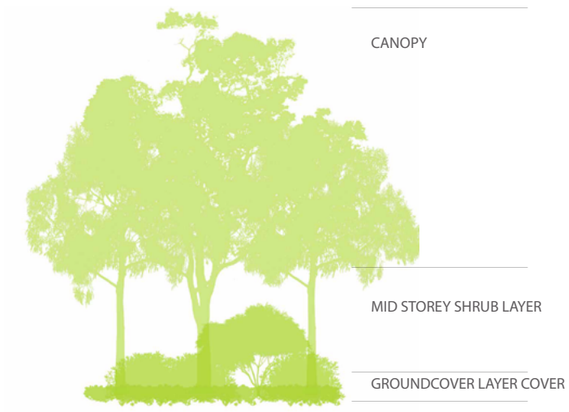
Form, Massing and External Fabric Principles

01



Remnant Cumberland Plains Woodland I Vertical Parti

Structure of the Woodland
Three distinct layers
The Canopy - Floating Boxes
The Midstorey shrub layer - Plinth
Ground Cover Layer - The Podium

local setting

02

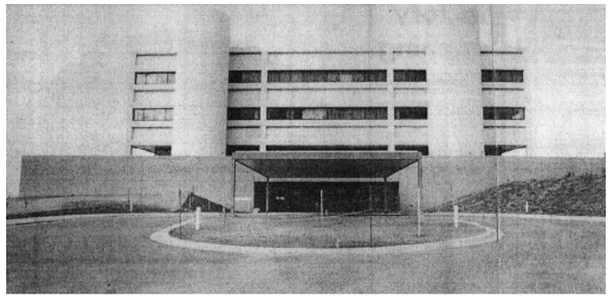
Building on the intent I Built Form and Setting

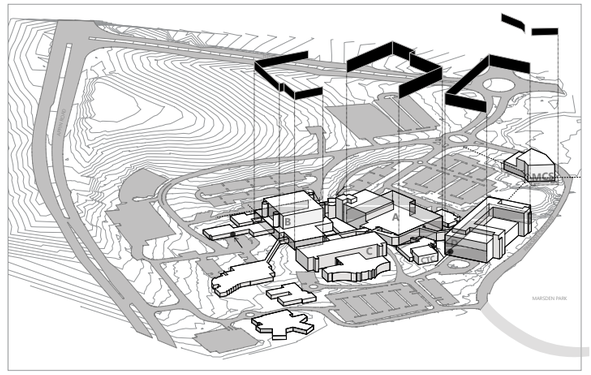
Inspiration for the original design came from the idea of a 'castle on the hill'.
The 'Castle' is externally expressed with circular stair towers paired around central public and emergency entrances.
The hospital rose above the greenfield hillside as a visually imposing representation of the new civic era of Campbelltown.

The new redevelopment and its built form aims to capture and strengthen the idea of a town on the hillside by embracing the existing disparate built elements and creating a higher level of cohesion on the site. The new built form is also a reaction to its surroundings as it will become a prominent beacon within the community. Working with the natural topography of the site is an opportunity to utilise this vantage point and elevate the hospitals local importance and civic presence in the local Campbelltown community.

the 'castle on the hill'

03



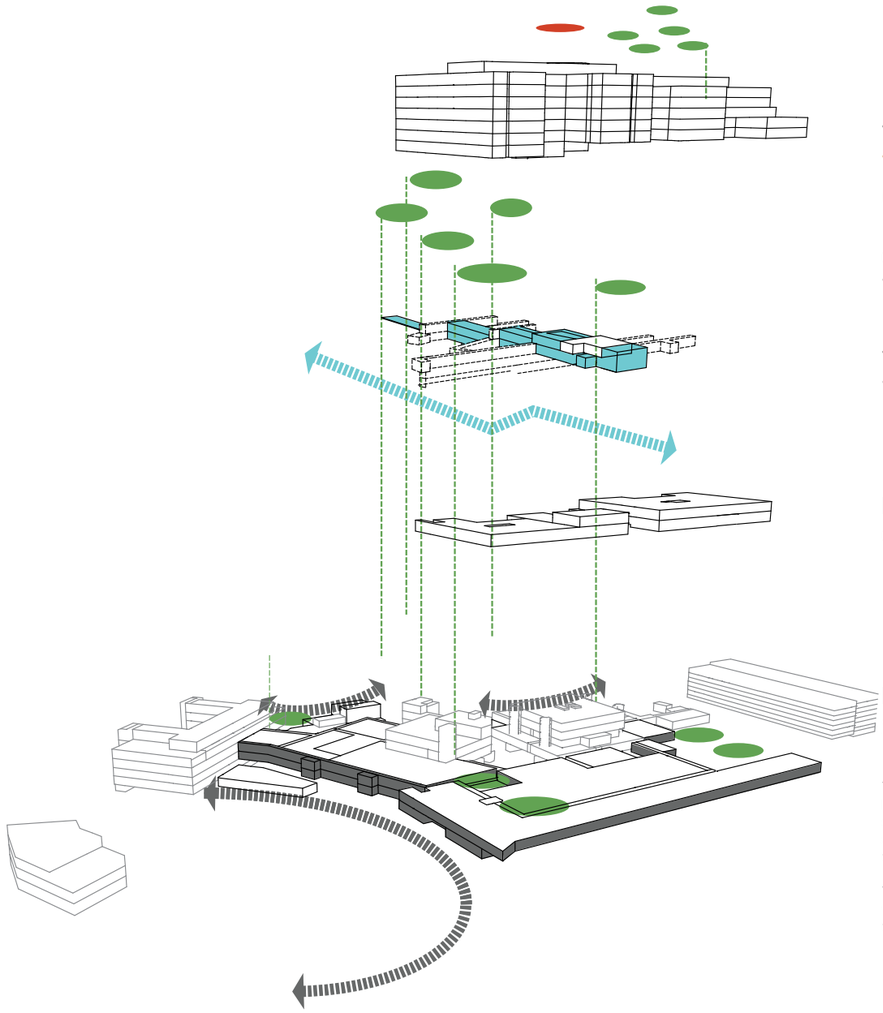


Datums I Built Form Parti

The original buildings were designed with a strong division of the built form into two distinct vertical elements - a plinth (base/ rampart) with main entry points and a hovering built form above.

established site datums

Form, Massing and External Fabric Principles



04

The Tower: Floating Boxes
The Canopy
Mid Storey Shrub Layer

Green Spaces
The Lungs

The Hospital Spine
The Spine

Podium: Intermediary Zone
Ground Cover Layer

Podium: The Plinth
Subterranean

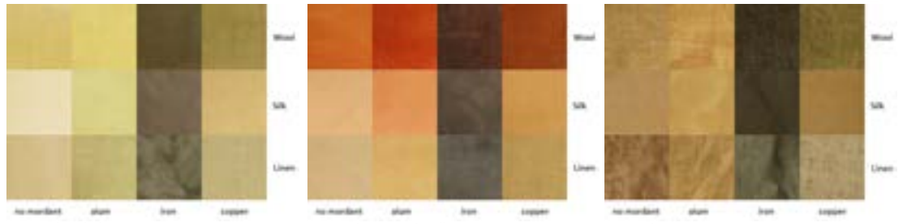
The form heirachybuilds on the inherent site characteristics. The site's horizontal datums allow for the overall form to be broken down into three distinct striations- the podium (plinth), the podium (an intermediary zone) and the towers. The ordering device of a street, allows for movemen through the site and to connect across differing datums.

The spaces between buildings, 'the negative spaces,' are conceived as green spaces of respite. These green spaces occur across various datums and up through the towers to allow for access to green throughout.

heirachy of forms

05

Eucalyptus dye database
Artist Sally Blake's work in conjunction with the Australian National Botanical Garden



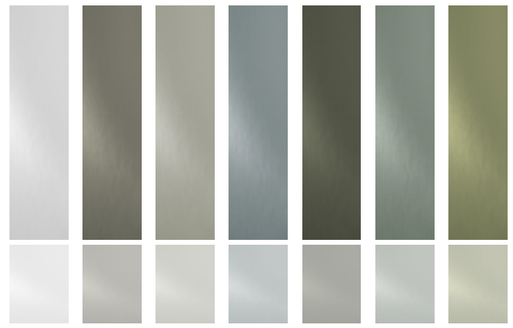
corymbia-eximia-leaves | eucalyptus-macarthurii-leaves | eucalyptus-macrorhyncha-bark

flights of colour | example of soffit treatment | sandstone shale transitional geology

Floating Boxes The Canopy I Cumberland Plains Woodlands Tree Canopy
The use of colour has been explored employing a palette based on dye sampling of native tree barks and leaves not to dissimilar in species found in the remnant local Cumberland Plains Woodlands.

Soffits and Intersitial Spaces 'Flights of Colour' I Local Fauna Canopy
Building on the idea of 'flights of colour', that occurs in a bushland setting by the sudden and fleeting burst of native fora and fauna, it is intended that this is translated within incidental and unexpected spaces (eg soffitts, spaces between buildings) to engage the senses as one moves through the built forms.

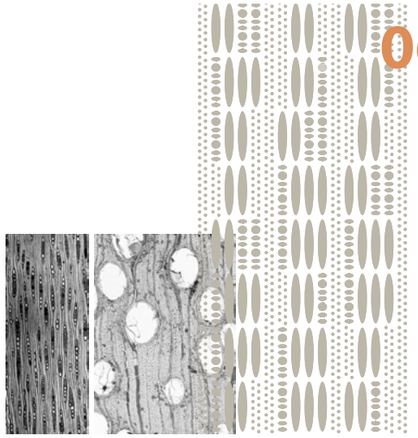
The Plinth and Podium I Sandstone Shale Transitional Geology and Ground Cover
The base levels take inspiration not only in their sense of solidity and robustness but also the stridation of the local geology and ground cover. The interplay of sandstone-shale and native grasses colouring and texture will form the main ques from the treatment of these levels.



materiality

Form, Massing and External Fabric Principles

06



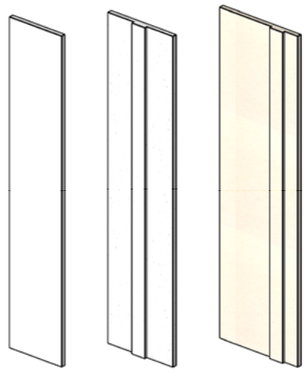
Eucalyptus tereticornis- tangent and transverse

g Boxes The Canopy I Cumberland Plains Woodlands Tree y Cross Sections

patterning deriving from the cross sectional studies of local tree species, a finer grain ement, will be applied as frit to glass, to the facades that have the most predominant

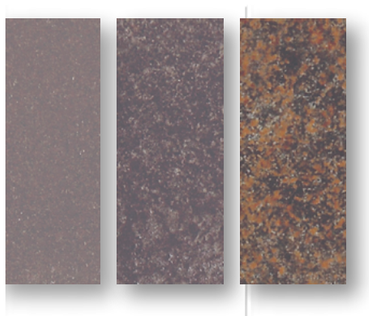
opment of a hospital specific 'patterning' will also be employed throughout the s one of several wayfinding elements.

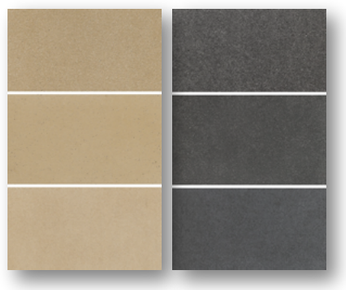
07



The Podium The Ground Cover I Verticality and the Play of Light

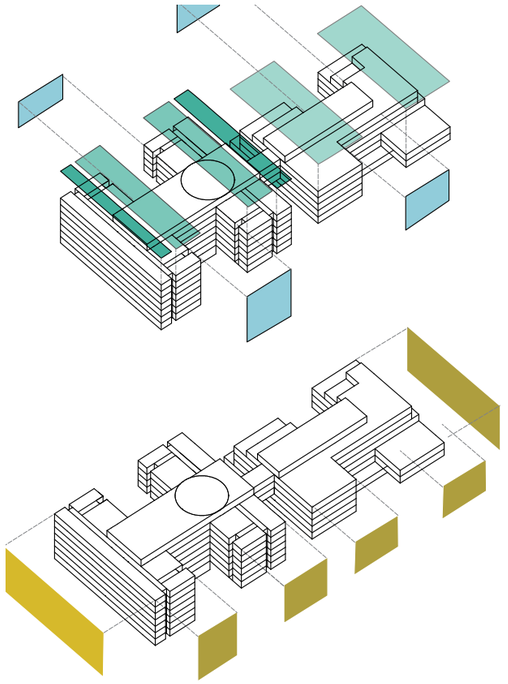
Solid Sections of facade will employ profiled ceramic tiles. The profiling aims to allow the play of light along the facades surfaces (particularly south orientated facades). Three metallic colours (warm palette) with varying textures and gloss levels.

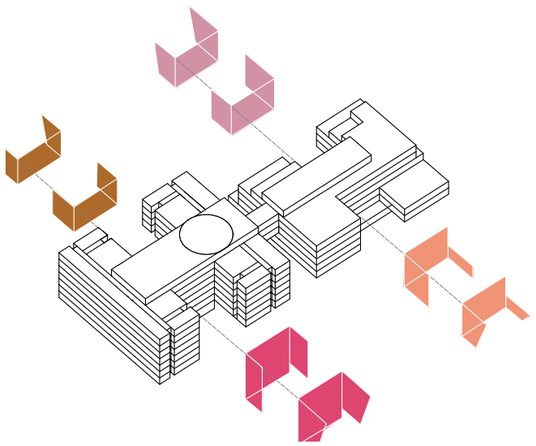




Material Palette

materiality





08

Expressed Fingers

The Tower can be broken down into four simple rectilinear fingers, running south west. The facades between (running east west) would be treated differently (recessive and simpler) to further accentuate these fingers.

The differing orientations, aspect and functional requirements would also allow the scale of these fingers to be further broken down, as the planning develops.

Hierarchy of Facades

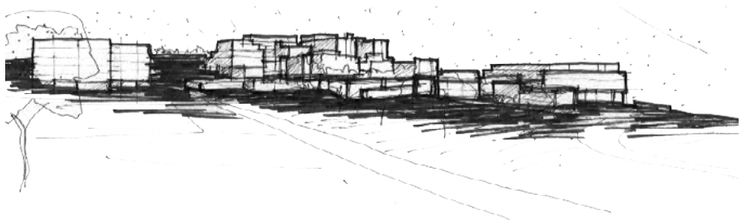
Differing orientations, aspect and address allow for the potential of creating a hierarchy of facade treatments. For instance, the key facades that could be treated differently are, those that are south facing and form the main public address; the south western finger and facades which are the main visible faces on approach to the hospital; and the whole western façade composition which forms the main address to the hospital's emergency entry and the vehicular approach to the hospital.

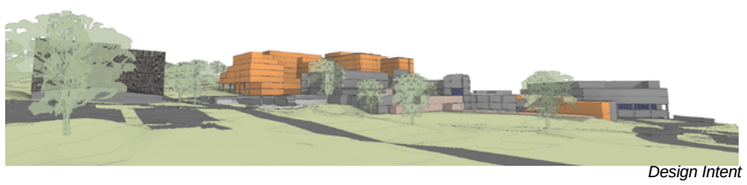
Spaces Between

The spaces between the fingers could be treated differently, with varying coloured patterning in contrast to a simpler external shell. This will aid in articulating the forms, wayfinding and speak to the green spaces that they bound. It also allows occupants with these aspects, to have outlook onto more expressive facades. The colour treatment can also be non-uniformed, with angled edges to the fingers to create the illusion of dynamism within a simple rectilinear form.

'the skin'

Architectural Design





Design Intent

1. Siting and building form

The masterplan provides a robust framework for the development of the site. The new clinical services building aligns with the masterplan framework and will concentrate the greatest site density centrally located on the campus. The existing medium height and low height buildings to the north will aid in stepping down the built form scale across the site. A landscaped edge is proposed for the eastern and southern boundaries of the site.

The built form for the new clinical services building is eleven storeys in height with two additional two levels of roof plant and helipad. The tower split enables the necessary clinical separation of public (adult & paediatric), mental health and staff cohorts in the one building. The new building is linked to the existing hospital through a new hospital spine running north south along the centre of the site.

Drawing from the distinct, vertical layering of the remnant Cumberland Plains Woodland, the built form can be distilled into three elements:

Podium: Plinth (Subterranean Layer) and Intermediary Zone (Ground Cover Layer)

Levels 00 to 1 include the construction of a plinth that anchors the lower western portion of the proposed new clinical services building. The sweeping, curvaceous built form and link draws on the original hospital masterplan intent, as well as the sedimentary layers of the local site conditions.

Levels 2 to 5 (the podium intermediary zone for the proposed new clinical services building) act as a banded textural ‘ground cover’ area, tying into and reinforcing a continuous, horizontal site-wide datum. This zone is an anchoring point aiding the new clinical services building to comfortably sit within the landscape and seamlessly tie into the existing facades on the site. Deep reveals and punched openings within the podium indicate main entries and access points into the building.

Floating Tower (The Mid storey Shrub Layer and Canopy)

Floating above the podium layer are ‘finger’ towers centrally linked at each level. From a distance these ‘light’ fingers will appear to be floating above the plinth/ podium. The gradation and variation of colour, concentrated at the ‘crown’ of the building mass draws on the canopy of the local woodland.

In Between Spaces (Hospital Spine/Open Spaces)

The main public pedestrian circulation zone is the ‘Hospital Spine’ which acts as the primary public space, connector and pedestrian circulation network. It connects the proposed development into the all the existing buildings on the site with pockets of green spaces, courtyards and terraces spilling off to its sides. These in between spaces are vital to the project and will act as the bonding agent which links the new with the old. These spaces will have an abundance of activity and natural vibrancy within them. The material elements associated with the space are likely to reflect this action and make playful references to subtle colours and textures that can be found in the natural environment.

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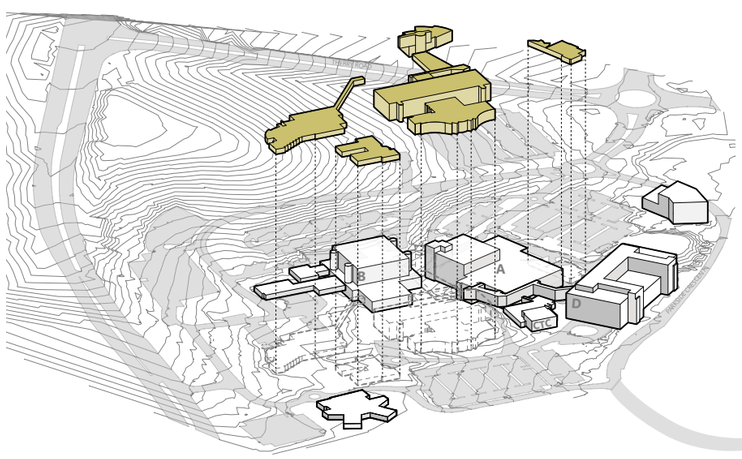
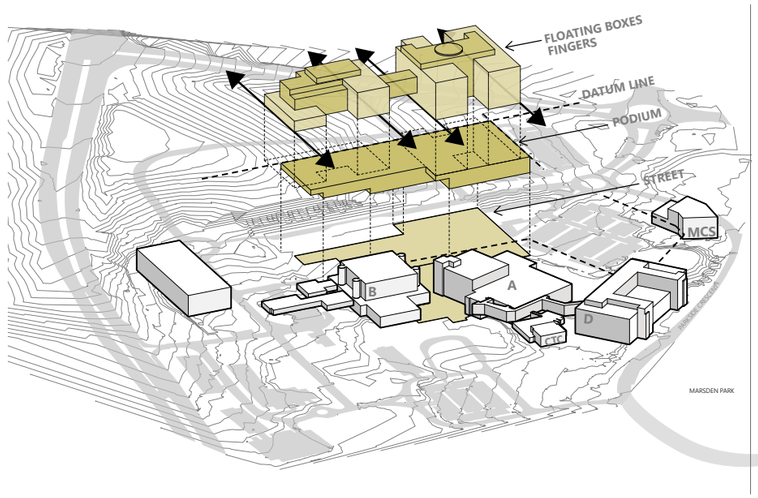
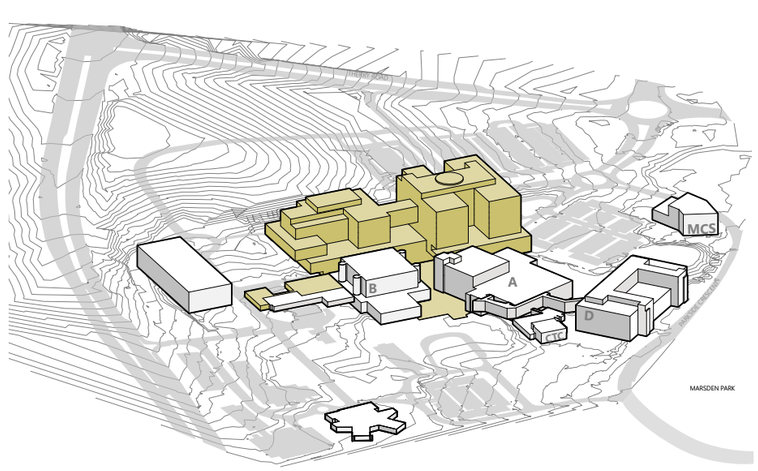
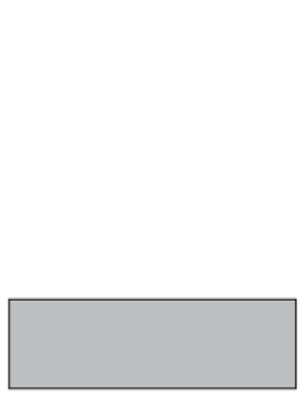




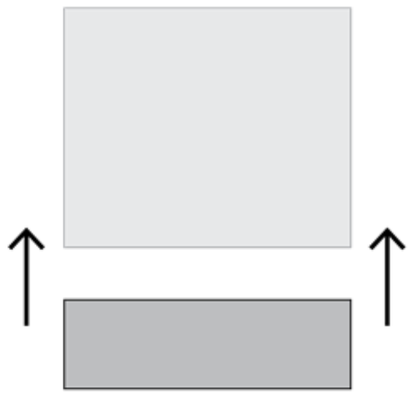


Remove, Replace, Connect



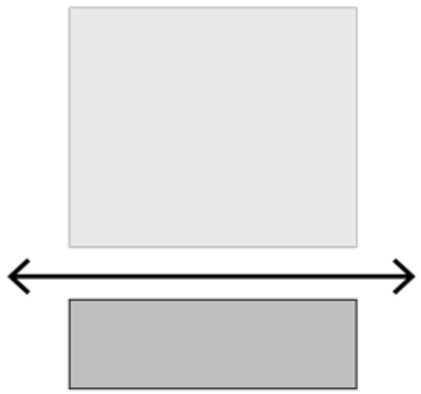
PLINTH

1 PODIUM



FLOATING

2 TOWER



SPACES IN BETWEEN

3 HOSPITAL STREET

Architectural Design

2. Facade Design

The massing and form of the new clinical services building is outlined in section 1. Four fundamental materials have been employed to achieve the vertical stratification of the overall built form: glass reinforced concrete, porcelain tiles, anodised aluminium sheeting and glass (with and without frit).

Two approaches have been explored - a unitised curtain wall system and a conventional stick system. In both instances, the façade has been designed in its vertical and horizontal breakdown to cater for either system and the varied internal functions.

Podium: Plinth (Subterranean Layer)
The podium plinth zone (levels 00-01), is composed of glass reinforced concrete sheeting in a proprietary system and a glazed shop front system. The material break-up reinforcess the strong horizontality of this 'subterranean layer'. This is further reinforced through the use of varying textural finishes and tonal shades of shale greys. Canopies to the ambulance and emergency entry is of the same material and are conceived as folded planes emerging from the main façade.

Podium: Intermediary Zone (Ground Cover Layer)
The podium, 'intermediary zone' (levels 2 to 5), consists of standard, varying profiled and flat porcelain tiles in a proprietary system. The tiles are fixed in a vertical orientation. Recessed openings are punched, with deep reveals, to emphasis the mass of this layer. All louvres and courtyard balustrades/ parapets are of the same material and finish but batten profiled.

A mix of matt and metallic glazed finishes of varying earthy tones mimic the 'ground cover' conditions of the local woodland. The vertical and horizontal façade breakdown is designed to cater for varied internal functional possibilities. The main sill datums for the vision panel height above the finished floor is 150mm, with possible sub sill datums within this of 450mm, 750mm or 1800mm. The spandrel zones vary in height of 1800mm or 2700mm (900mm tile module). The vertical datums are made up of a 300mm module (tile size) to accommodate an 8400 grid.

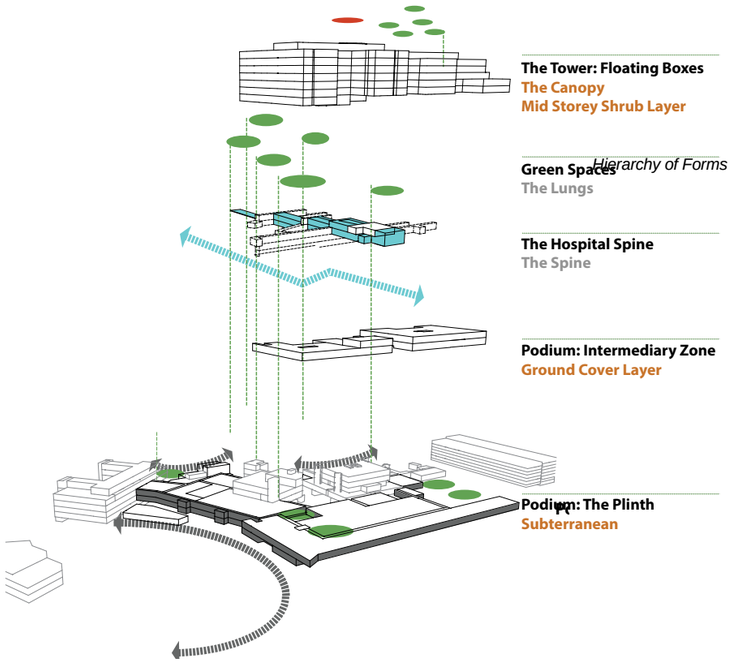
The level 2, southern façade employs a fully glazed shopfront system to open this face up along the main southern hospital entry. The main entry canopy and overhead bridge at level 3 are conceived as a singular folded element, to invite visitors into the main hospital entry.

Floating Tower (The Mid-storey Shrub Layer and Canopy Layer)
The upper floating towers, the 'mid-storey and canopy zone' is composed of anodised aluminium sheeting in a proprietary system. The sheet size is of a vertical makeup to accentuate the tower forms. Flush faced openings further emphasise this verticality and singular form. All louvres and courtyard balustrades/ parapets are of the same material or finish.

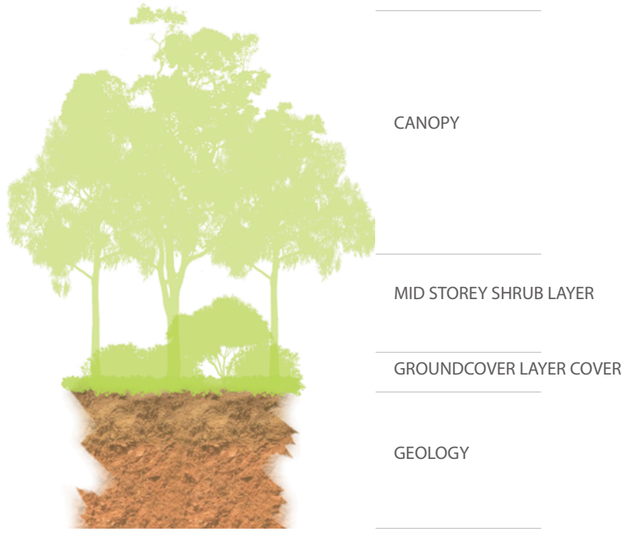
Varying colour tones graduating from silvery greys at the base to dappled blues and greens at the 'crown' draw inspiration from the local woodland and the movement from the transition of the 'midstorey' layer up to the 'tree canopy' layer. The building's upper parapet is irregular and angular (merging plant space and building), and breaks up the building's overall mass as it extends to the sky.

The vertical and horizontal façade breakdown is designed to cater for varied internal functional possibilities. This also allows any shading devices to form part of the system if required. The main sill datums for the vision panel height above the finished floor is 150mm, with possible sub sill datums within this of 450mm, 750mm or 1800mm. The spandrel zones vary from 1500mm to 2700mm in heinght. The vertical datums are made up from a 300mm module and vary from 1200mm to 900mm in width to accommodate an 8400 grid.

The facades between the tower fingers are recessive. These are composed principally to be fully glazed, with glazed spandrels (with coloured backpan with frit on glass). The vision panel zone would be a mix of clear or fritted glass. The design of the frit is based on the longitudinal cross-sectional, cellular structure (with cellular water intake) of the local tree species.

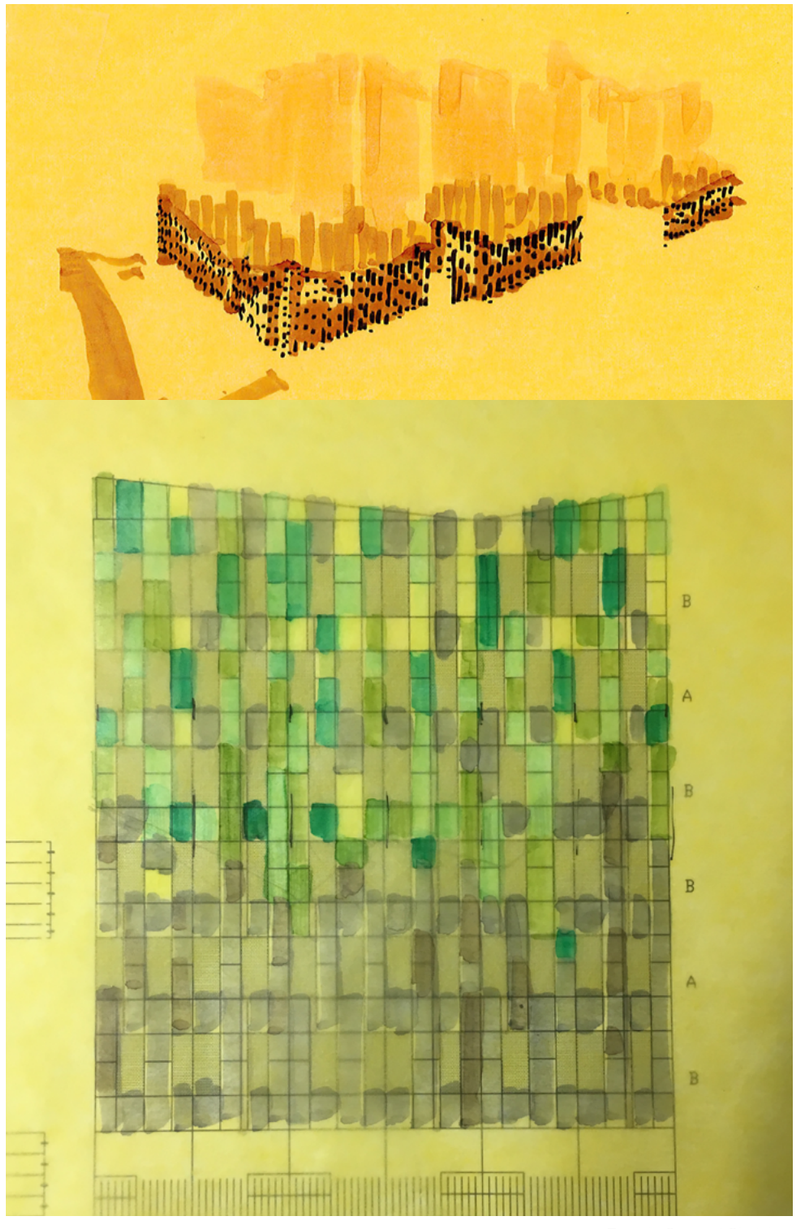


Hierarchy of Forms



Design Principles

Architectural Design



Facade Concept Sketches

In Between Spaces (Hospital Spine/Open Spaces)

The hospital spine is conceived as a roof and post structure. The roof, a series of skillions, allows northern light to enter the space through high level glazing. The walls are secondary elements, with an emphasis on merging the inside with the surrounding external green spaces. The glazed western facade is punctuated with pod-like structures, that activate this highly public space. The eastern wall is a combination of solid and glazed elements that in its entirety will be the main 'artwall' for the hospital. This element links the movement across varying levels and connects the southern and northern entries.

Accidental Colour

Building on the idea of 'flights of colour' that occur in a bushland setting by the sudden and fleeting burst of native flora and fauna, accidental colour permeates the hospital within incidental and unexpected spaces throughout the new build, including soffits and spaces between buildings. This aims to engage the senses as one moves through the built forms.

Note: Refer to Façade Engineering Consultant Report appendices for further details.

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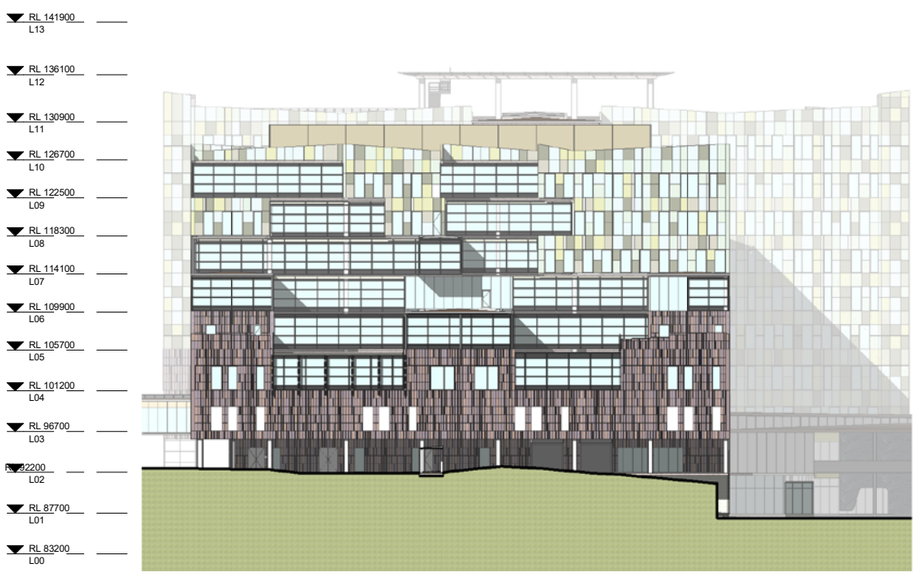
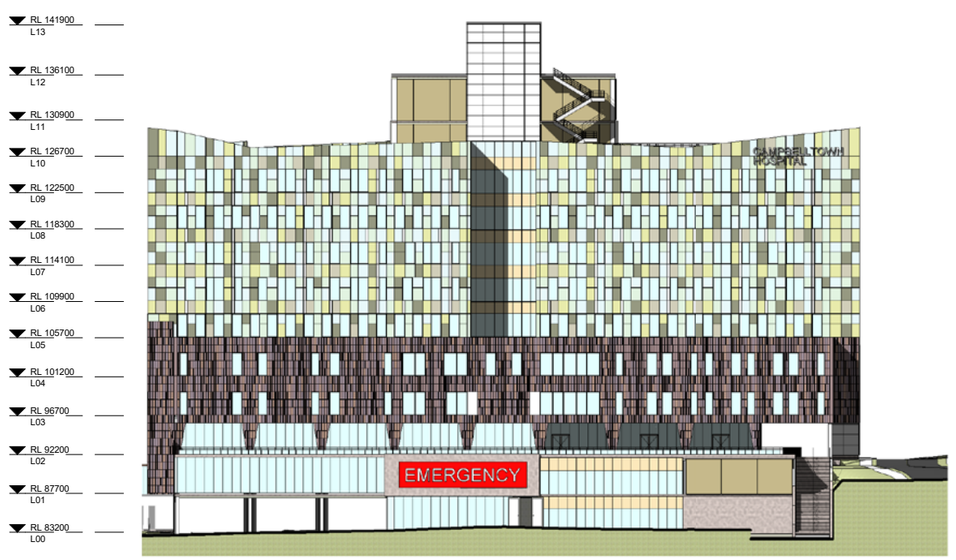
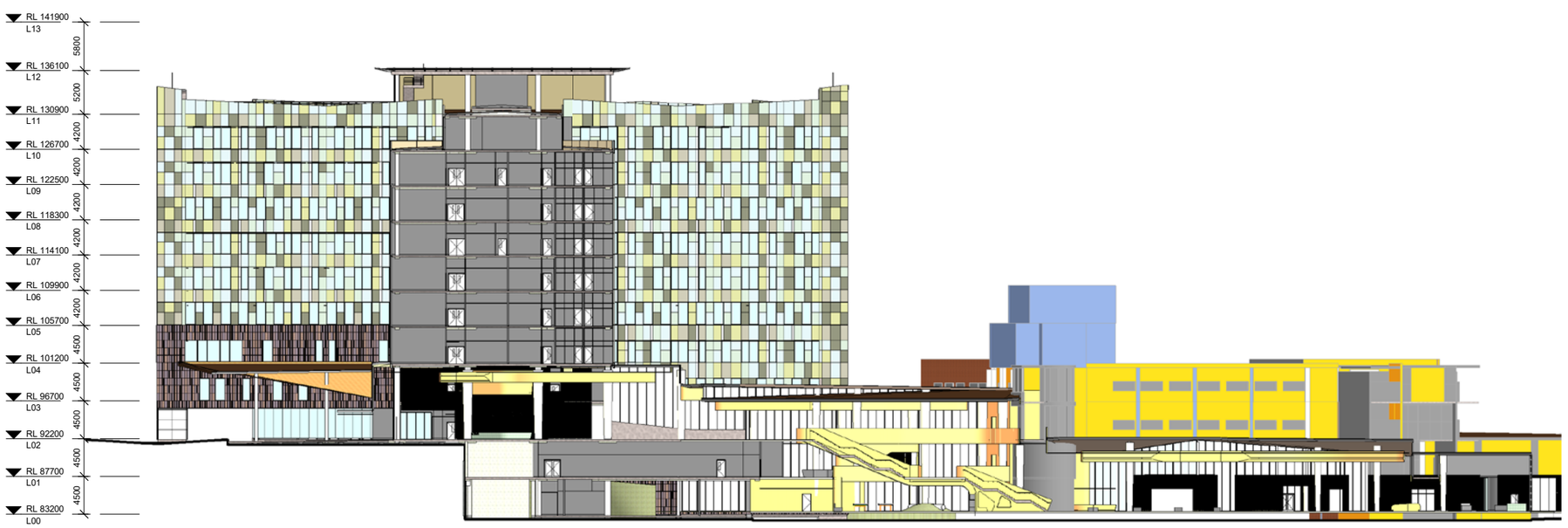


CS01 Elevation - East

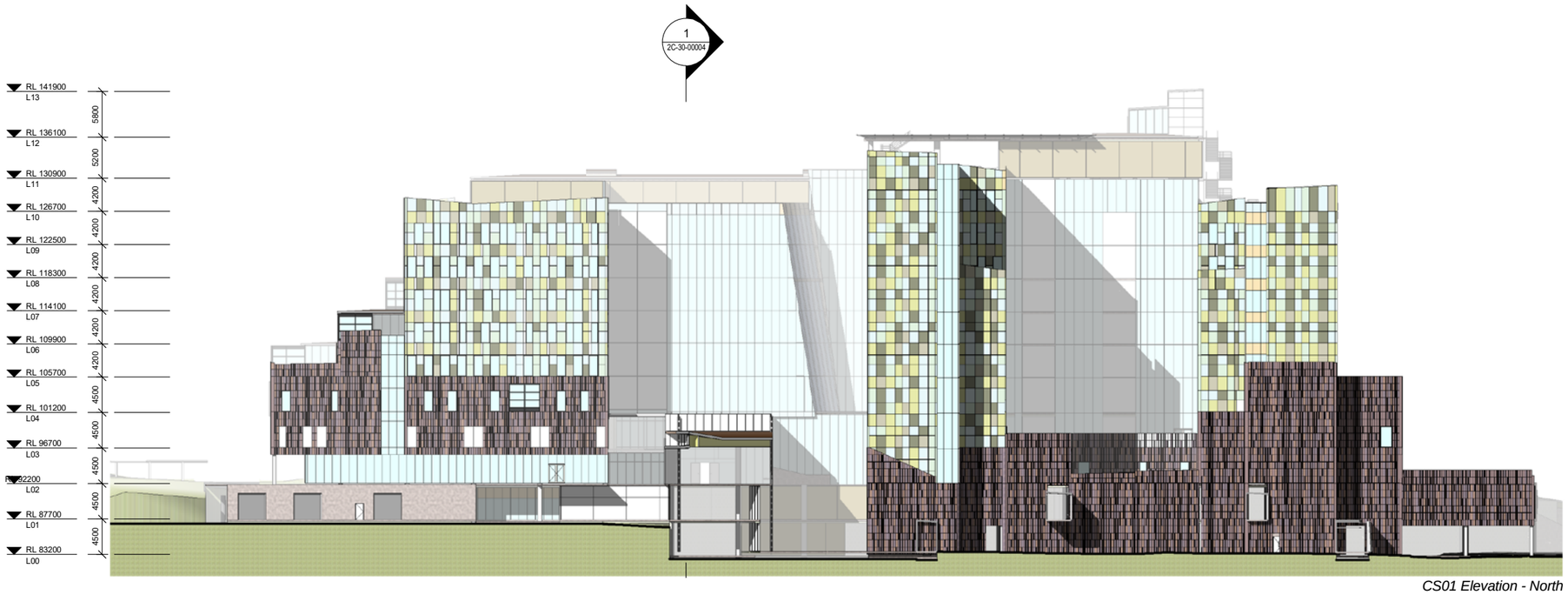


CS01 Elevation - West



CS01 Section - West (through Hospital Spine)

CS01 Elevation - South



CS01 Elevation - North