APRIL 2020

PREMIERE EDITION

Environmental Design Thesis

ENVR-4902-006

RIVERDALE VILLAS

RIVERDALE HEALTH RETREAT VILLAS DESIGNED FOR EFFICIENT LIVING®

EMEM ESSIEN

“Let’s wear Sustainability on our sleeves.”

(Emem Essien, 2019).

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Thesis Proposal: ‘For the culture, for the future’

Health retreat villas can redefine vernacular architecture as a paintbrush that dips into local materials and construction styles to paint a sustainable future for human generations who would mutually benefit from efficient lifestyles, immersive tourist experiences, and an appreciation of local resources in our growing global village. Therefore, my proposed building is a health retreat cluster situated in the serene, secluded site of Riverdale Farm targetted at millennials looking to retreat from the busy city life. Millennials- and the youth- are the future; hence with my thesis focusing on the concept of reflection, I aim to personalise living by designing spaces that refine living habits and encourage sustainable dwelling in intimate, local environments.

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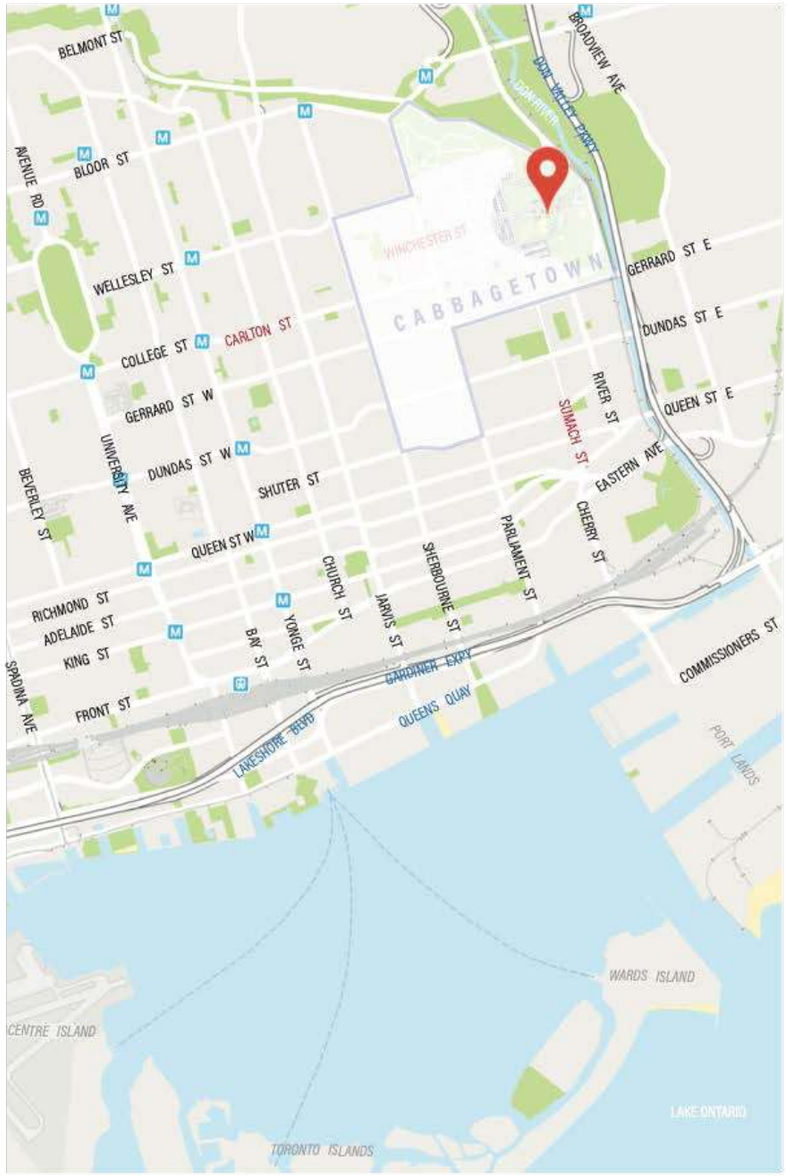


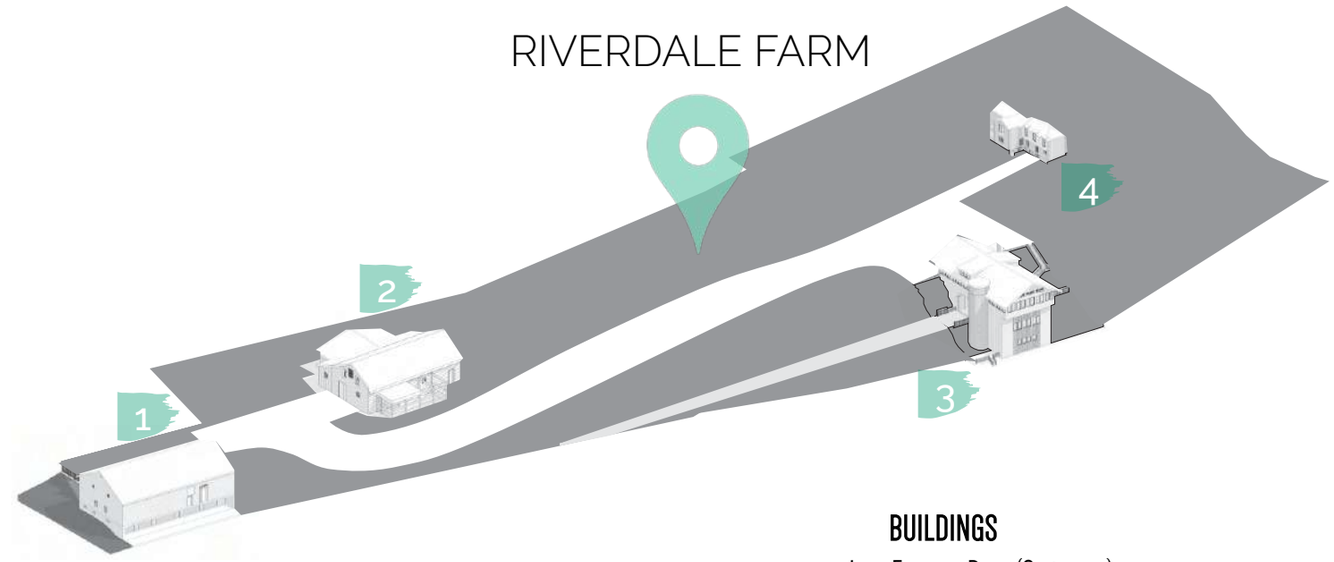
SCALE: 1:20000

Preliminary Research: Riverdale Farm

Touching on the historical context, Riverdale Farm sits on the site of Toronto's first zoo, which closed in 1974.[1] The City of Toronto built it as a tribute to Ontario's small, family farm heritage, and officially opened in 1978.[1] Riverdale Farm is situated in Cabbagetown, Toronto's historic neighbourhood. Cabbagetown is very important to the site's context because it is very income-diverse with rich and poor people coexisting that amazingly works and considering my thesis of a naturally high-end topic such as a health retreat villa, it would be interesting to explore how that ties into the site's heterogeneous demographic. Moving on, we will proceed to four of the existing buildings onsite which to various degrees, have a strong dialogue with nature by being situated amidst lush vegetation with native deciduous and coniferous trees.

RIVERDALE

Existing Buildings



BUILDINGS

1. Francey Barn (3 storeys)
2. Pig & Poultry Barn (2 storeys)
3. The Meeting House (3 storeys)
4. The Residence (3 storeys)

SCALE: 1:800

SITE MODEL
RIVERDALE FARM

Conceptual Process

health retreat for millennials situated in a woody site

THESIS IDEA

- sustainable future
- efficient living

DESIGN OBJECTIVES

reflection would show in user-centric design approaches, mirroring site context and vernacular elements, while achieving max results with minimum expenses and effort; efficient living starts with efficient design

RELEVANCE

mirror (seeing one's self from various sides and angles)

METAPHOR

form and structure (gable roofs); materiality (glass bricks to reflect sound and light, wood to reflect light, heat and sound); use of light colours on exterior spaces and rooftop (energy savings and thermal comfort)

THEMATIC IDEAS

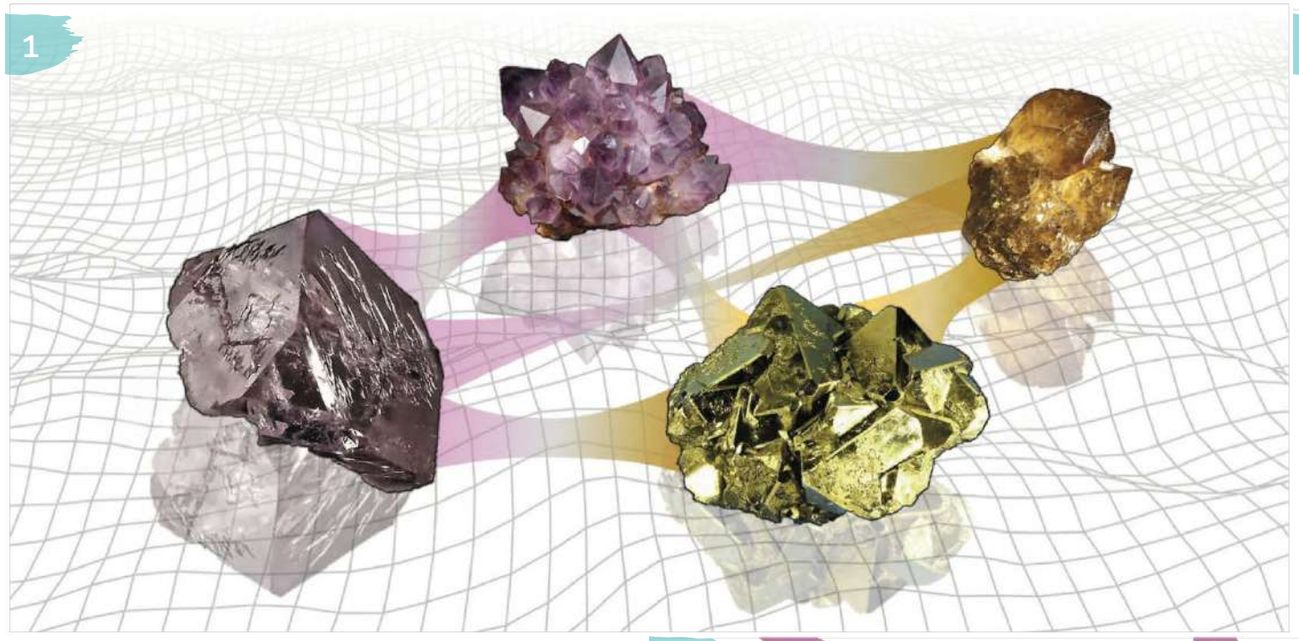
REFLECTION

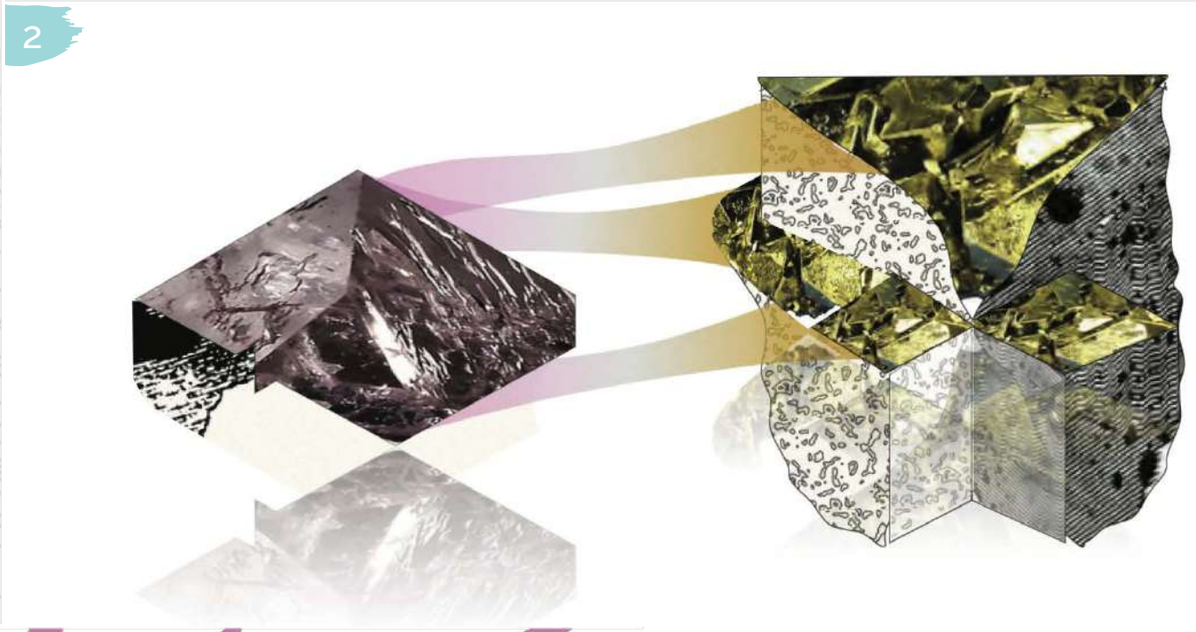
Concept: Reflection

My thesis on a health retreat villa cluster targetted at millennials is based on the concept of reflection. Reflection goes beyond the literal meaning of throwing back heat, light, or sound without absorption; what it means for my thesis is the consideration of site context, its local inhabitants, and vernacular elements, translating that into thoughtful manifestations in design approaches. A mirror is often a good metaphor for reflection because of the ability to see oneself from various sides; therefore, this alludes to my thesis being reflective of the site's heritage from a variety of angles, without compromising sustainability and aesthetics

Design Intent: Reflection

The concept of reflection could be fulfilled by using locally-sourced and sustainable materials and forms (glass bricks, wood, gable roofs) to uphold vernacular elements. Light colour palettes would be used on the façades and rooftops for energy savings and thermal comfort. Unique topography structural strategies would create variations of space within the cluster by familiarizing buildings on flat land with its orientation to other buildings in terms of cardinal points while creating high subterranean and views/vistas potentials for buildings on slopes. The program would include health and nature awareness programs for immersive experiences both on a personal and communal level.





Conceptual Diagrams

1. Reflection within the cluster
2. Reflection between buildings
3. Reflection within the building

Situations

SITUATION 1

RECEPTION: LOBBY

SITUATION 2
RECEPTION: LIAISON PATHWAY

SITUATION 3
FRANCEY VILLA: FOYER

SITUATION 4
FRANCEY VILLA: PILATES STUDIO

SITUATION 5

SITUATION 6
VIANDA VILLA: BEDROOM LOFT

CIRCA VILLA

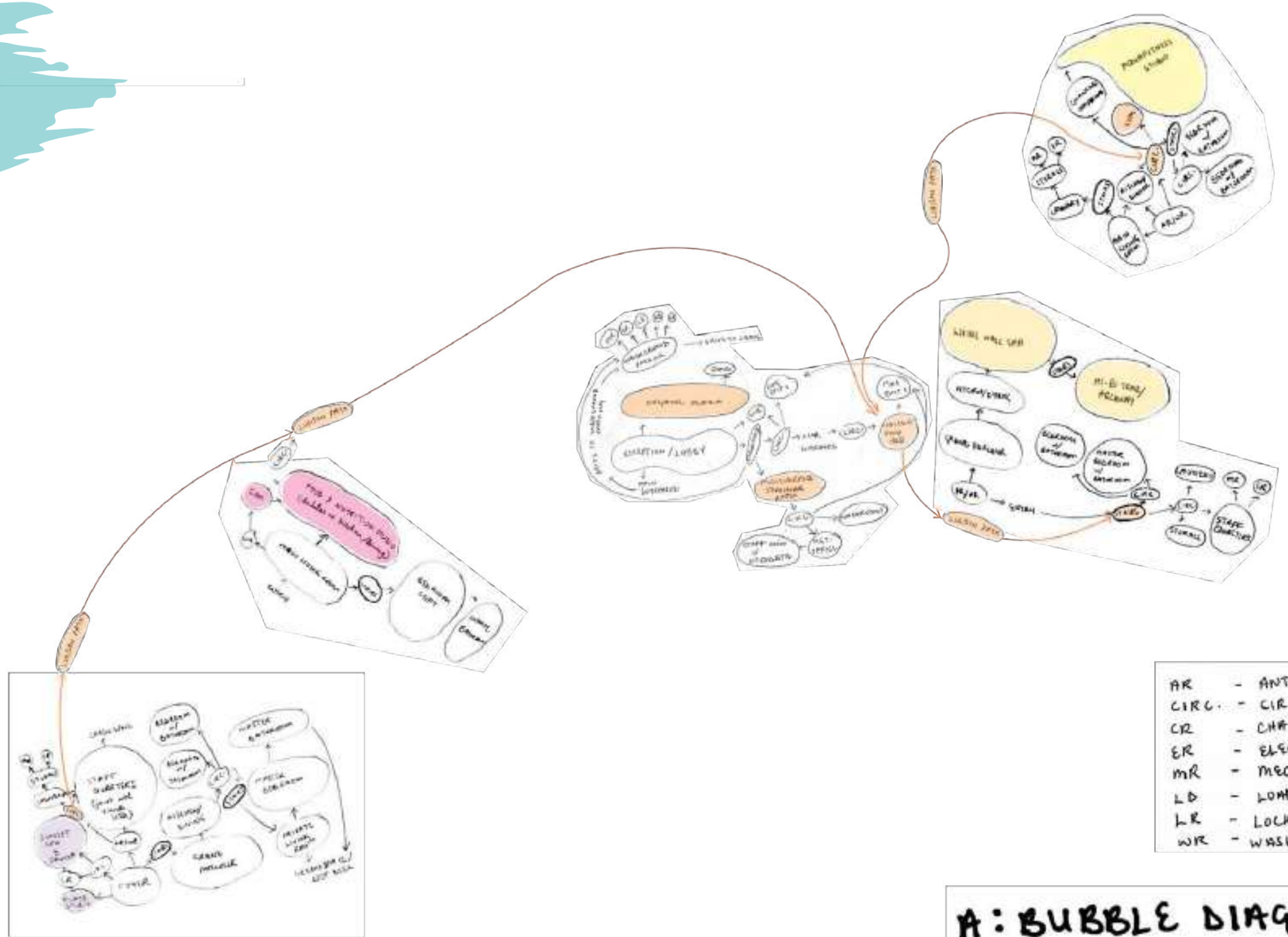
SITUATION 8
CIRCA VILLA: ARCHWAY/HI-BI TRAIL

SITUATION 9
MAISONNA VILLA: AQUAFITNESS PATIO

SITUATION 10

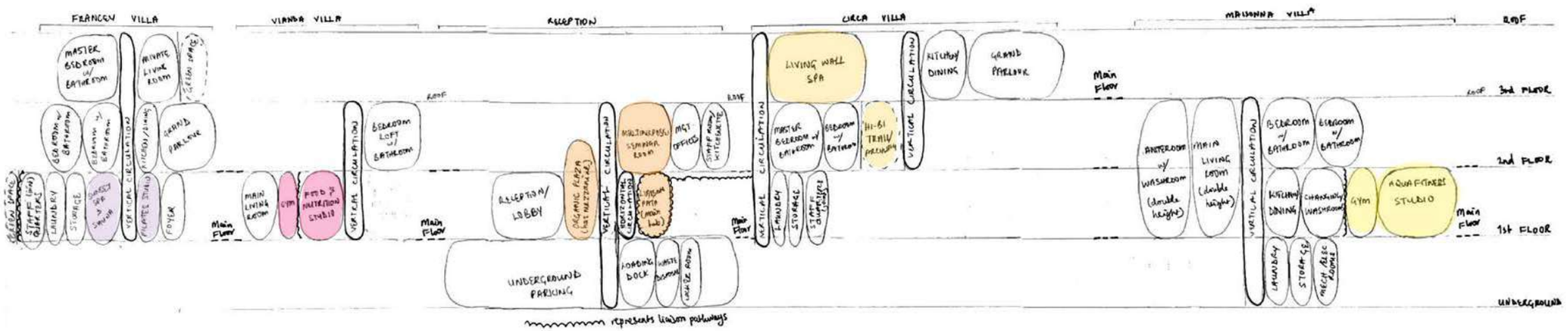
MAISONNA VILLA: LIVING ROOM

Spatial Diagramming



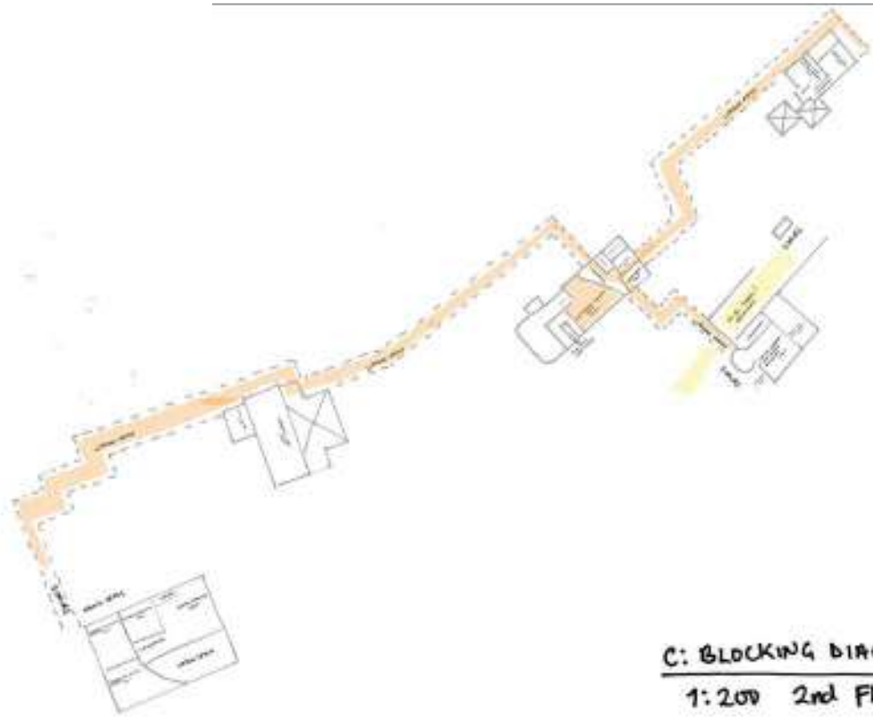
AR - ANTEROOM
CIRC. - CIRCULATION
CR - CHANGING ROOM
ER - ELECTRICAL ROOM
MR - MECHANICAL ROOM
LD - LOADING DOCK
LR - LOCKER ROOM
WR - WASHROOM

A: BUBBLE DIAGRAMS

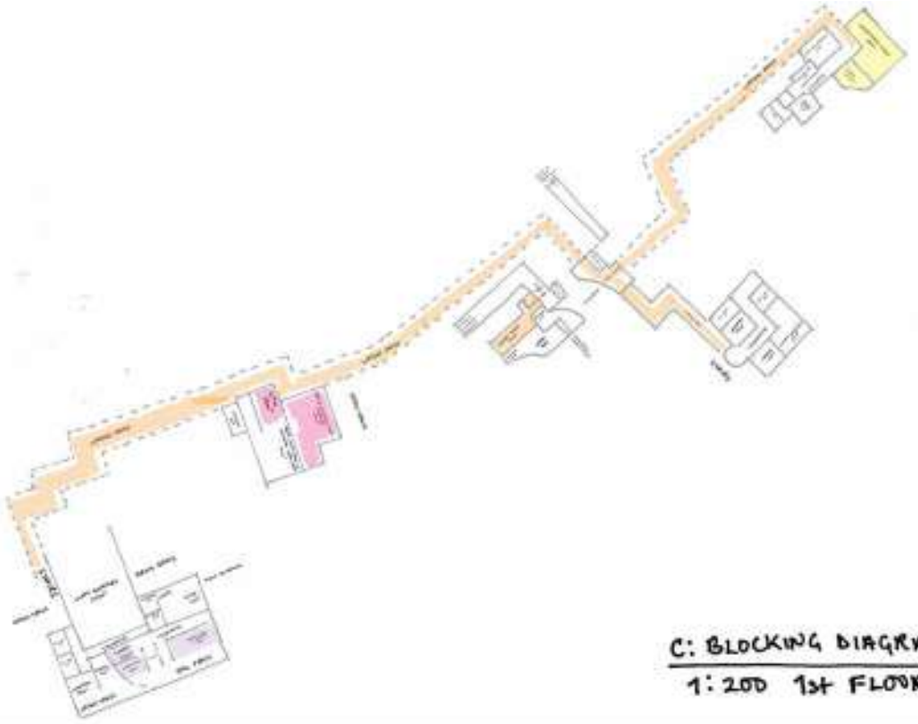


B: STACKING DIAGRAMS

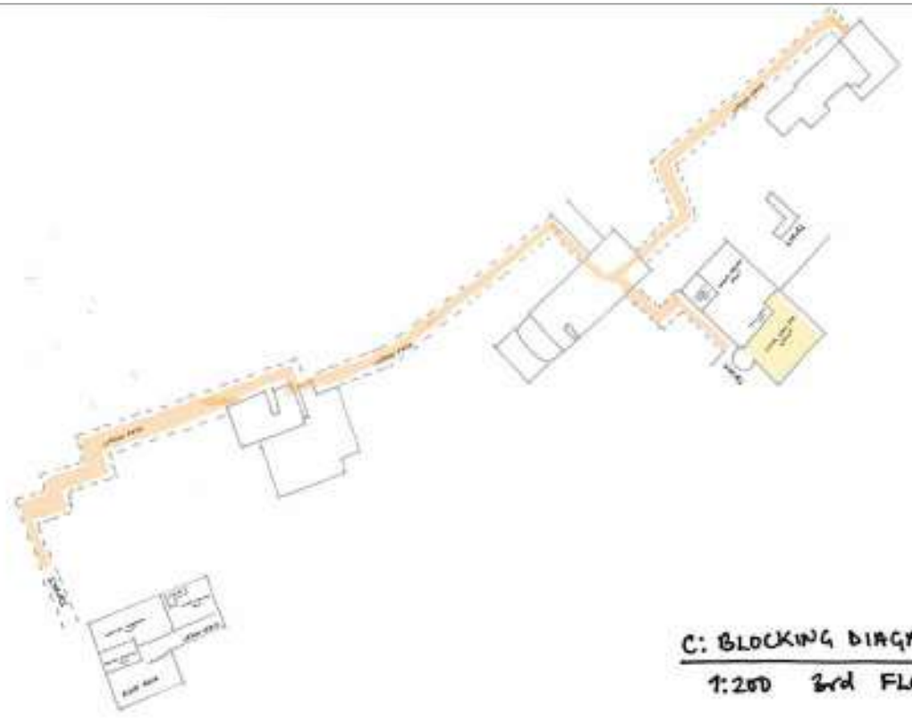
C: BLOCKING DIAGRAMS
1:200 UNDERGROUND



C: BLOCKING DIAGRAMS
1:200 2nd FLOOR

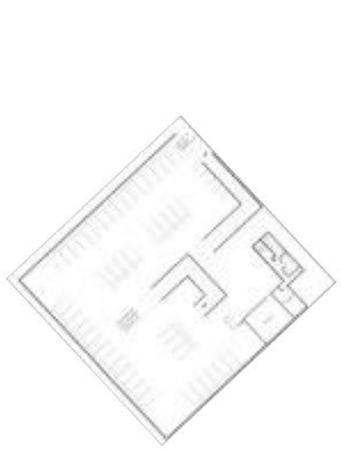


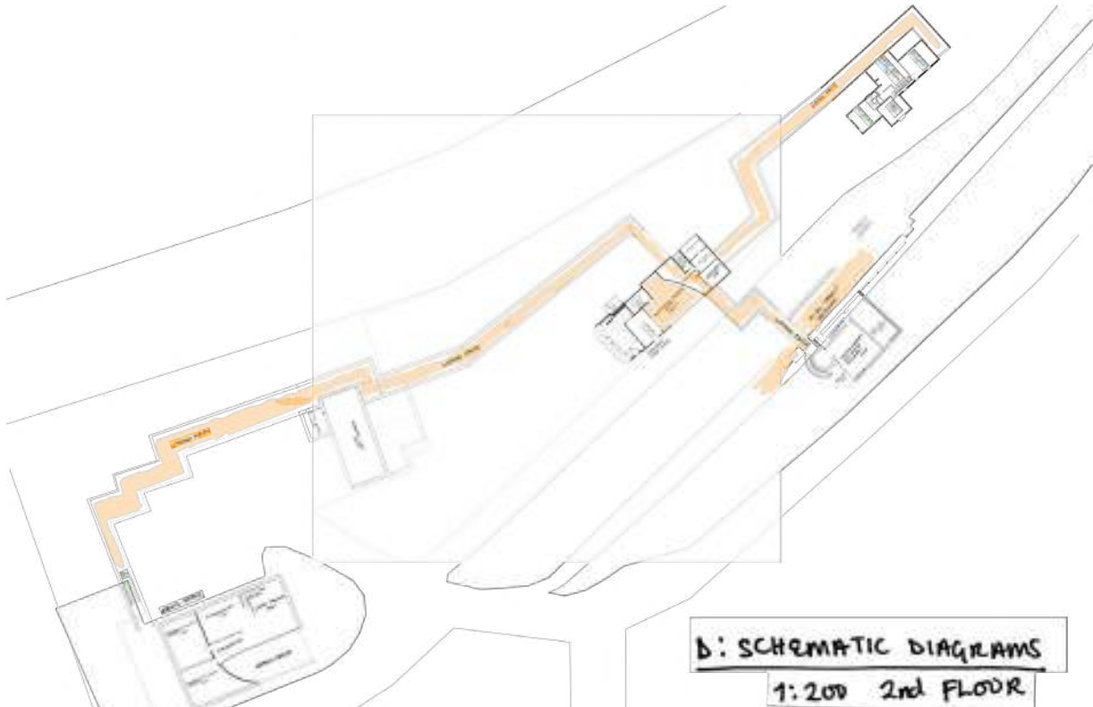
C: BLOCKING DIAGRAMS
1:200 1st FLOOR



C: BLOCKING DIAGRAMS
1:200 3rd FLOOR

Spatial Diagramming





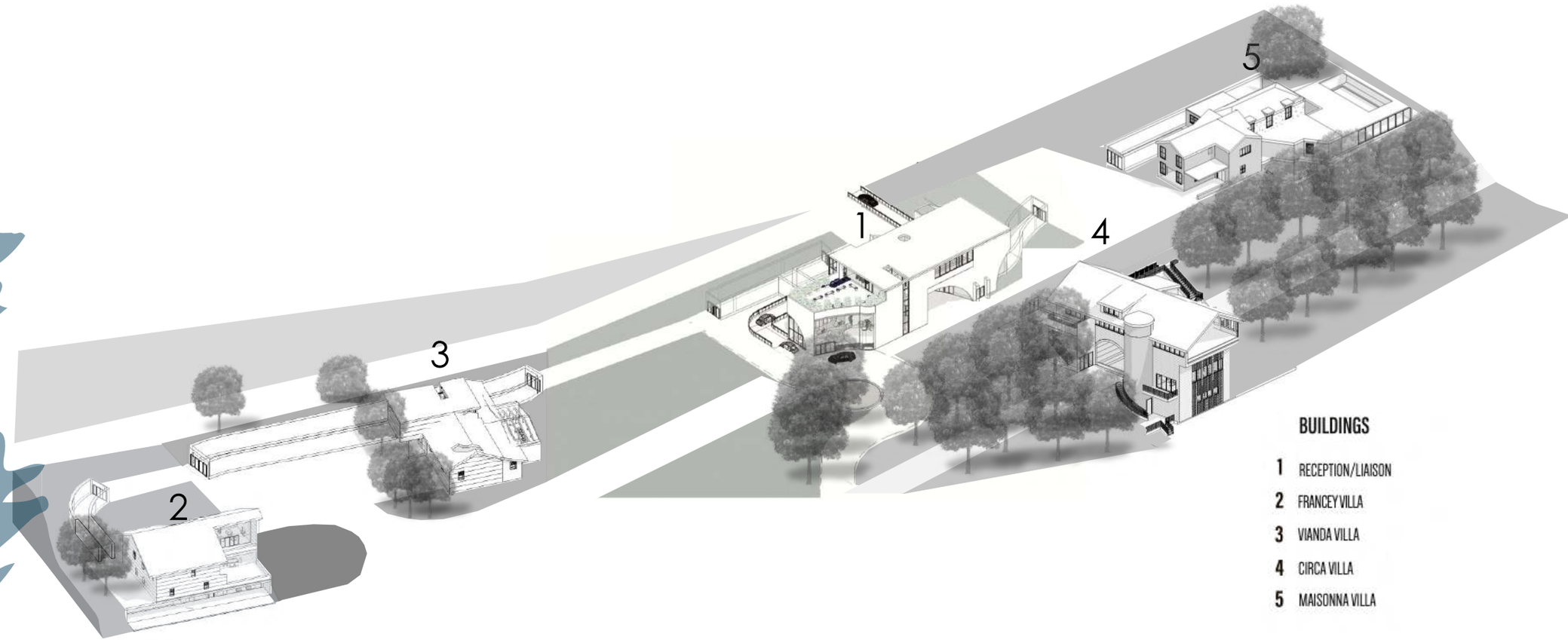
b: SCHEMATIC DIAGRAMS
1:200 UNDERGROUND

b: SCHEMATIC DIAGRAMS
1:200 2nd FLOOR

b: SCHEMATIC DIAGRAMS
1:200 1st FLOOR

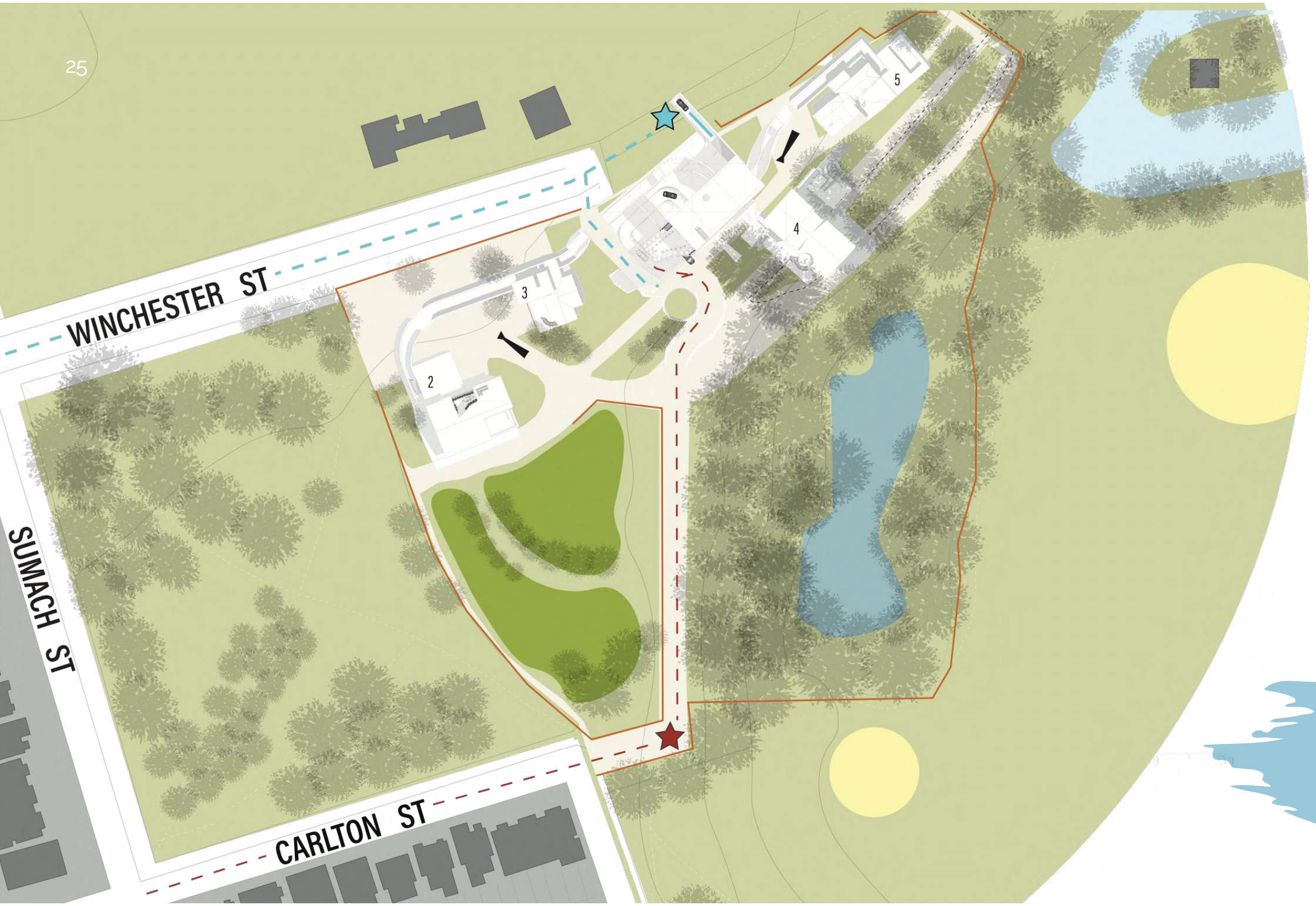
b: SCHEMATIC DIAGRAMS
1:200 3rd FLOOR

Design Development



SCALE: 1:500

1:500 DIGITAL MODEL
RIVERDALE VILLAS



BUILDINGS

1 RECEPTION/LIAISON
2 FRANCEY VILLA
3 VIANDA VILLA
4 CIRCA VILLA
5 MAISONNA VILLA

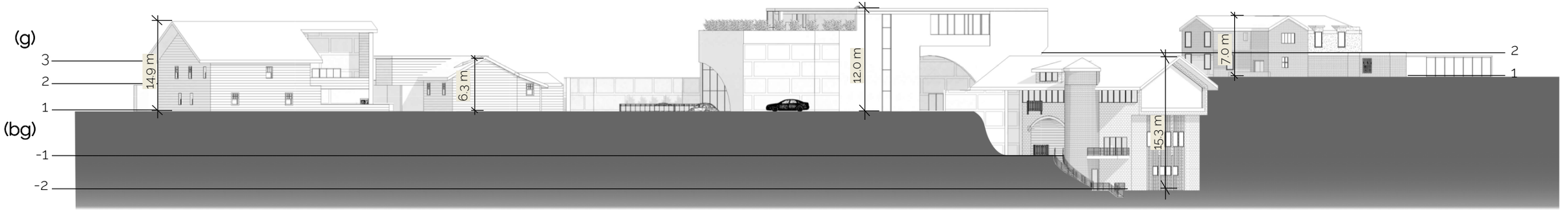
KEY

SITE: RIVERDALE FARM
PERIMETER FENCE
MAIN ENTRANCE
MAIN EXIT
RECEPTION LIAISON LINKS

PATCHWORK HILLY SEATS
GREEN SPACE
HI-BI (HIKING & BIKING) TRAILS
IRRIGATION POND
WAYFINDING BENCHES

1:1250 Cohesive Site Plan

SOUTH SECTION

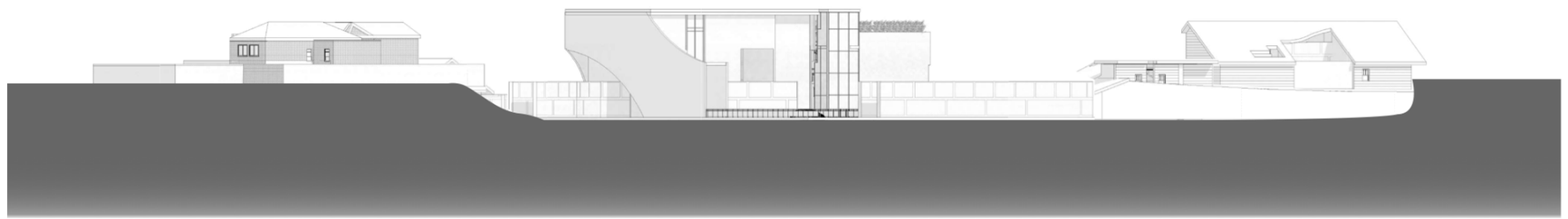


NORTH ELEVATION

1:500 Key Section & Elevation

(g): above grade
(bg): below grade

SOUTH ELEVATION



EAST ELEVATION

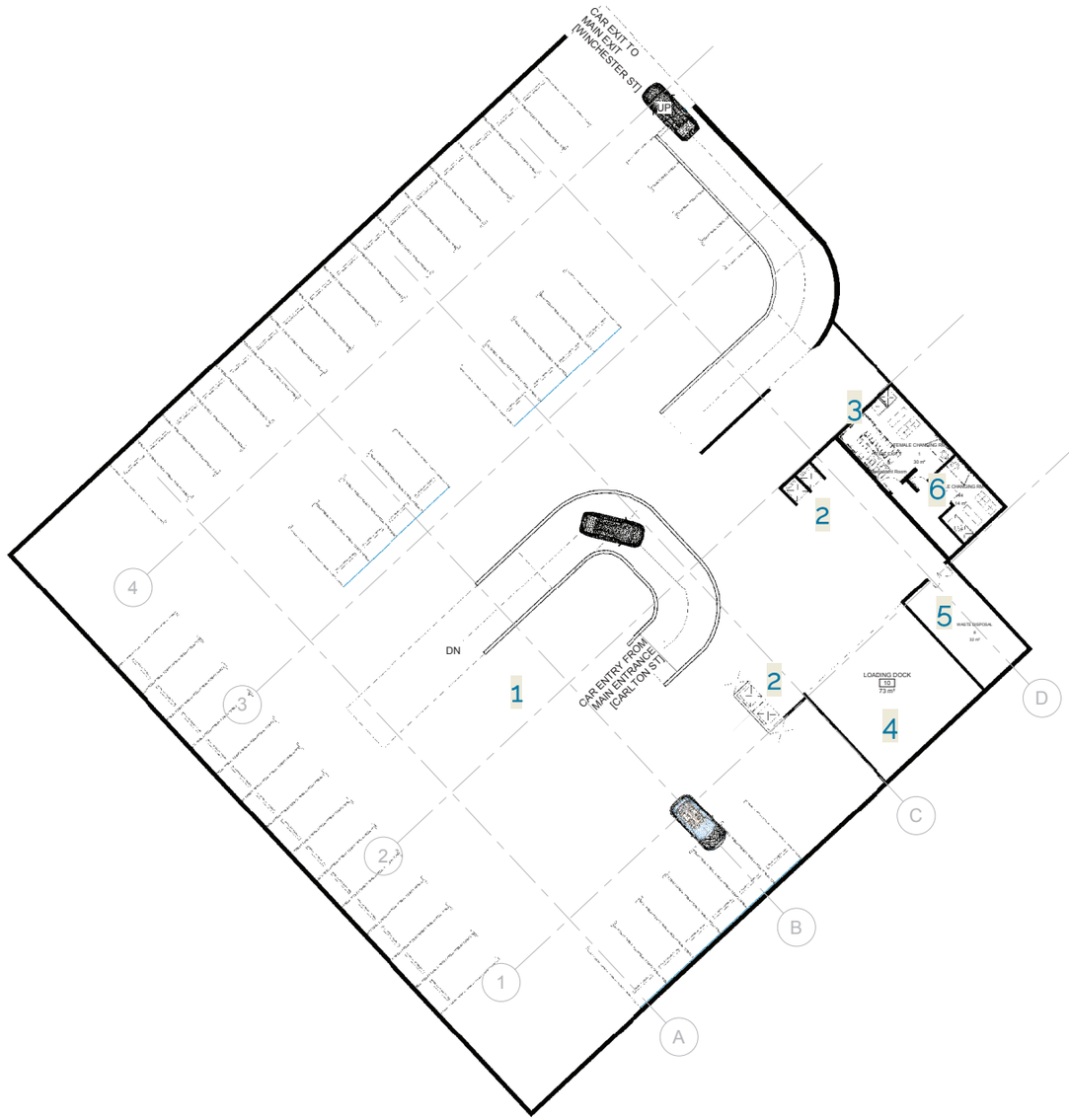
WEST ELEVATION

1:750 Elevations

Individual Floor Plan:

1. Reception

(bg): below grade



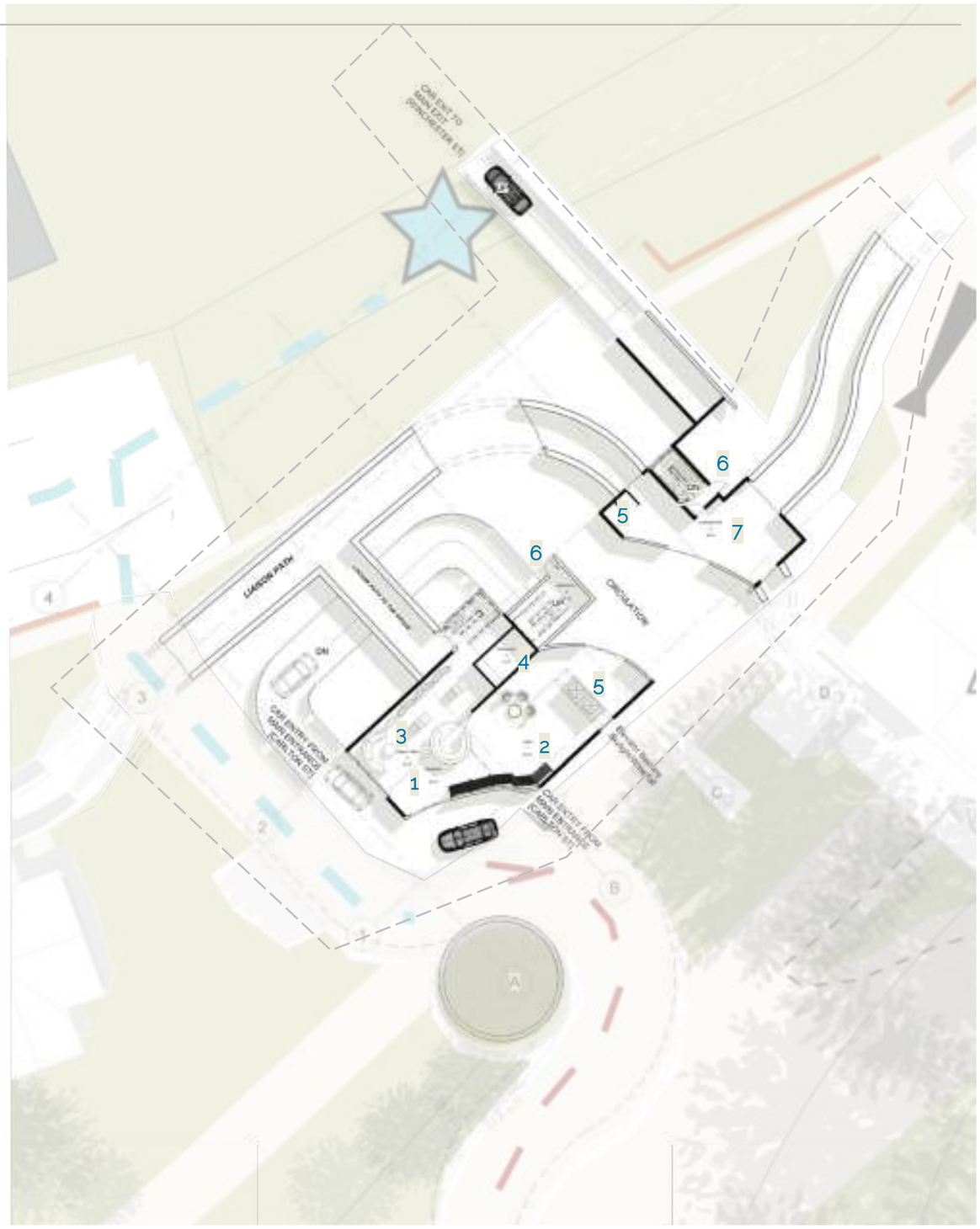
-1: P1 UNDERGROUND PARKING (bg)

PROGRAM

1. 50-lot parking
2. Elevator
3. Fire Exit
4. Loading dock
5. Waste disposal
6. Changing rooms (M & F)

1:350 Underground

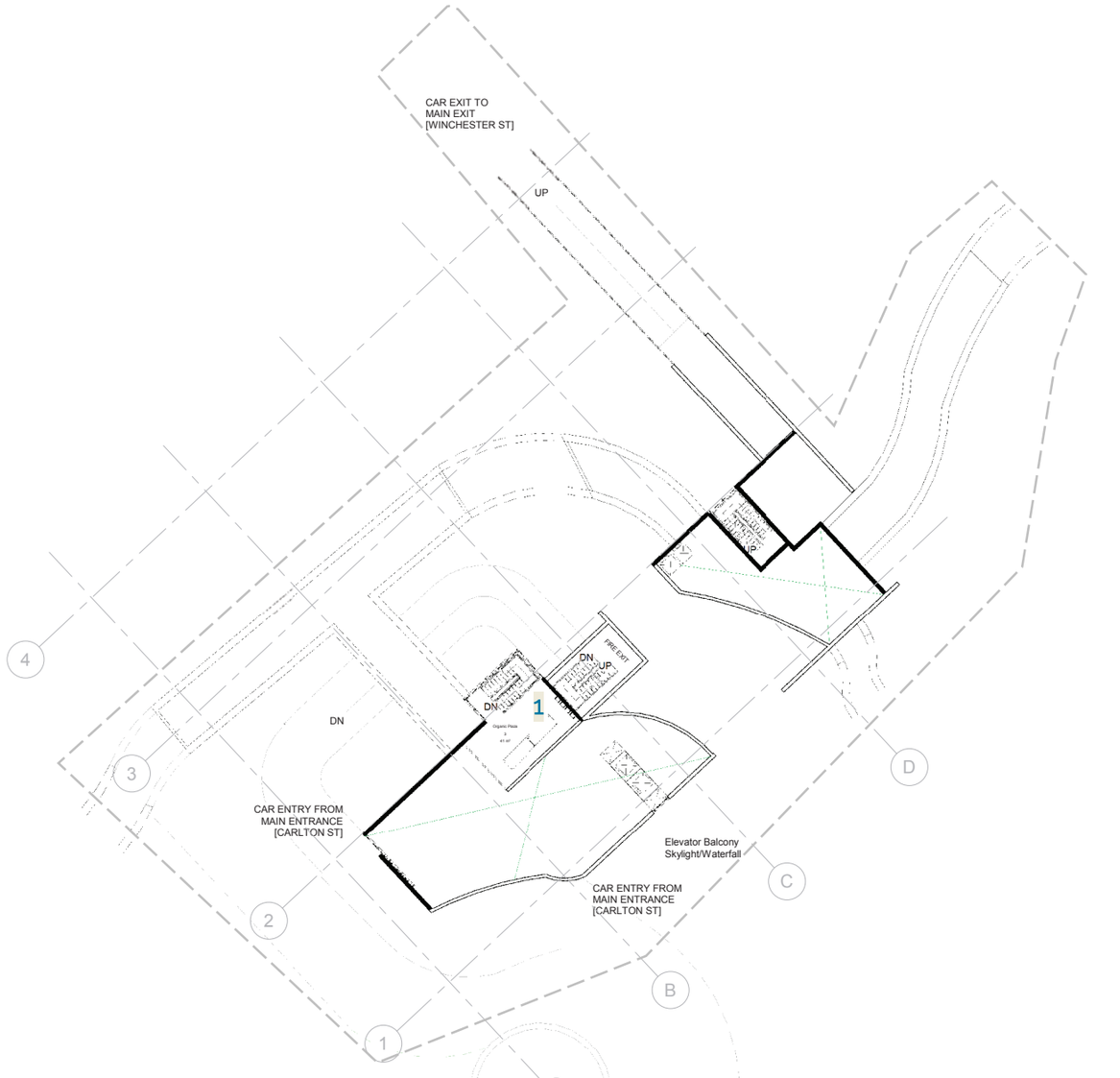
(g): above grade
— — — part of the building that is above grade



1:350
1st Floor

1: MAIN FLOOR (g)

PROGRAM
1. Reception
2. Lobby
3. Organic Plaza (1st level)
4. Washrooms (M & F)
5. Elevator
6. Fire Exit
7. Liaison Path



(g): above grade
part of the building
that is above grade

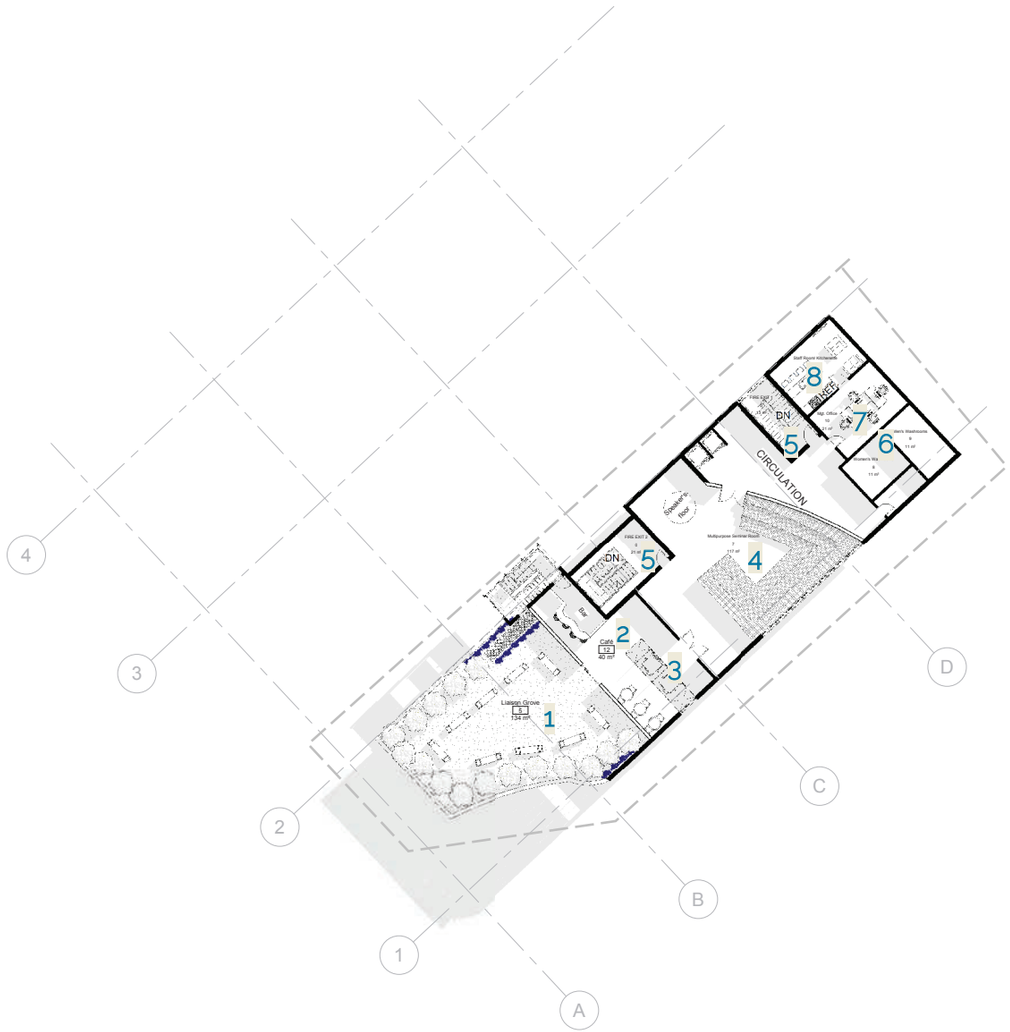
1.5: MEZZANINE (g)

PROGRAM

1. Organic Plaza (2nd level)

1:350
Mezzanine

(g): above grade
— — — part of the building
that is above grade



1:350
2nd Floor

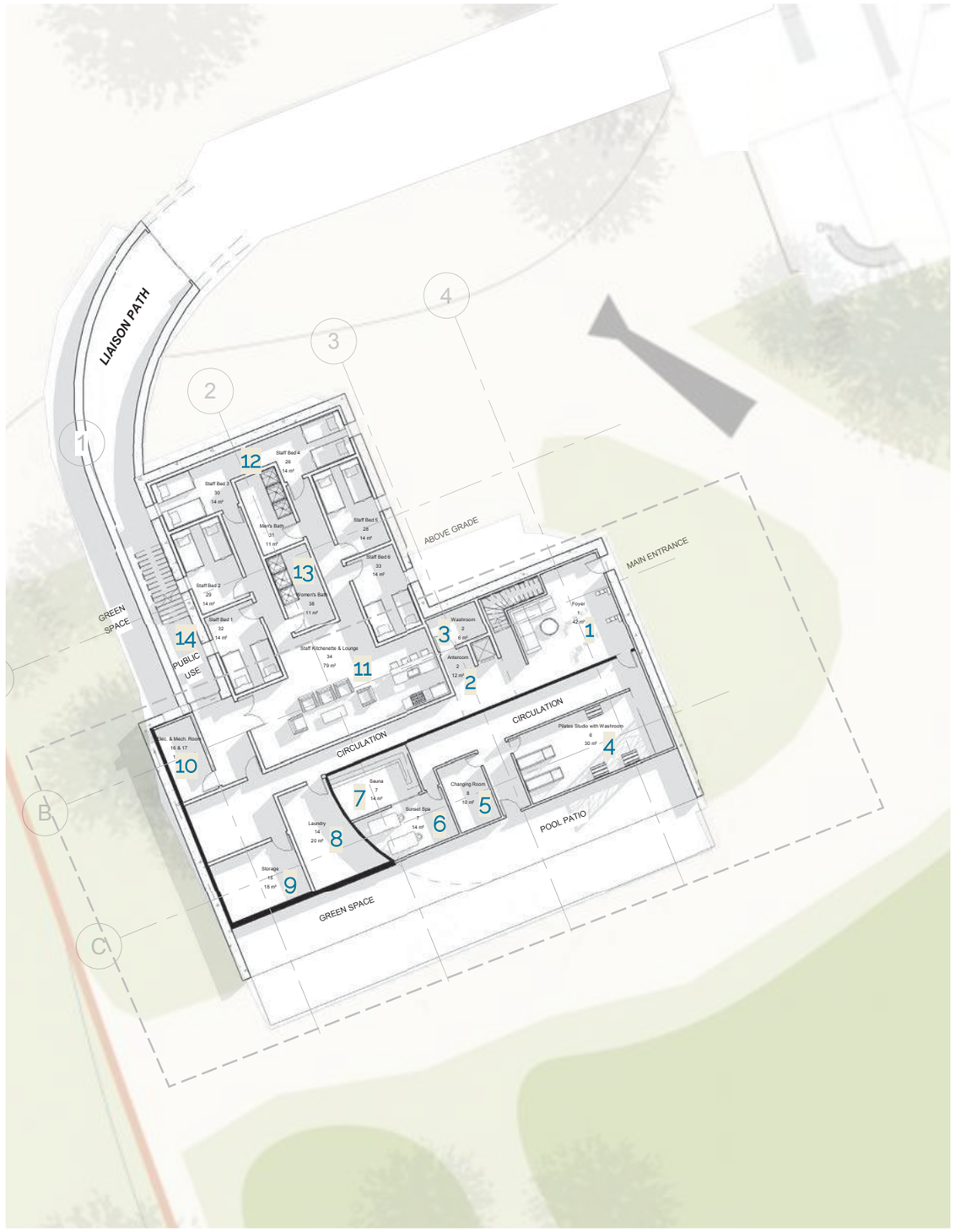
2: 2ND FLOOR (g)

PROGRAM

1. Liaison Grove
2. Café/Bar
3. Elevator
4. Multipurpose Seminar Room
5. Fire Exit
6. Washrooms (M & F)
7. Management Office
8. Staff Room/Kitchenette

Individual Floor Plan: 2. Francey Villa

(g)/(bg): partially below grade
— — — part of the building that is above grade



1:250
1st Floor

1: MAIN FLOOR (g)/(bg)

PROGRAM

1. Foyer
2. Anteroom w/ Elevator
3. Washroom
4. Pilates Studio
5. Changing room (M & F)
6. Sunset Spa
7. Sauna
8. Laundry
9. Storage
10. Elec. & Mech. Room
11. Staff Kitchenette & Lounge
12. Staff bedrooms
13. Staff shower rooms
14. Liaison Path

(g): above grade
— — — part of the building that is above grade

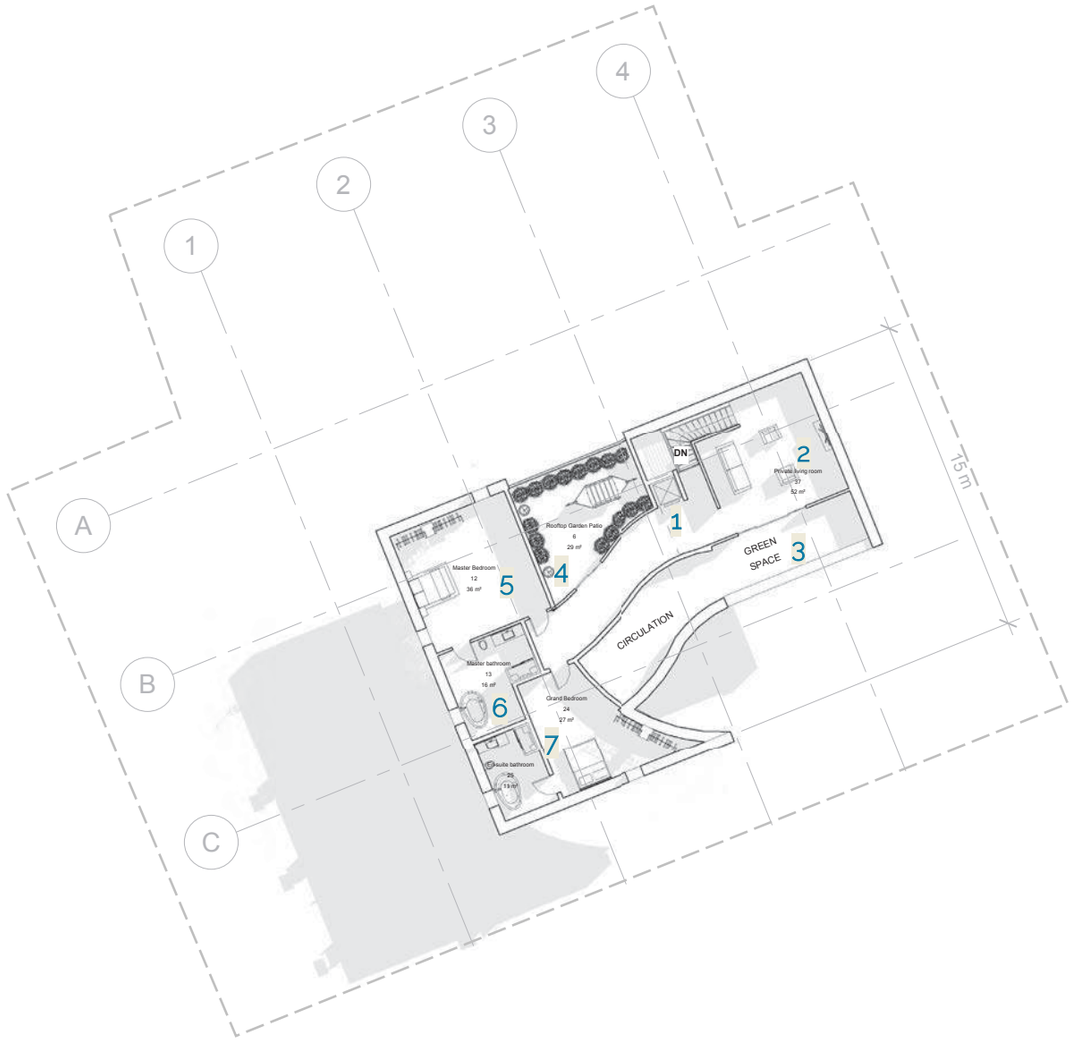
2: 2ND FLOOR (g)

PROGRAM

1. Elevator
2. Grand parlour
3. Kitchen & Dining Area
4. Green space
5. Washroom
6. 3 Bedrooms w/ en-suite bathrooms

1:250
2nd Floor

(g): above grade
— — — part of the building that is above grade



1:250
3rd Floor

3: PENT FLOOR (g)

PROGRAM

1. Elevator
2. Private Living Room
3. Green Space
4. Rooftop Garden Patio
5. Master Bedroom
6. Master Bathroom
7. Grand Bedroom w/ en-suite bathroom

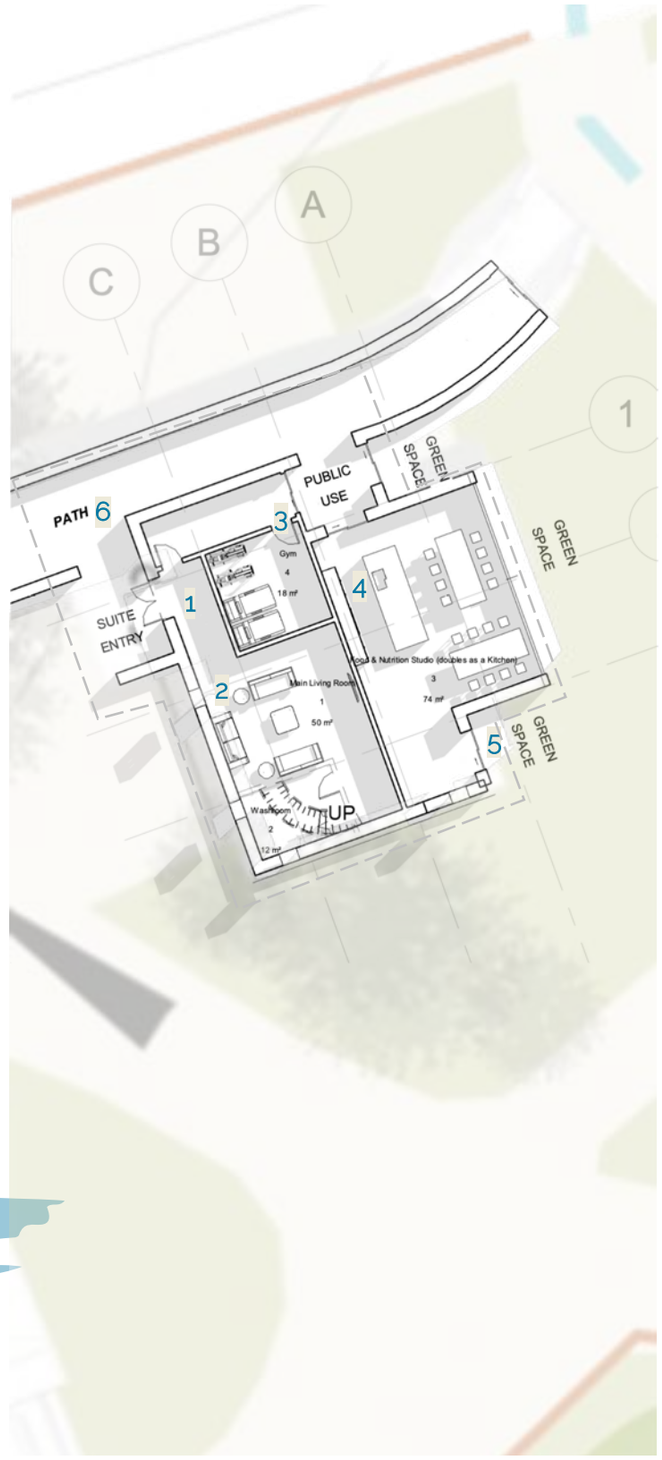
Individual Floor Plan: 3. Vianda Villa

(g): above grade
— — — part of the building that is above grade

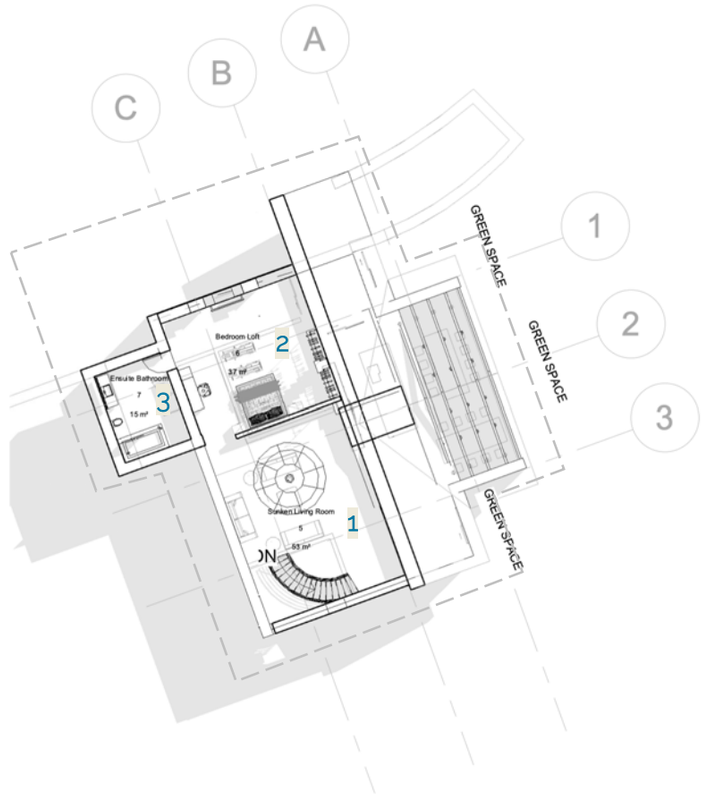
1: MAIN FLOOR (g)

PROGRAM

1. Suite Entry
2. Main Living Room
3. Gym
4. Food & Nutrition Studio
5. Green Space
6. Liaison Path



1:250
1st Floor



2: PENT FLOOR (g)

PROGRAM

1. Sunken Living Room
2. 1 Bedroom Loft
3. En-suite Bathroom

1:250
2nd Floor

Individual Floor Plan:

4. Circa Villa

(g): above grade
— — — part of the building that is above grade

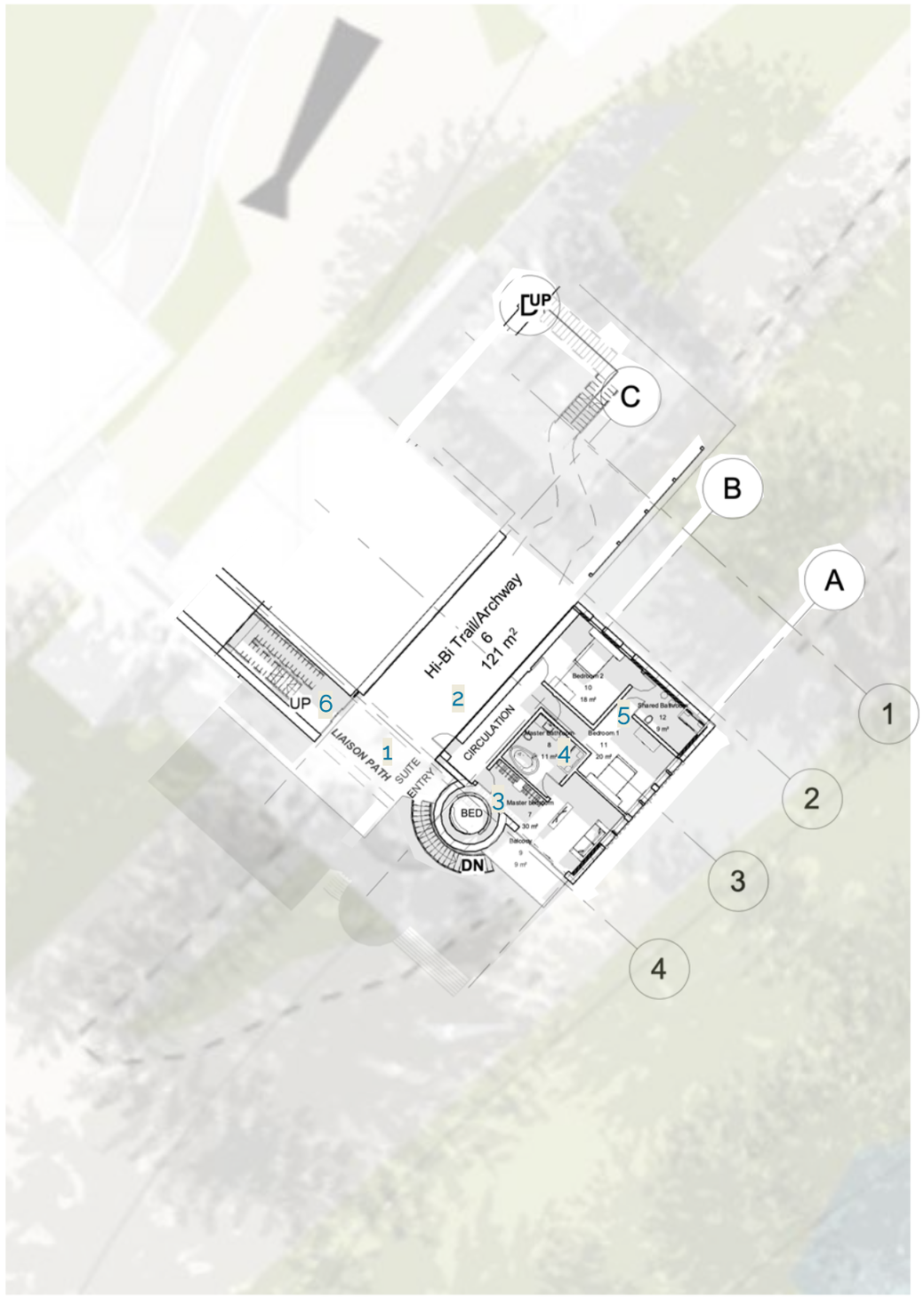
1:250
1st Floor

1: MAIN FLOOR (g)

PROGRAM

1. Suite Entry
2. Anteroom
3. Washroom
4. Grand Parlour
5. Dining Room
6. Kitchen
7. Living wall Spa w/ washroom
8. Liaison Path

(g)/(bg): partially below grade
— — — part of the building that is above grade



-1: 2ND FLOOR (g)/(bg)

PROGRAM

1. Suite Entry
2. Hi-Bi Trail/Archway
3. Master Bedroom
4. Master Bathroom
5. 2 Bedrooms w/ Shared Bathroom
6. Liaison Path

1:250
2nd Floor

(g)/(bg): partially below grade
— — — part of the building that is above grade

1:250
3rd Floor

-2: 1ST FLOOR (g)/(bg)

PROGRAM

1. Staff Entry
2. Laundry
3. Storage
4. Staff Quarters
5. Staff Bedroom Suites
6. Electrical Room
7. Mechanical Room
8. Fire Exit
9. Liaison Path

Individual Floor Plan:

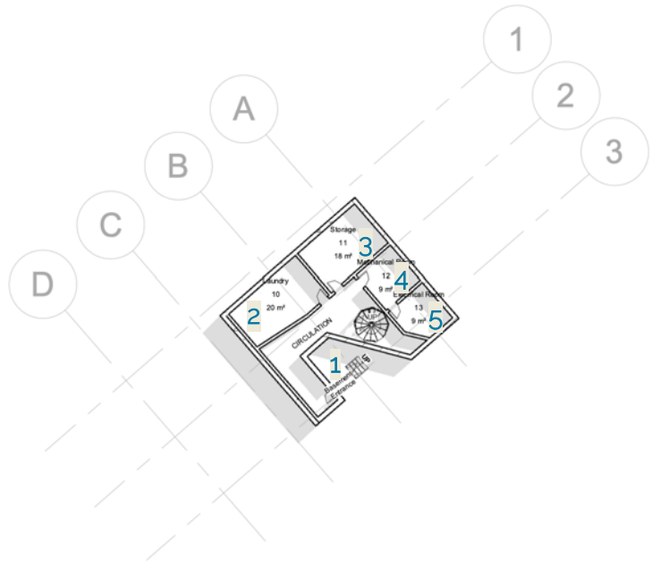
5. Maisonna Villa

(g): above grade
— — — part of the building that is above grade

-1: BASEMENT (bg

PROGRAM

1. Basement Entry
2. Laundry
3. Storage
4. Mechanical Room
5. Electrical Room



1:350
Basement

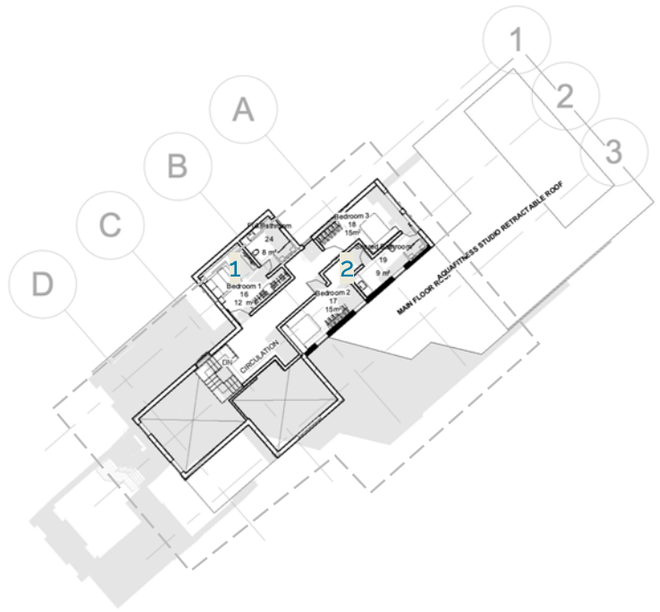
1: MAIN FLOOR (g)

PROGRAM

1. Suite Entry
2. Anteroom w washroom
3. Main Living Room
4. Kitchen & Dining Area
5. Changing rooms (M & F)
6. Gym
7. Aquafitness Studio
8. Liaison Path

1:350
1st Floor

(g): above grade
– – – part of the building that is above grade



1:125
2nd Floor

2: 2ND FLOOR (g)

PROGRAM

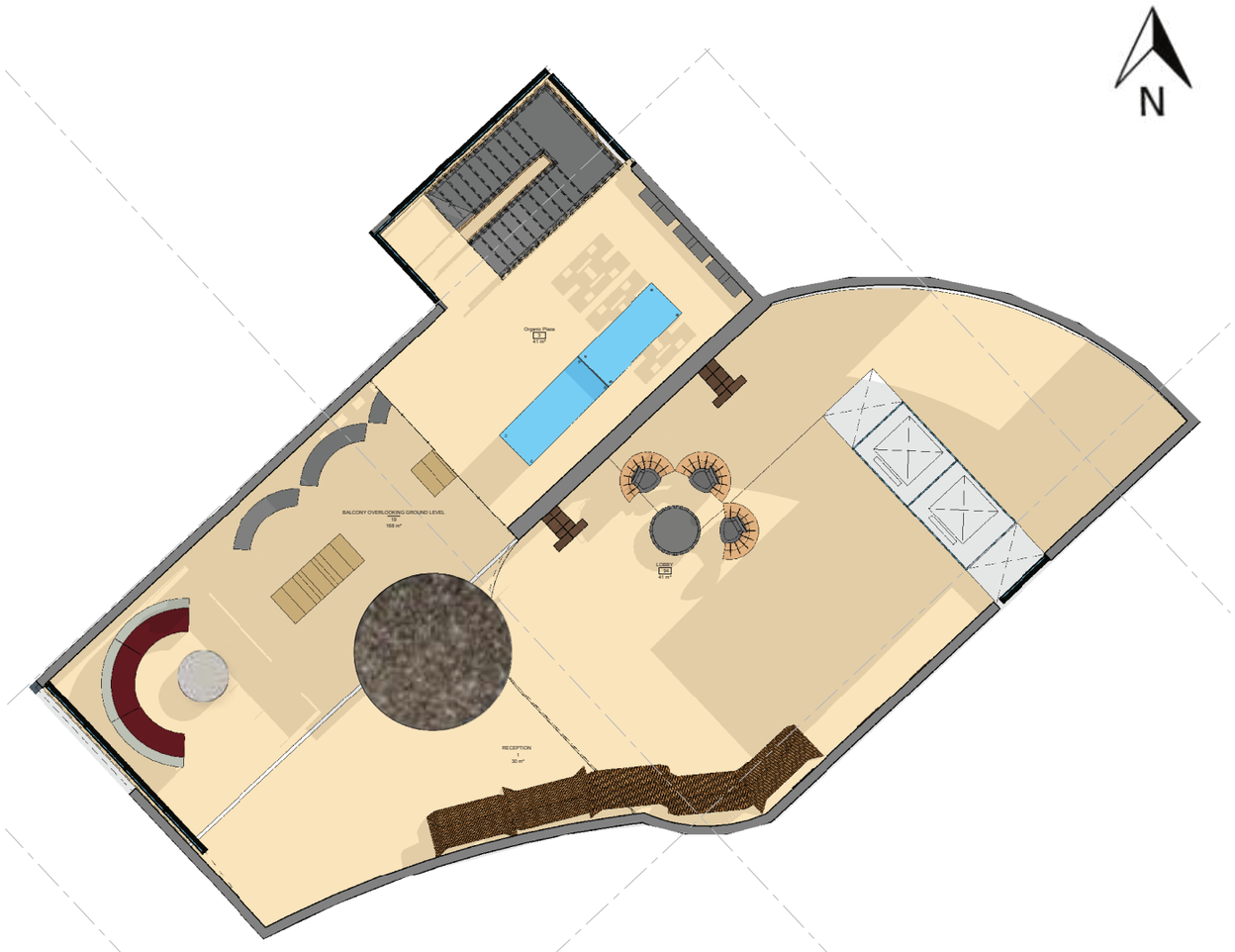
1. 1 Bedroom w/ full bathroom
2. 2 Bedrooms w/ shared bathroom

Architectural Finishes

TOP-BOTTOM, L-R:

- Ashlar masonry (Liaison Path walls in Reception link)
- Polished concrete (walls along the Reception circulation)
- Grass sheets (outdoor living walls)
- Asphalt (paved for car users)
- Glass brick
- Clear glass panels of different tints
- Frosted glass panel
- Cedarwood (horizontal cladding of Francey & Vianda villas)
- Brown claustra bond brick
- Black steel
- Black oak (for joinery to brick with steel)
- Cherrywood
- Corten steel (Circa villa's façade)

1:60 FLOOR PLAN

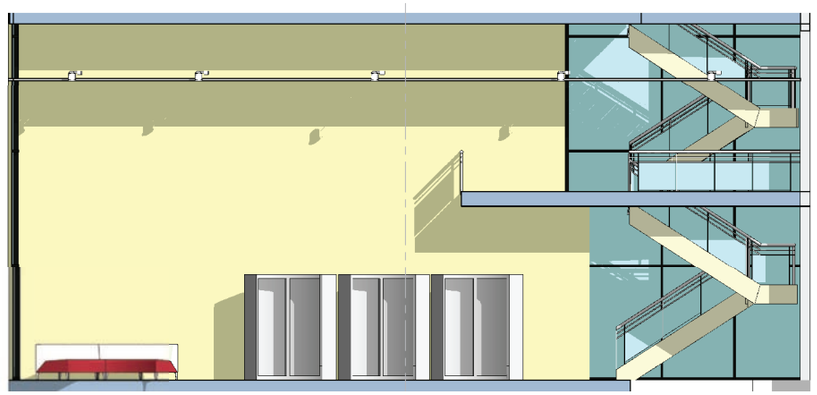


1:60 REFLECTED CEILING PLAN

- Main ceiling (white gyp. board)
- Shadows
- Recessed ceiling (black gyp. board)

Reception

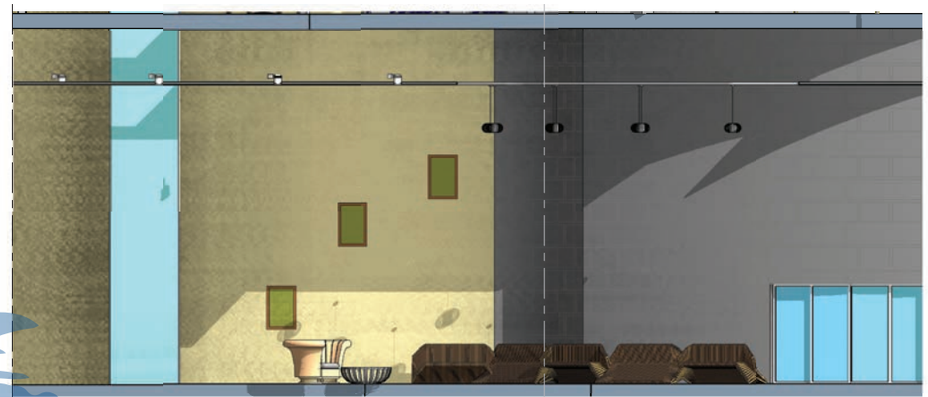
1:60 WALL ELEVATIONS



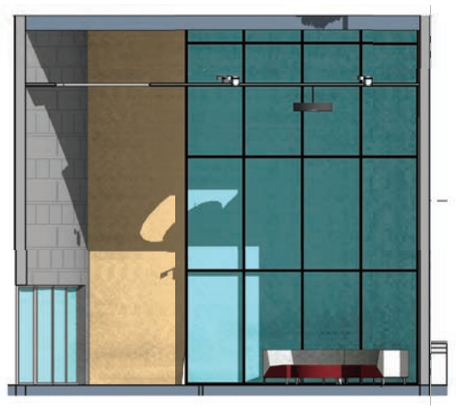
NORTH WALL ELEVATION

EAST WALL ELEVATION

Reception

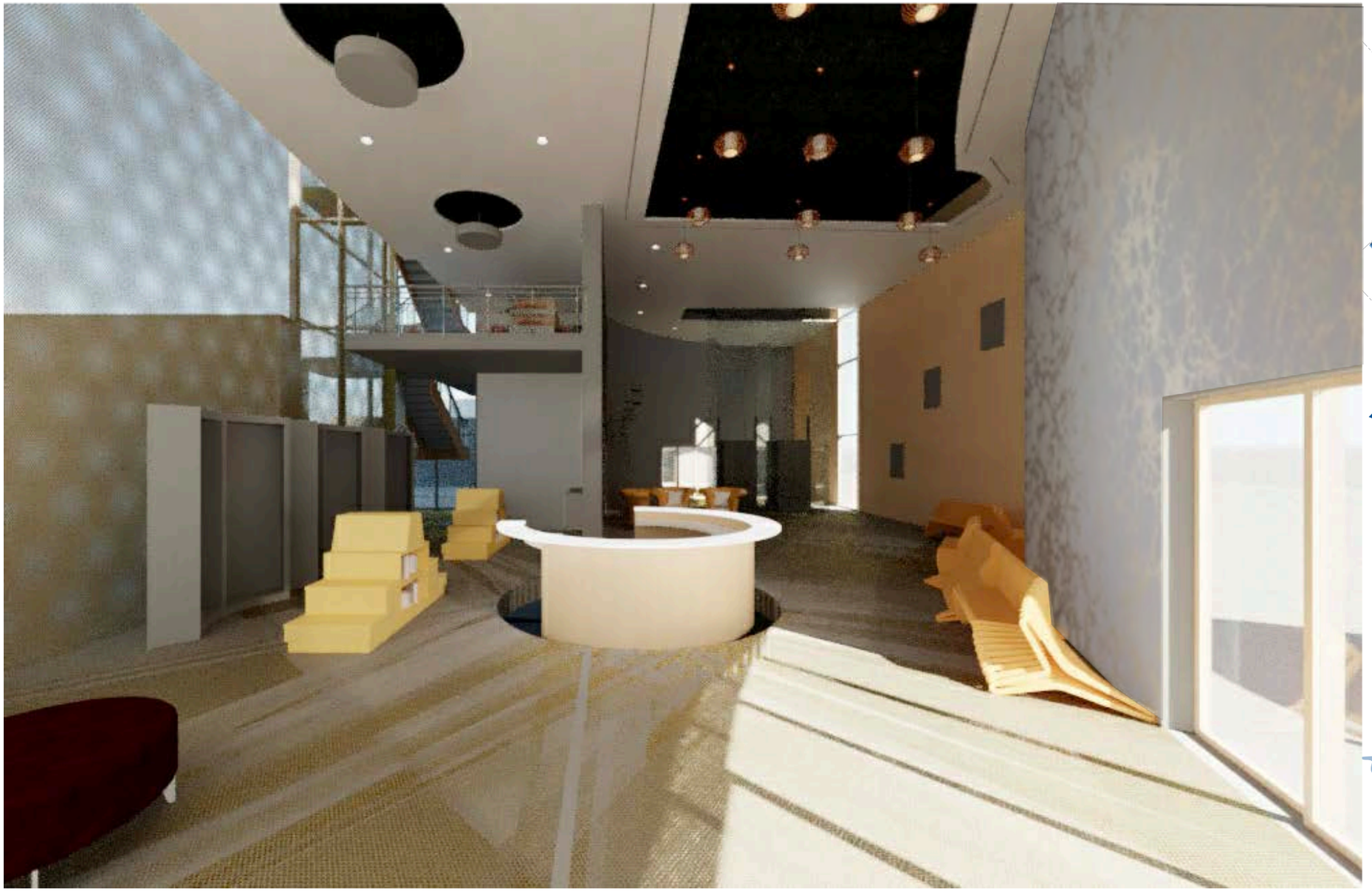


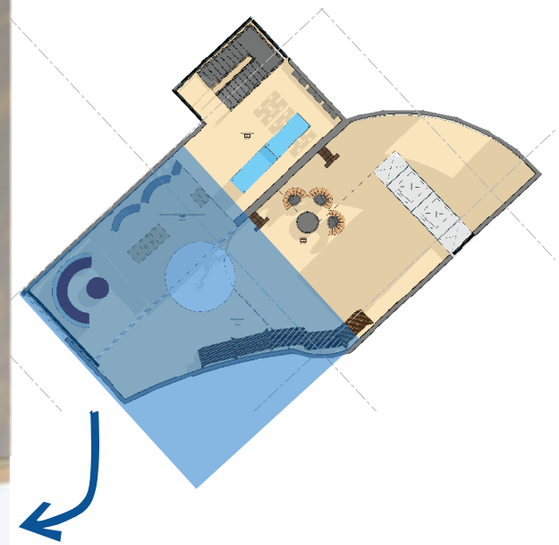
SOUTH WALL ELEVATION



WEST WALL ELEVATION

PERSPECTIVE





Reception

INTERIOR FURNITURE & FINISHES

LIGHTING:

PENDANT LIGHT:
Zaragoza small cream pendant lamp

PENDANT LIGHT:
Jonas copper wire light pendant

RECESSED DOWNLIGHTS:
WAC brushed nickel recessed lighting

COVE LIGHTING:
aspectLED colour changing LED flexible strips- Ultra Bright

FINISHES:

MAIN FLOORING:
Home Depot tan frieze carpet

RECESSED FLOOR:
Blasco grey reflective area rug

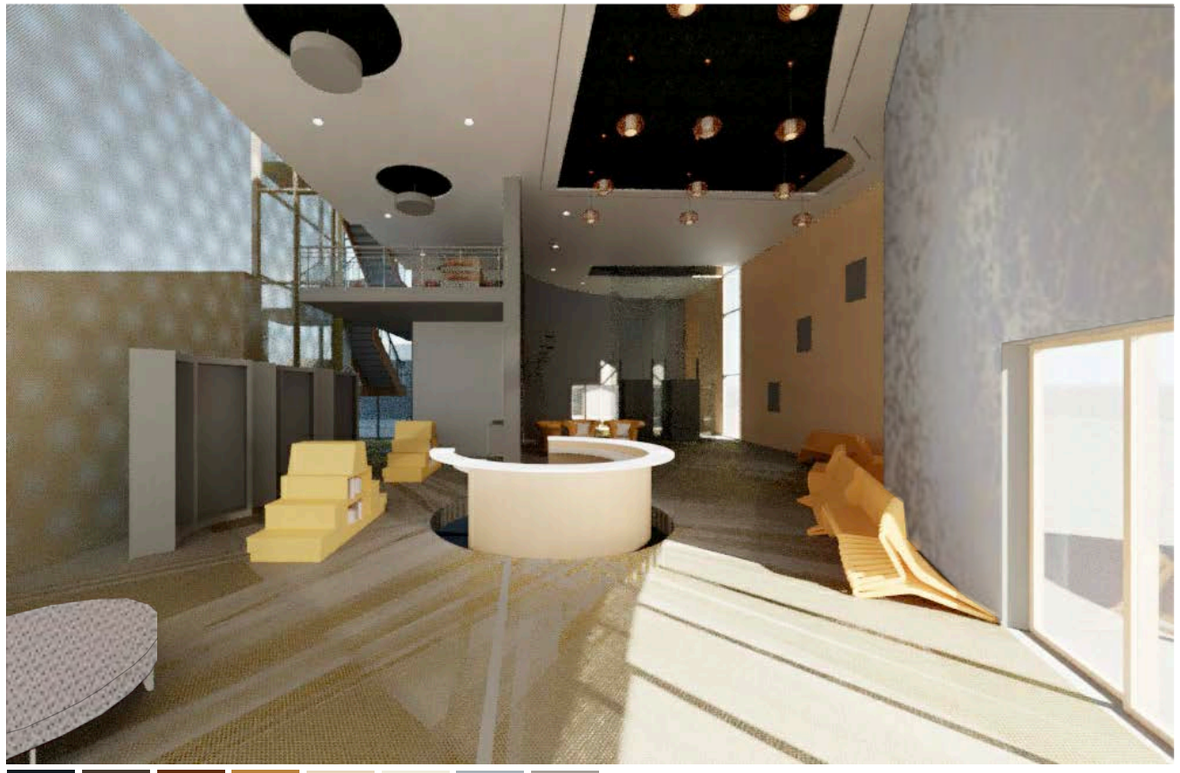
MAIN CEILING:
Armstrong seamless white gypsum board

RECESSED CEILING:
Decoustics black gypsum board

Reception

EAST WALL:
Venetian plaster wall

WEST WALL:
Glass brick wall running bond



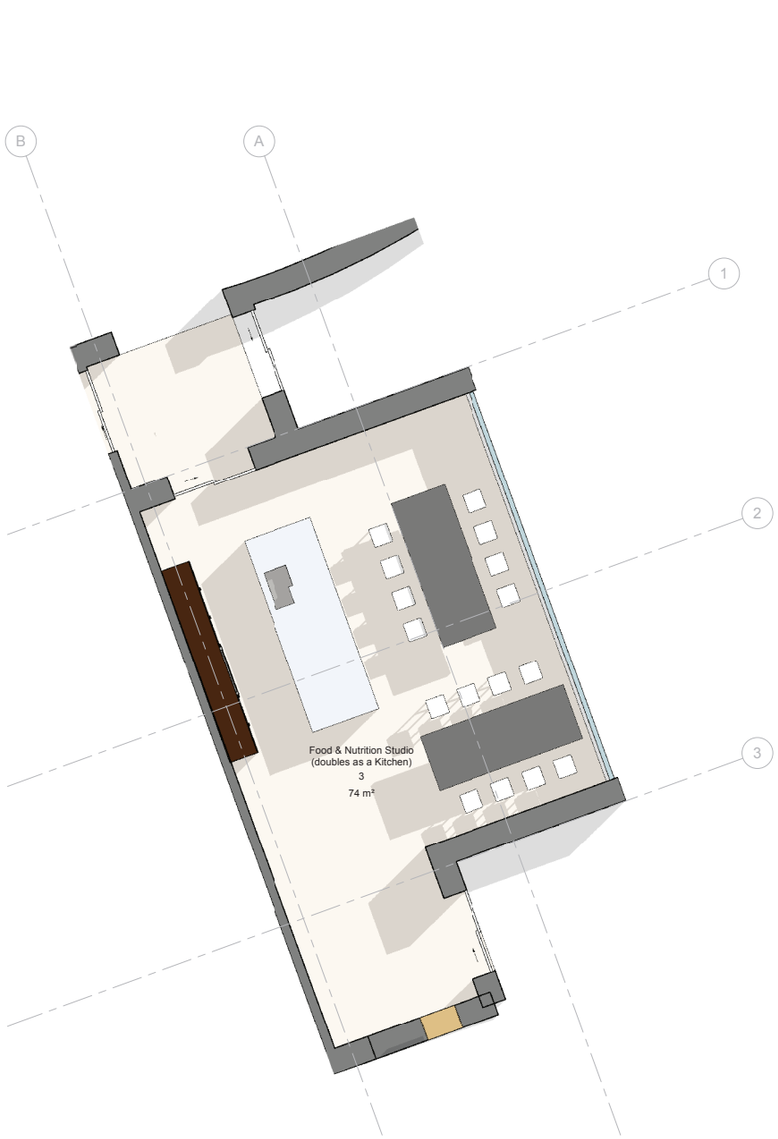
FURNITURE:

OTTOMAN:
Pietro mid-century oval hemp ottoman

RECEPTION DESK:
Juno U-shaped maple wooden reception desk with metal base

BENCHES:
CG Trader plywood parametric bench

1:25 FLOOR PLAN



1:25 REFLECTED CEILING PLAN

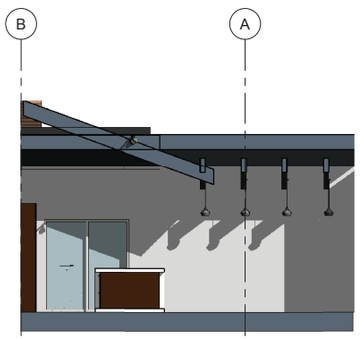
Main ceiling (white gyp. board)

Shadows

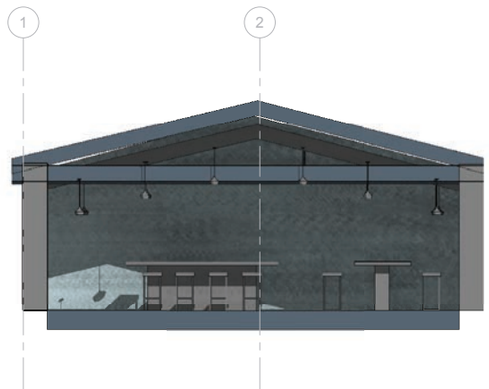
Recessed ceiling (black gyp. board)

Food & Nutrition Studio

1:60 WALL ELEVATIONS

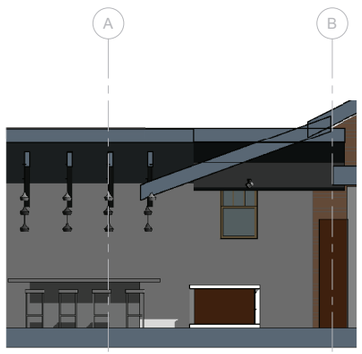


NORTH WALL ELEVATION

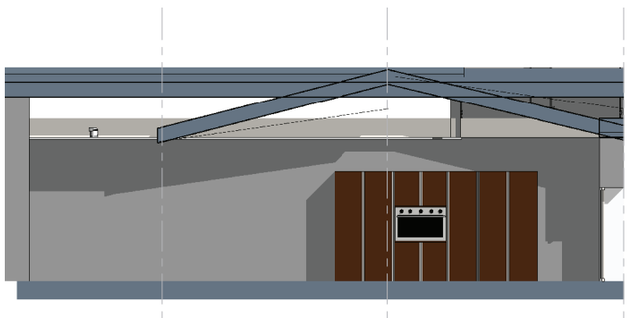


EAST WALL ELEVATION

Food & Nutrition Studio

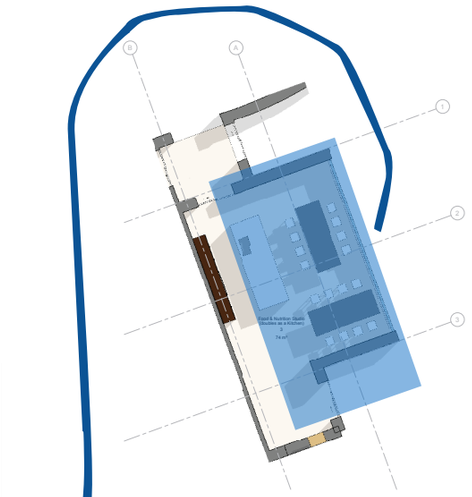


SOUTH WALL ELEVATION



WEST WALL ELEVATION

PERSPECTIVE



Reception

INTERIOR FURNITURE & FINISHES

LIGHTING:

PENDANT LIGHT:
Retro lack drop pendant light

TRACK LIGHTING:
WAC black Beamshift Summit track head

RECESSED DOWNLIGHTS:
WAC white recessed lighting

FINISHES:

MAIN FLOORING:
Wilding Wallbeds natural cherry wood

MAIN CEILING:
Armstrong seamless white gypsum board

PITCHED CEILING:
Lumon glass roof/ceiling

PICTURE WINDOW & SLIDING DOORS:
Reynaers aluminum windows & doors

WALLS:
Lowes USG gypsum board

Food & Nutrition Studio

FURNITURE:

KITCHEN ISLAND:
Rycon modern kitchen island with stone island bench and Polytec thermo cabinets

DINING TABLES:
Marble slab-top walnut pedestal-base rectangular dining table

DINING STOOLS:
Anco mustard yellow counter stool

RECEPTION: DESK

KEY FEATURES

- Circular reception desk recessed into the ground with two tiered countertops.
- Recessed floor covered in darker coloured shiny carpet contrasting the lobby's carpet as floor demarcations to meet accessibility standards.
- Light colour palette with laminate maple wood finishing with metal as the base material.

1. Reception Desk point of entry for staff: Receptionists working on shifts each day.
2. Reception Desk point of approach for guests: Guests would seek information about villas, on-site facilities, health awareness programmes, and lots more.

FOOD & NUTRITION STUDIO: ROOF

3. Roof Rafters facing upwards
4. Roof Rafters facing West wall

KEY FEATURES

- Cherrywood rafters used to support the glass panels that make up the roof of the dining area.
- Series of three pendant luminaires are suspended on each part of the slope to add a retro, rustic feel to the space.

Interior Detailing

Renderings

RECEPTION
EXTERIOR: Main Entrance & Entourage

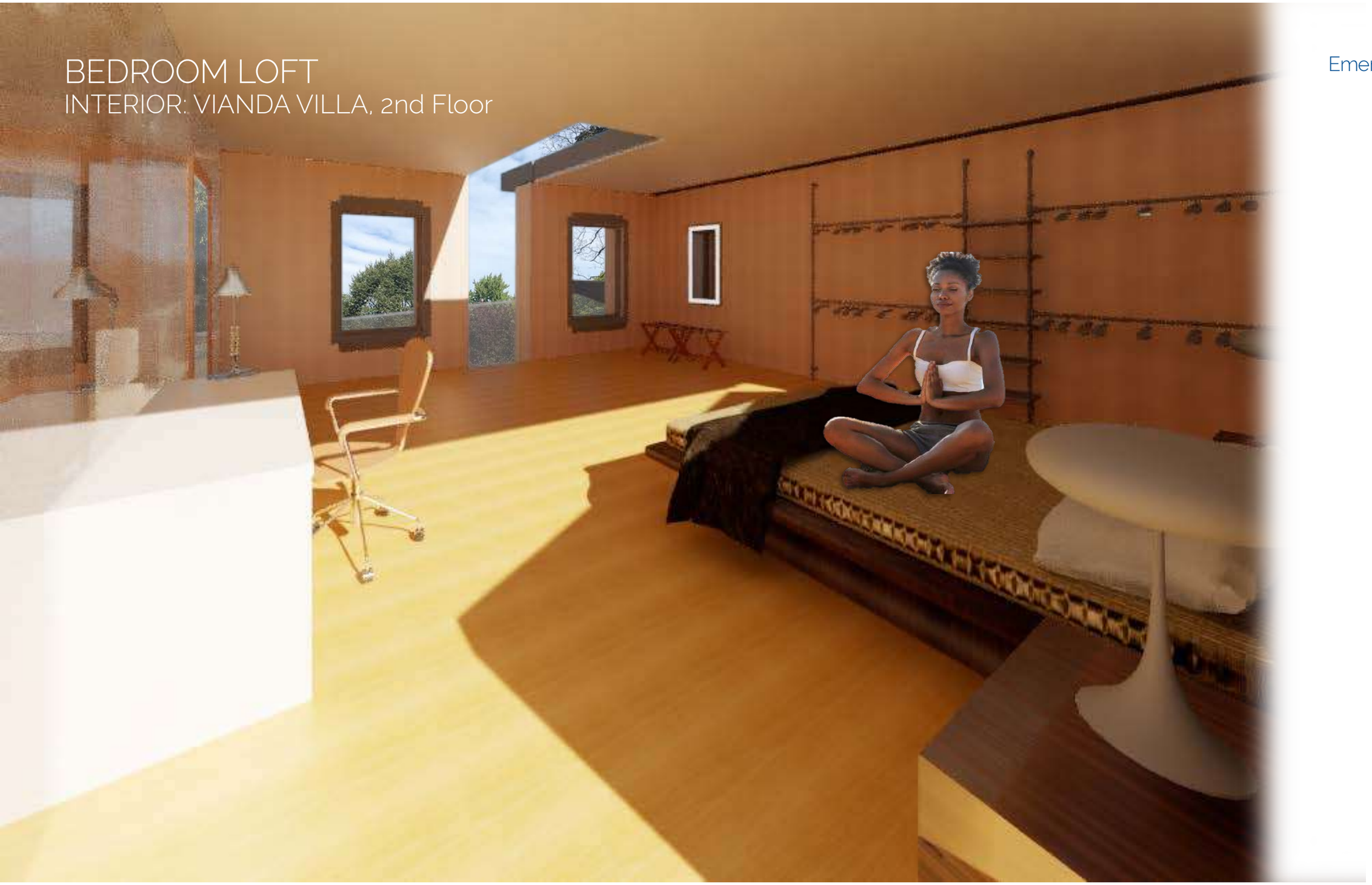
RECEPTION
EXTERIOR: Circulation & Liaison Path

CAFE & BAR
INTERIOR: RECEPTION, 2nd floor

Rooftop Garden

INTERIOR: FRANCEY VILLA, Pent floor

BEDROOM LOFT
INTERIOR: VIANDA VILLA, 2nd Floor

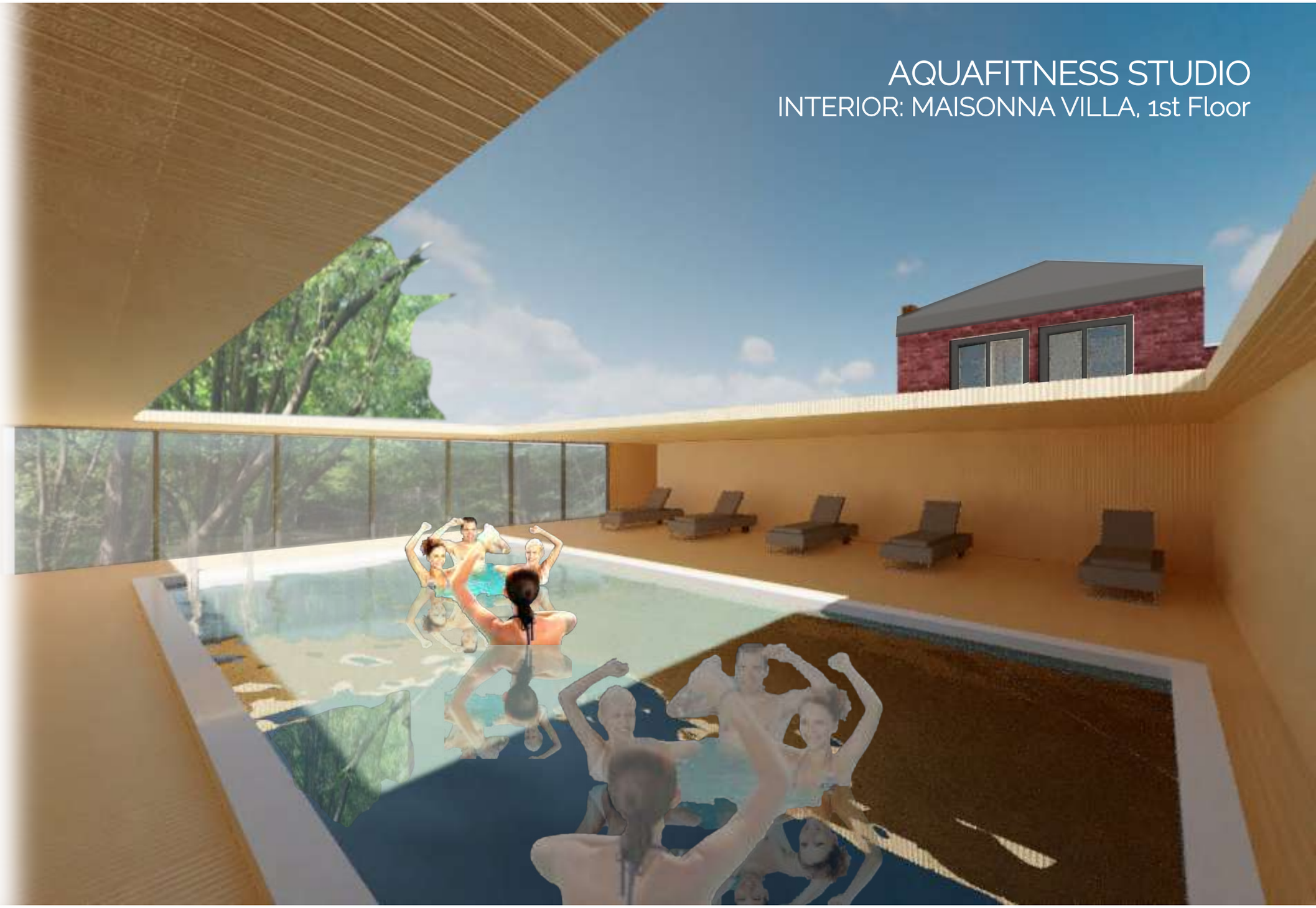


CIRCA VILLA

EXTERIOR: REAR ENTRANCE, 1st floor

ARCHWAY/HI-BI TRAIL
INTERIOR: CIRCA VILLA, 2nd Floor

AQUAFITNESS STUDIO
INTERIOR: MAISONNA VILLA, 1st Floor



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RIVERDALE VILLAS TORONTO

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ENVIRONMENTAL DESIGN THESIS STUDIO.

ENVR-4902-006.