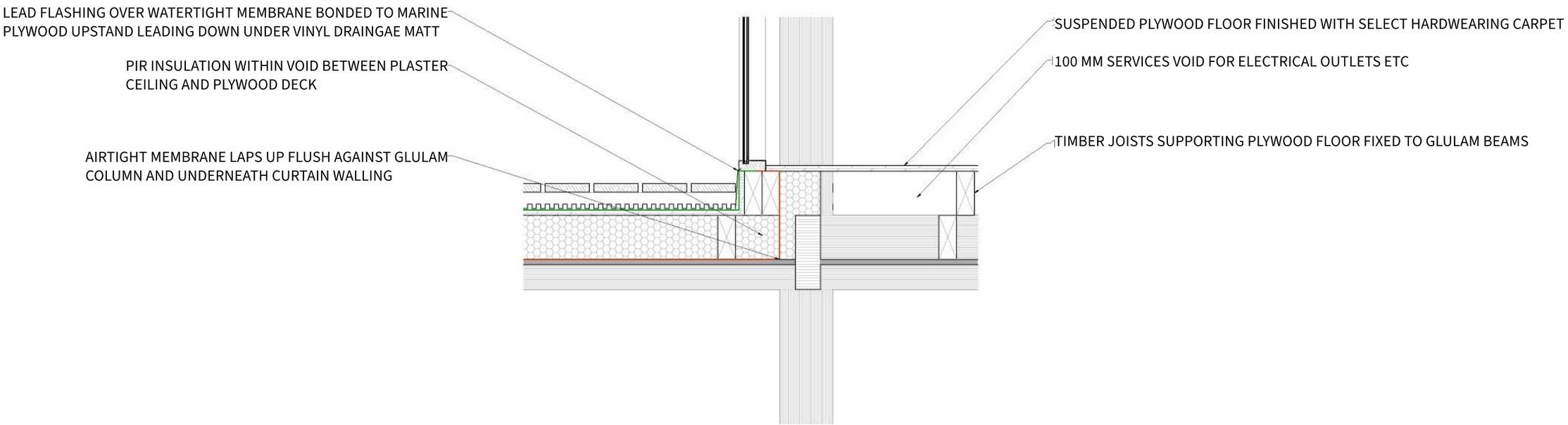
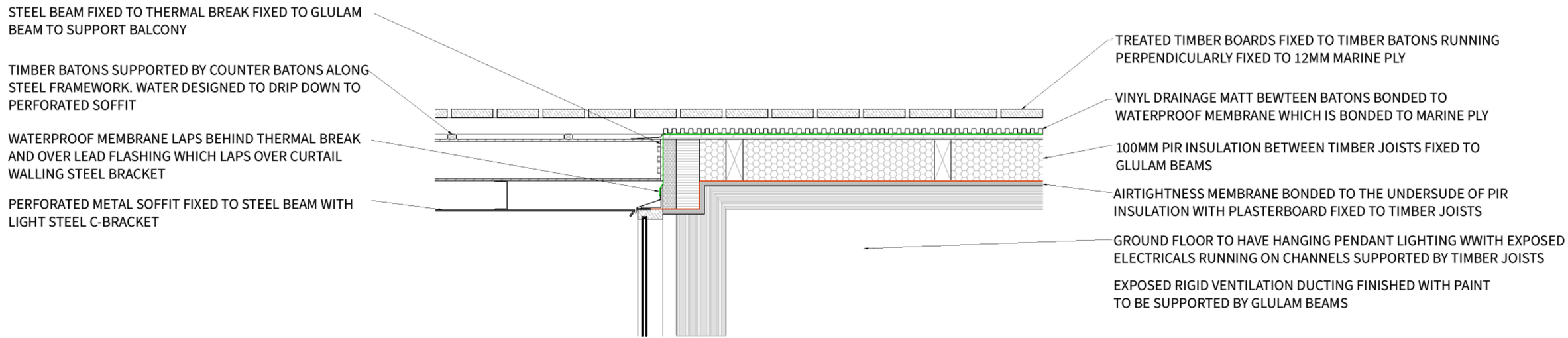
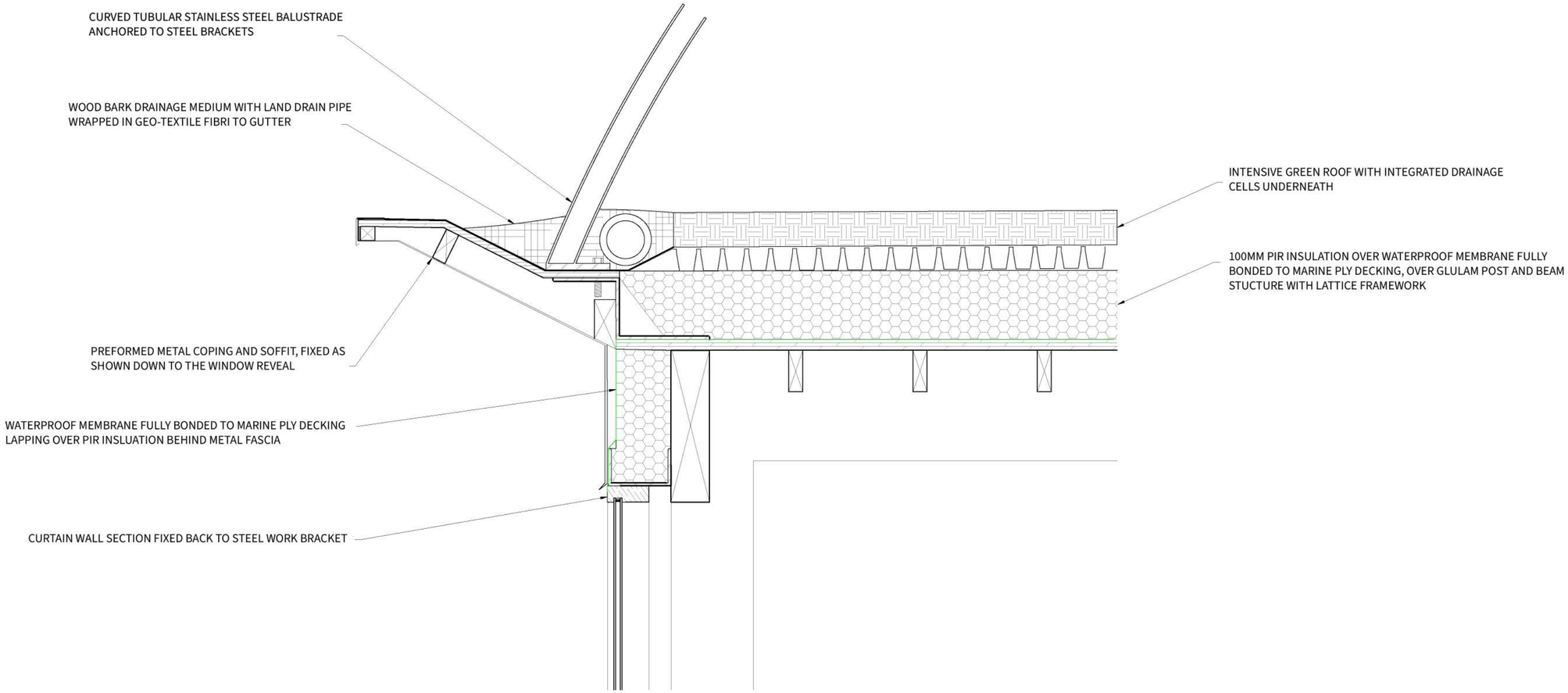
EXTERNAL WALL/ BALCONY DETAIL 1:10



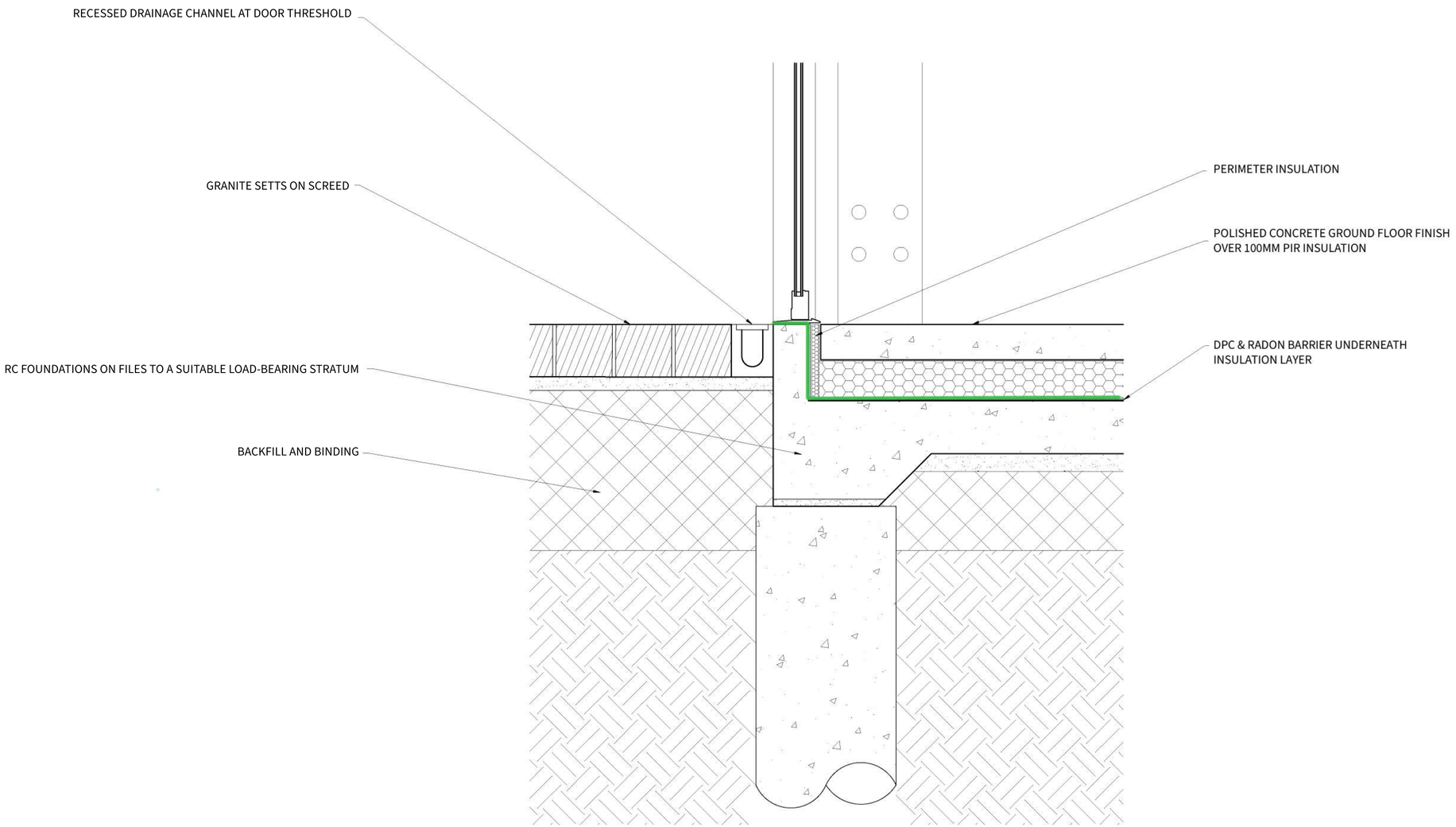
FLAT ROOF BALCONY DETAIL 1:10



GREEN ROOF PARAPET DETAIL 1:5



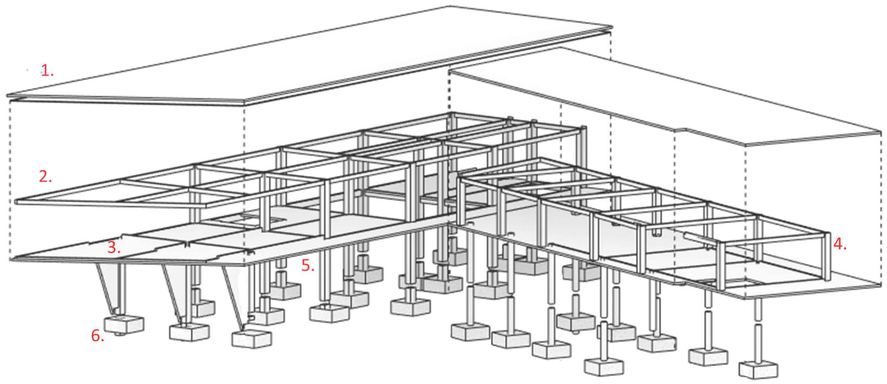
GROUND FLOOR/ DOOR THRESHOLD DETAIL 1:5



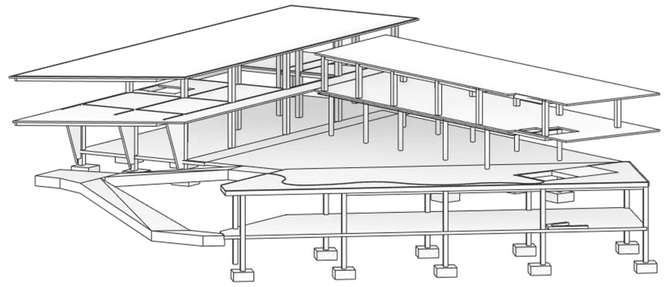
TECHNICAL DETAILING

STRUCTURE

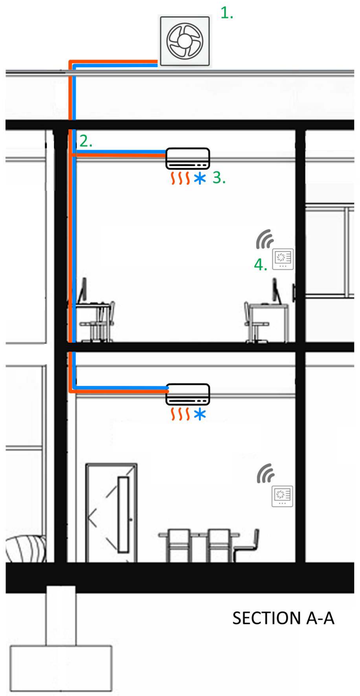
1. Profiled metal roof over steel beams
2. Steel beams fixed to RC columns
3. Pre-cast hollowcore slabs fixed to strip beam
4. RC Columns cast in-situ on pilecaps
5. RC strip beam cast in-situ to pile cap
6. RC Pile foundations down to load-bearing strata



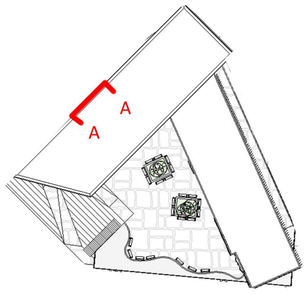
EXPLODED STRUCTURE



STRUCTURE



SECTION A-A



ROOF PLAN (NOT TO SCALE)

SPACE HEATING STRATEGY

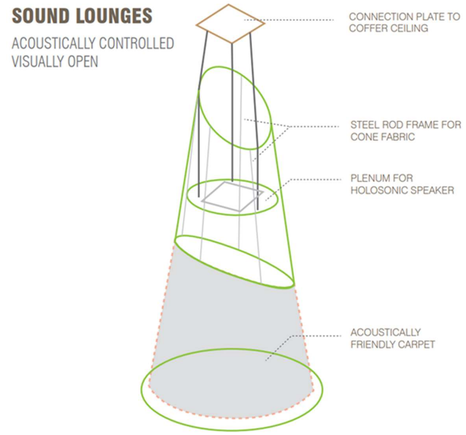
1. Daikin / Samsung / Mitsubishi or equivalent Air-source split-system heat pump mounted on roof structure with condensate drip to gutters
2. Pipework and electricals run in service voids and above suspended ceilings
3. Indoor ceiling casettes allow heating and cooling by introducing air to the space at a user-defined temperature
4. Local time and temperature control using wire-less controler mounted on wall within room

ACOUSTICS STRATEGY

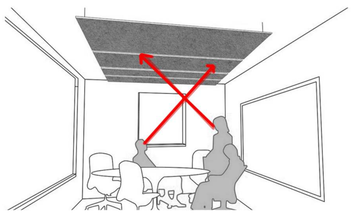
1. Acoustic lounges are used throug-hout to control sound levels within the library space.

2. 100mm internal walls are sufficient without added insulation and are used throughout the design.

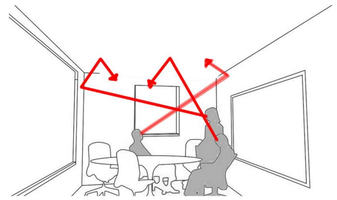
3. Wood is orthotropic which means they have different stiffness in different directions. This makes the ambient sound insulation significantly different from other homogenous materials. Wood has been included in both the in-terior and exterior of the Library.



SOUND DISPERSION WITH AND WITHOUT AN ACCOUSTIC PANEL IN ONE OF THE LIBRARYS SEMINAR ROOMS



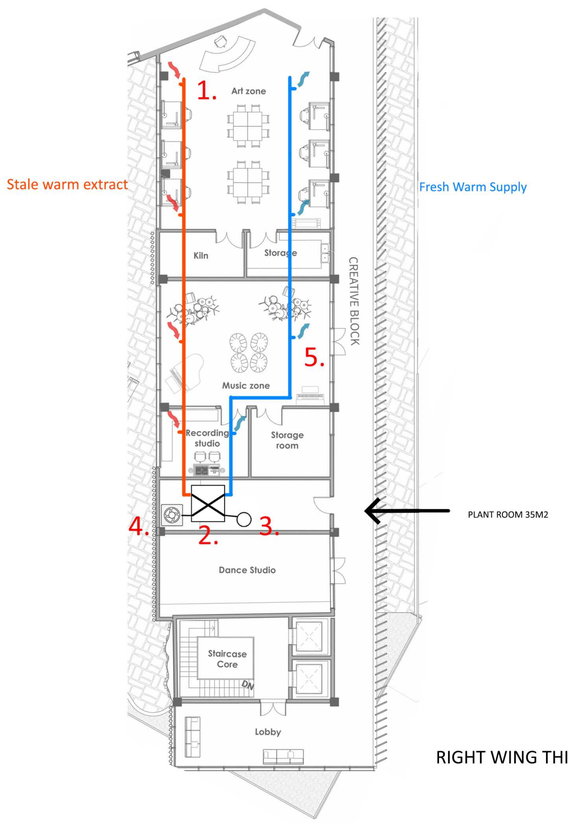
WITHHANGING SOUND PANEL



WITHOUT HANGING SOUND PANEL

VENTILATION STRATEGY

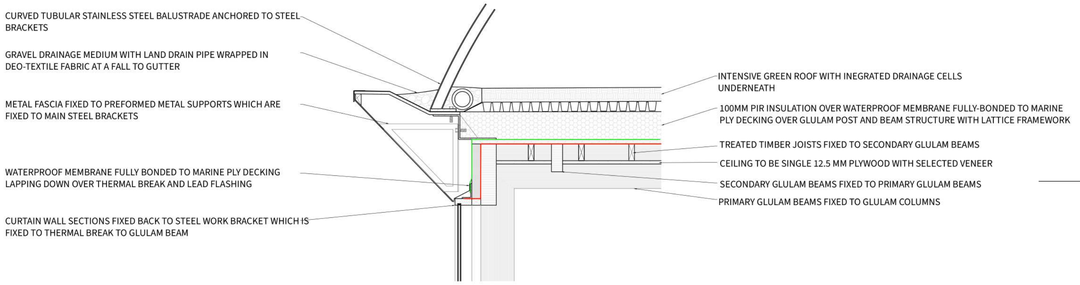
1. Warm stale air extracted from zones through ceiling grille
2. It passes through a heat exchanger which extracts the heat energy to warm up incoming fresh air
3. Stale air is then vented to the atmosphere
4. A fan forces fresh cool air through the heat exchanger
5. Warm fresh air is then ducted to zones, where the flow is regulated by ambient CO2 sen-



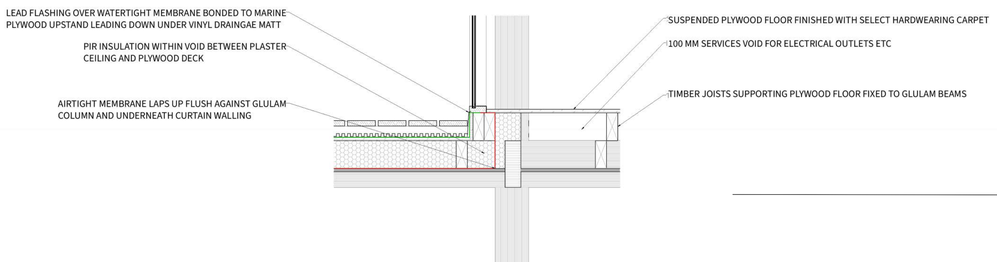
RIGHT WING THIRD FLOOR

3RD FLOOR 1:200

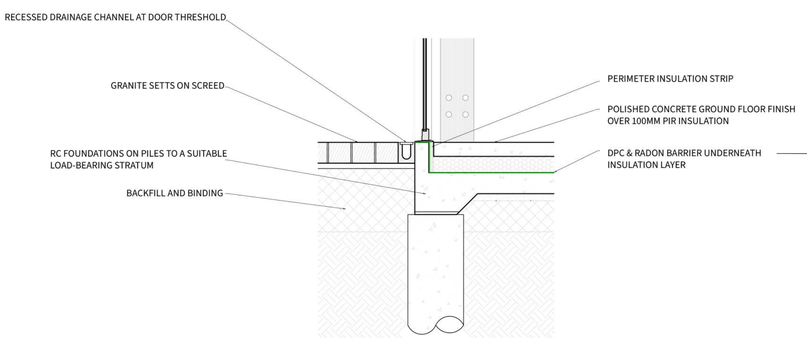
GREEN ROOF PARAPET DETAIL 1:10

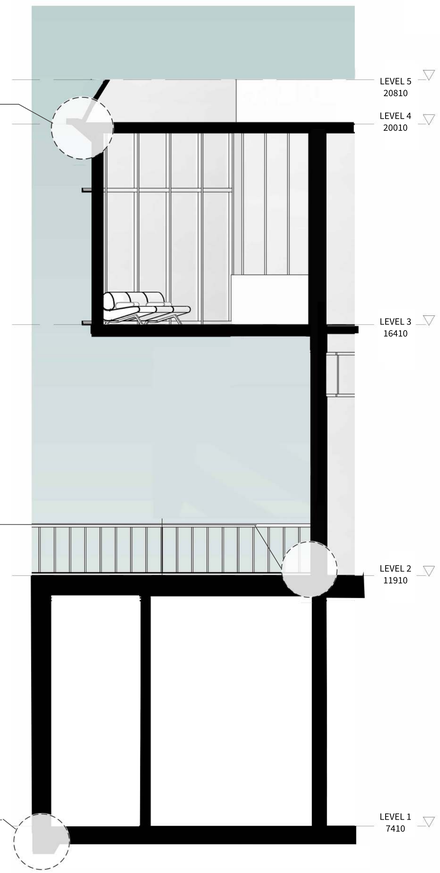


EXTERNAL WALL/ BALCONY DETAIL

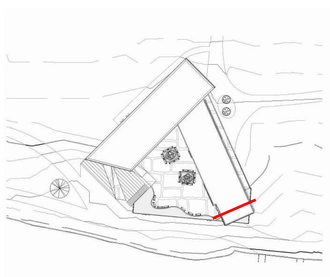


GROUND FLOOR DETAIL 1:10





Section A-A 1:50



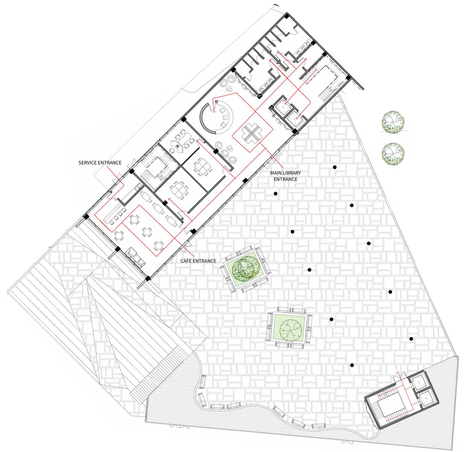
Site Plan, Section A-A 1:1000

DETAILING


BLACK BRICK FACADE TO CONTRAST WITH COLOURFUL ART MURALS
CURTAIN WALL WITH GREEN SPANDREL PANELS FOR SHADING ON MAIN READING/STUDY ZONE
PUBLIC PLAZA ENCOURAGING SOCIAL INTERACTION/ COMMUNITY DEVELOPMENT
SHELTERED WALKWAY/ GRAFFITI SPACE
WOODEN LOUVRES FOR SHADING
ROCK CLIMBING WALL LEADING TO A GREEN ROOF- ENCOURAGES TEEN TO INTERACT WITH THE ARCHITECTURE
STUDY TERRACE WITH MURAL OF MICHAEL JORDAN, FAMOUS SPORTSMAN
RAMPED WALKWAY/AMPITHEATRE LEADING TO LANDSCAPED PUBLIC PLAZA. TOP HALF SHELTERED VIA OVERHANG FROM THE TOP FLOOR
LANDSCAPED GRASS ROOF WITH LOW RISE PLANTINGS- TO ENHANCE THE ARCHITECTURE, NOT HIDE IT
GRANITE SLAB PAVING AS OUTLINED IN THE PUBLIC REALM ACTION PLAN 2018
COLOURFUL GRAFFITI MURAL

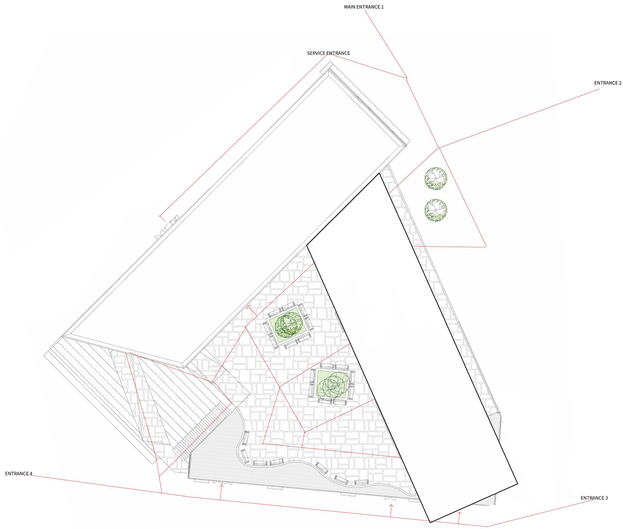
CIRCULATION STUDY

FIRST FLOOR
1:200



SECOND FLOOR
1:200

THIRD FLOOR
1:200



SITE ENTRANCES
1:200

ZONING STUDY

KEY

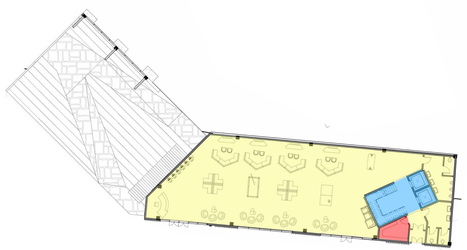
PUBLIC

SEMI-PUBLIC

PRIVATE

CIRCULATION CORE

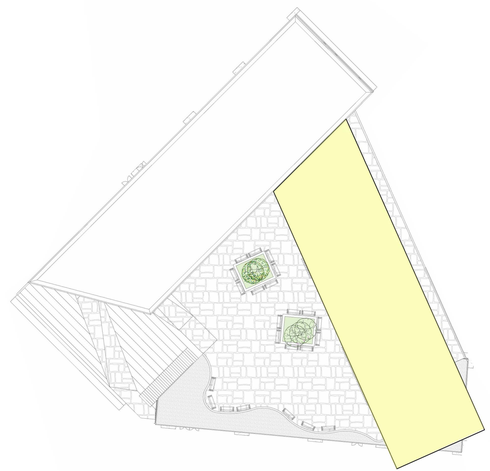
FIRE ESCAPE



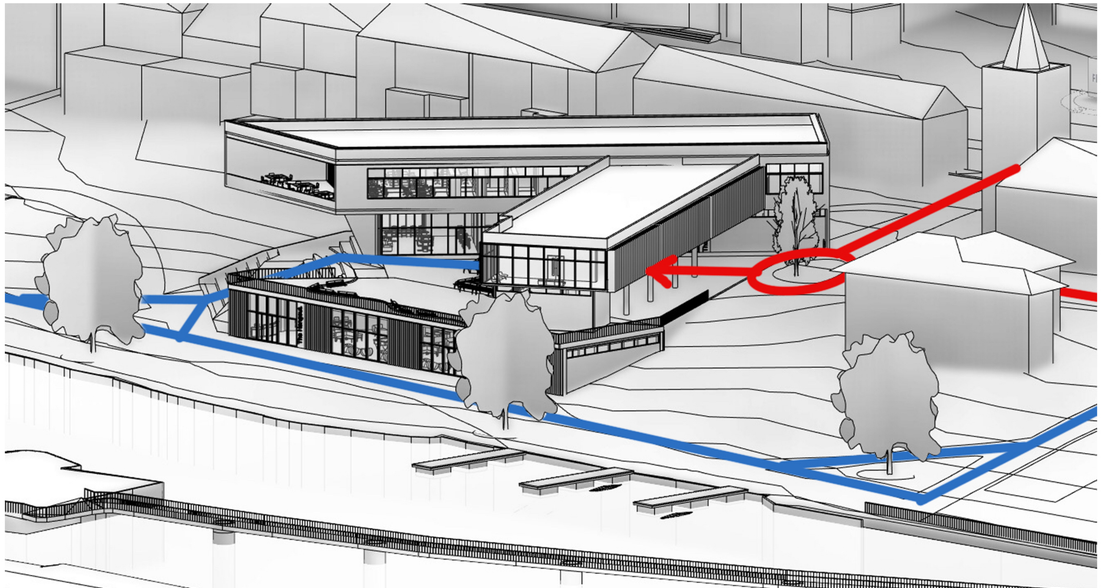
FIRST FLOOR
1:200

SECOND FLOOR
1:200

THIRD FLOOR
1:200



ROOF
1:200



MAIN ENTRANCE VIA THE SOUTH OF THE MALL ROAD, NEARBY SLIGO GRAMMAR SCHOOL AND THE CARBURY NATIONAL SCHOOL

SECONDARY ENTRANCES

VERTICAL CIRCULATION VIA TO CIRCULATION BLOCKS