborative living, safety, security, dignity, and respect for residents and their children.
 - Collaborate with Currumbin Wildlife Sanctuary and MINJUNGBAL Museum for cultural and educational programs.
- Design Language:**
- Oppose Gold Coast's conventional waterfront development.
 - Utilise waterways without altering natural landscape forms.
 - Implement lightweight elevated structures and pathways.
 - Create spaces for ecological studies, flood prevention, and increased biodiversity.

Site SWAT Analysis



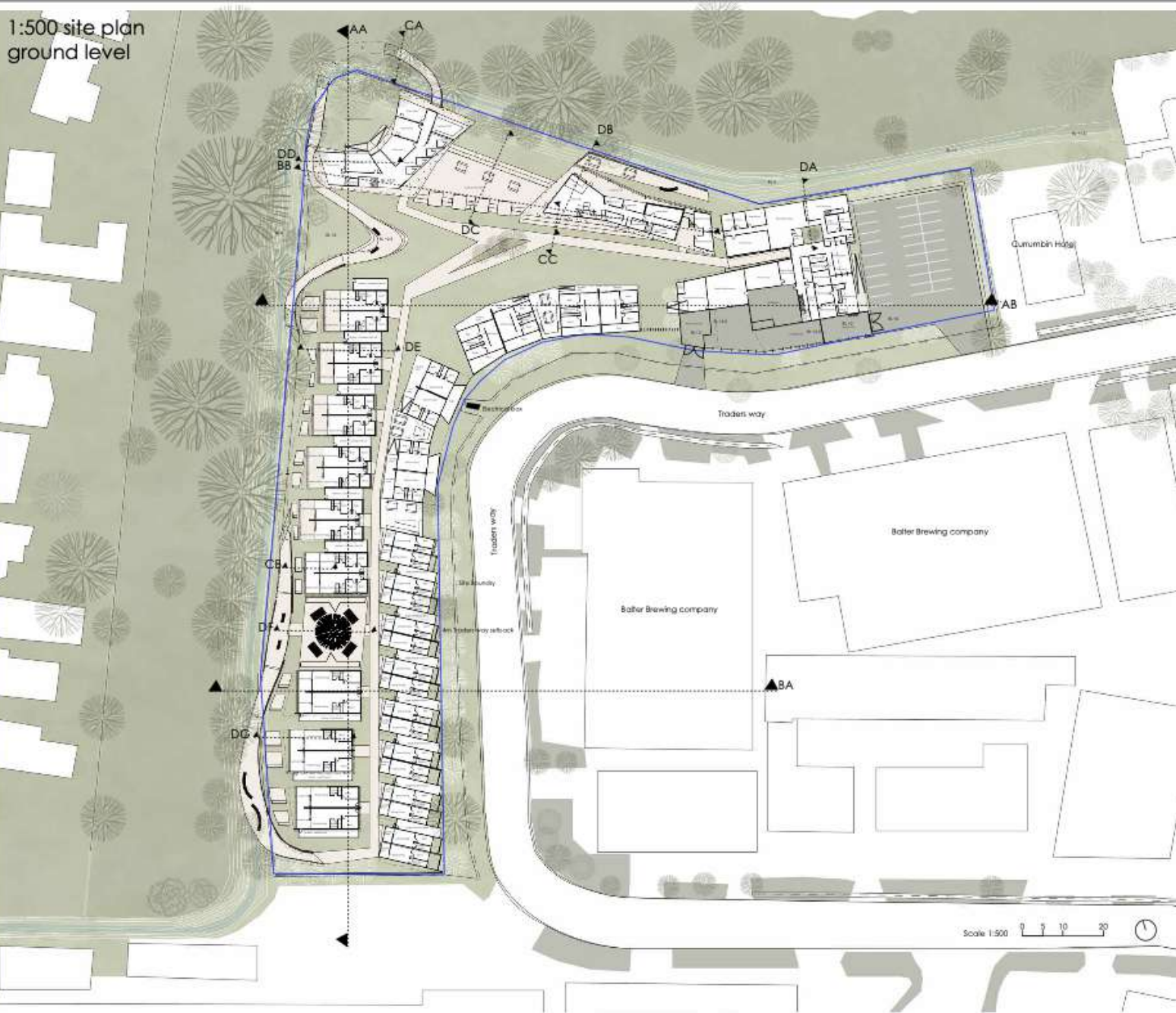
Ecology (natural landscapes)



Social



1:500 site plan
ground level



Proposal to council

An approval to extend the site boundary to the far side of the creek to construct a small section of the elevated walkway that traverses the site; the proposal would improve the bio diversity of the parkland and prevent flood water runoff

Ecological

Flood Prevention
Case Study: Bishan Park Naturalisation Project



This case study looks at the naturalisation of a large concrete stormwater drainage channel through Bishan Park in Singapore. They found after heavy rainfall the concrete channel wasn't sufficient to hold the necessary amount of water and they were experiencing difficulty with water runoff. An initiative was put in place to transform this edge to a natural river formation with flora foundation. The result is a far more visually and ecologically appealing space within the urban context

Current

- Existing creek is a concrete drain blocked with debris.
- Major overflow has caused severe erosion of surrounding soil.
- Stagnant water in the creek is breeding mosquitoes and parasites.

Proposal:

- Remove the concrete drain.
- Re-form the soil around the creek's edge.
- Create a natural creek edge using native protected mangrove species. Mangroves will serve as a foundation and flood prevention.

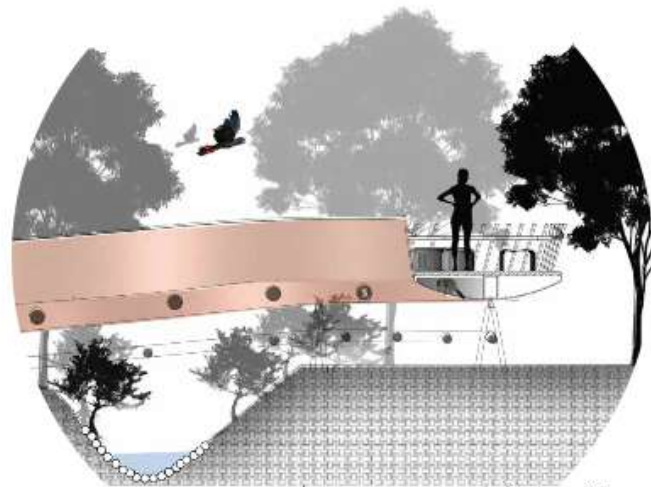
Benefits:

- Eliminate potential debris.
- Improve water absorption and filtration.
- Create a sustainable habitat for fauna.
- Generate cleaner water flowing into Culumbin Creek.



River Red Gum

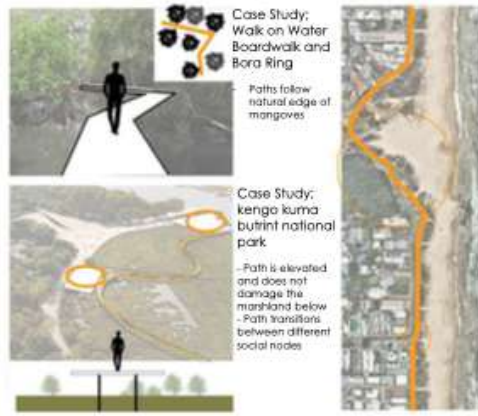
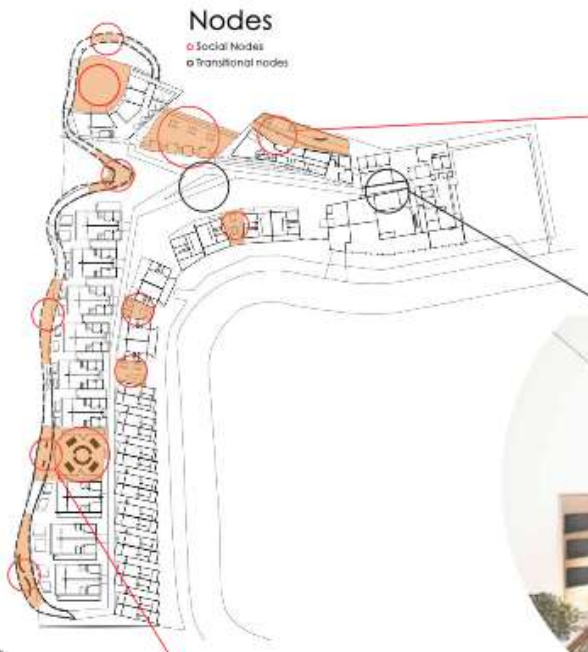
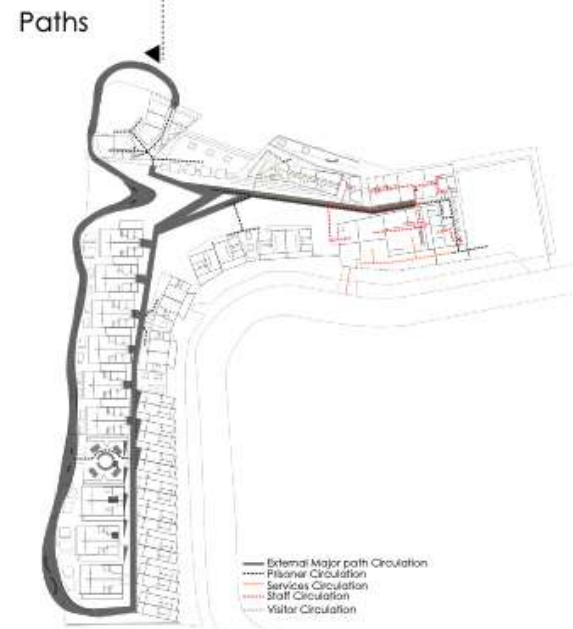
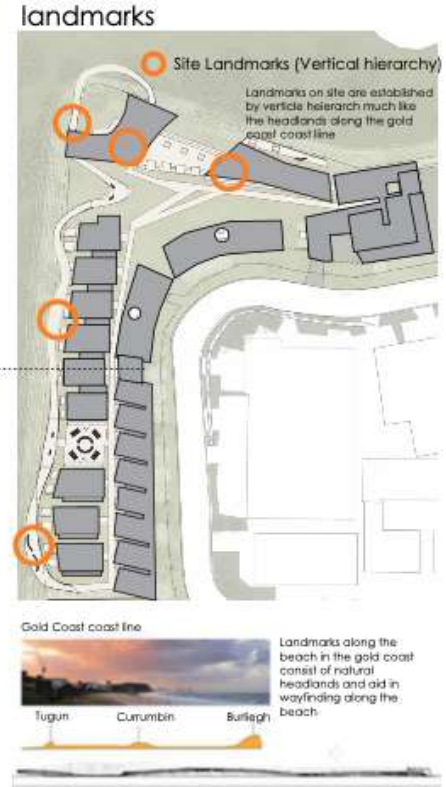
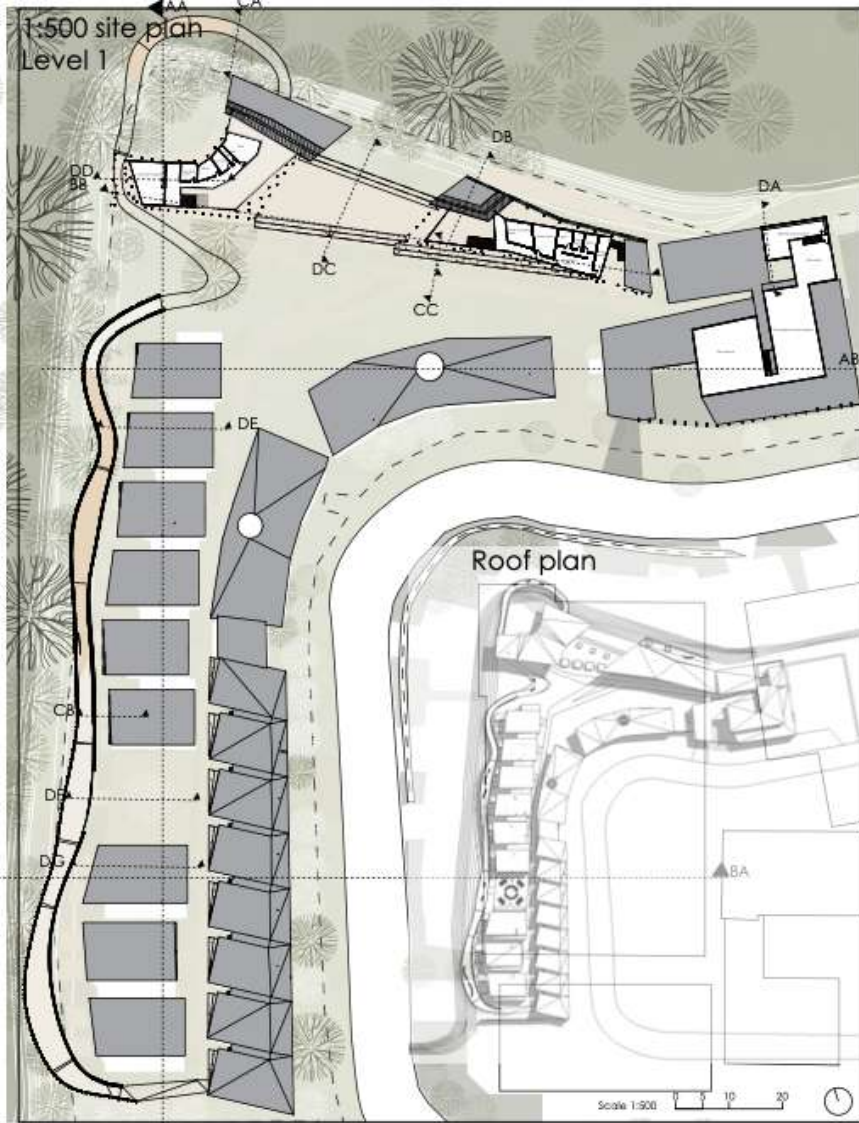
These native mangrove species are protected by fringes act of 1994 and thrive in river beds and creek edges. They absorb a lot of water and provide a good habitat for native fauna



CA Scale 1:50 0 0.5 1 2m



AA Scale 1:500 0 5 10 20



Currumbin Beach esplanade

- Path follows curvature of the beach and act as a social centre with social engagement nodes running the length of the district.





Butler Brewing

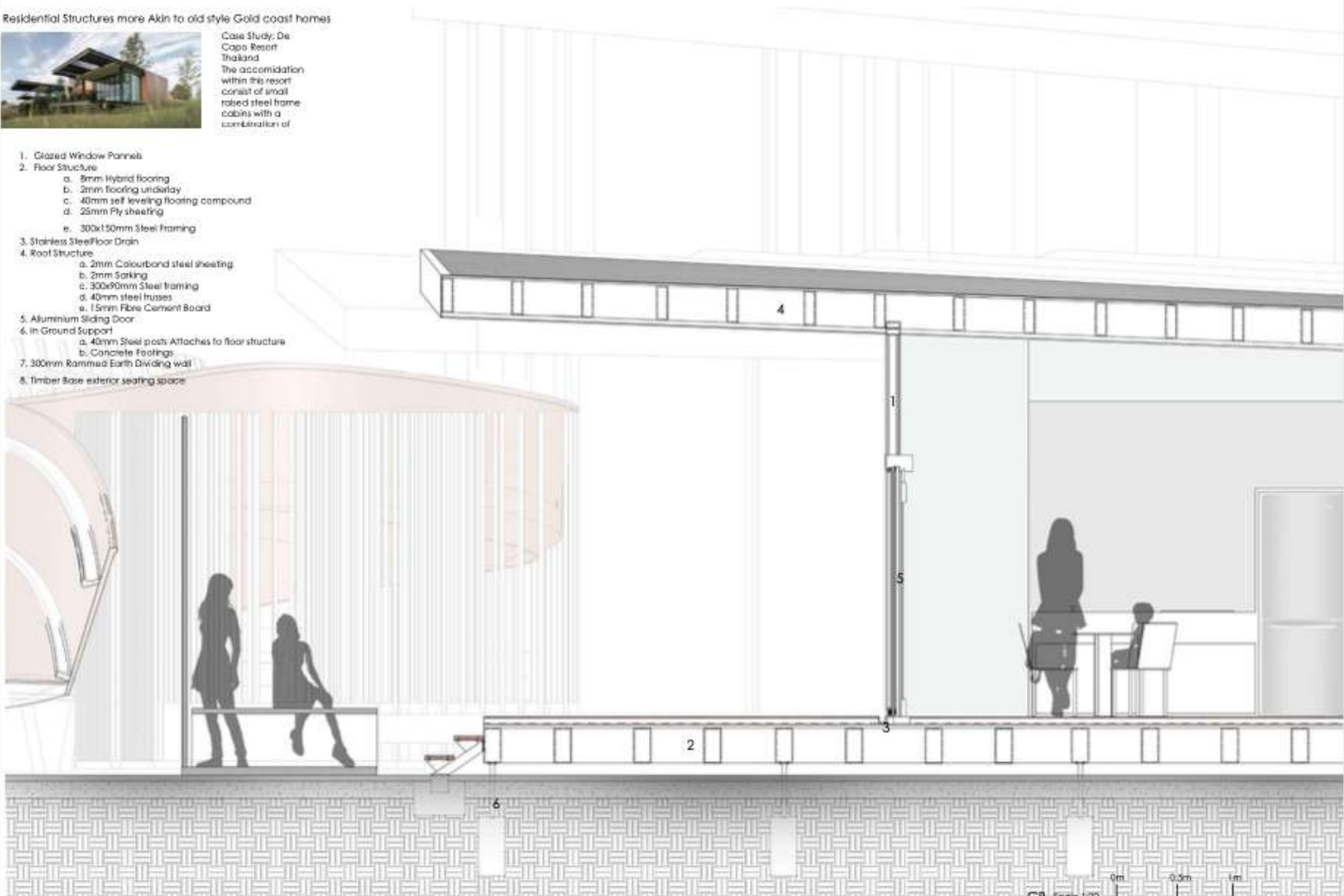
BA Scale 1:200 0 2.5 5 10m

Residential Structures more Akin to old style Gold coast homes



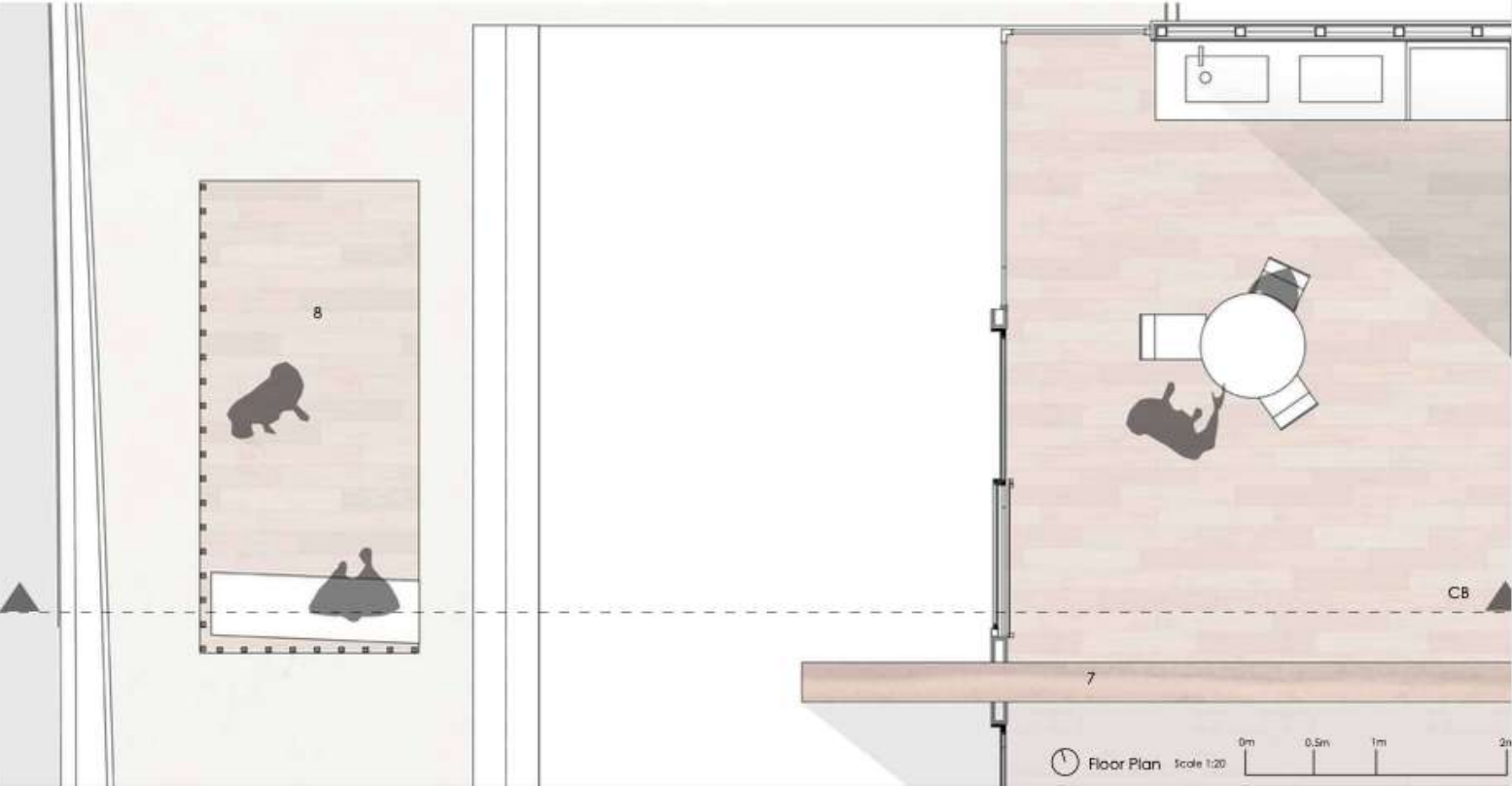
Case Study: De
Cape Resort
Thailand
The accommodation
within this resort
consist of small
robust steel frame
cabins with a
combination of

1. Glazed Window Panels
2. Floor Structure
 - a. 8mm Hybrid flooring
 - b. 2mm flooring underlay
 - c. 40mm self leveling flooring compound
 - d. 25mm Ply sheathing
 - e. 300x150mm Steel Framing
3. Stainless Steel Floor Drain
4. Roof Structure
 - a. 2mm Colourbond steel sheathing
 - b. 2mm Sarking
 - c. 300x90mm Steel framing
 - d. 40mm steel trusses
 - e. 15mm Fibre Cement Board
5. Aluminium Sliding Door
6. In-Ground Support
 - a. 40mm Steel posts Attaches to floor structure
 - b. Concrete Footings
7. 300mm Rammed Earth Dividing wall
8. Timber Base exterior seating space



CB Scale 1:20

0m 0.5m 1m



Floor Plan Scale 1:20

0m 0.5m 1m 2m



Edges



A response to the sites edges

- Hard Edges (Apart of building facades and designed to minimise noise transfer)
- Soft edge (Lattice panels that cannot be physically crossed but allow light and visibility)
- Tree line edge/ ecological edge (Tree line along trades way to minimise noise from neighbouring businesses)
- Gap in tree line density creating a more light and less shade within the space

Creating a secure edge

- Soft gradient edge (a change in elevation to suggest that pedestrian traffic is not supposed to venture here)
- Creek edge (Natural Edge)
- Elevated pathway



Case Study: windhover contemplative centre



This centres design language is about creating an atmosphere that is calming and allows for natural lighting and forestation to penetrate within the facade of the design. The large glazed facade and timber columns allow for light to filter into the indoor space seamlessly. This facade type also blends in with the surrounding trees to create a space that feels connected to the earth around it.



The facade of the windhover contemplative centre consists of a glazed facade combined with a structural Rammed earth; this is due to the excellent sound dampening and stability factors that rammed earth offer.

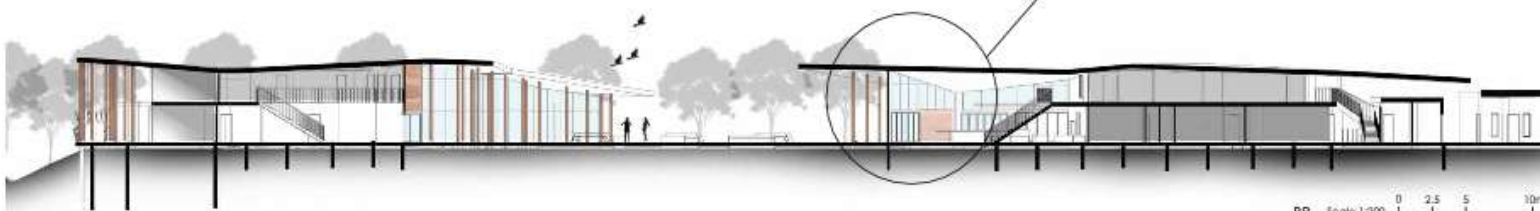


- Visitor centre and cultural district will feature:
 - Large glazed facades.
 - Rammed earth structures.
 - Timber columns to filter light.
- Residences will use rammed earth to:
 - Insulate against surrounding noise.
 - Create an earthy facade and natural feel.

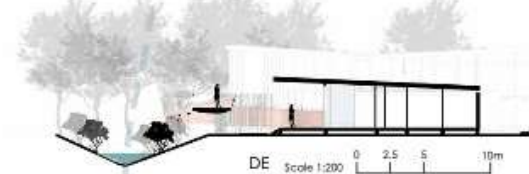
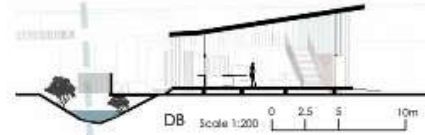
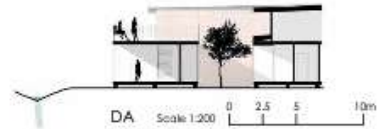


Material Selection and building form

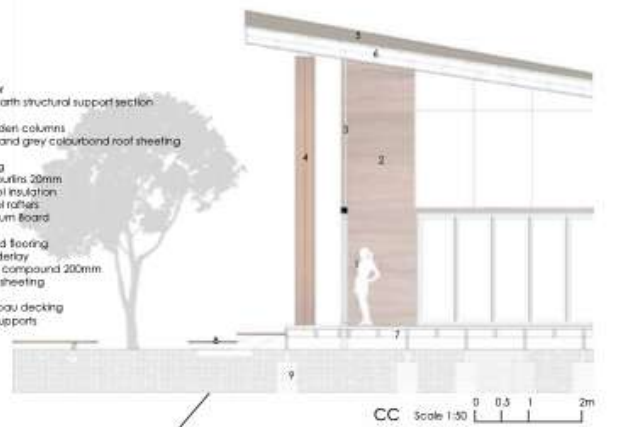
- Rammed earth Along walls that require acoustic insulation
Response: Noise from Neighbouring Businesses. Creates Natural Feel compared to Concrete
- large glass windows to fill spaces with light and maximise visibility to avoid spaces feeling like a traditional prison
- Elevated Steel Frame structures. As a response to Large Heavy Concrete Wealthy Housing in Currumbin



Creek side Secure perimeter sections



1. Aluminium Bifold Door
2. 6.3m High Rammed earth structural support section
3. glazed panels
4. 200mm diameter wooden columns
5. roof cladding. Woodland grey colourbond roof sheeting
6. roof structure
 - a. 5mm tarking
 - b. c channel purlins 20mm
 - c. 100mm wool insulation
 - d. 300mm steel rafters
 - e. 15mm gypsum Board
7. floor structure
 - a. 10mm hybrid flooring
 - b. Flooring underlay
 - c. self leveling compound 200mm
 - d. 20mm pine sheeting
 - e. steel frame
8. wooden exterior merbau decking
9. in ground Concrete supports





Infrastructure

Residents Needs

- Spaces designed for each individual need depending on requirements.
- someone who is allocated a placement within the communal building will require engagement with others and thus communal kitchen spaces are designed to accommodate that need.
- Mother and child within their own household might want to have a localised community engagement however may also desire their own space to spend time together, and thus the design of the outdoor pavilions delivers a space for them to enjoy some quality outdoor time in their own space.
- A single residence may want to be secluded and want a place to contemplate. An inclosed garden space allows the resident to exist within a warm private space where they can read, play games, or work on projects.



Disability Access

- Door Widths: All residence doors are 910mm wide to meet the council's 850mm disability access code.
- Ramp Gradient: The steepest ramp on site is 2.9 degrees, adhering to the Gold Coast City Council's maximum of 7.1 degrees.

Adapting to site

Easements, Sewer access

- All structures are elevated 500mm above ground level.
- Allows easy access to sewer systems.
- Minimizes landscape intrusion.
- Ensures free flow of water overflow to the creek.

Waste Collection

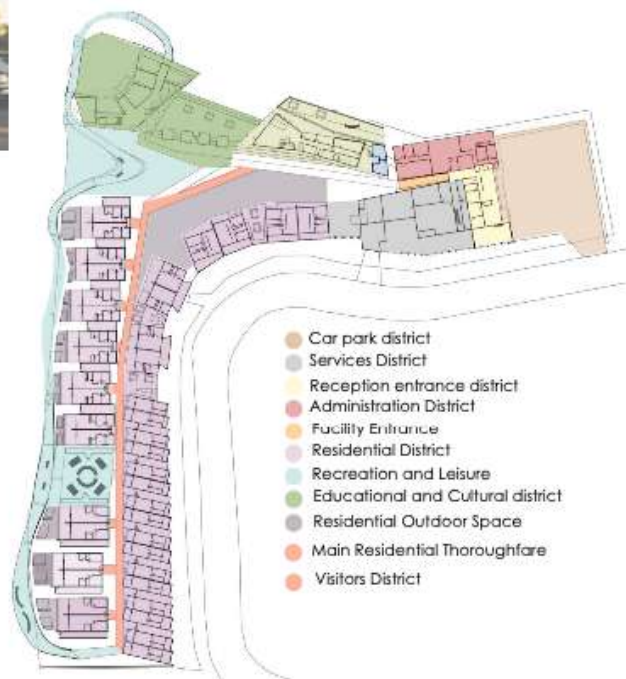
- Waste Collection area has one-sided vehicular access to maintain security.
- Avoids rubbish trucks navigating gatehouse and loading zone.
- Driveway on Traders Way provides access to covered bin area.
- The amount of waste generated by each person is stated by gold coast city council
 - General Waste: Each resident = **120 litres of general waste** per week.
 - 50 residents = **6000 litres per week**
 - Recycling Waste: Each resident = **60 litres of recycling waste** per week.
 - 50 residents = **3000 litres per week**



Central Services



Districts



Individuals Experience



Single Residency

Covered plant room space with large glass plane adjacent to bedroom.

Mother and Child Residency

Partisan wall private outdoor spaces

Communal Residency

Covered outdoor kitchen spaces

Education and cultural engagement (Education and cultural centre)

- This enclosed outdoor space is surrounded by native flora.
- A place of art and culture, inspired by the gathering space at Currumbin Wildlife Sanctuary.
- This outdoor space seeks to provide indigenous Residents a place to feel connected to country.
- Allows opportunities for those who want to learn more about the culture and history to gain wisdom and knowledge from their peers.



Community engagement (Good Neighbour)

Park side

The re-design of the creek edge on the park side encouraged birds and wildlife to the spot improving bio diversity and filtering out noise from the neighbouring businesses

Traders way

Fruit trees along Sites edge provides a shaded footpath improving pedestrian experience for those navigating around site