

THE SPIRIT OF BINNA BURRA

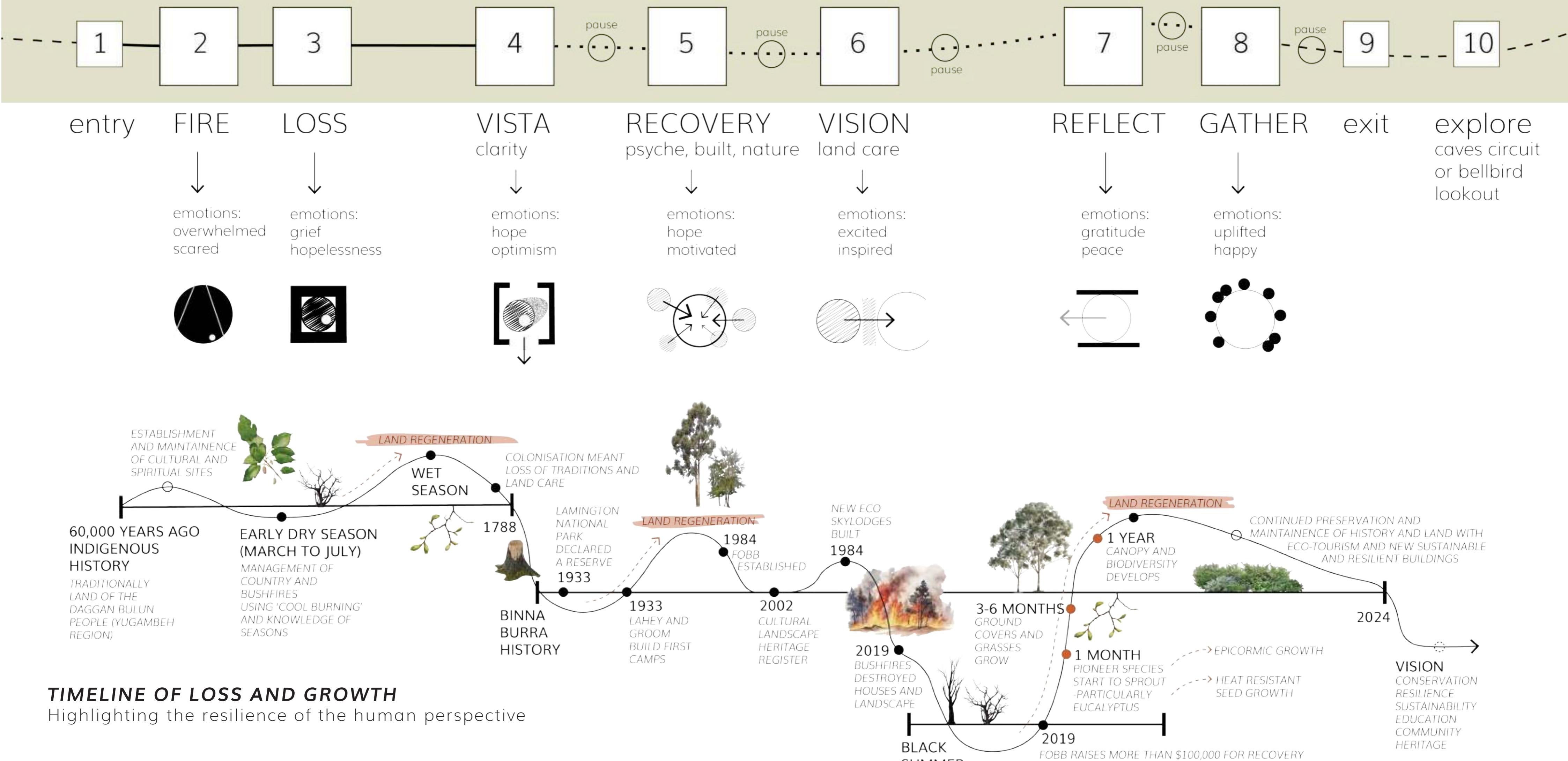
BUSHFIRE MUSEUM

The concept for the museum draws inspiration from the Circle of Fire. For place and people, fire brings destruction and growth. From these experiences arise new ways for people, and therefore place, to move forward, shaped by evolving perspectives.

PERSPECTIVE as a concept telling the bushfire narrative

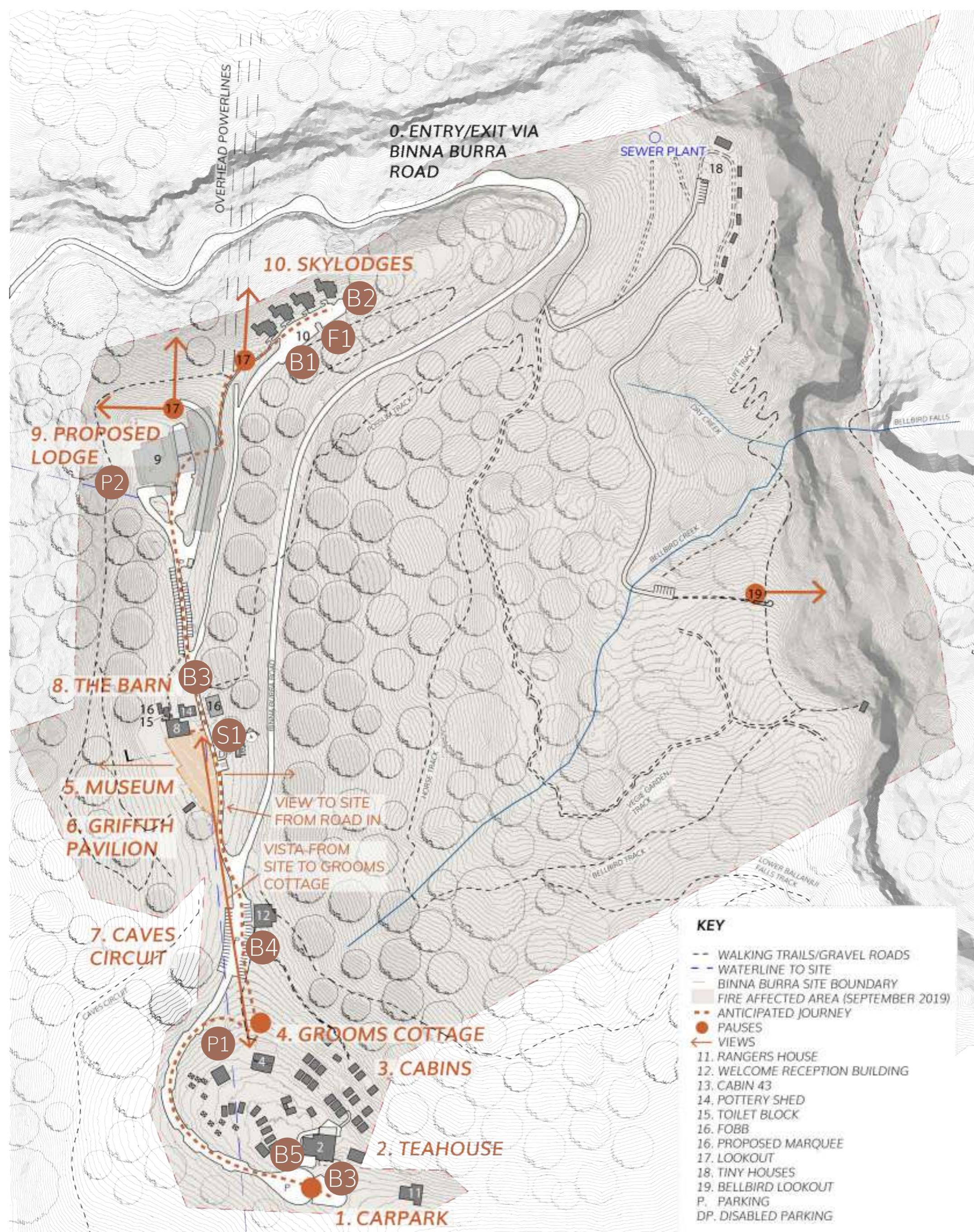
The concept of perspective represents the connection between **community perspective** and **progression of place** in terms of belonging, built environment, and land care (indigenous practices). The museum reflects the people's journey from loss, to growth, to reflection through **specific views, courtyards, and circulation**.

The idea of "vista" is used figuratively and physically to symbolise the process of gaining perspective, achieving clarity, and **looking beyond** the immediate aftermath of trauma. It reflects the personal journeys of recovery and overwhelming community resilience experienced by the people in Binna Burra following the Black Summer bushfires in 2019. The museum seeks to capture this spirit - seeing beyond destruction, using **memory** as a **motivator to move forward**.



TIMELINE OF LOSS AND GROWTH

Highlighting the resilience of the human perspective



LOCATION PLAN



0 25 50 75

125m 1:2500

MATERIAL ANALYSIS

BUILDINGS



WAYFINDING - FENCING, SIGNAGE & PATHWAYS



Pioneer species grow first after a bushfire.

PLANTING

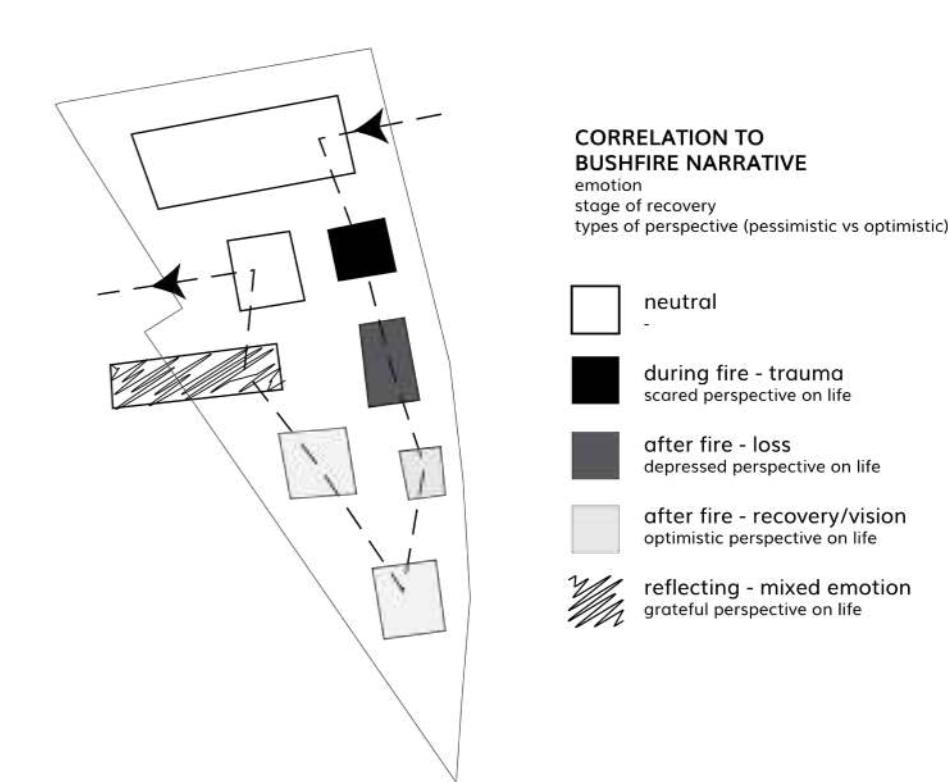


THE JOURNEY

The journey starts before the museum, taking the visitor through key historical and cultural moments such as the tea house and grooms cottage, allowing them to take in the surroundings as they are before entering the museum.

After exiting the museum, the visitor is guided towards the rest of the site, in direction of the lodge, to explore Binna Burra's nature and re-gain a positive outlook after the museum.

THE MUSEUM EXPERIENCE



PRECEDENT 01:

Glenstone Museum Pavilions

Architect: Thomas Phifer & Partners

When: 2018

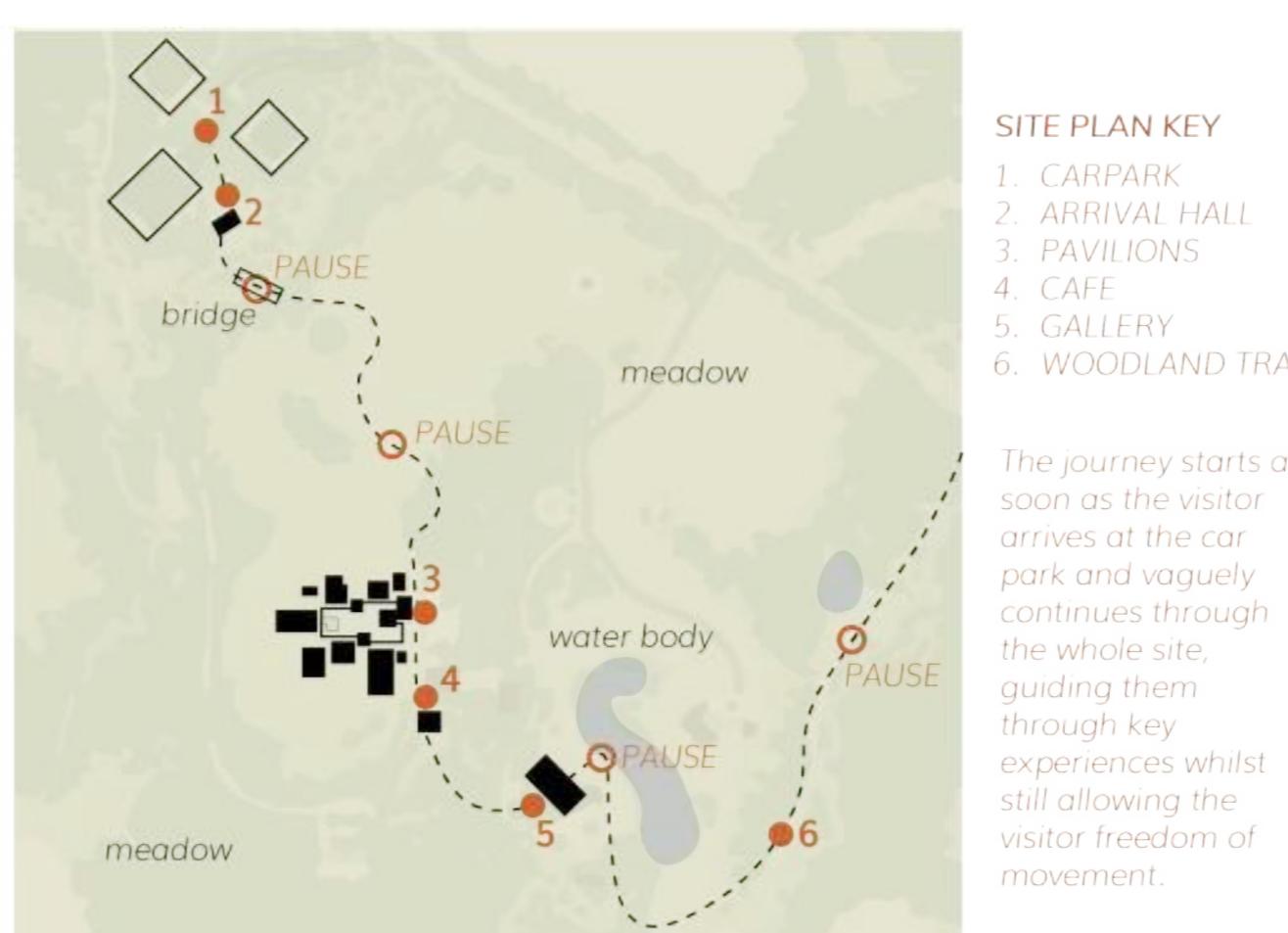
Where: Maryland, USA

Program: Post World War II Museum

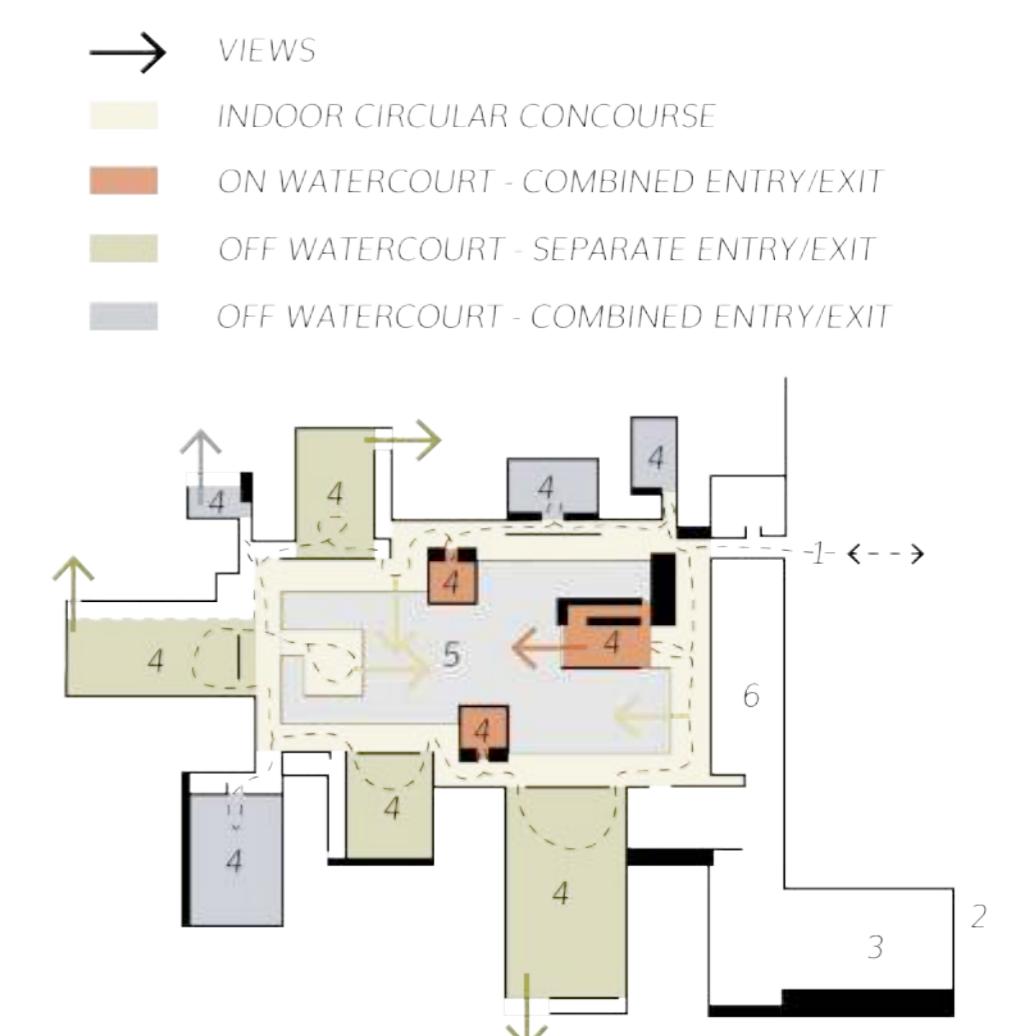
Takeaways: Concept, design principles, journey



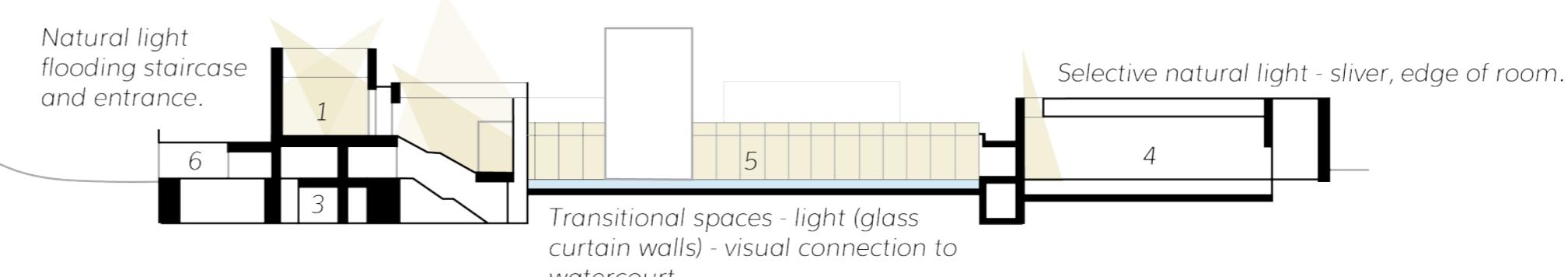
View to Glenstone Pavilions capturing the journey



SITE PLAN - JOURNEY, SEQUENCE OF EXPERIENCES



GALLERIES FLOOR PLAN - LAYOUT, CIRCULATION, CONNECTION

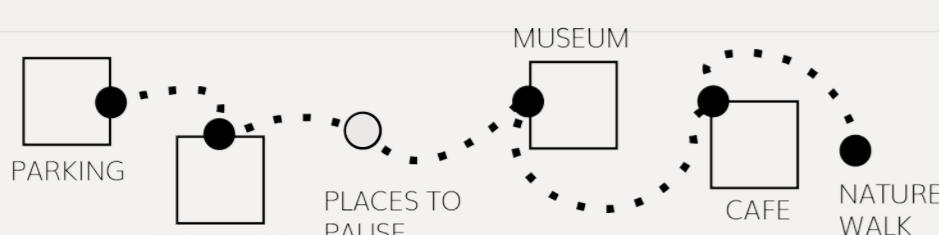


PROGRAM KEY

- 1. VISITORS ENTRANCE
- 2. STAFF ENTRANCE
- 3. MECHANICAL
- 4. GALLERIES
- 5. WATERCOURT
- 6. ADMINISTRATION

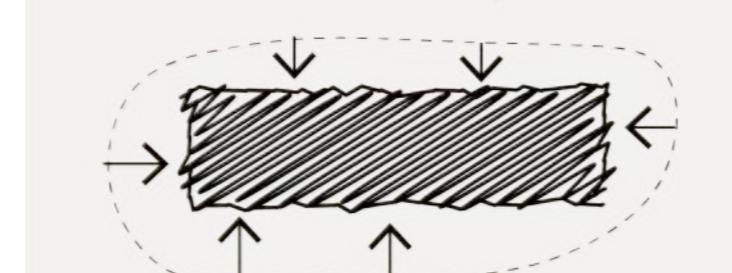
TAKEAWAY FOR BUSHFIRE MUSEUM:

Journey through site



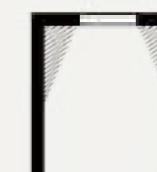
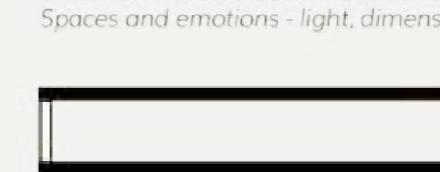
TAKEAWAY FOR BUSHFIRE MUSEUM:

Circulation and layout



TAKEAWAY FOR BUSHFIRE MUSEUM:

Spaces and emotions - light, dimensions



PRECEDENT 02:

Bruder Klaus Field Chapel

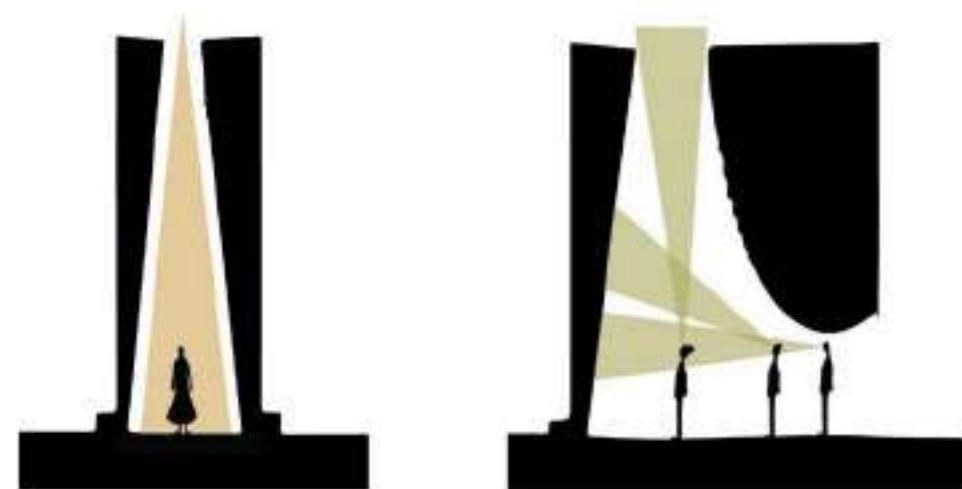
Architect: Peter Zumthor

When: 2008

Where: Mechernich, Germany

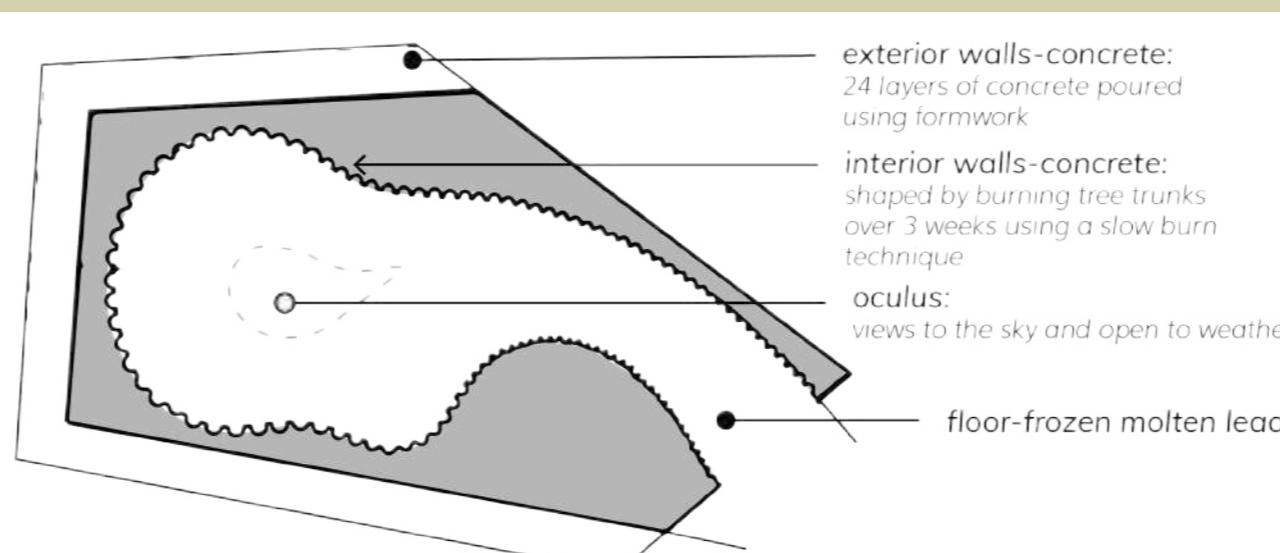
Program: Chapel/memorial

Takeaways: Structure, construction, storytelling

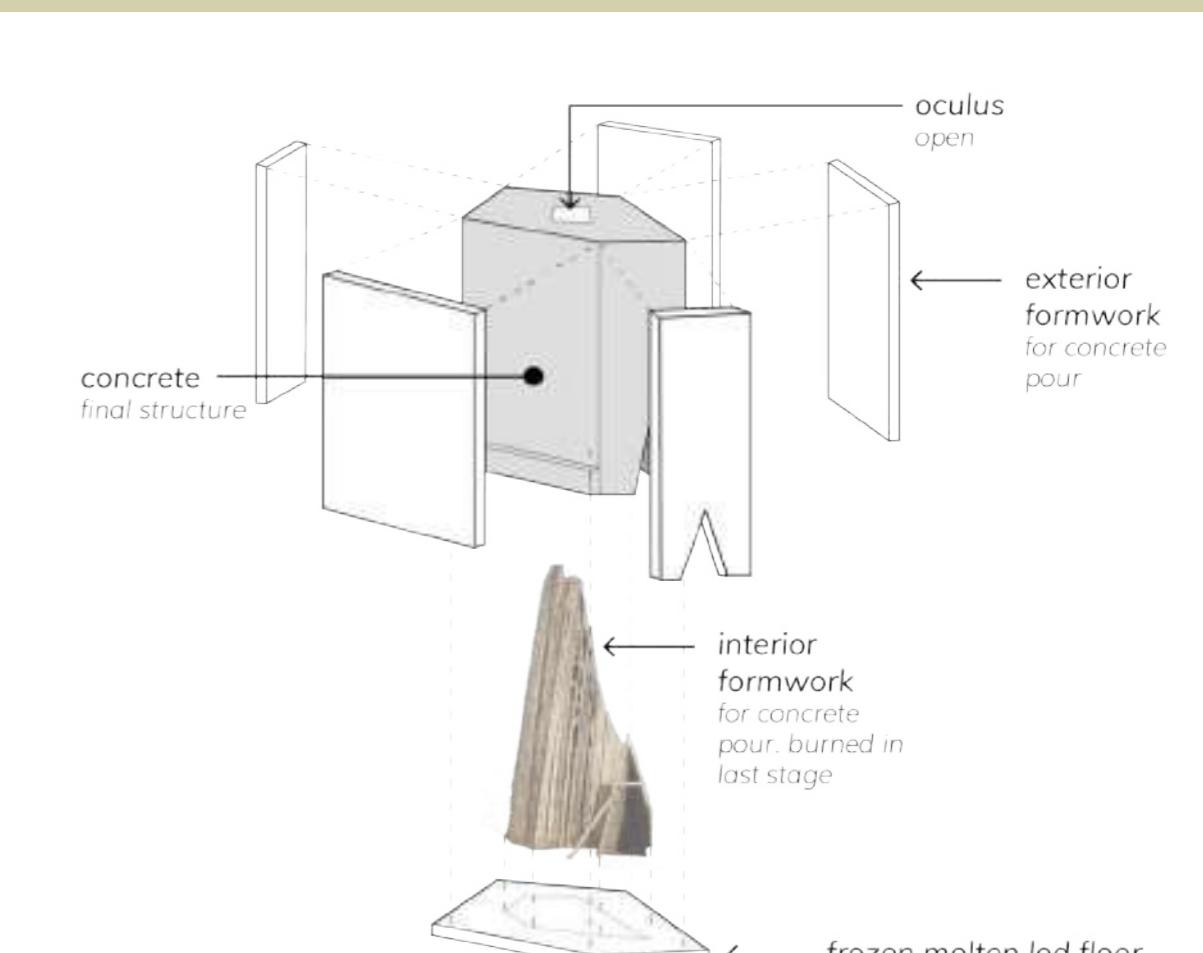


LIGHT
belittling, overwhelming, awe

VIEWS
view pulled upwards by directionality



FLOOR PLAN - materials



EXPLODED AXONOMETRIC OF STRUCTURE BEFORE BURNING
showing exterior formwork, concrete, and tree trunk interior formwork



TAKEAWAY FOR BUSHFIRE MUSEUM:

materials



hardwoods
burn slower
than softwoods,
making them
suitable for fire
prone areas for
some elements

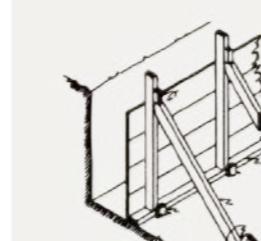


rammed
concrete

another option:
rammed earth

TAKEAWAY FOR BUSHFIRE MUSEUM:

statement construction



slow layering of concrete in
timber formwork gives the
concrete a wooden texture



TAKEAWAY FOR BUSHFIRE MUSEUM:

form - perspective



the building represents as a cube
from the outside but the perspective
you see from the inside is much
different, this represents the different
perspectives you see depending on
where you are

PRECEDENT 03:

Wye River House

Architect: MGAO

When: 2020

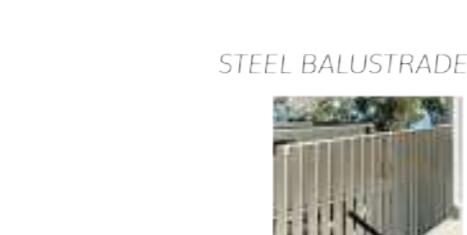
Where: Wye River, Victoria, Aus

Program: Residential

Takeaways: Construction, materials, grids



LARGE WINDOWS
- NATURAL LIGHT
- VIEWS

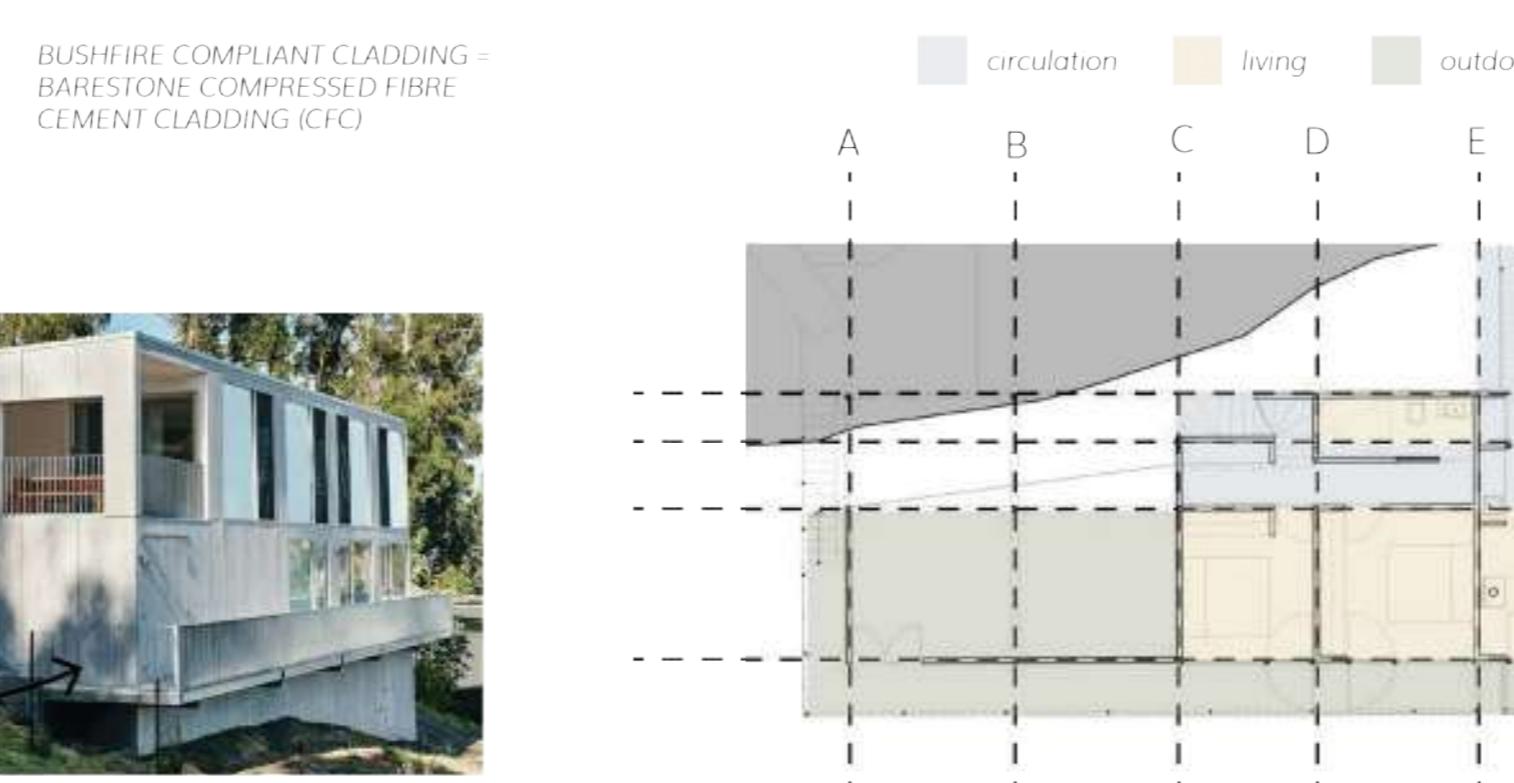


TREATED TIMBER DECKING



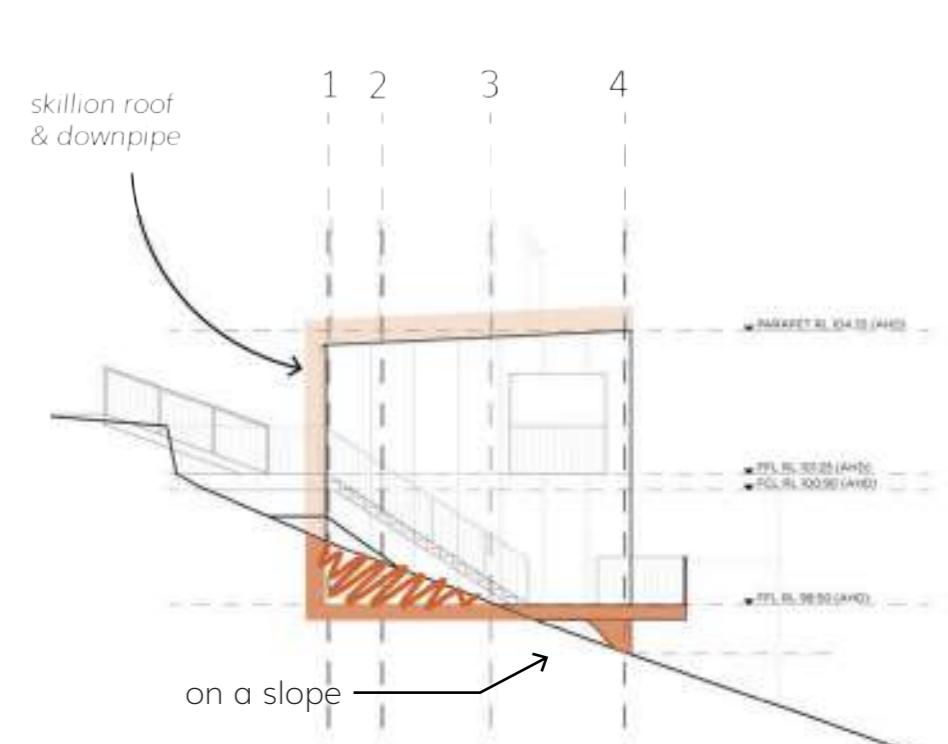
MATERIALS

AS3959 COMPLIANT MATERIALS PROTECTING THE
EXTERIOR. INTERIOR SPACES PROVIDE A CALMING,
COASTAL FEEL.



FLOOR PLAN - grids and zones

GRIDS USED TO PROVIDE STRUCTURE AS WELL AS ORGANISE ROOMS AND CIRCULATION.



SECTION - construction on slope, roof condition

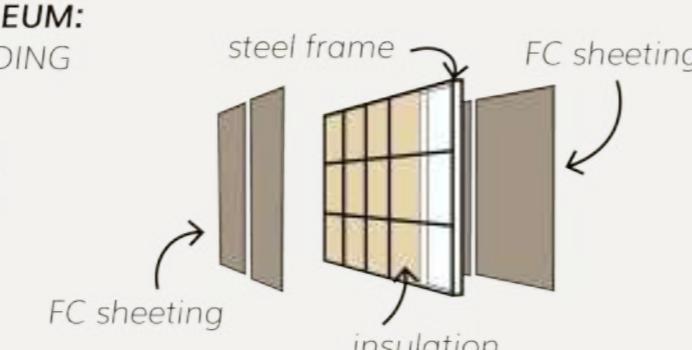
CUT AND FILL, TERRACING



TAKEAWAY FOR BUSHFIRE MUSEUM:

materials - FIBRE CEMENT CLADDING

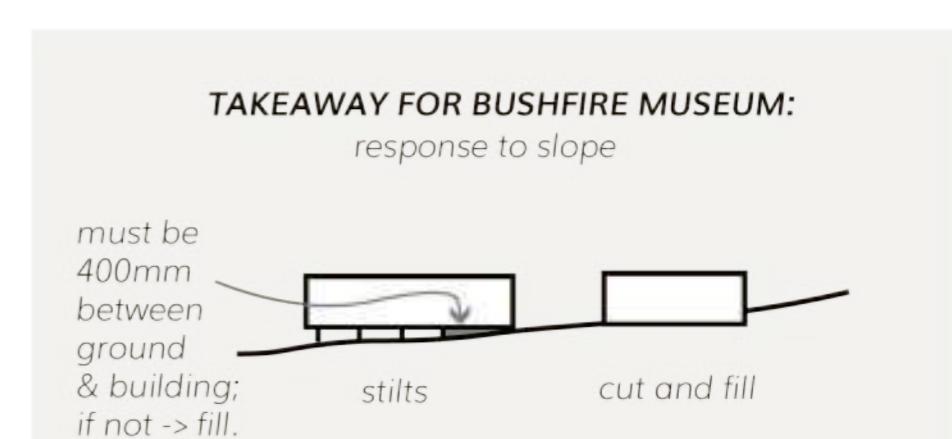
FC can be used in
bushfire zones up
to BAL 40 for
external walls
(cemintel.com)



TAKEAWAY FOR BUSHFIRE MUSEUM:

grid organisational strategy

clear
distinction
between
spaces
and
pathways



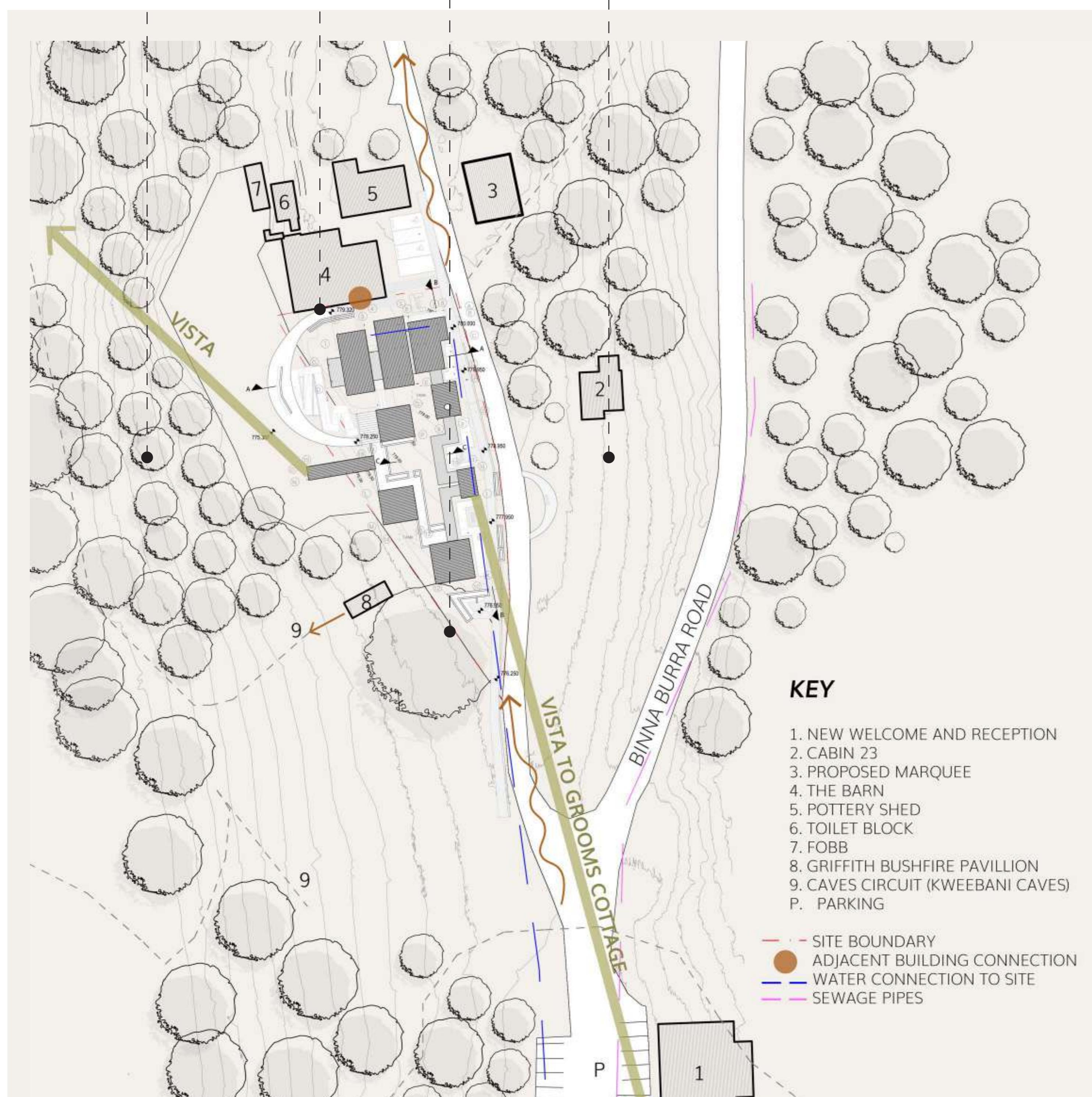
TAKEAWAY FOR BUSHFIRE MUSEUM:

response to slope

must be
400mm
between
ground
& building;
if not -> fill
stilt
cut and fill

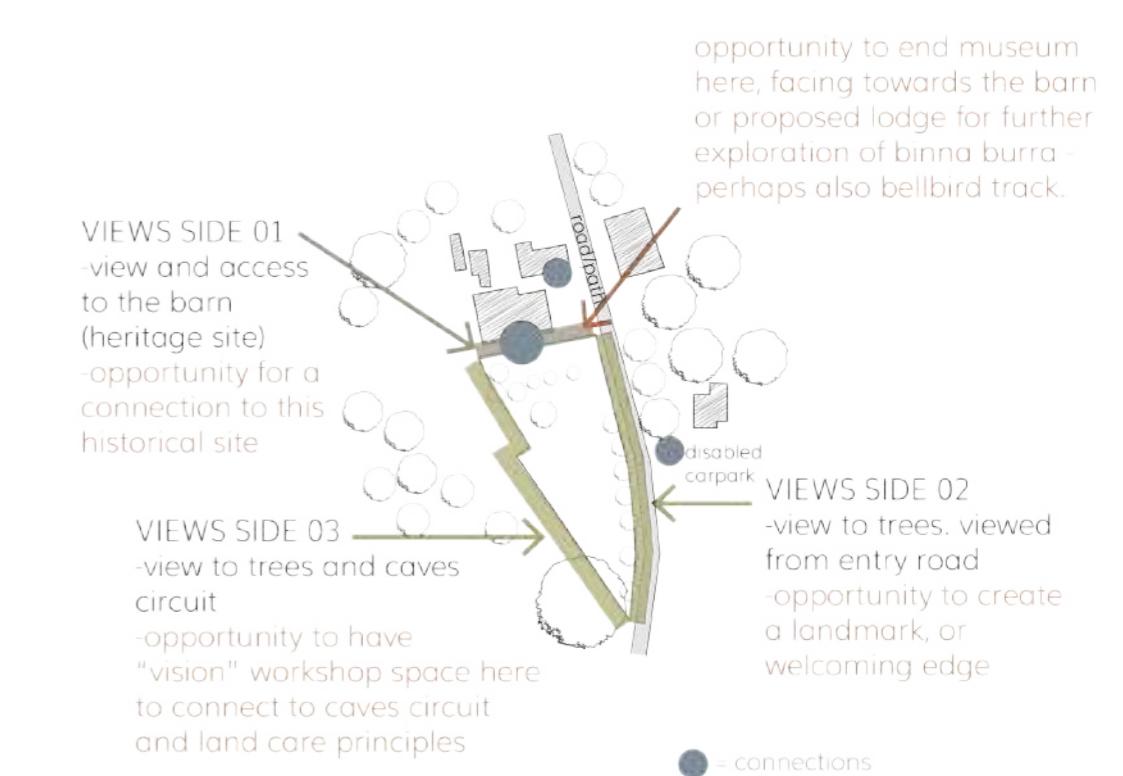
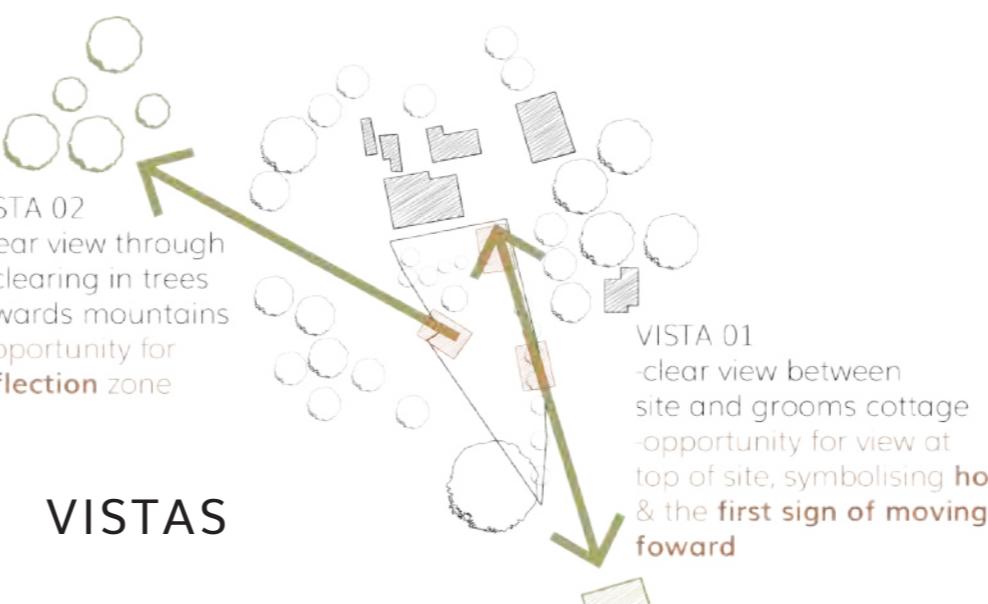
VIEWS, VISTAS, EDGES & CONNECTIONS - site analysis

VIEWS



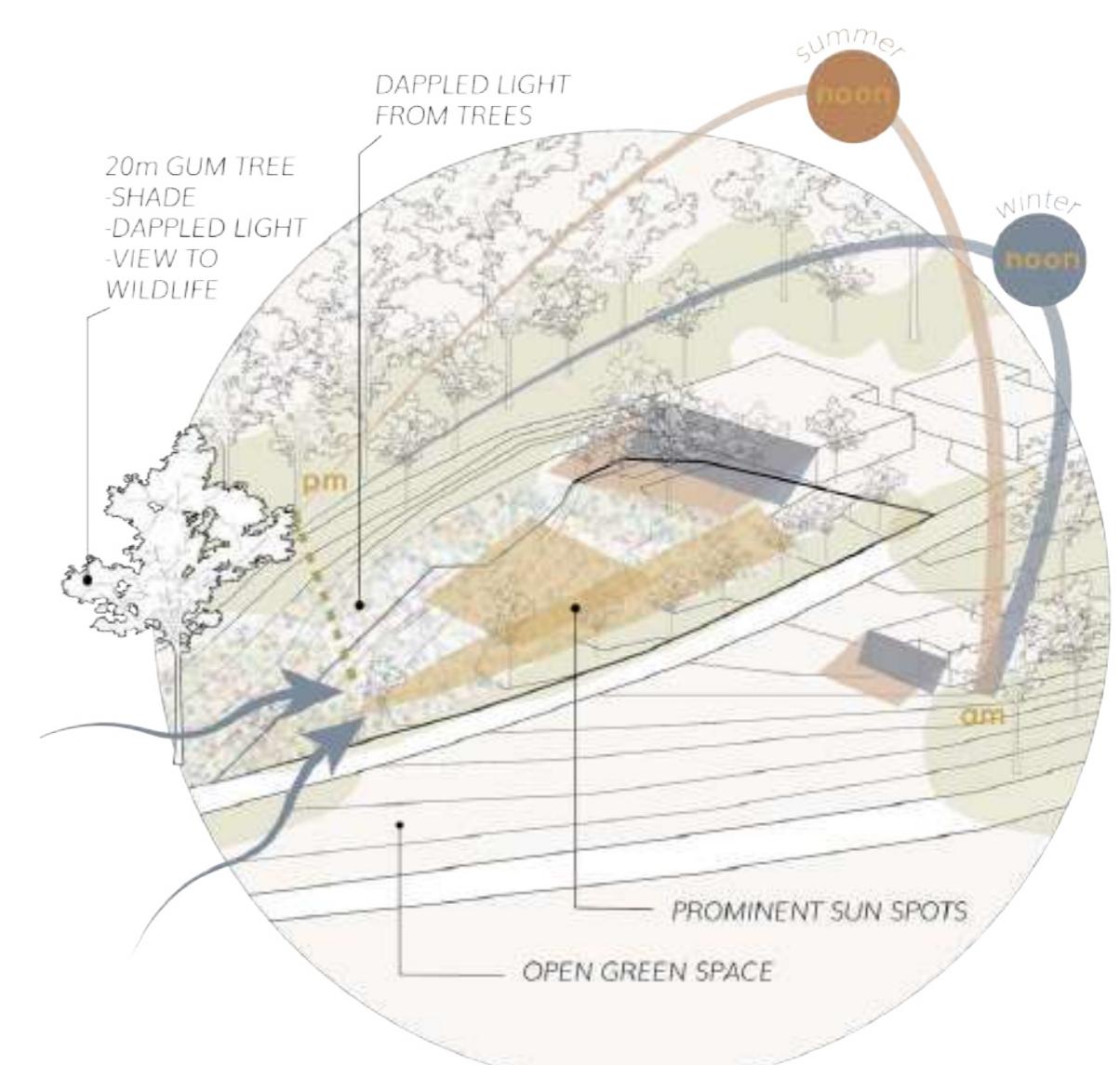
SITE PLAN 0 5 10 15 20m 1:500

EDGES & CONNECTIONS (visually/physically)

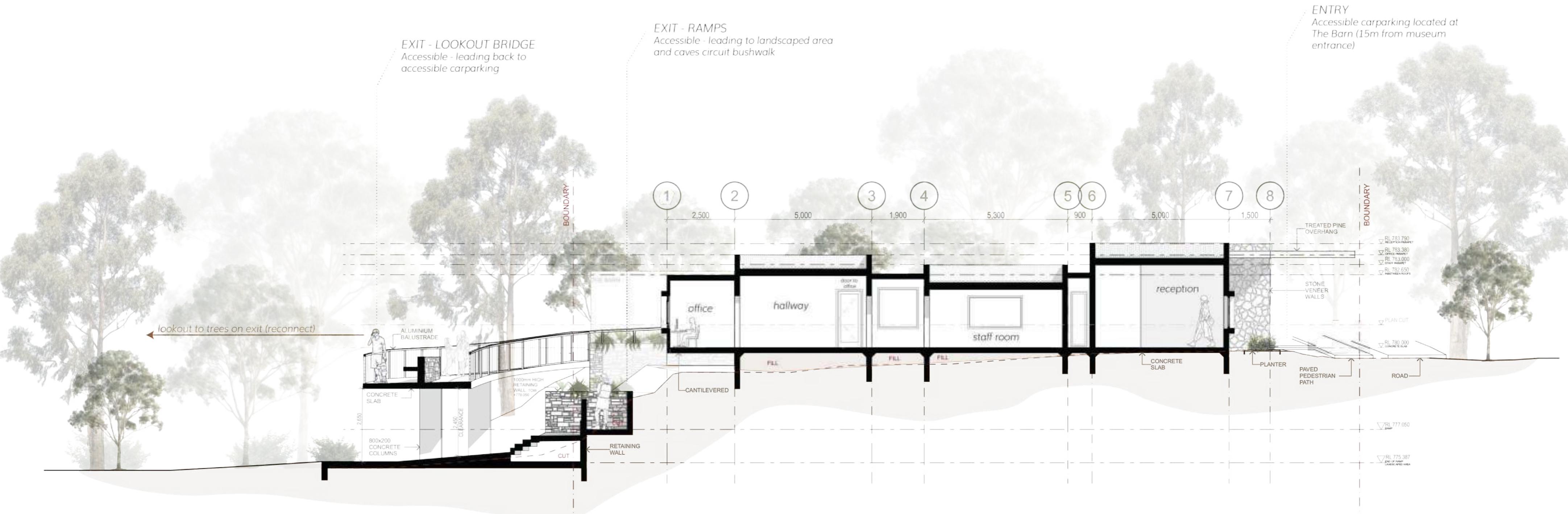
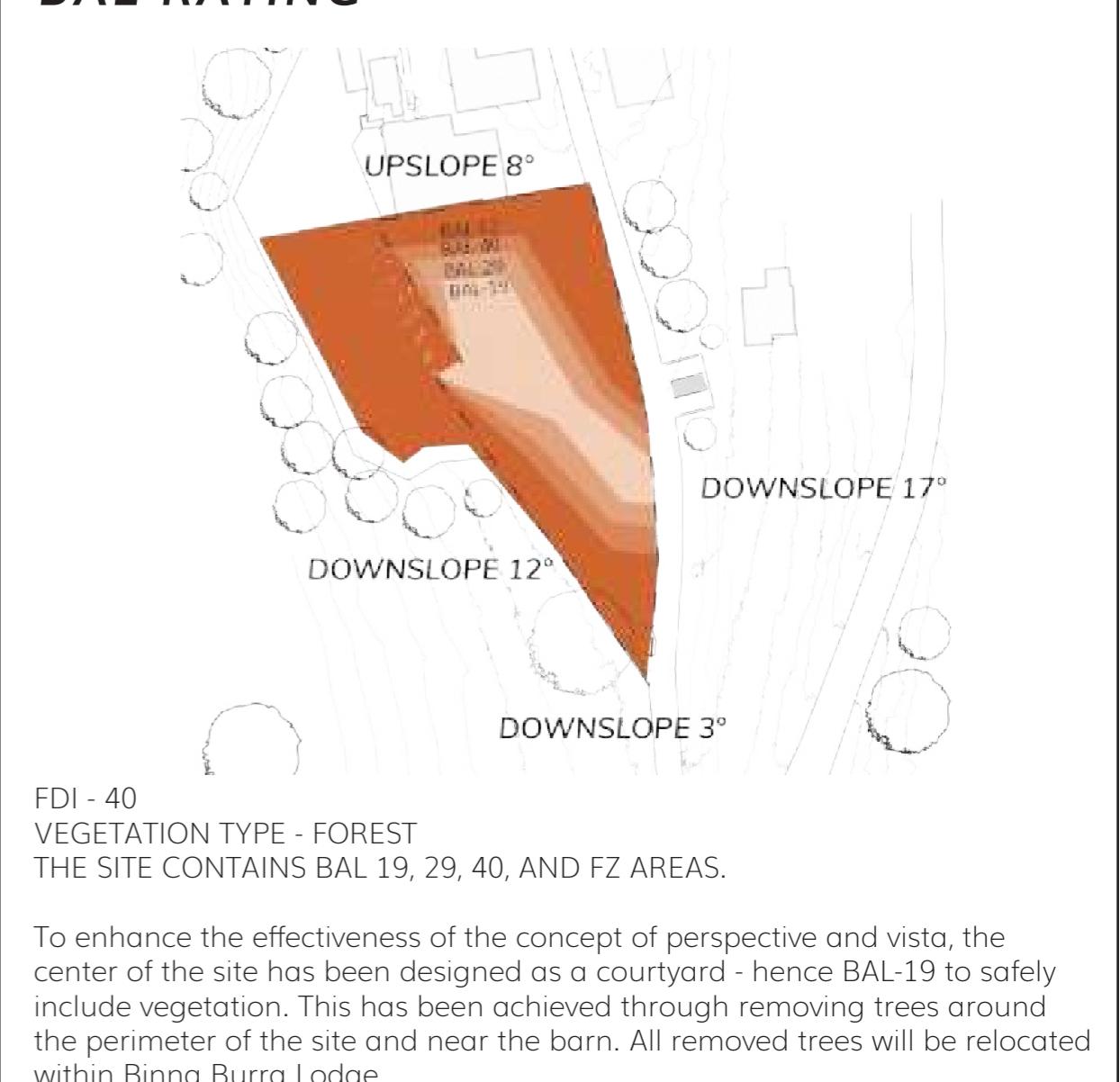


CLIMATE ANALYSIS - site analysis

SUN, SHADE & WIND

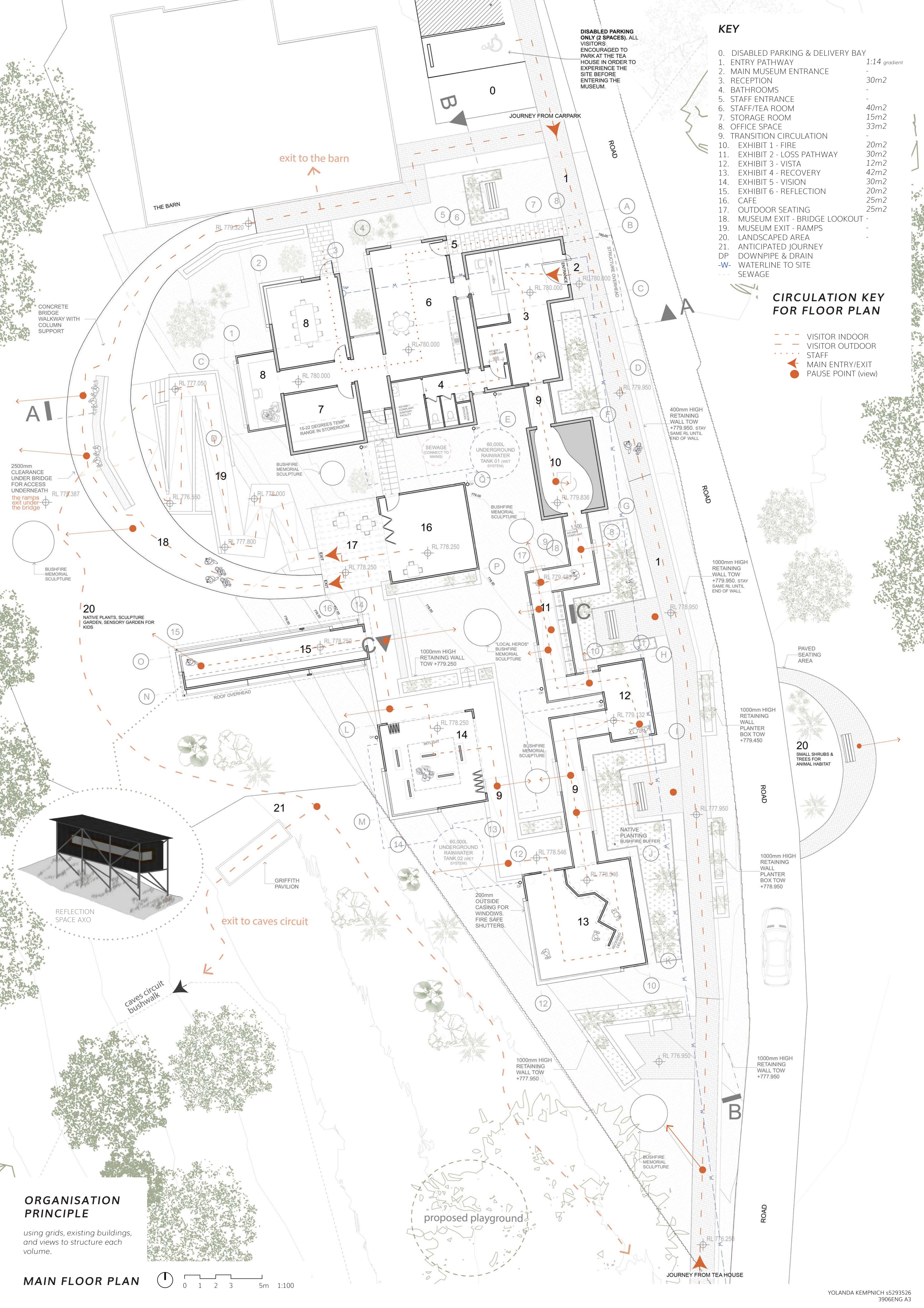


BAL RATING

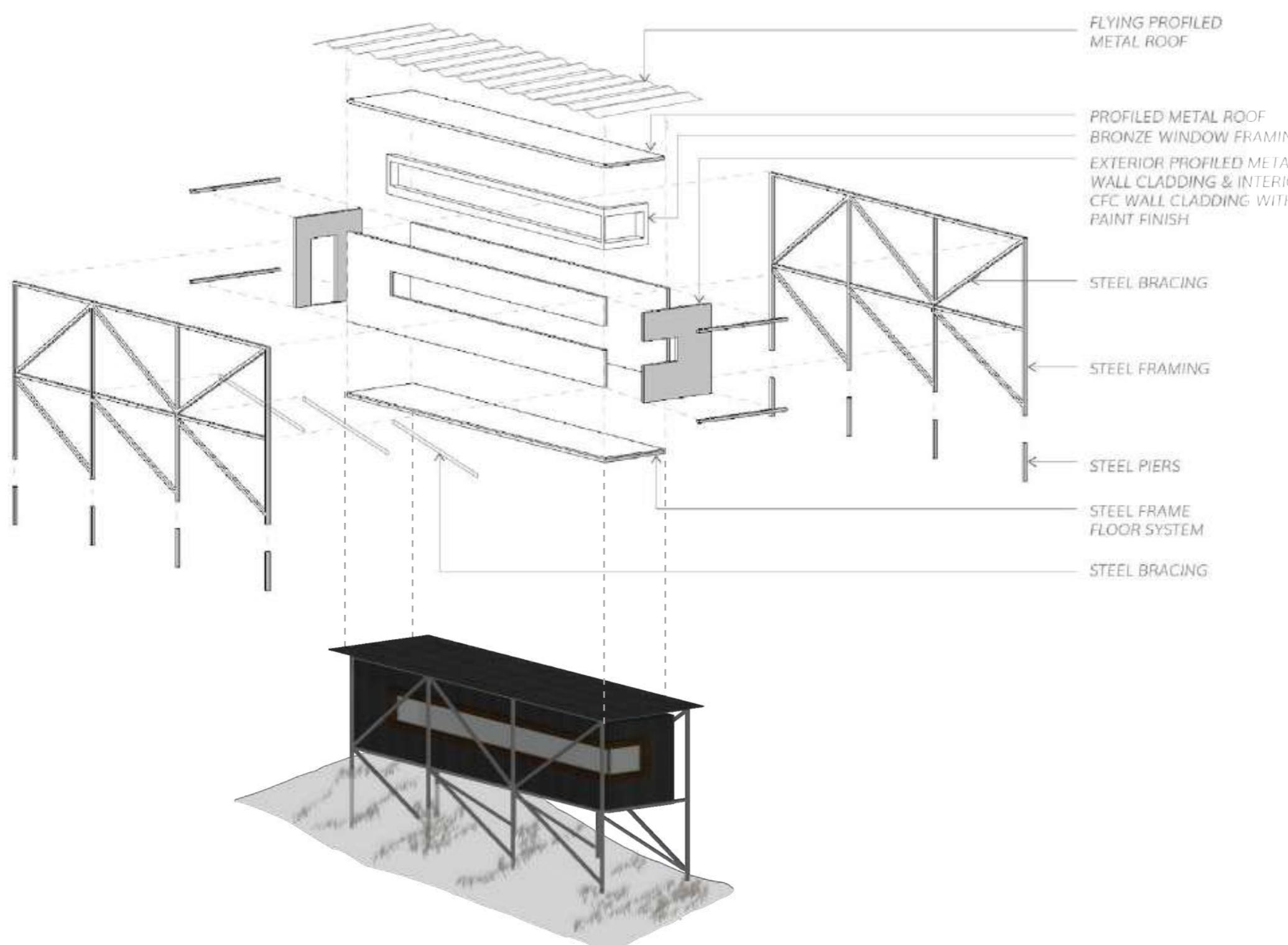


SECTION A

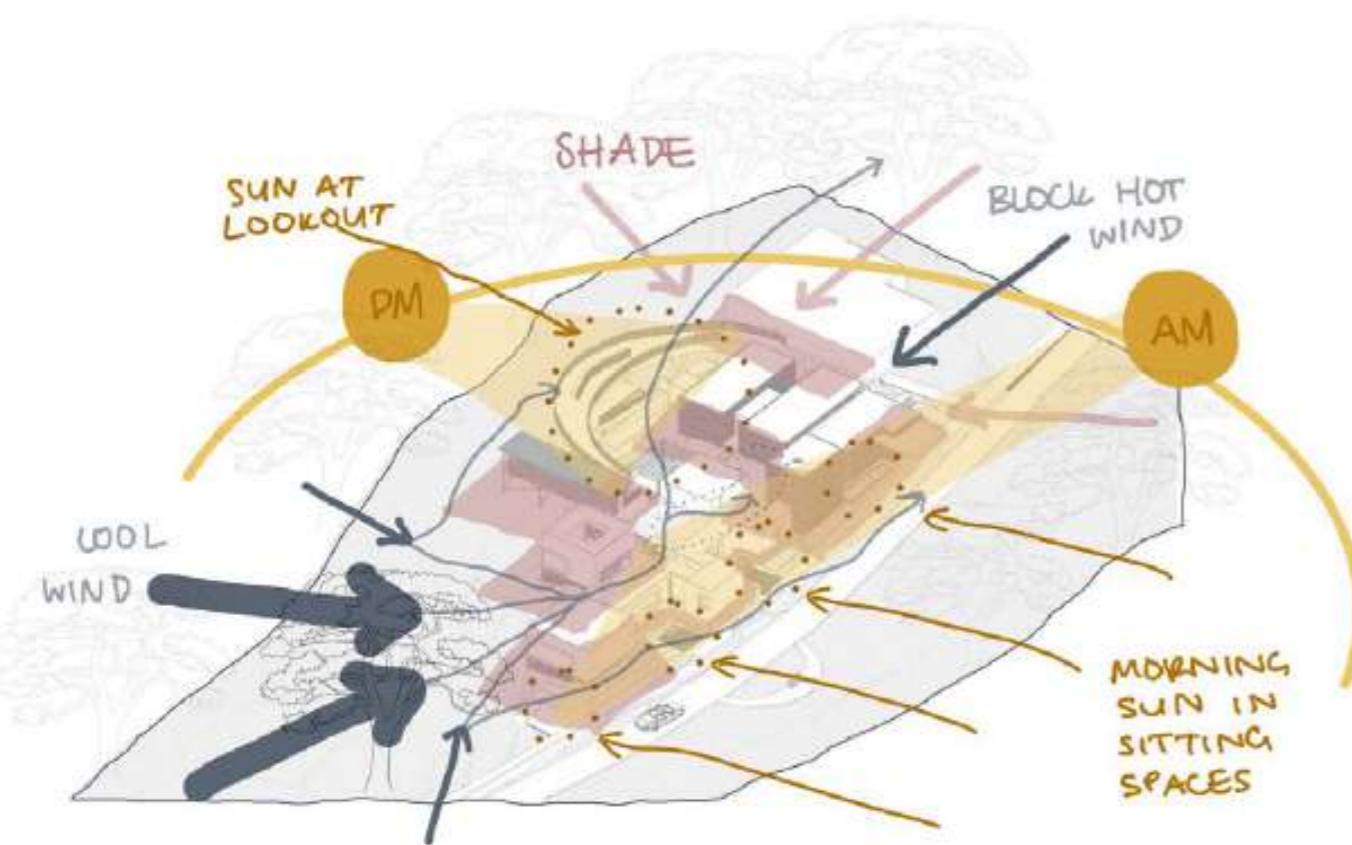
- entry and exit points



REFLECTION EXHIBITION EXPLDED AXONOMETRIC



PASSIVE DESIGN CLIMATE ANALYSIS AND SPATIAL ARRANGEMENT

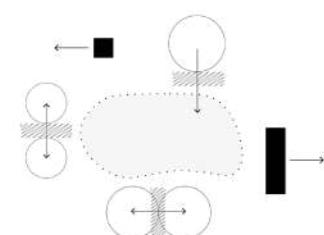


SUN: Morning sun enters the pockets of seating spaces on the eastern side, creating "private" places to sit in the morning before a bushwalk, or waiting for friends before the museum. The lookout/exit path captures the mid/afternoon sun as a relaxing finish to the museum experience.

SHADE: Shade is created along the entrance path to provide visitors with a comfortable place to wait out of the hot sun.

WIND: Openings on the southern end of the site allow passive ventilation and cooling through the courtyard and outdoor spaces (cafe, lookout).

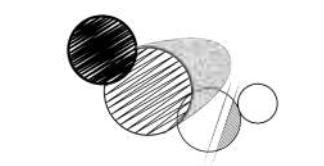
DESIGN PRINCIPLES



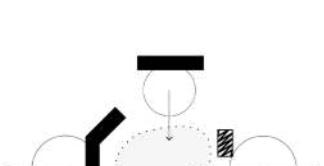
FUSION AND SEPARATION



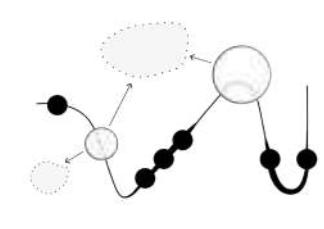
PAST AND PRESENT



LIGHT AND DARK



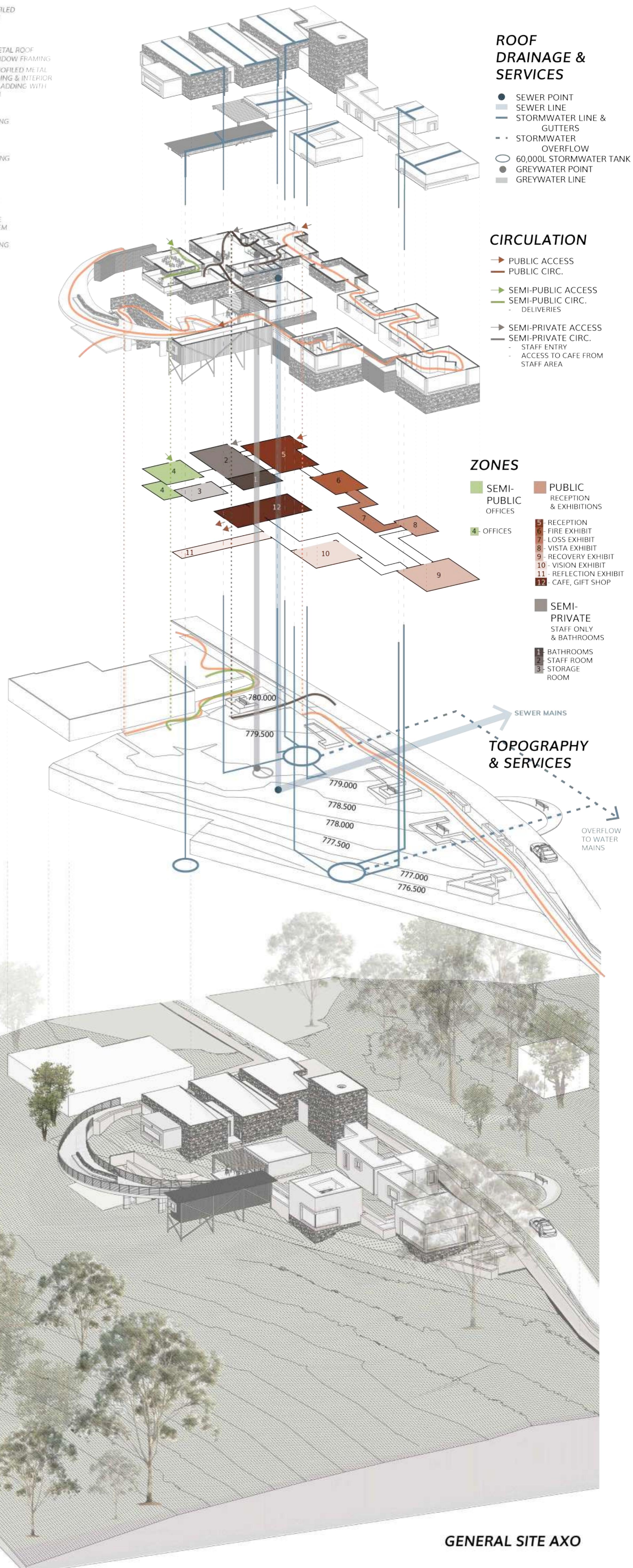
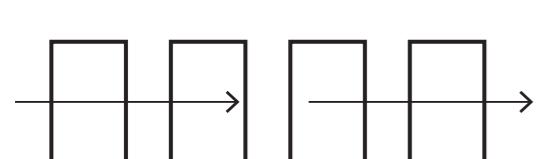
OPENNESS AND ENCLOSURE



PAUSE AND MOVEMENT

CIRCULATION: LINEAR CHAINING

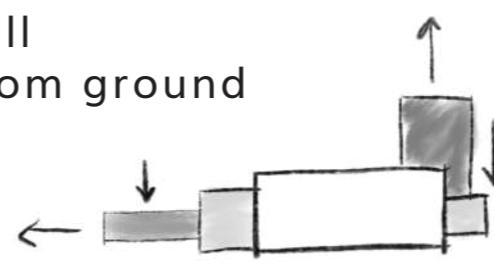
linear pathways used to guide visitors through a specific sequence of events to evoke emotion and tell a unique and purposeful narrative.



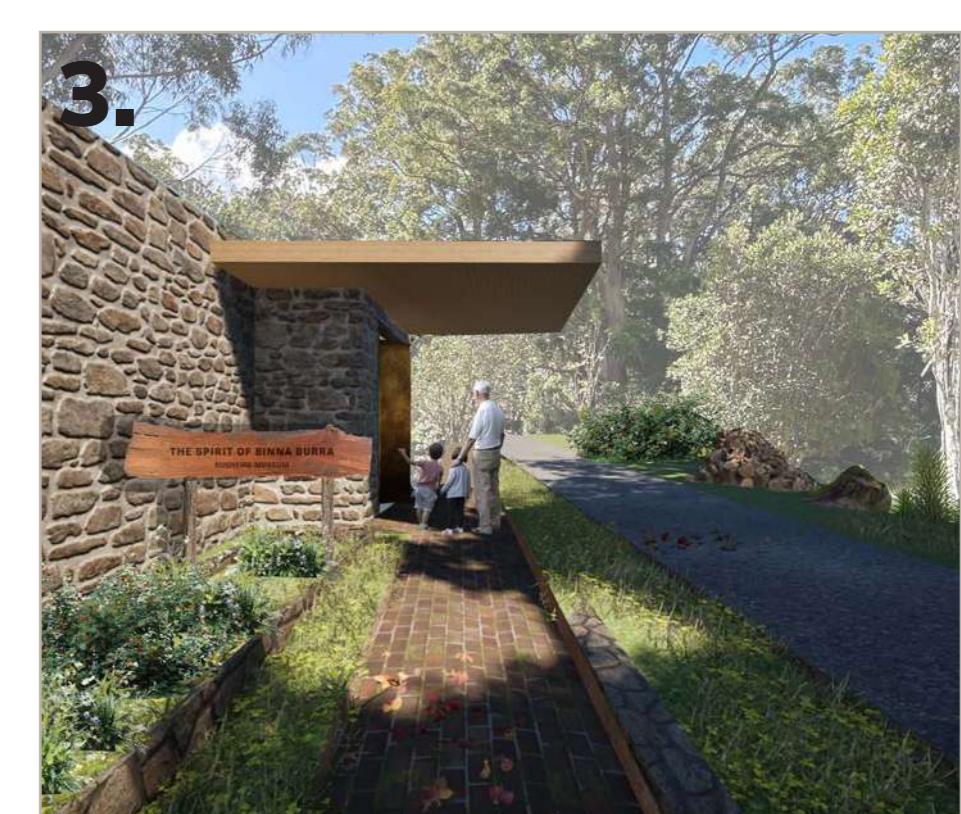


EXTERIOR JOURNEY PERSPECTIVE - VIEW FROM THE PATHWAY TO THE MUSEUM

volumes from a distance
 - push and pull
 - extruding from ground



EXTERIOR JOURNEY PERSPECTIVE



EXTERIOR JOURNEY PERSPECTIVE

PROPOSED MATERIALS

REFERRED TO WYE RIVER HOUSE & ROSEDALE BEACH HOUSE PRECEDENT STUDIES,
 AS3959, & BAL RATING REQUIREMENTS - all are non-combustable/fire treated

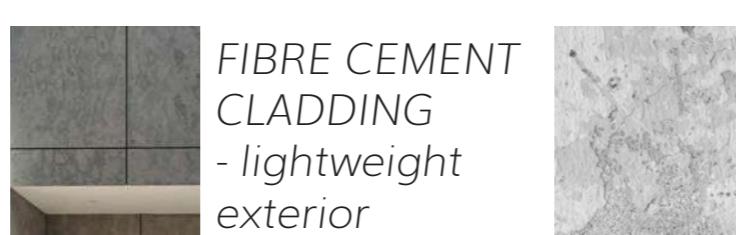
BUILDINGS



STONE
 - feature building material



PROFILED STEEL
 - roofing
 - structure

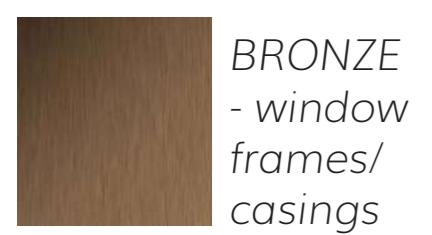


FIBRE CEMENT CLADDING
 - lightweight exterior cladding



CONCRETE
 - footings
 - slabs

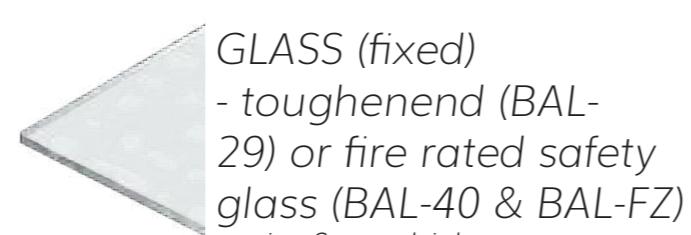
OPENINGS - WINDOWS & DOORS



BRONZE
 - window frames/
 casings



STEEL DOOR FRAMES
 (including fixings)
 - min. 1 hour fire rating



GLASS (fixed)
 - toughened (BAL-29) or fire rated safety glass (BAL-40 & BAL-FZ)
 - min. 6mm thick

WAYFINDING - SIGNAGE & PATHWAYS



TREATED PINE (BAL-40)
 - signage
 - interiors
 - entrance



STONE
 - pathways
 - retaining walls



BRICK
 - pathways
 - retaining walls

PRECEDENT 04:

Rosedale Beach House

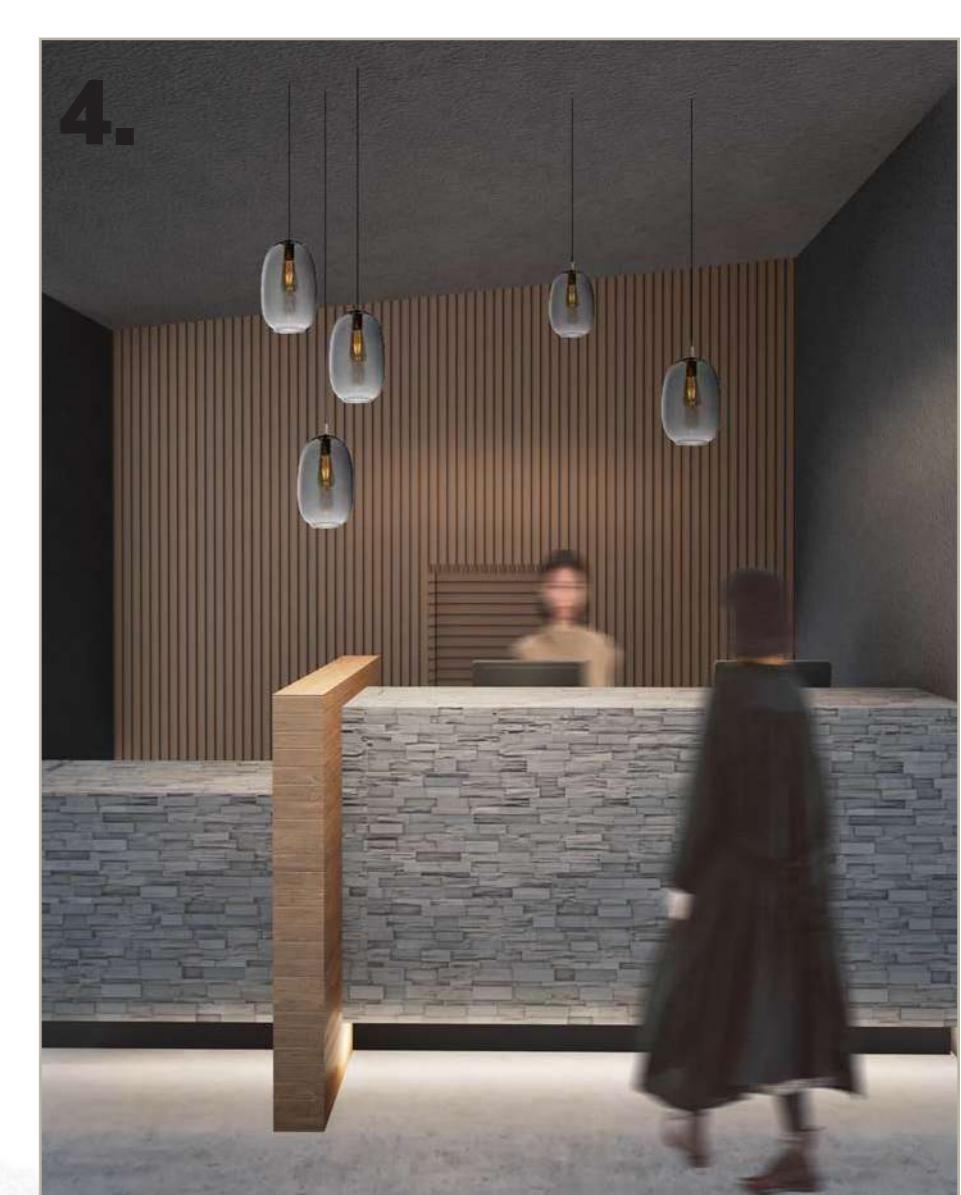
Architect: Thomas Caddaye Architects

PROOF OF EFFECTIVENESS OF MATERIALS:

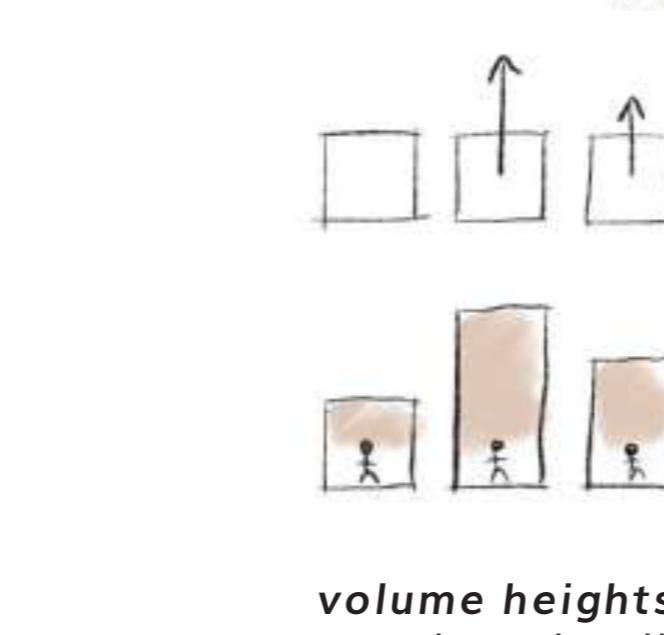
This house also uses FC cladding, steel framework/piers, and metal roofing and survived a bushfire with minimal damage.



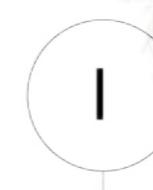
Steel piers responding to the slope.



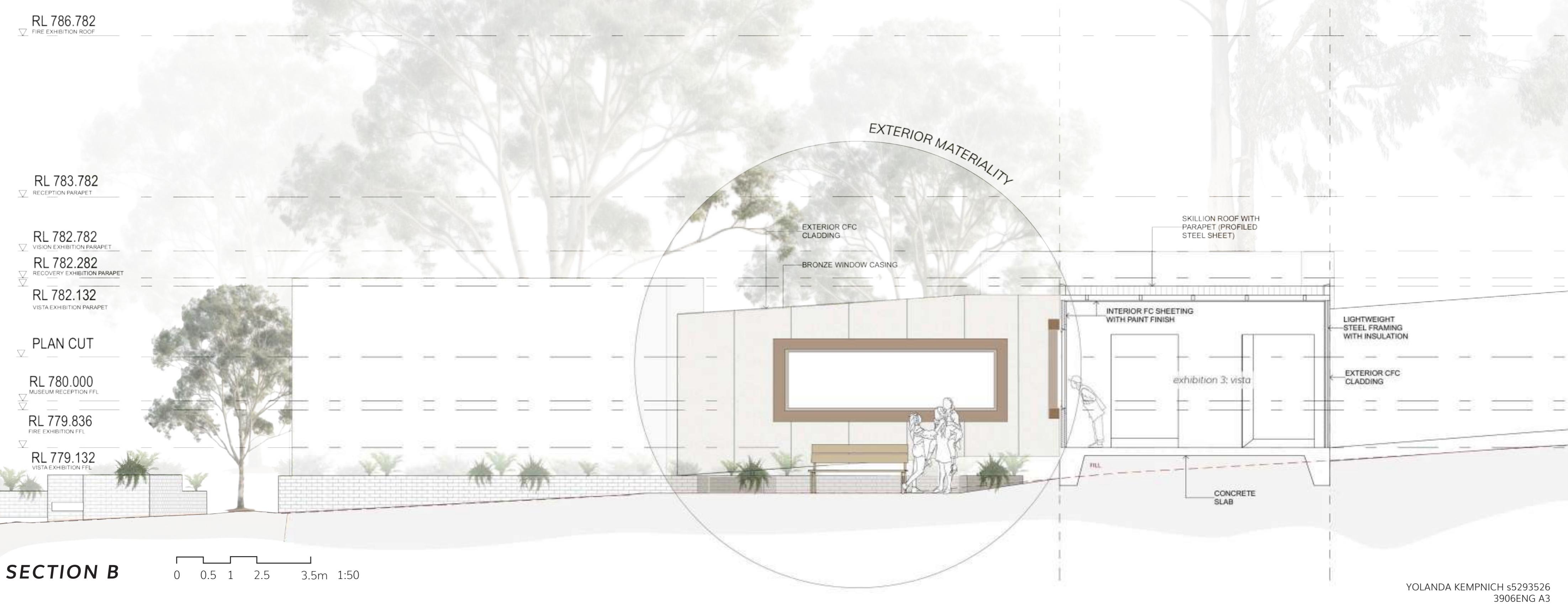
RECEPTION PERSPECTIVE



volume heights
 - push and pull



EXIT PERSPECTIVE - THE LOOKOUT

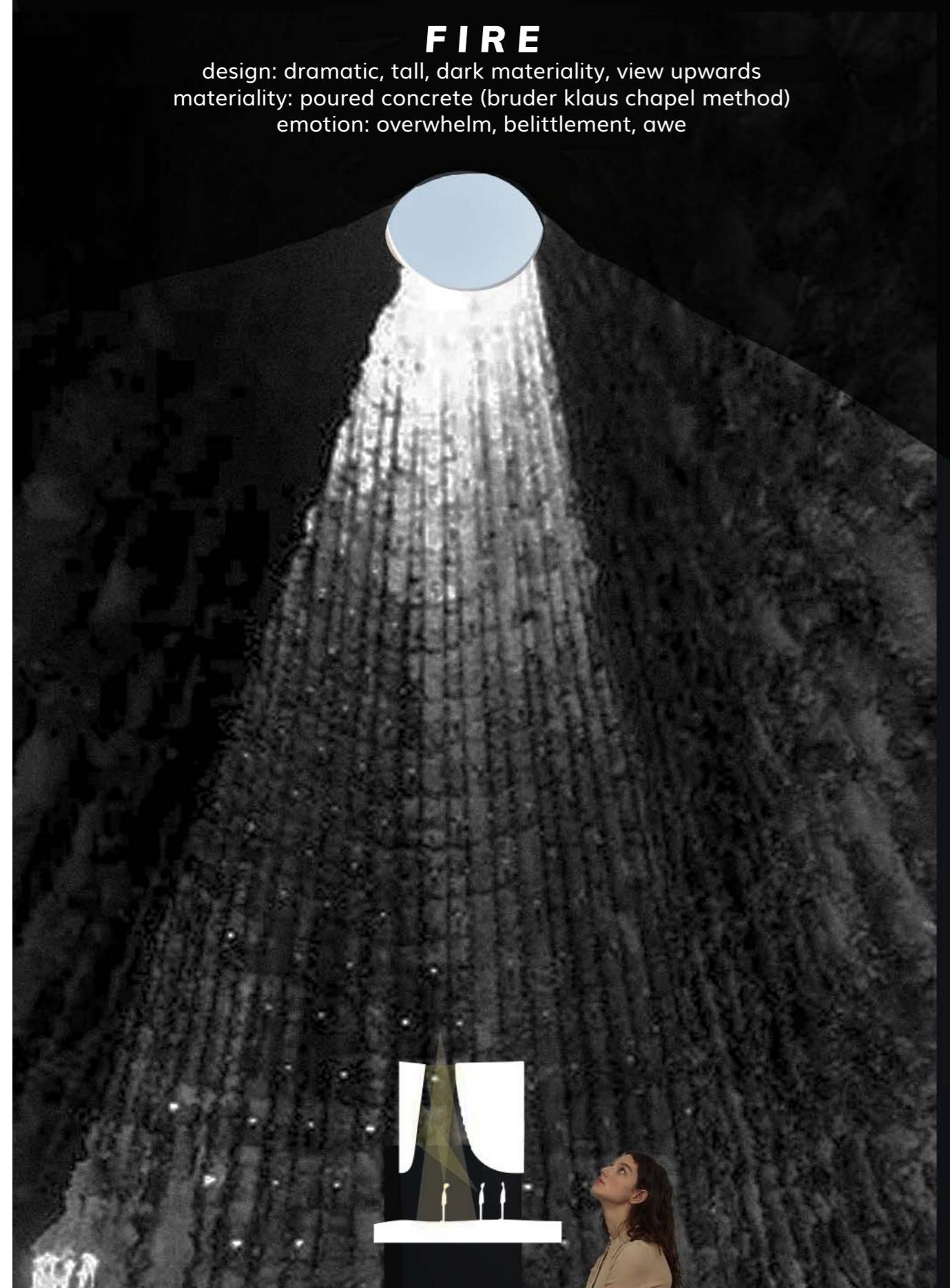


SECTION B

0 0.5 1 2.5 3.5m 1:50

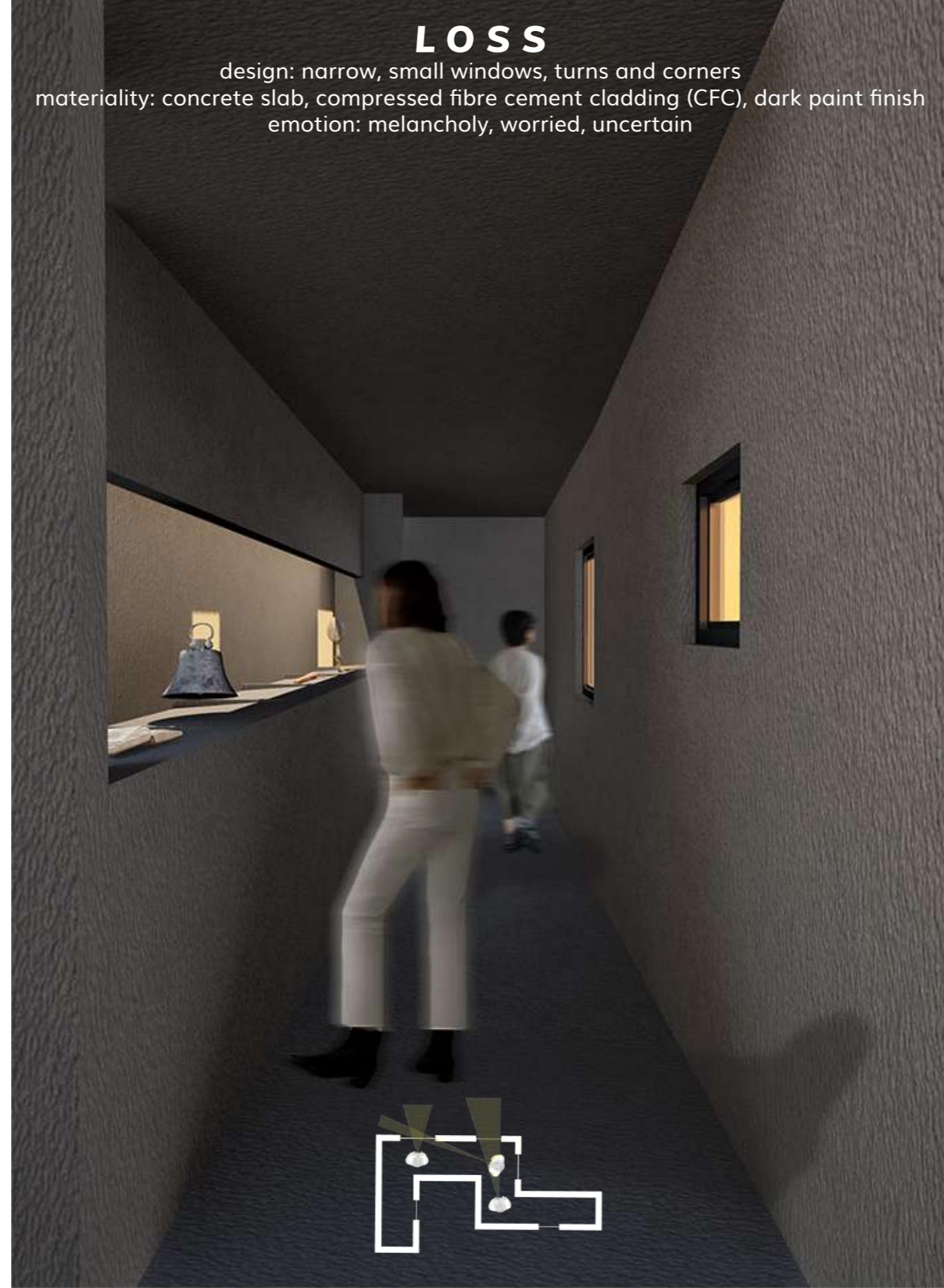
FIRE

design: dramatic, tall, dark materiality, view upwards
materiality: poured concrete (bruder klaus chapel method)
emotion: overwhelm, belittlement, awe



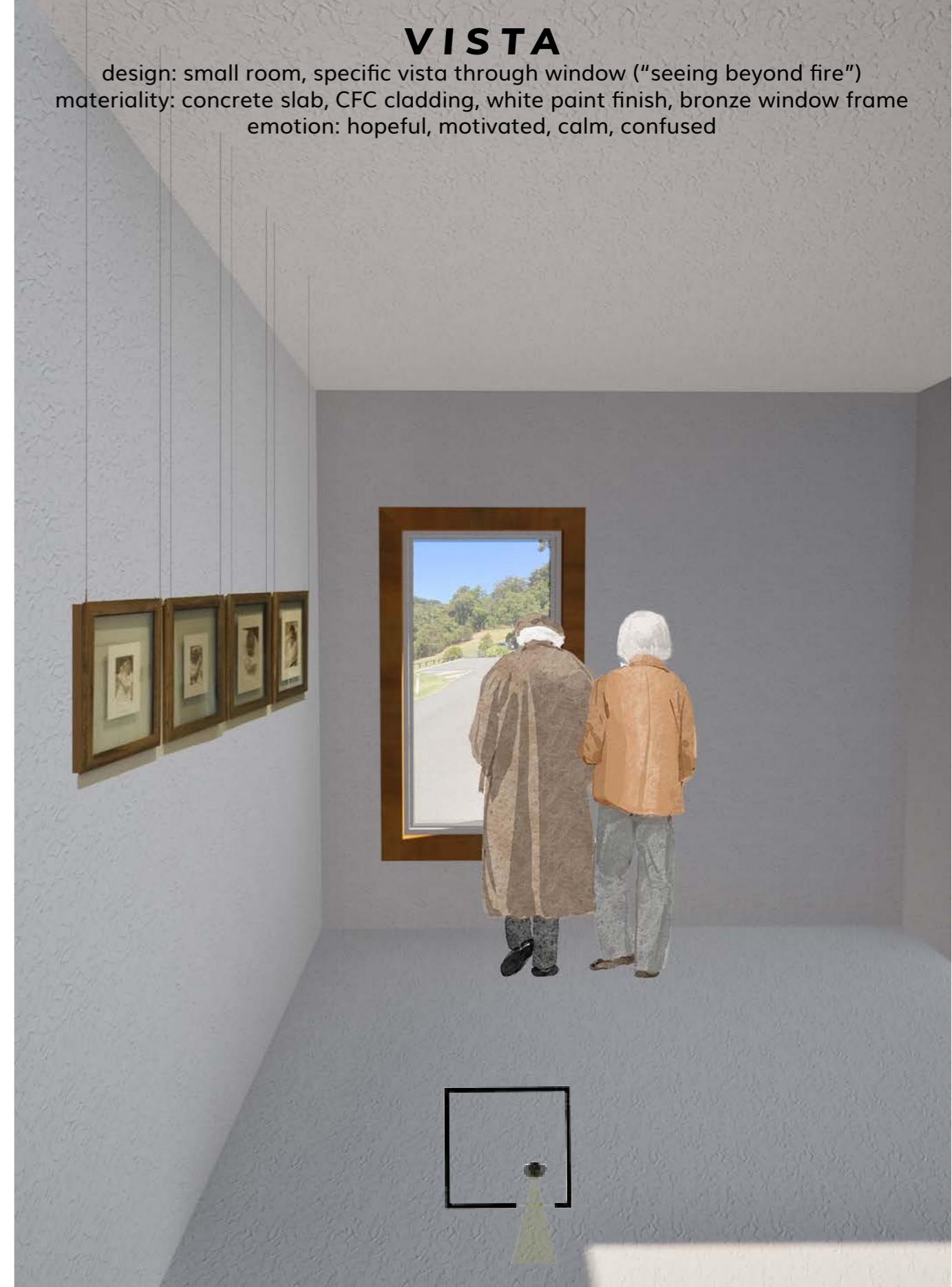
LOSS

design: narrow, small windows, turns and corners
materiality: concrete slab, compressed fibre cement cladding (CFC), dark paint finish
emotion: melancholy, worried, uncertain



VISTA

design: small room, specific vista through window ("seeing beyond fire")
materiality: concrete slab, CFC cladding, white paint finish, bronze window frame
emotion: hopeful, motivated, calm, confused



RECOVERY

design: large room, open to views and light, bright materiality
materiality: concrete slab, microcement floor finish, CFC cladding, white paint finish
emotion: relief, hope



VISION

design: large room, open walls, skylight, collaborative
materiality: concrete slab, microcement floor finish, white paint finish, stone
emotion: inspired, stable

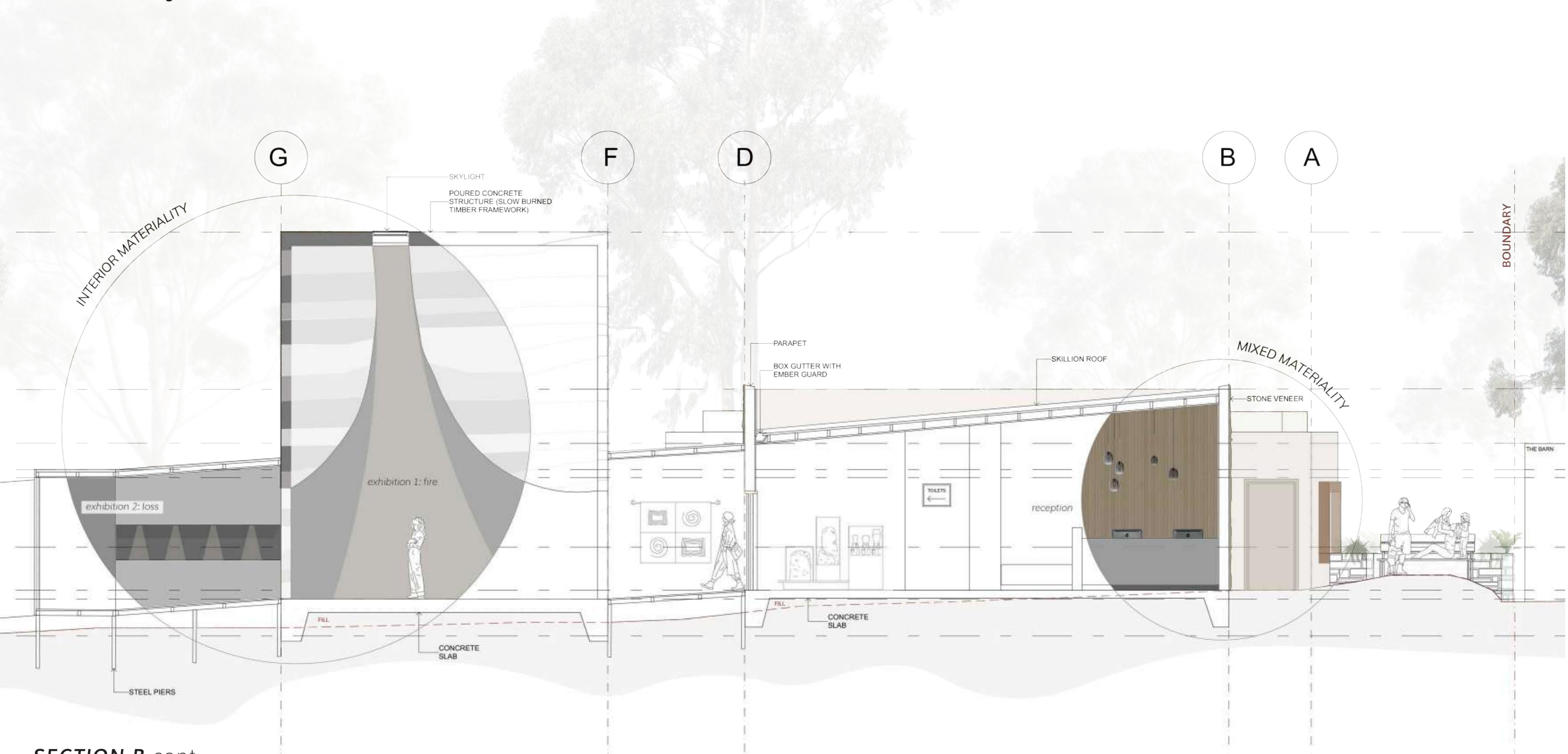


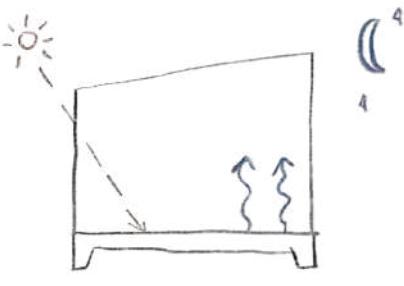
REFLECTION

design: long shallow space, specific view
materiality: steel framework & piers, profiled steel roof sheeting & cladding
emotion: appreciative, belonging, sad, happy (mixed emotions)



THE MUSEUM JOURNEY - INTERIOR PERSPECTIVES

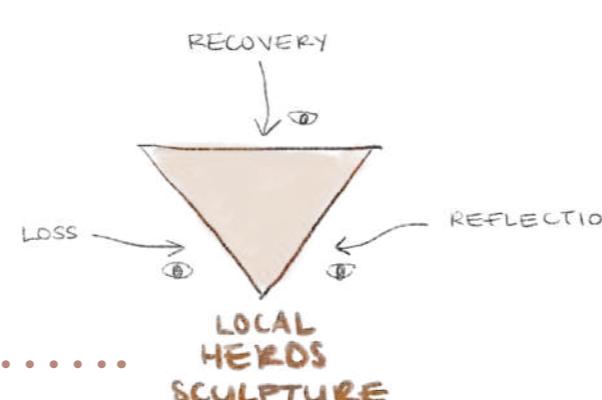
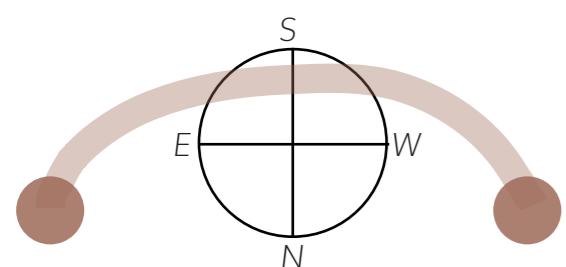




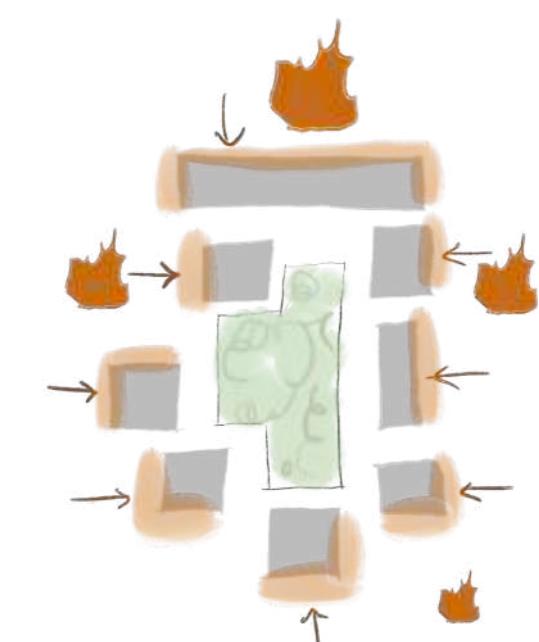
HEAT STORE & RELEASE

thermal mass (concrete slabs)
 - thermal efficiency
 - passive design

This exhibition space **absorbs the morning sun as it faces east.**
 Throughout the day, this initial sun will passively heat the room.



LOCAL HEROES SCULPTURE



fire protection & vegetation
 - the courtyard is achievable as it's within a BAL-19 zone, surrounded by buildings made of non-combustible materials.



native grasses as a bushfire buffer zone



pioneer species such as the beech tree (to grow after a bushfire)



small plants/ bushes, encouraging ecosystems



SECTION C

0 0.2 0.4 0.6 1m 1:20

- water system
- loss exhibition construction
- levels across the site (accessible ramps, landings, and turns complying with AS1428)
- courtyard and planting
- shift in emotion (from dark, enclosed loss space to recovery and bright outdoor areas)
- compliance with AS3959 (ember guards, non-combustible materials)

TOIN RL 779.250
 CONCRETE RETAINING WALL
 STRUCTURAL STEEL REINFORCEMENT