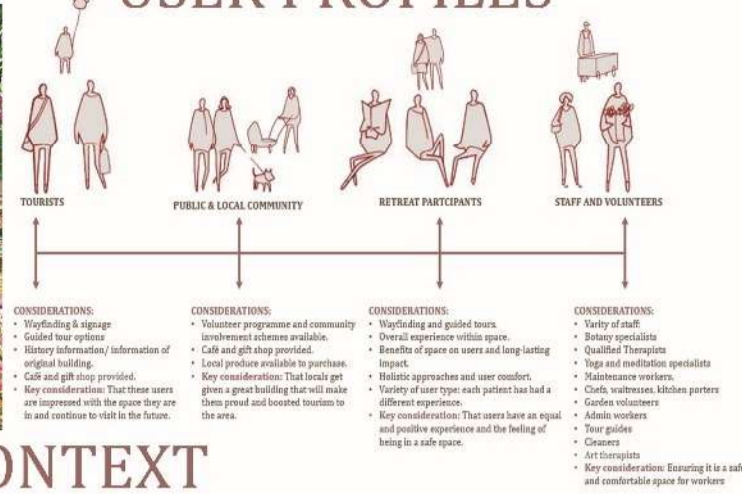
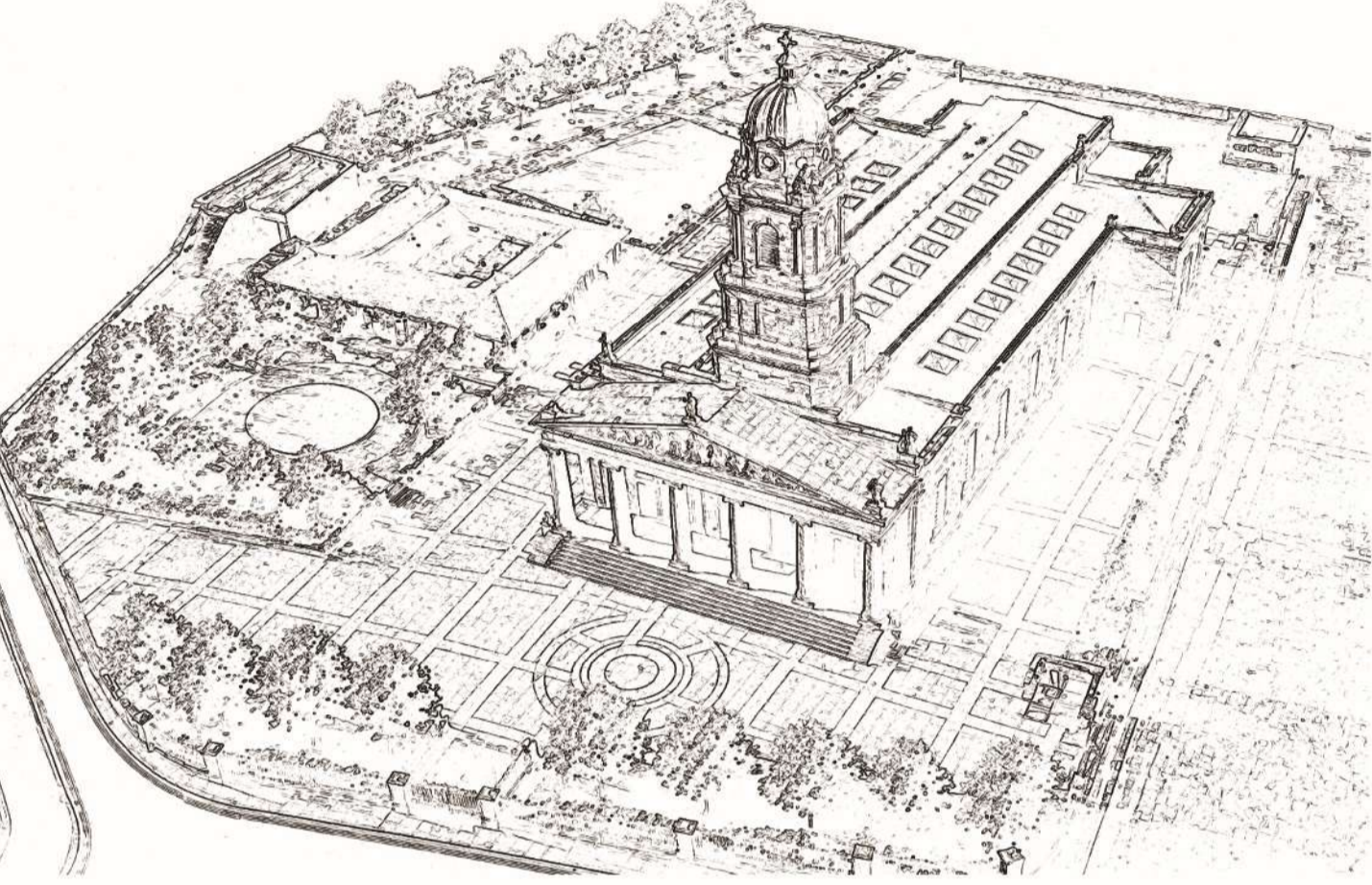


ROOT & RISE

USER PROFILES



SITE CONTEXT



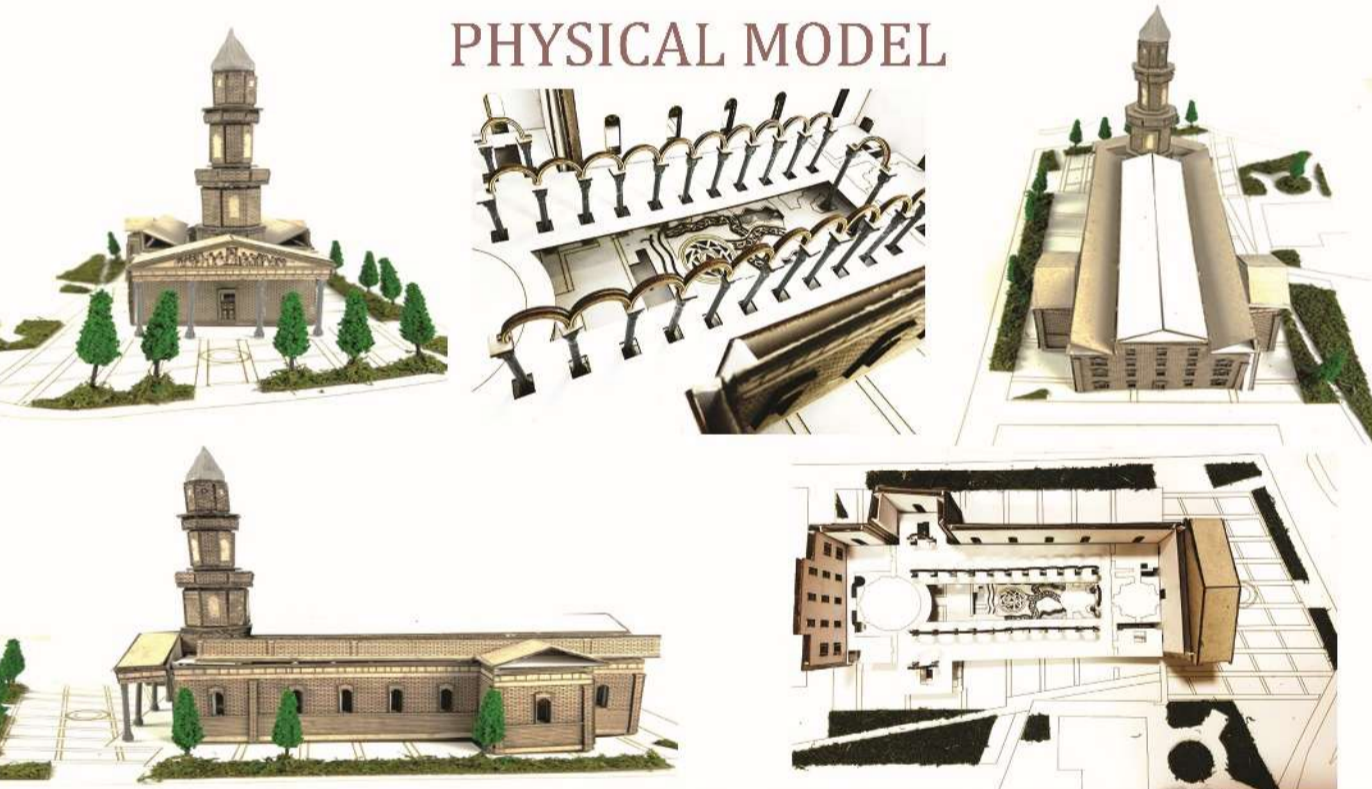
DESIGN INTENT

For generations, St. Mel's Cathedral has stood as a place of gathering, reflection, and resilience within the centre of Longford town. This project sought to reimagine that sense of meaning through a new relationship between people, nature, and space. The aspiration was not simply to redesign the cathedral, but to create an atmosphere that feels restorative, welcoming, and alive. A place where light filters through planting and stained glass, where gardens soften the weight of stone, and where moments of pause, conversation, and reflection become part of everyday experience. By intertwining heritage with nature and community, the project aimed to give the building a renewed purpose while preserving the emotional presence it has always held within the town.

FUNCTION

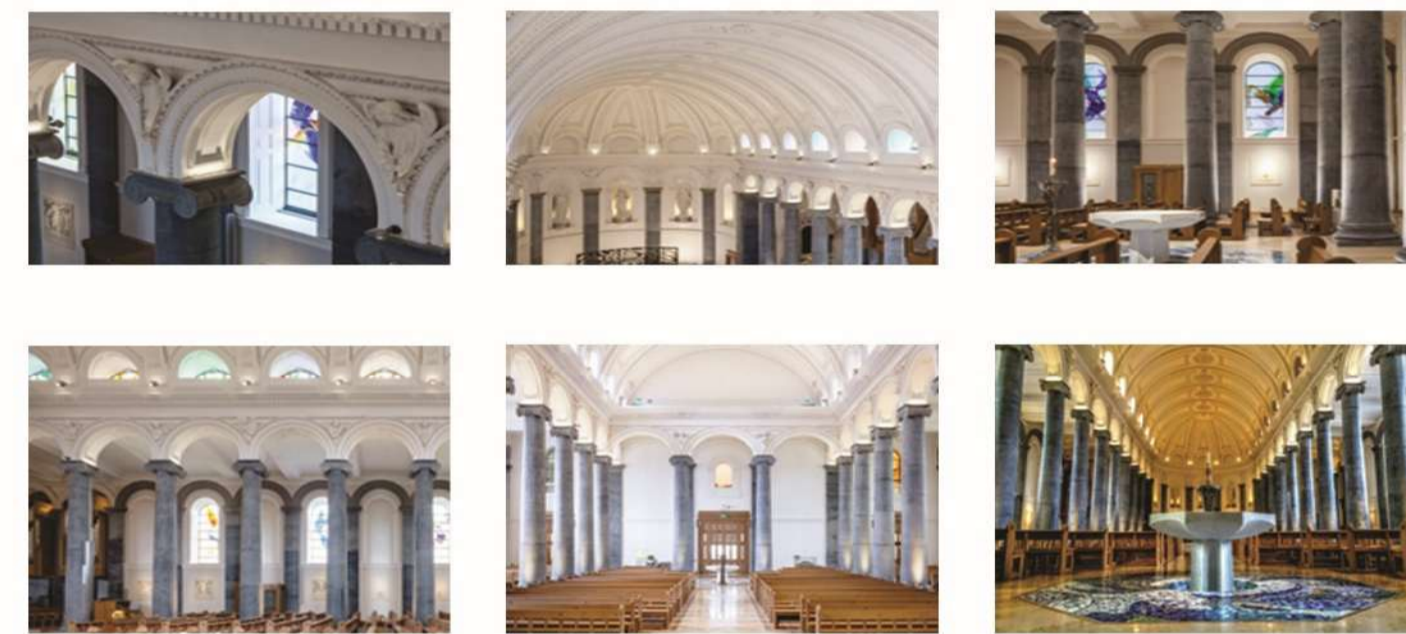
The Botanical Retreat Centre was designed as a hybrid space within St. Mel's Cathedral, functioning as both a semi-public botanic garden and a day retreat for individuals recovering from alcohol and drug addiction. Rather than operating as an inpatient facility, the project focused on creating a safe and supportive environment centred around reflection, wellbeing, and community connection. Through the integration of gardens, cafés, therapy areas, and quiet retreat spaces, the design balanced public engagement with more private functions for recovery and personal growth. Nature, light, and atmosphere were used throughout the building to encourage calmness and emotional wellbeing, while shared spaces helped reduce isolation by promoting interaction between retreat participants and the wider community. The project also explored the adaptive reuse of a significant heritage building, preserving the architectural identity of the cathedral while giving it a new socially relevant purpose that contributes positively to Longford through culture, tourism, education, and public green space.

FRONT (SOUTHERN) CONTEXTUAL ELEVATION

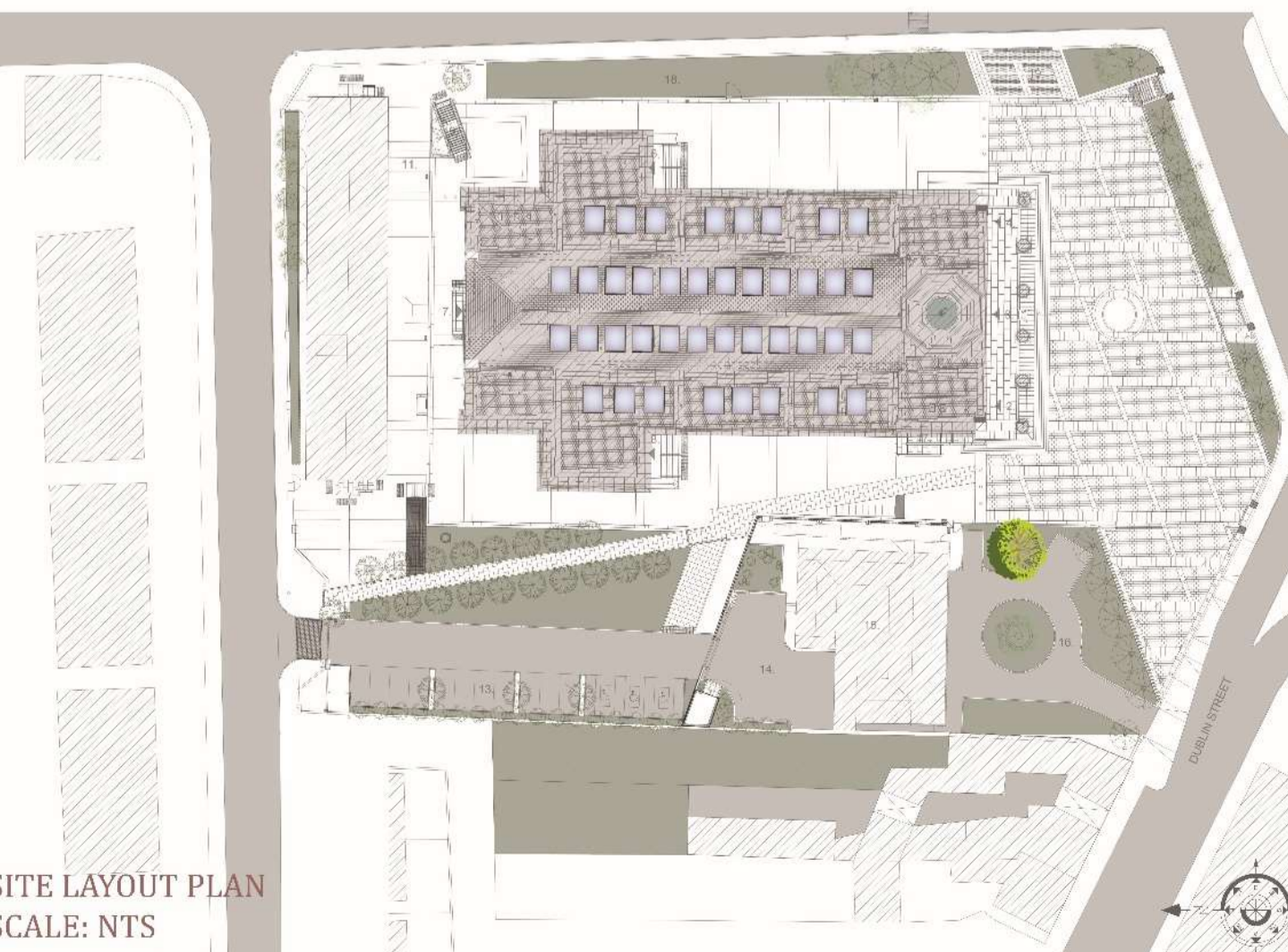


PHYSICAL MODEL

BUILDING IMAGES



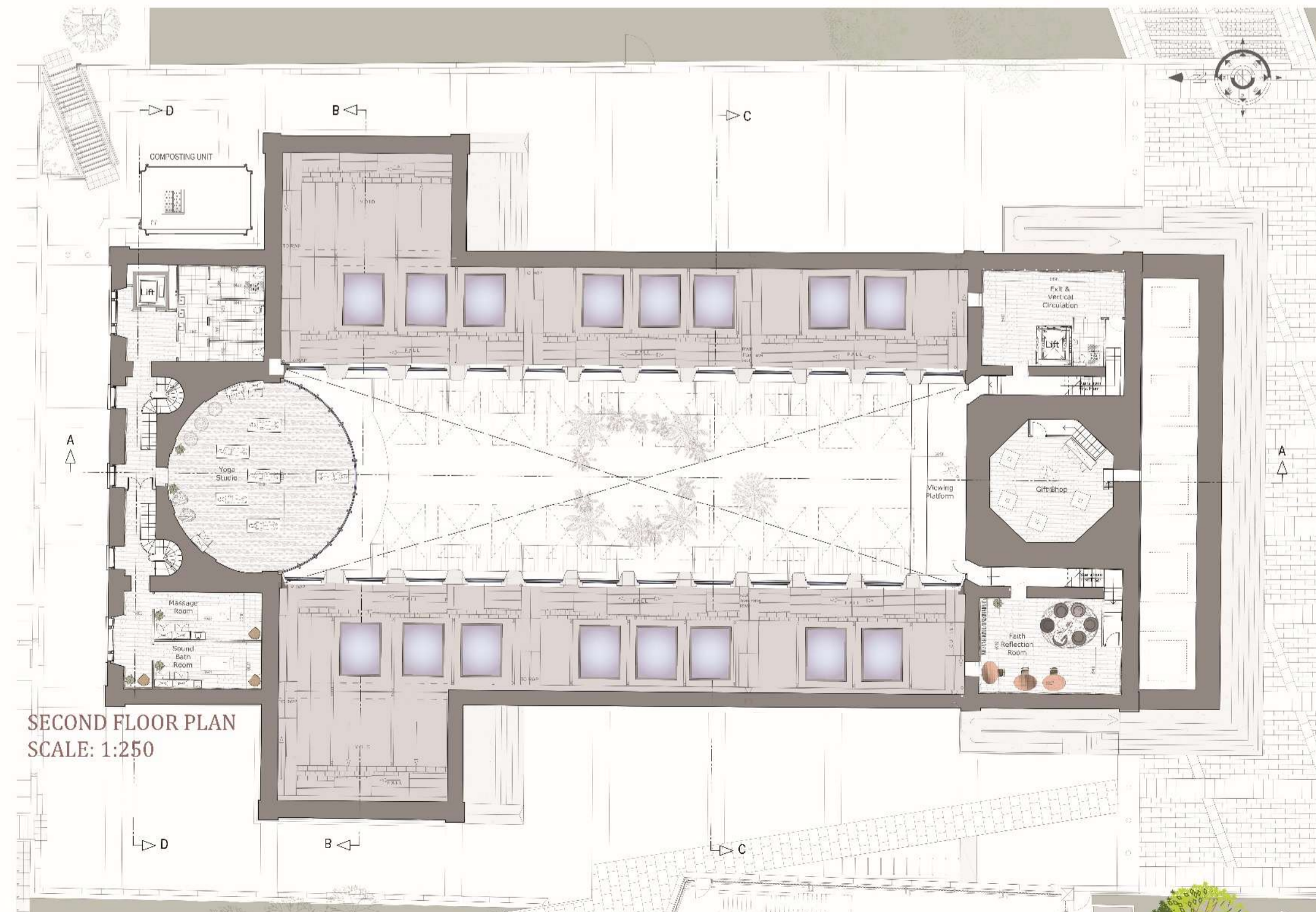
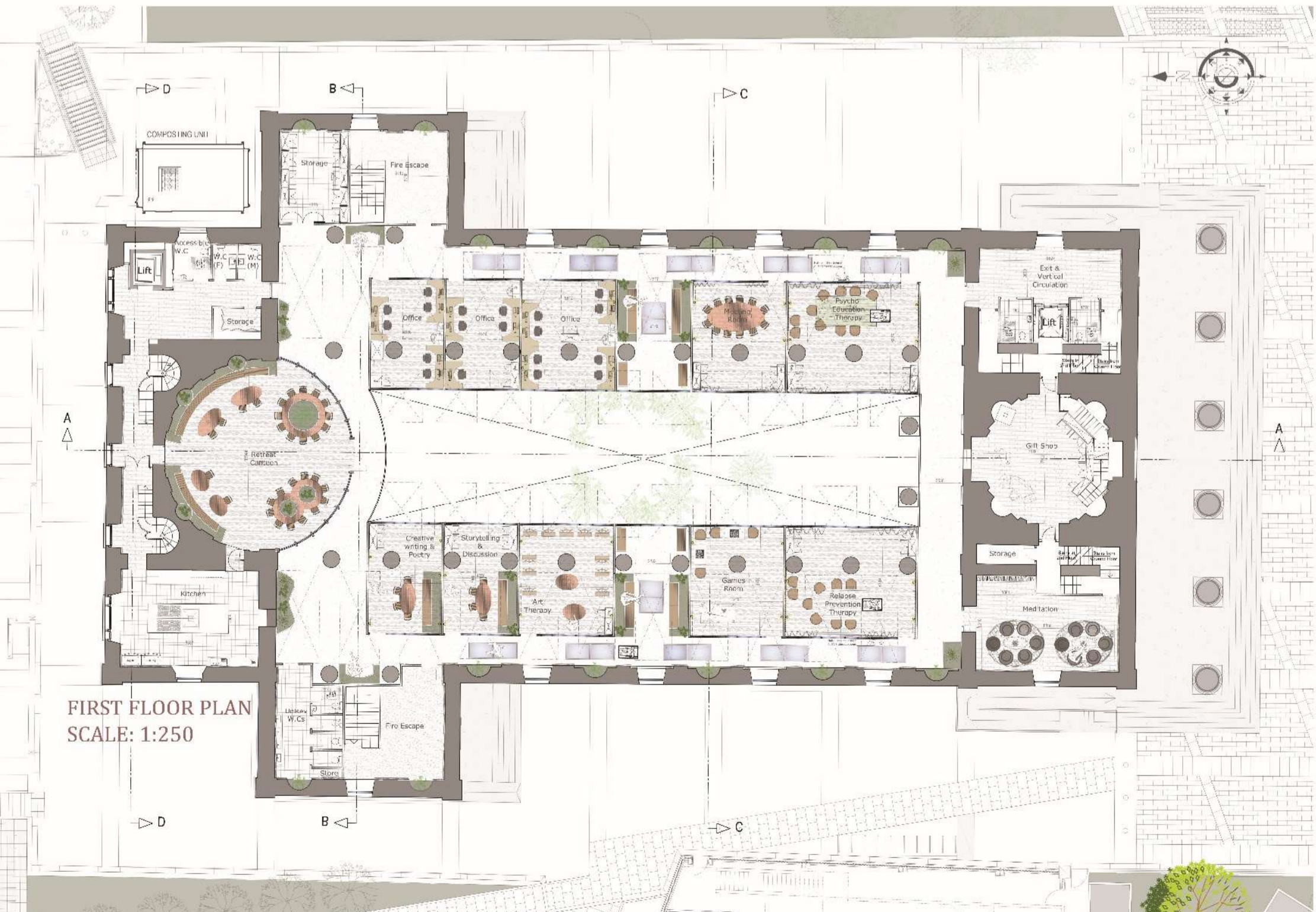
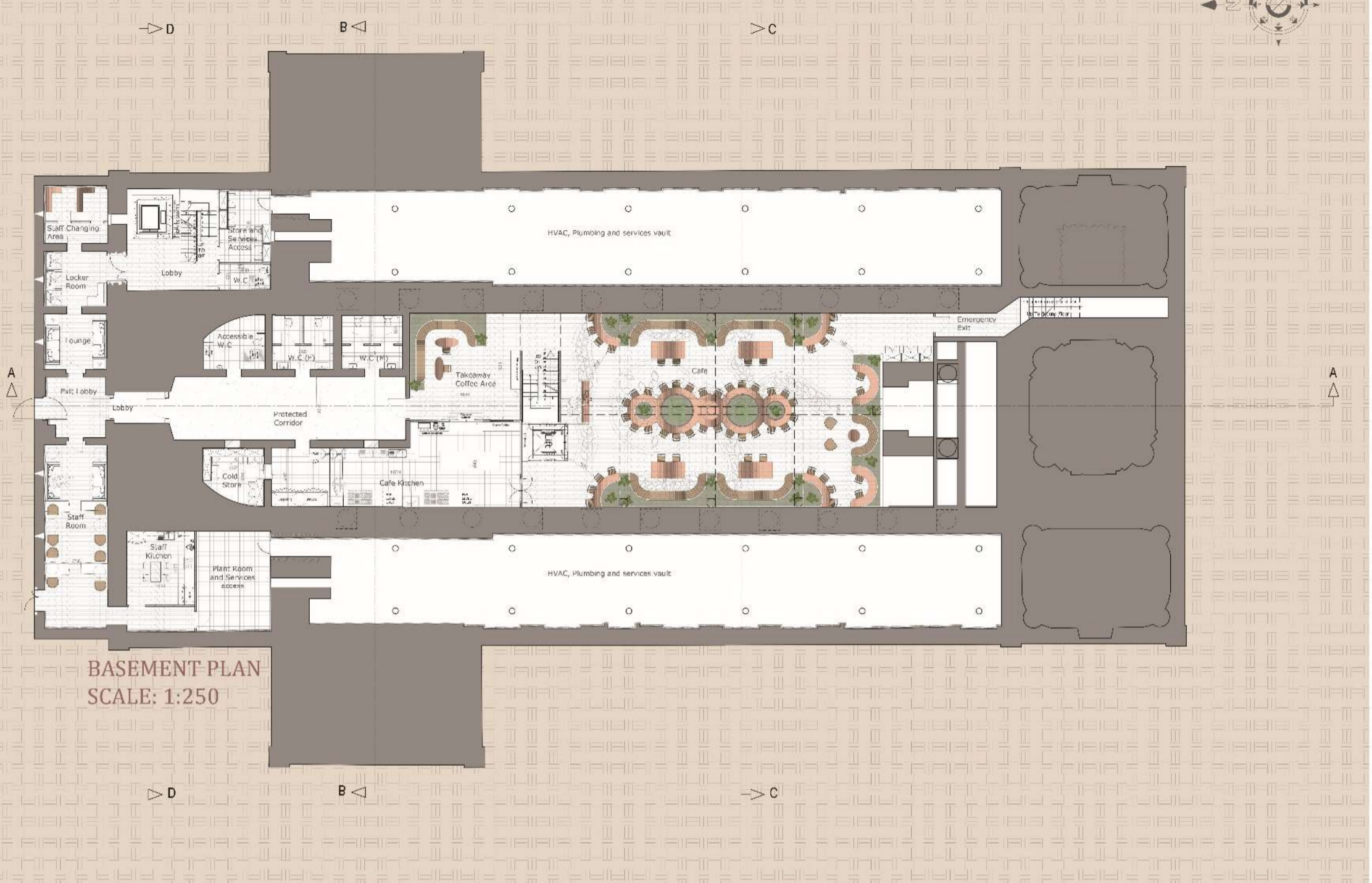
St. Mel's Cathedral was constructed between 1840 and 1856 and remains one of the most significant historic landmarks within Longford town. Located just off Main Street beside the Royal Canal and within walking distance of the town's market square, the cathedral holds strong cultural and architectural importance within the local community. As the building is located within my hometown, I have always had a great admiration for it and its presence within the town. Architecturally, the cathedral presents a complex and challenging structure through its cruciform plan, front portico with six limestone columns, twenty-eight internal limestone columns, prominent bell tower, and basement level below. Following the major fire in 2011 and the extensive restoration that followed, the building has also become symbolic of resilience and renewal.



SITE LAYOUT PLAN SCALE: NTS



SPATIAL LAYOUTS



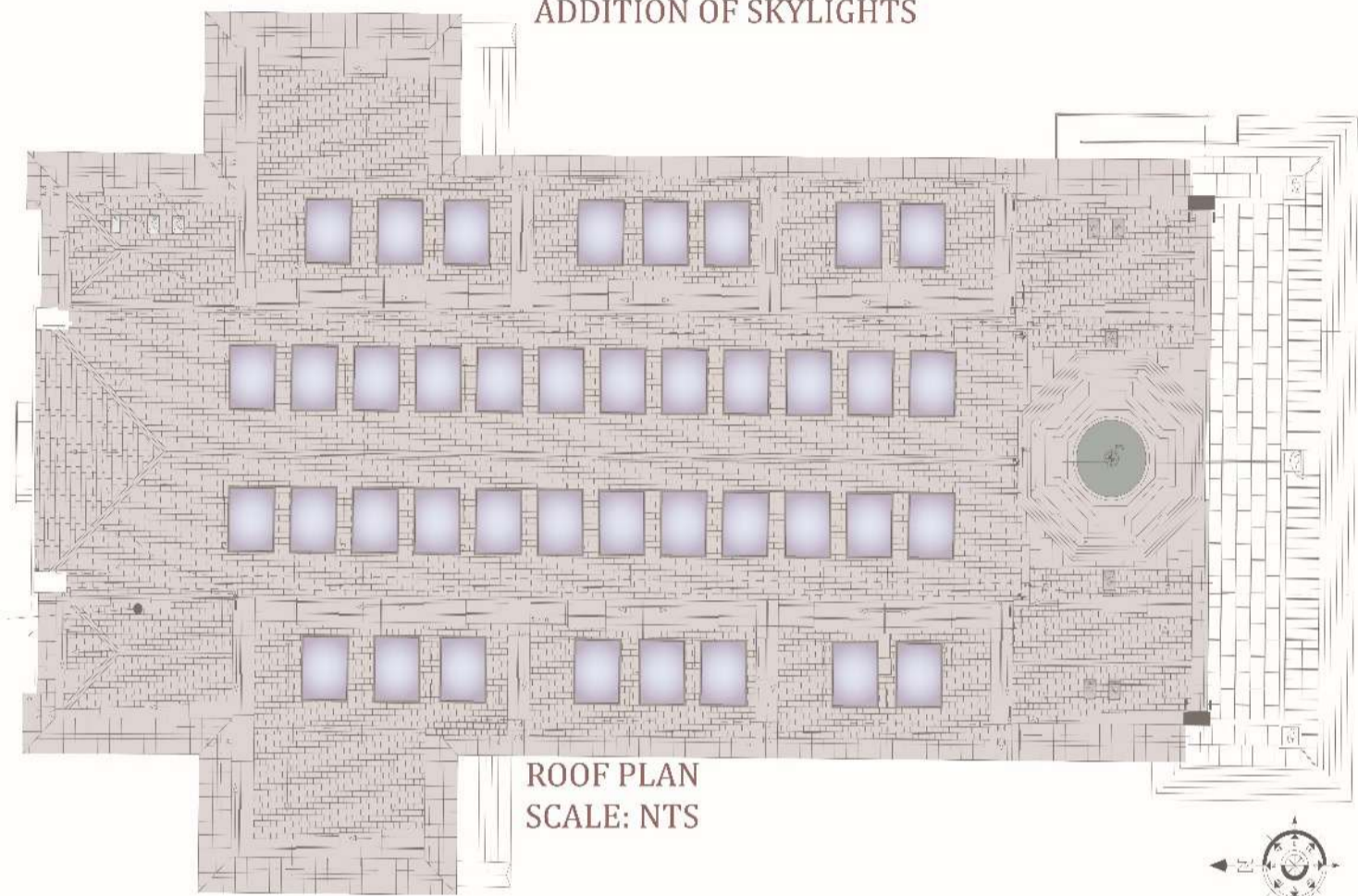
NEW INTERVENTIONS

DROP DOWN OF EXISTING WINDOWS



The cathedral windows were extended downwards to ground floor level in order to maximise the amount of natural light entering the interior spaces. This intervention enhances growing conditions for the planting throughout the sanctuary while also creating a brighter and more uplifting atmosphere within the building. By allowing daylight to penetrate deeper into the space, the design strengthens the connection between the interior and the surrounding environment, contributing to a calmer and more restorative user experience.

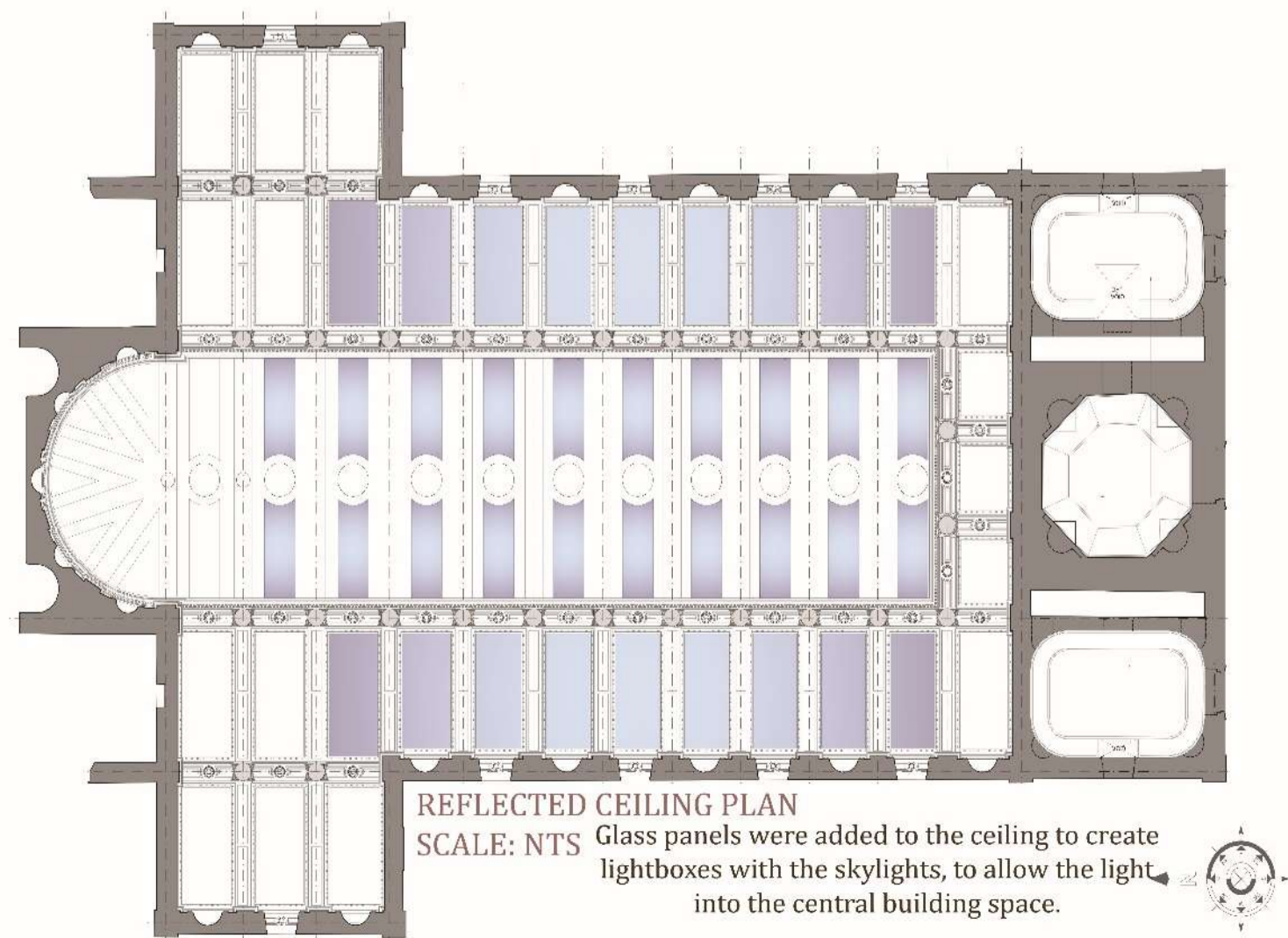
ADDITION OF SKYLIGHTS



ROOF PLAN
SCALE: NTS

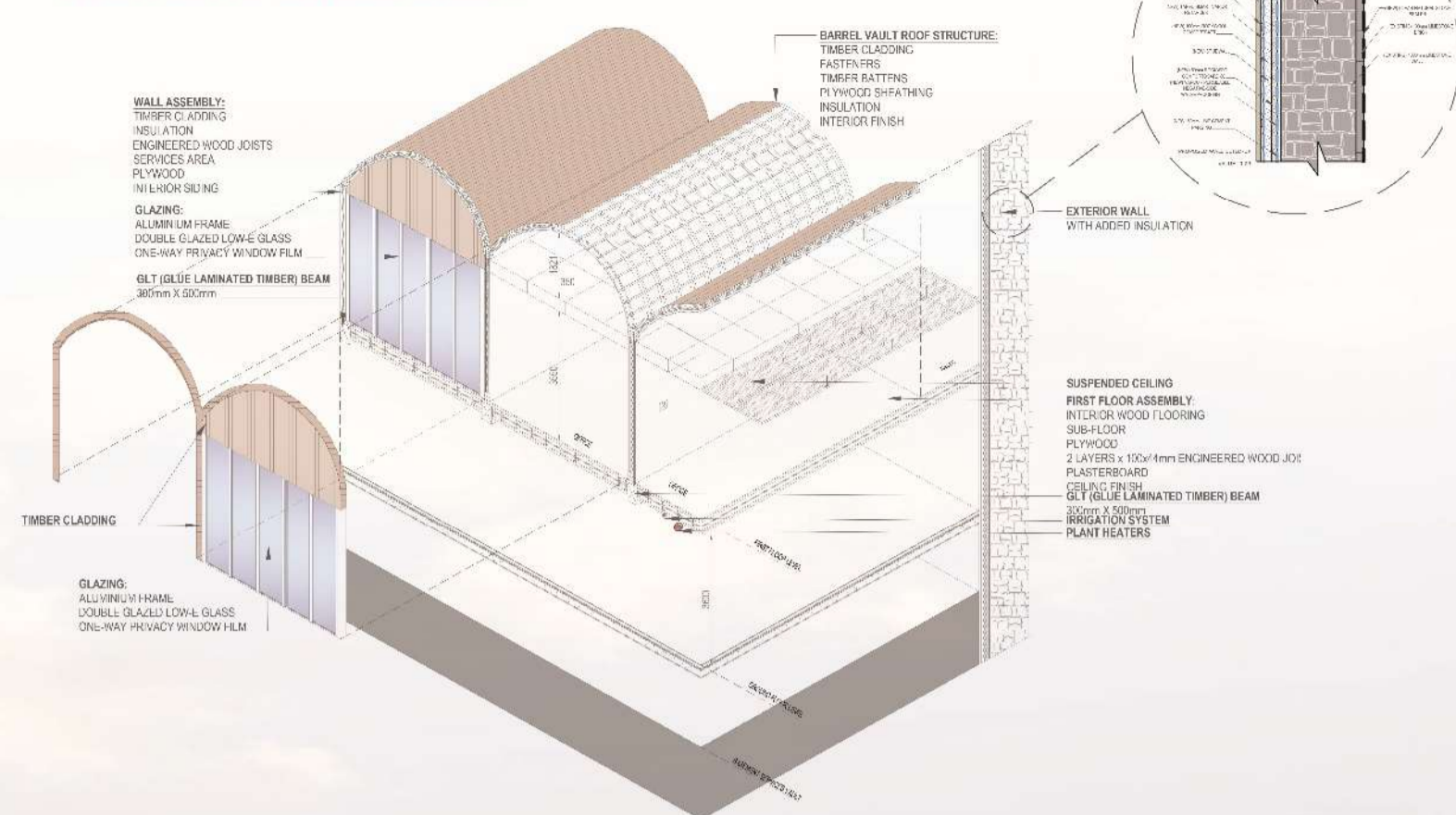
Skylights were introduced into the roof to draw natural light deep into the interior and enhance the overall atmosphere of the sanctuary. The changing daylight creates shifting patterns of light and shadow across the planting and materials throughout the day, giving the space a more dynamic and immersive quality. This intervention also supports the health of the interior vegetation while reducing reliance on artificial lighting, helping the environment feel brighter, softer, and more connected to nature.

ADDITION OF GLASS CEILING PANELS



REFLECTED CEILING PLAN
SCALE: NTS
Glass panels were added to the ceiling to create lightboxes with the skylights, to allow the light into the central building space.

ADDITION OF BARREL VAULTS



LONGITUDINAL SECTION A-A
SCALE: NTS

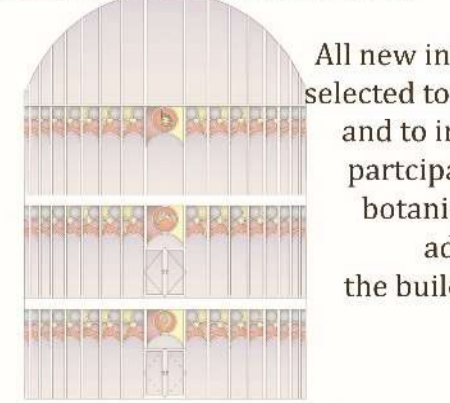


ADDITIONAL FLOORING



First Floor
Second Floor
Addition flooring added to the building highlighted in yellow

ADDITION OF GLASS DOME



Glass dome retreat space elevation

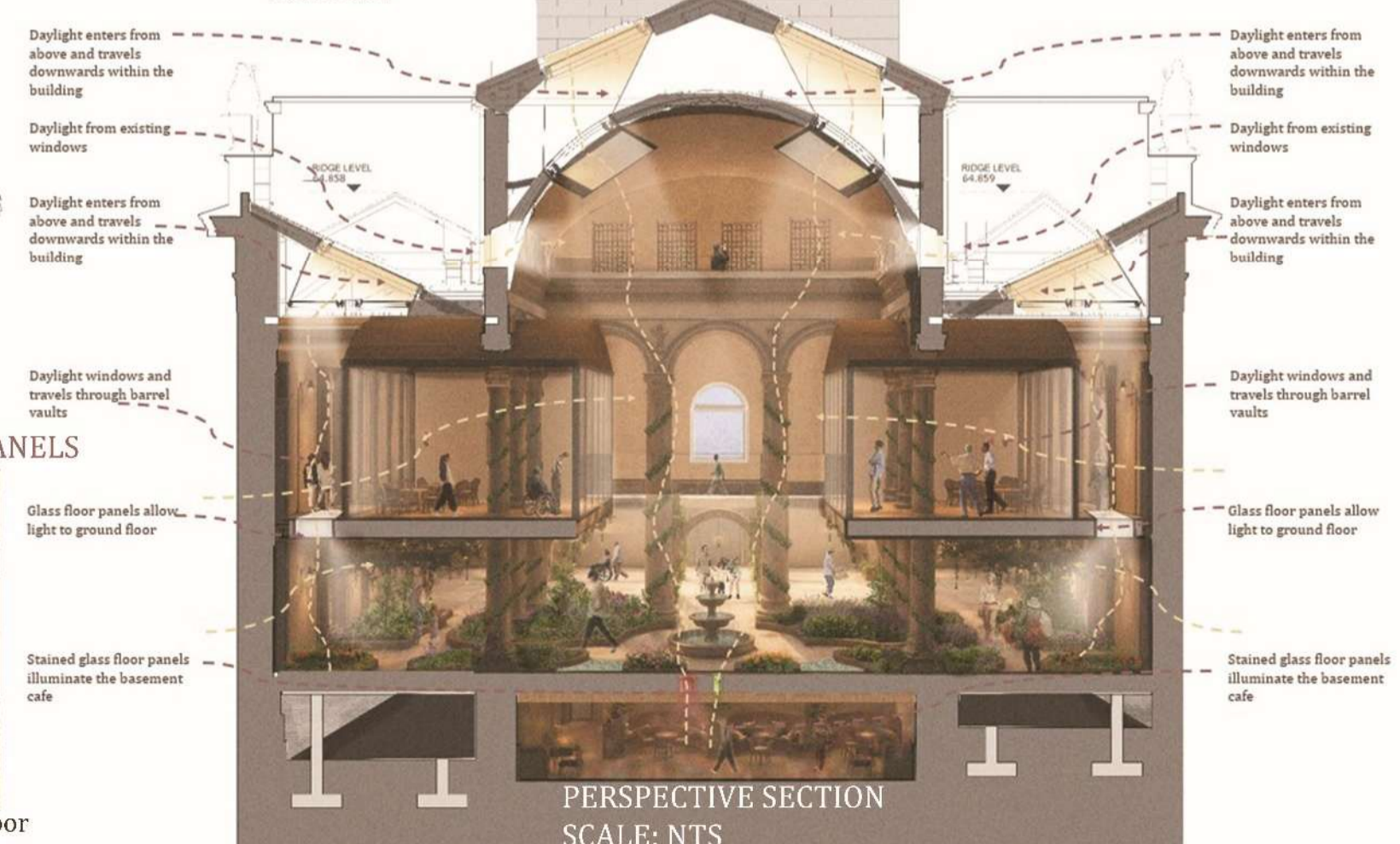
ADDITION OF STAINED GLASS FLOOR PANELS



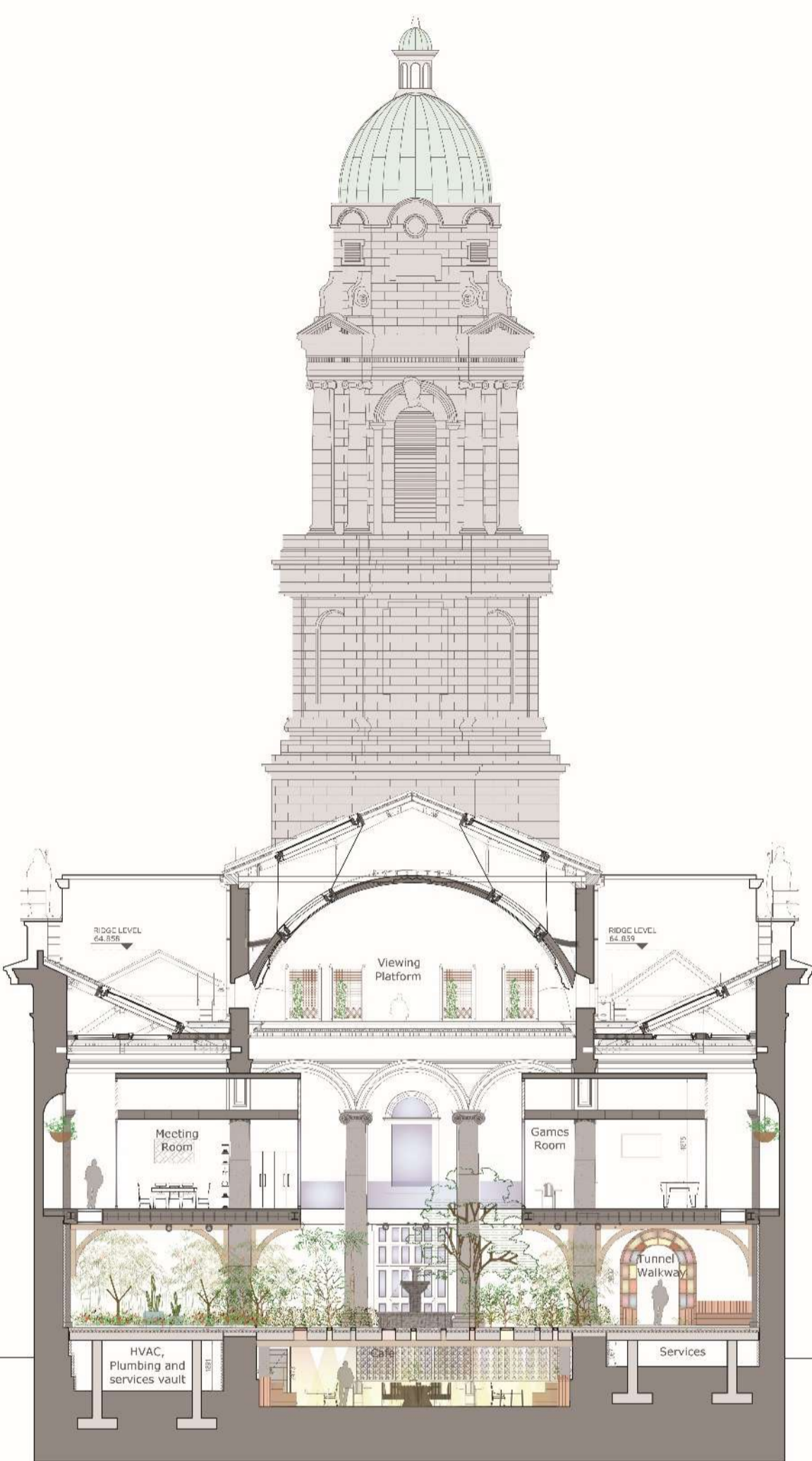
Glass panels located on central ground floor

All new interventions were selected to optimise daylight and to immerse retreat participants within the botanic space, while adhering to the building's integrity

RESULTS



PERSPECTIVE SECTION
SCALE: NTS



CROSS SECTION C-C
SCALE: 1:200

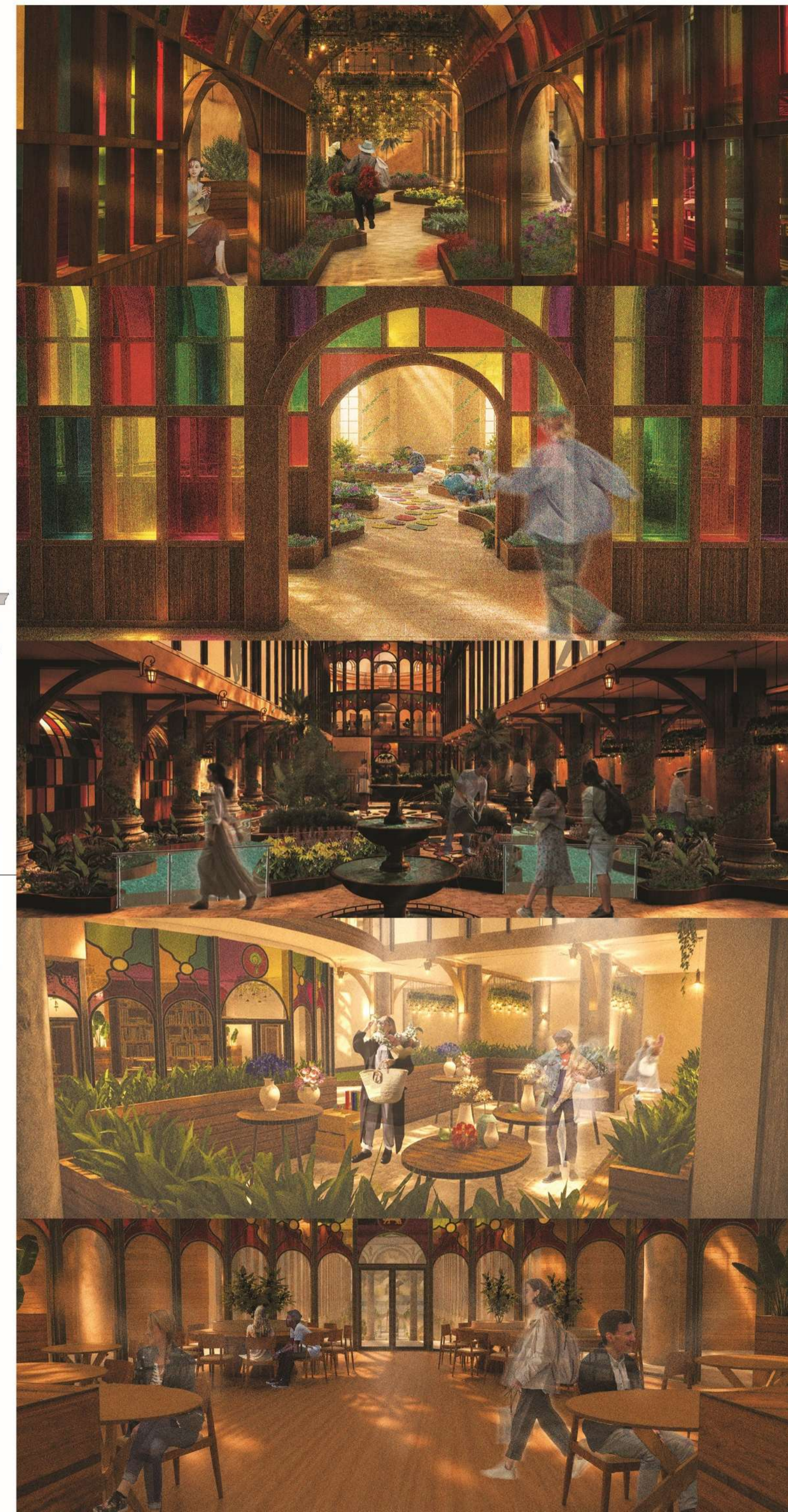
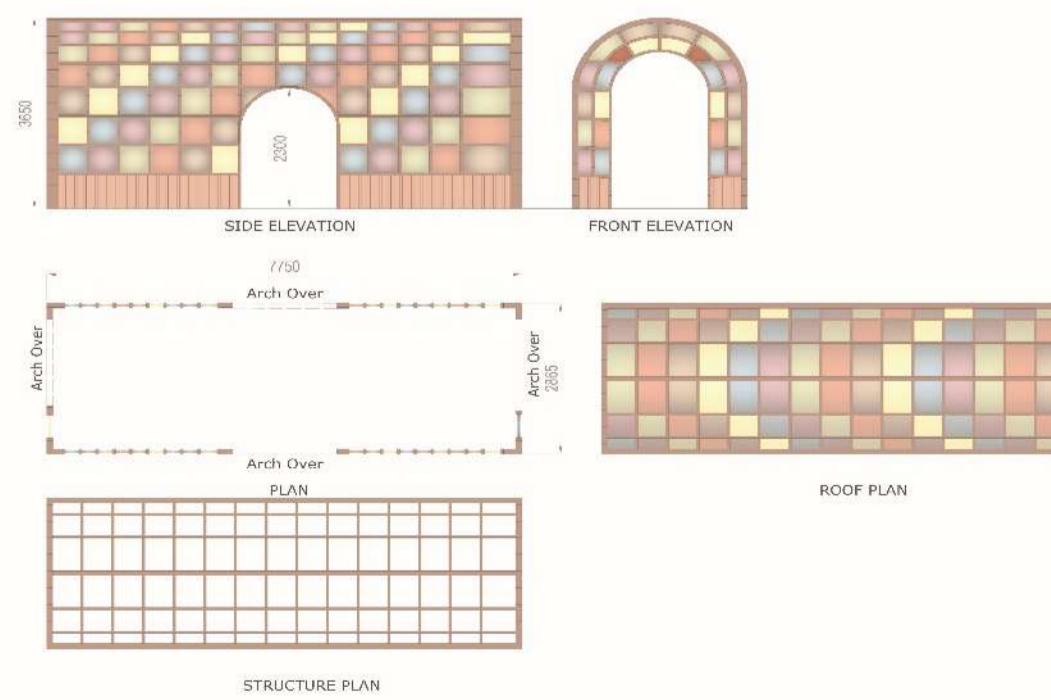


CROSS SECTION D-D
SCALE: 1:200

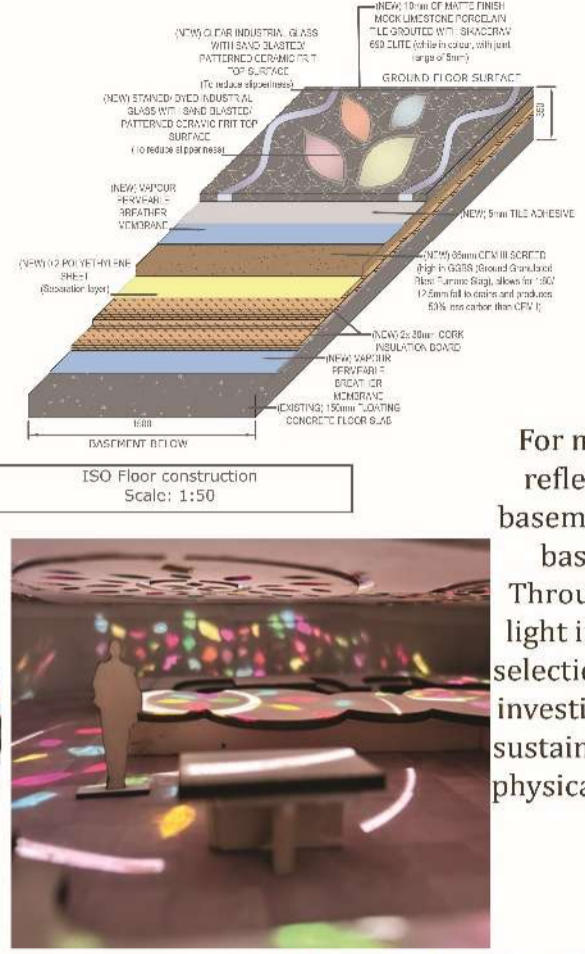
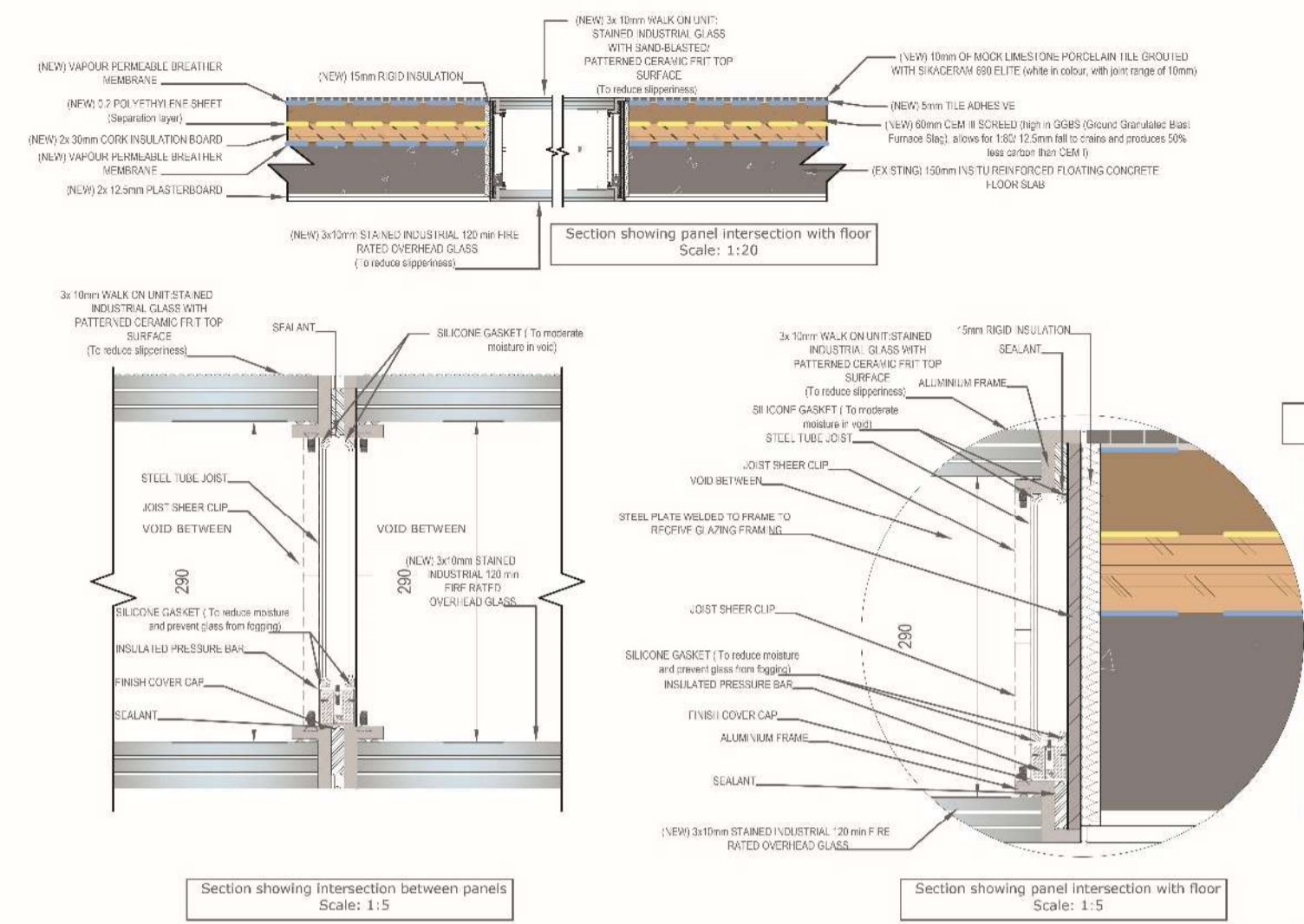


CROSS SECTION B-B
SCALE: 1:200

TUNNEL WALKWAY DESIGN

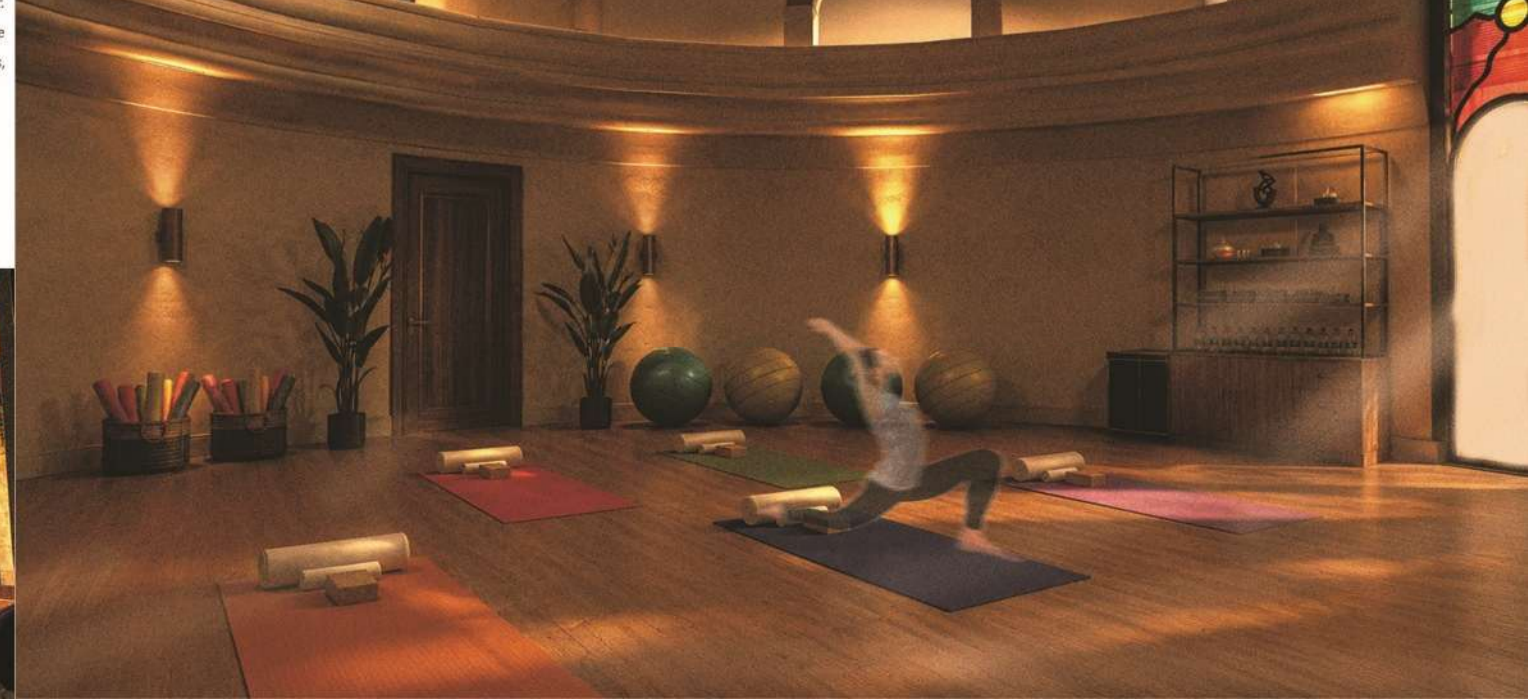
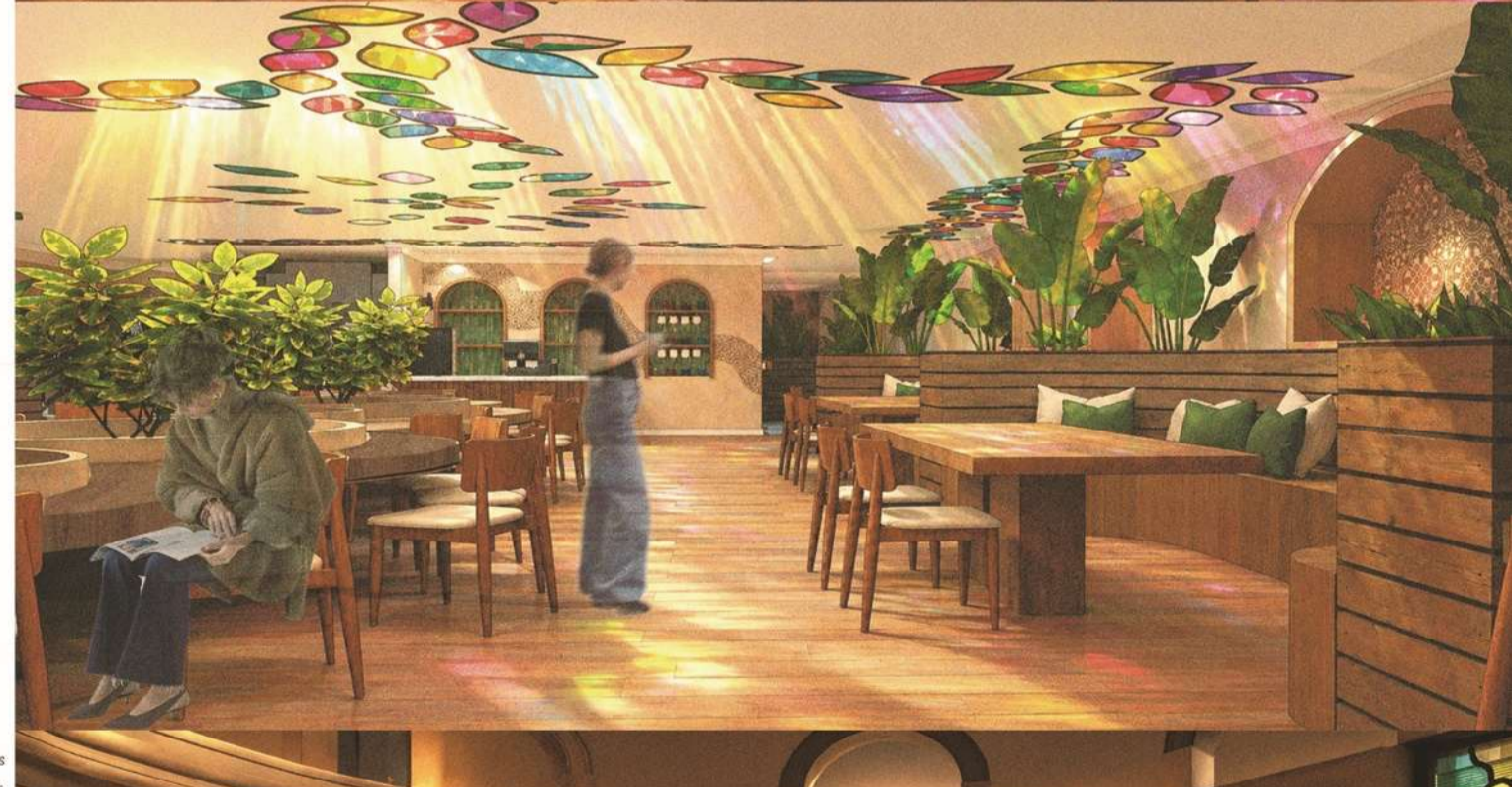


DETAILED STUDY: STAINED GLASS FLOOR PANELS



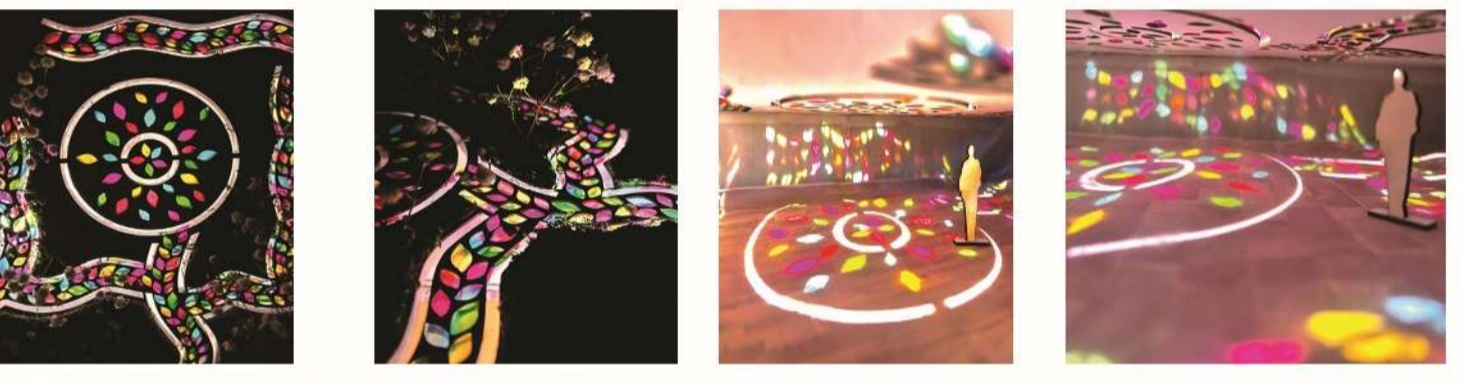
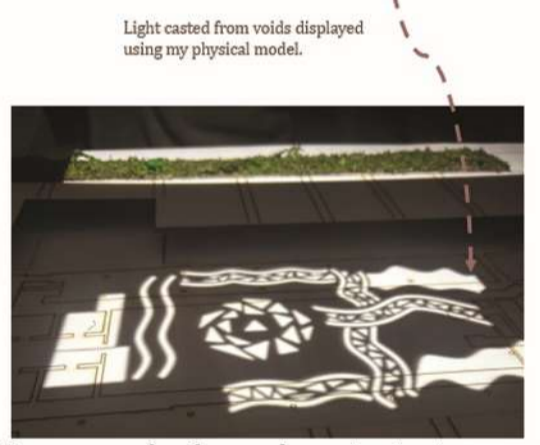
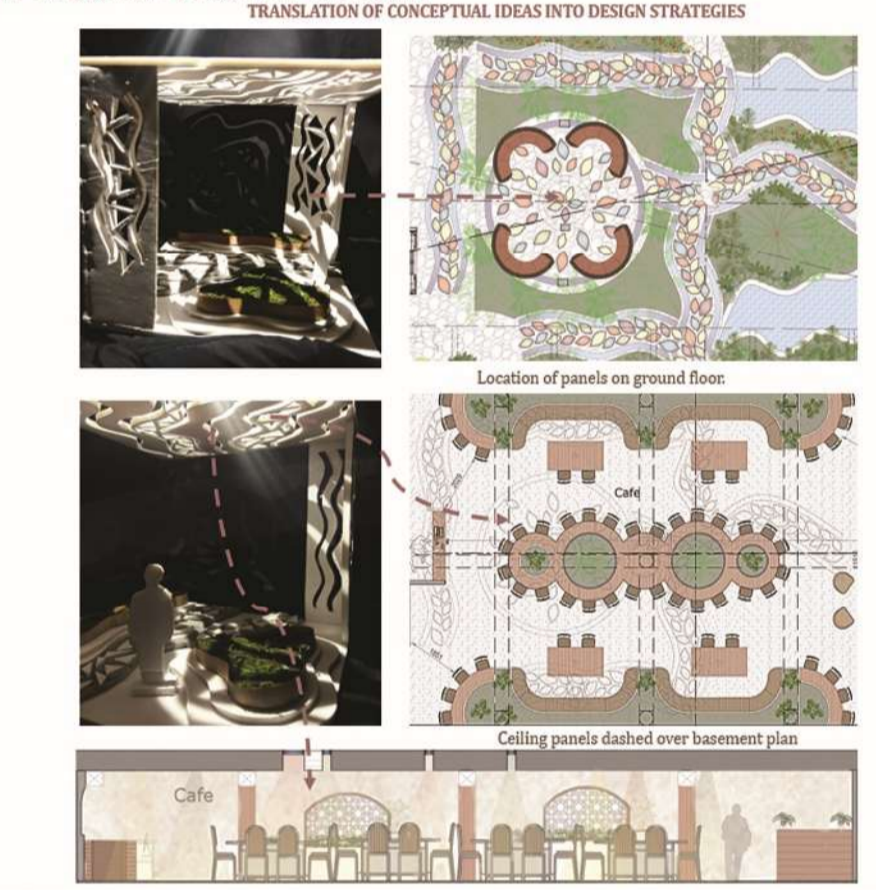
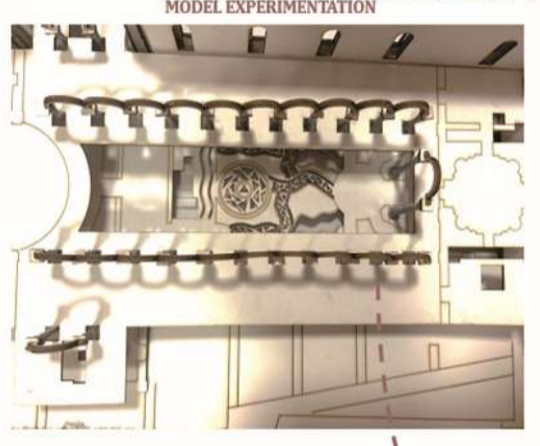
For my detail study, I completed a lighting study exploring how light reflected through the garden pathways on the ground floor into the basement café below. I created a partial scale model of the gardens and basement to test the shadows and reflections cast into the space. Through material experimentation and model testing, I explored how light interacted with different surfaces in order to inform the material selection for both the café and pathways. Throughout the process, I also investigated the material build-up of the pathways to ensure durability, sustainability, and a suitable lifespan. The study was developed through physical model experimentation, material testing, and the production of a construction drawing pack.

3D VISUALISATION

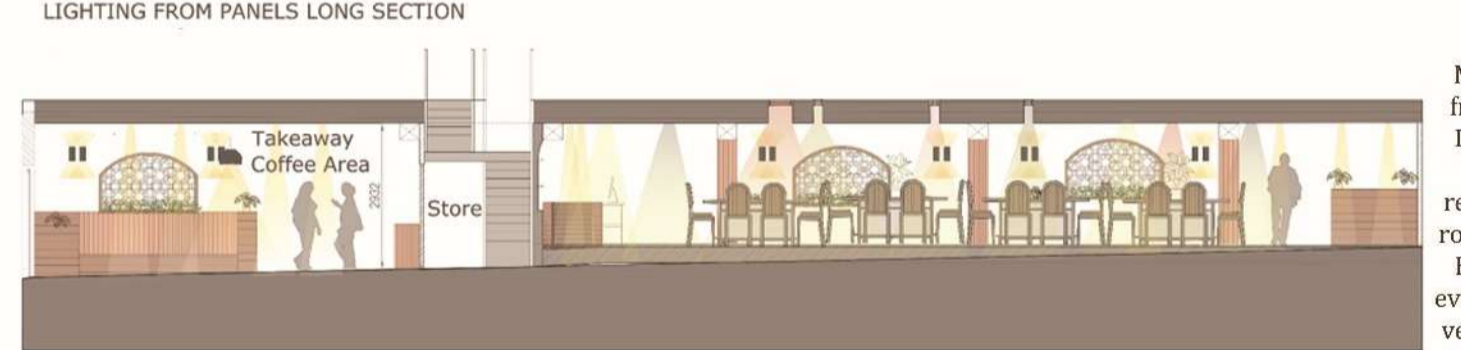
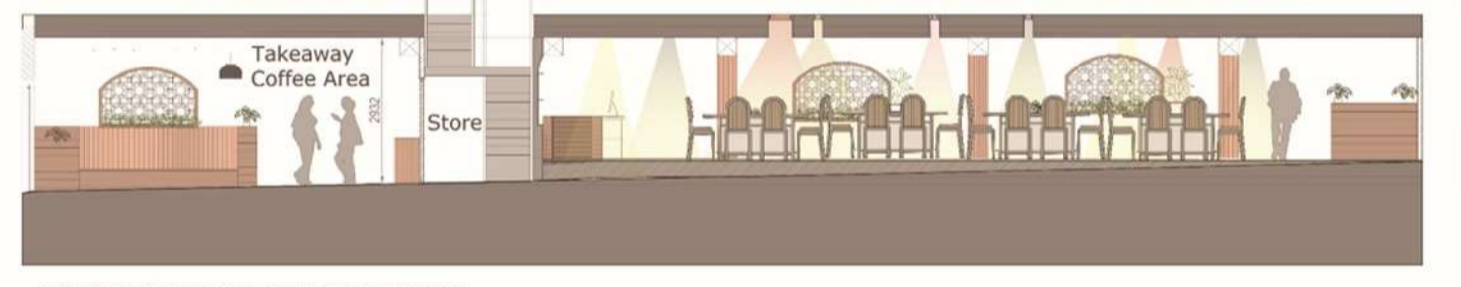


CONCEPT MODEL INSPIRATION

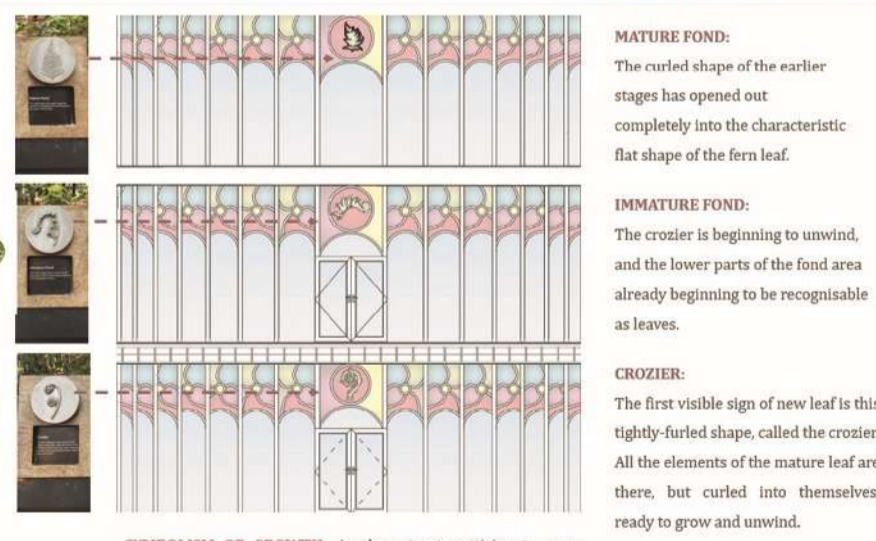
CONCEPTUAL REALISATION IN DESIGN



INTERIOR MODEL IMAGES OF DESIRED ILLUMINATION



My concept of pathways draws inspiration from natural pathways that occur in nature. Desire lines are informal pathways created through repeated human movement, representing the most efficient and intuitive routes people naturally take between spaces. Formed through behavioural patterns and everyday use, these paths often appear where vegetation has worn away over time and can develop around obstacles such as trees or buildings. Conceptually, desire lines reflect instinctive navigation, user-led spatial design, and the idea of spaces evolving through human interaction and movement.



INITIAL DESIGN VISION

VISION SKETCHES PRIOR TO DESIGN

