

MILANO STUDENT HOUSING

MSc Building Architecture

Politecnico di Milano

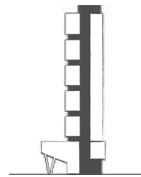
Project Type - Highrise, Residential

Location - Scalo Farini, Milan, Italy

MILANO STUDENT HOUSING

The objective of the Integrated Laboratory of Architectural Design for Complex Constructions was to provide advanced knowledge of the design instrumentations, formal as well as technical, and the critical tools pertinent to the architectural project and to its engagement with the contemporary urban environment.

Working as a teams of four students, we developed the different components of the design process toward the definition of the project at the level of preliminary design, with the development of some details at the level of definitive design.



CITY ANALYSIS

CONTEXTUAL OBSERVATIONS

The objective of the project was to design a student housing facility to host 500 students and encompassing an approximate area of 12.000 m².

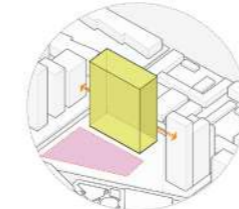
The project includes the design of public spaces, both outdoor (square, paths etc.), indoor spaces (public functions like shops or others into the building) and also an underground connection to the underground metro lines.

The student housing is integrated within one of the masterplan's scenarios defined by OMA's and Laboratorio Permanente's winning proposal for the competition for the area called Scalo Fariniand titled AgentiClimatici.

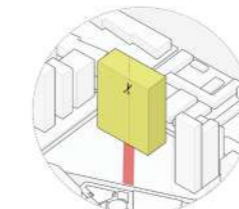


- NIGHTLIFE**
 - Bars
- AMENITIES**
 - Public spaces
 - Fitness centers
- CULTURAL CONNECTION**
 - Culture district
 - Restaurant district
 - Key culture amenity
- MOBILITY**
 - Purple line
 - Green line
 - Yellow line
 - Bus line
- SITE LOCATION**

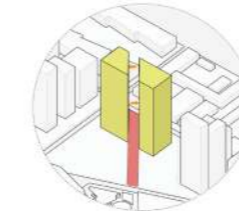
DESIGN CONCEPT



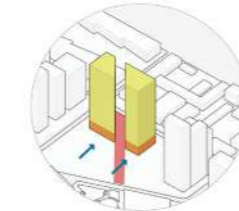
1. According to the surrounding, Need a high-rise building here. Parallel to the street.



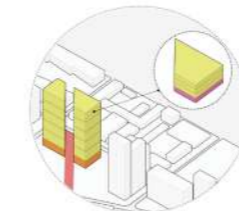
2. Respect the city planner. Keep the street.



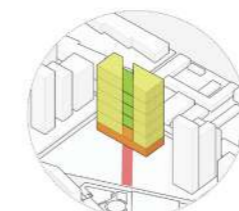
3. Divided by road.



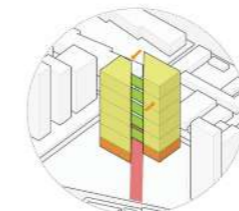
4. In the lower part, one is for students the other for citizens.



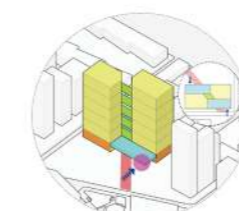
5. Apartment divided into 10 blocks. Each block has one layer public area.



6. Two parts are connected with bridges..



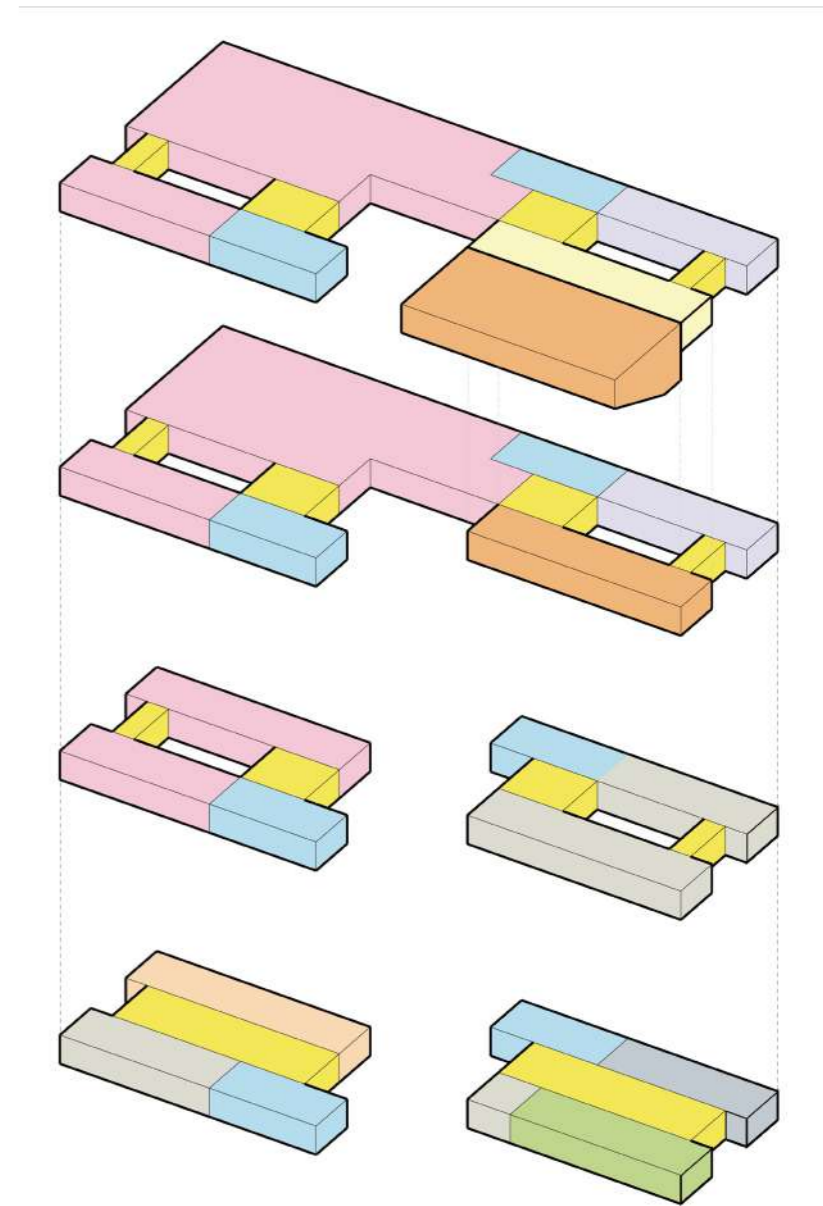
7. Moving position



8. Form two squares
Northern square for entrance
Southern for subway entrance
Main entrance and structure of the auditorium.

FUNCTIONAL DIAGRAM

- LOBBY
- TRAFFIC CORE
- OFFICE
- CAFETERIA
- ACTIVITY ROOM
- MINI-MARKET
- MUSIC ROOM
- LECTURE ROOM
- LIBRARY
- GYM

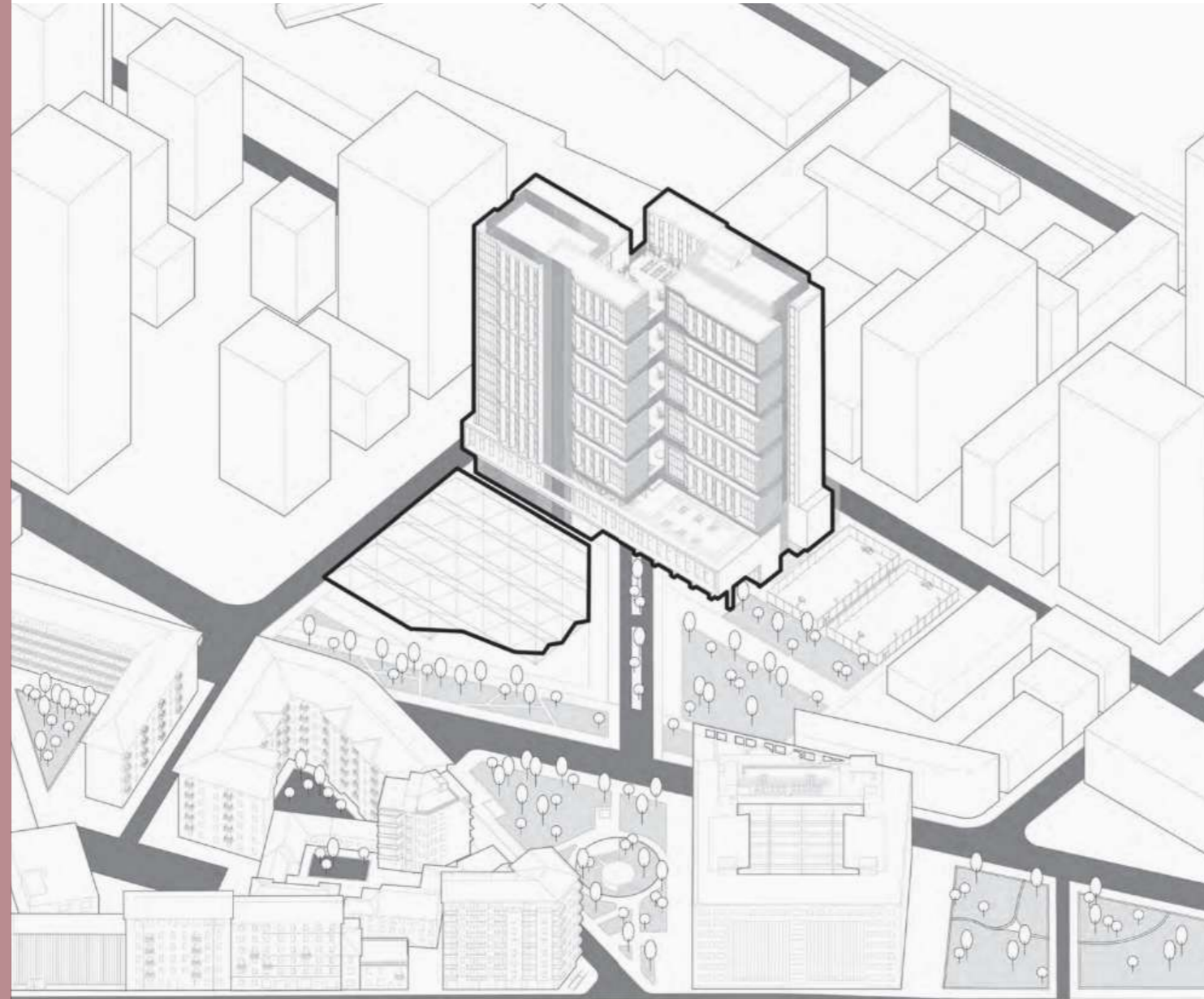


SITE & CONTEXT

Within the masterplan, we have selected one of the two sites included in the perimeter of the "Scalo Farini" proposal that operate as entry gates to the new system

The site is 21,548m² large, out of which 13,780m² is the buildable area, due to the underground railway shaft

The building responds to the existing, as well as the proposed contextual morphology, by extension of pathways, parks, and the positioning of public amenities.



MATERIALS



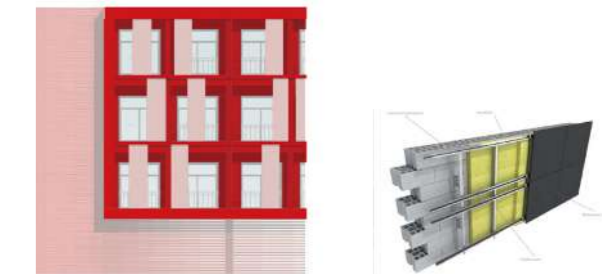
ROOMS FACADE ELEVATION



PARAMETRIC LOUVRE SYSTEM



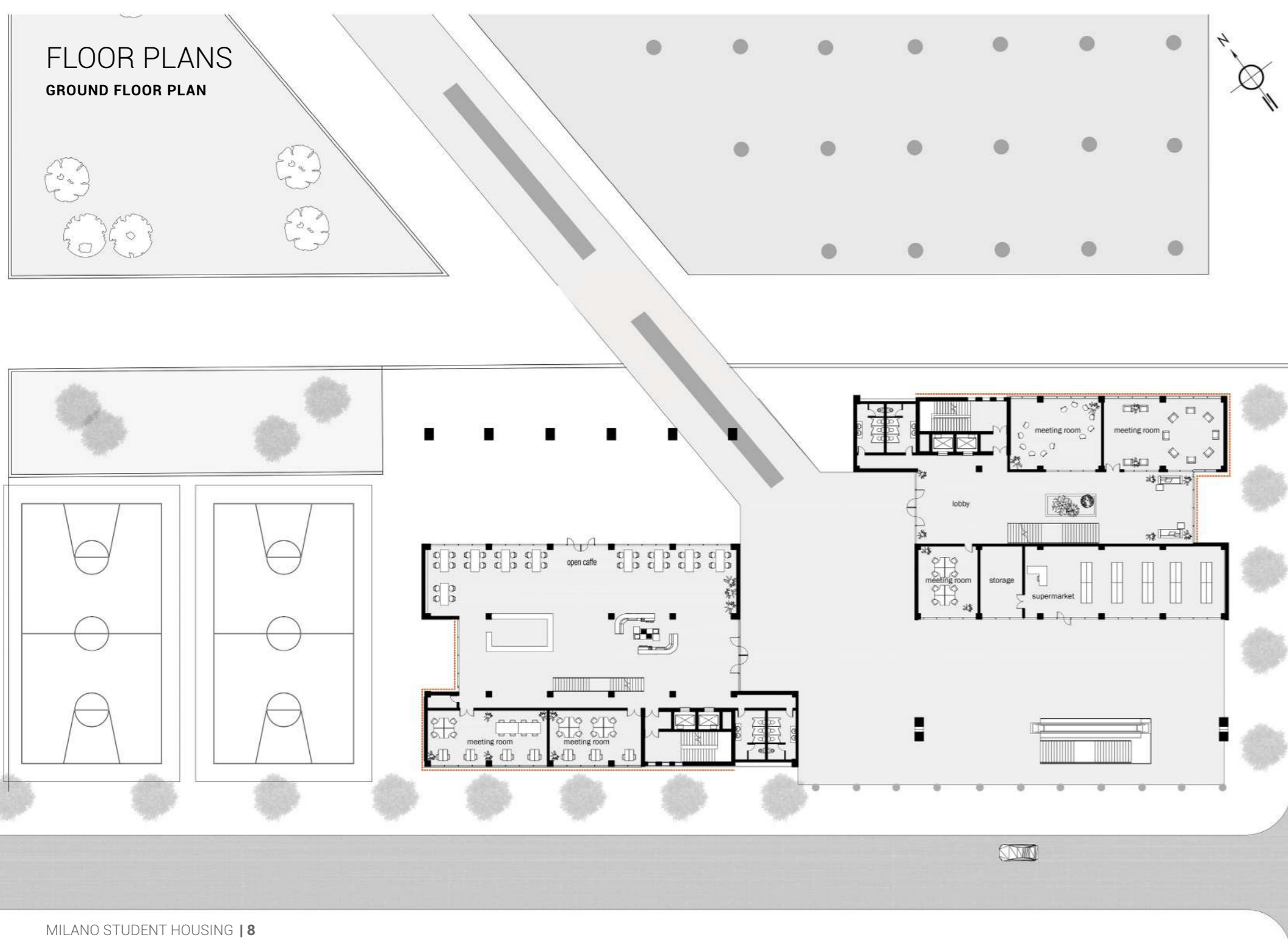
BIPV SYSTEM



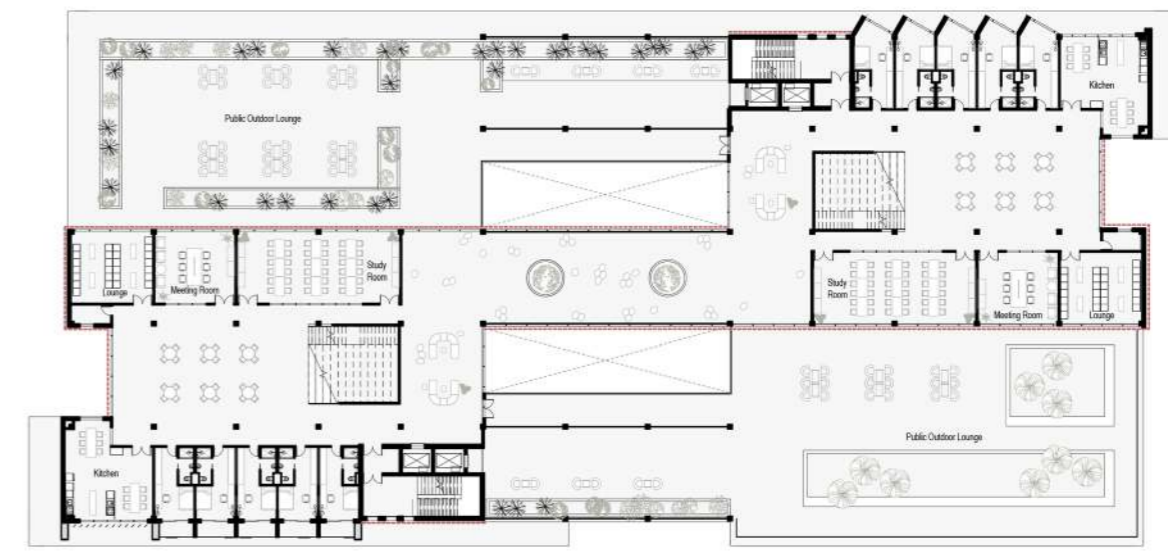
FIBRE GLASS REINFORCED CONCRETE

FLOOR PLANS

GROUND FLOOR PLAN



2ND FLOOR PLAN



4TH FLOOR PLAN

FLOOR PLANS

The building is characterized by two distinctive facades. Solar panel facades on one side for generations of energy and reduction of emissions. Angular facade on the other for optimization of solar gain, based on our solar analysis.

The project comprises of 10 students blocks (2 stacks of 5), each containing an average 50 students. The blocks are separated by an open air platforms, designed for extra curricular activities, and enabling better student interaction and welfare.

The public spaces at the bottom hosts spaces like theatres, libraries, shops, and a connection to the railway station. Circulations is meticulously divided, such that entrance to the student halls is isolated from general public circulation.



5TH FLOOR PLAN



7TH FLOOR PLAN



6TH FLOOR PLAN



8TH FLOOR PLAN

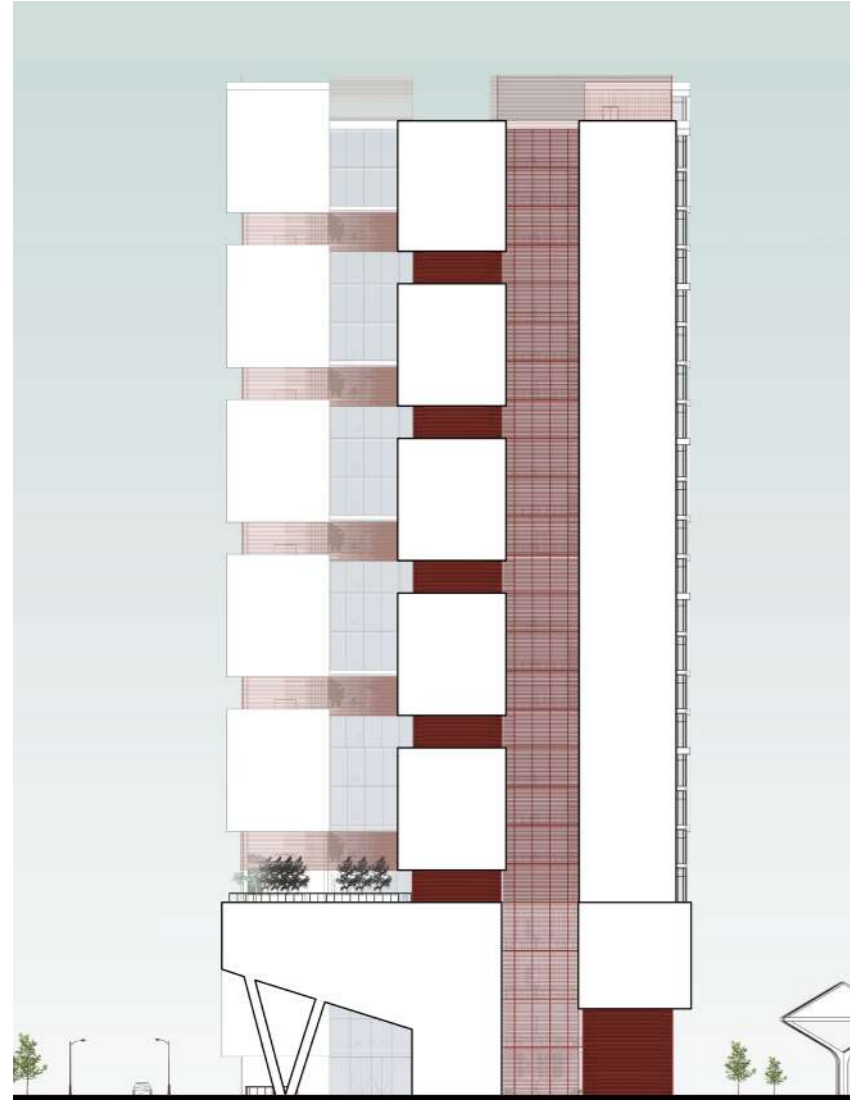


CAFE AND PUBLIC LIBRARY



COMMON AREA - SINGLE BLOCK

BUILDING SECTIONS

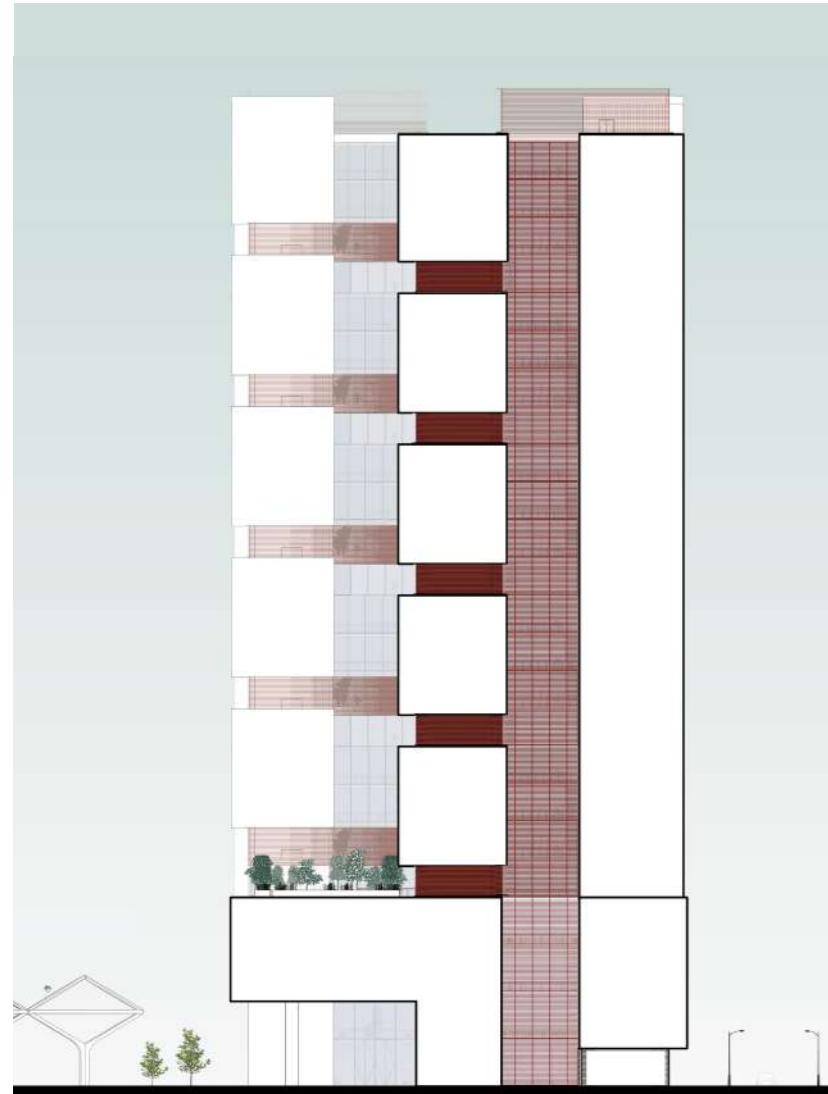


WEST ELEVATION



SOUTH ELEVATION





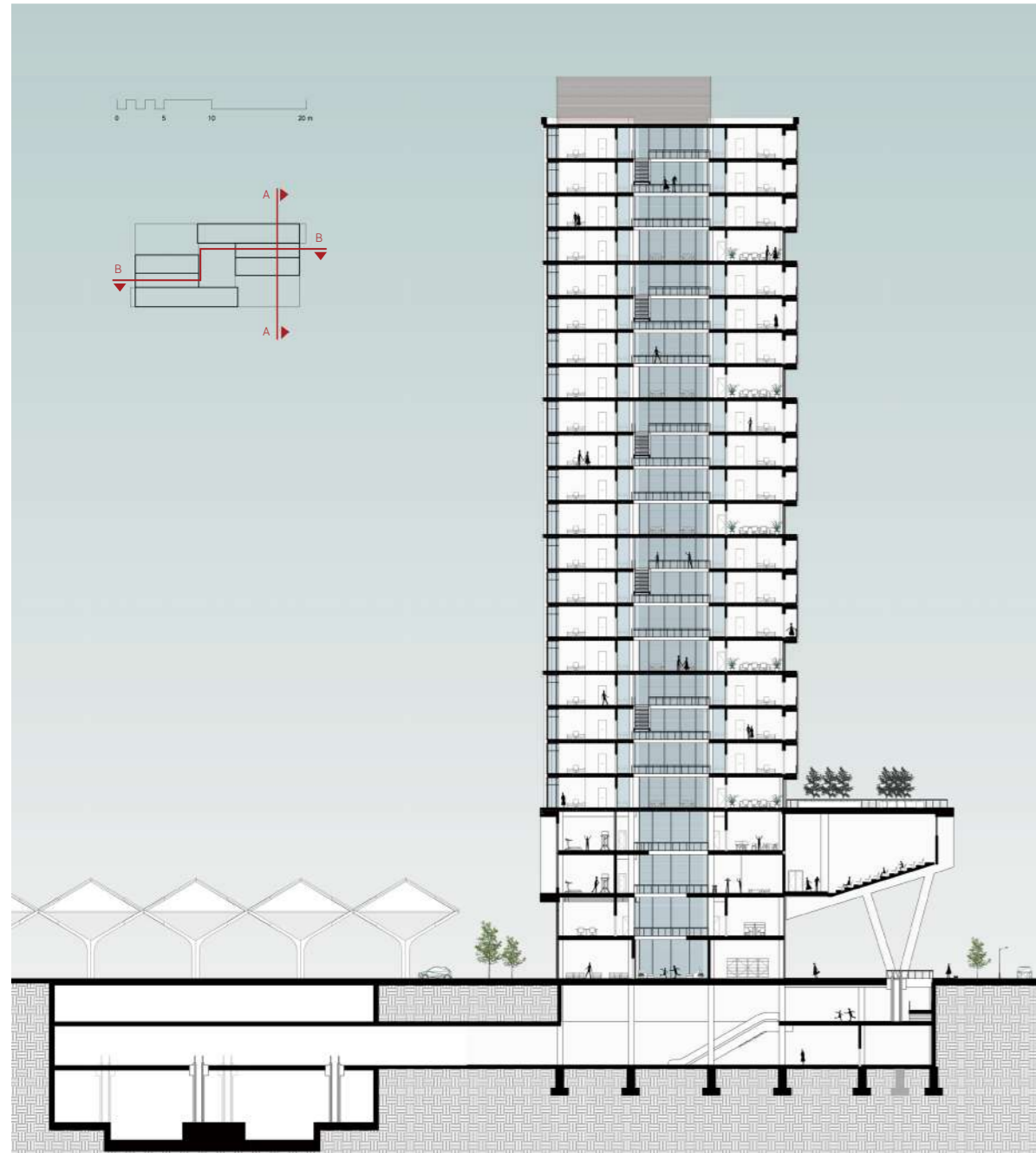
EAST ELEVATION



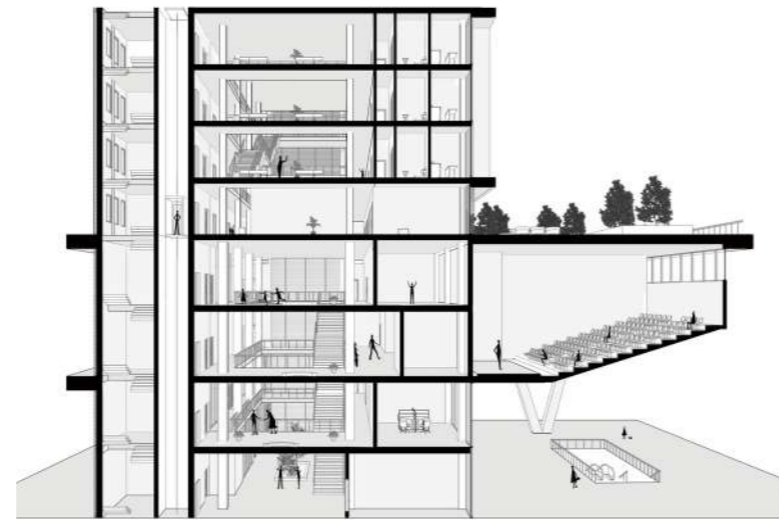
NORTH ELEVATION



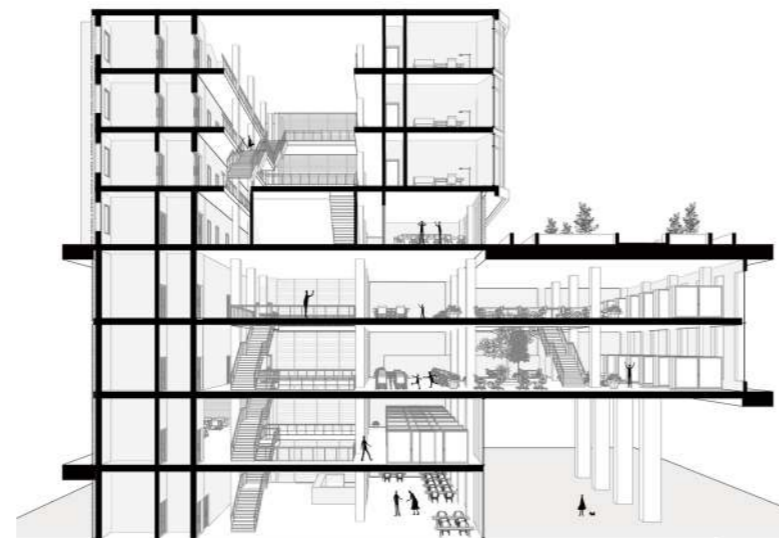
SECTIONS



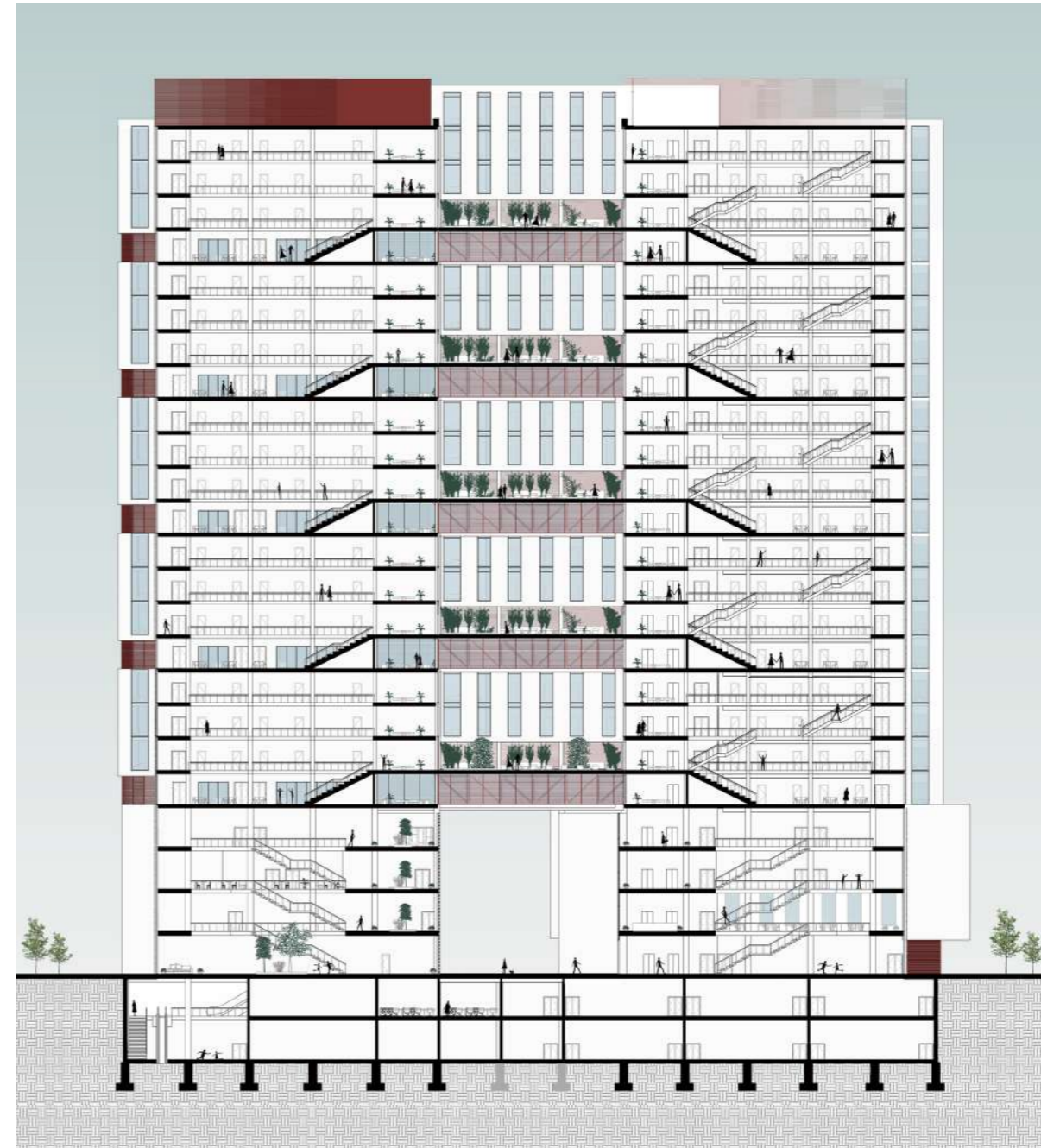
SECTION A-A



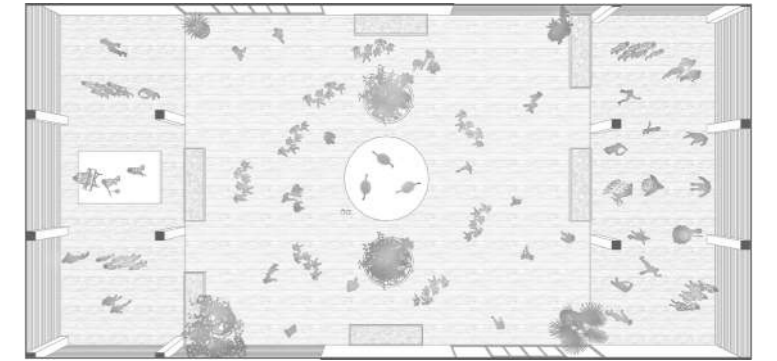
SECTIONAL PERSPECTIVE 1



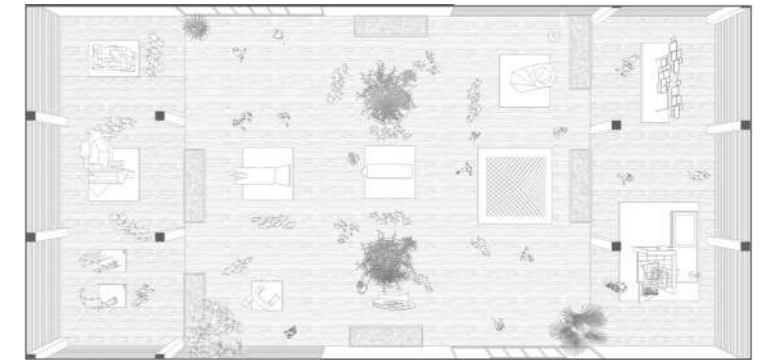
SECTIONAL PERSPECTIVE 2



SECTION B-B



SHARED PATIO - BLOCK 01

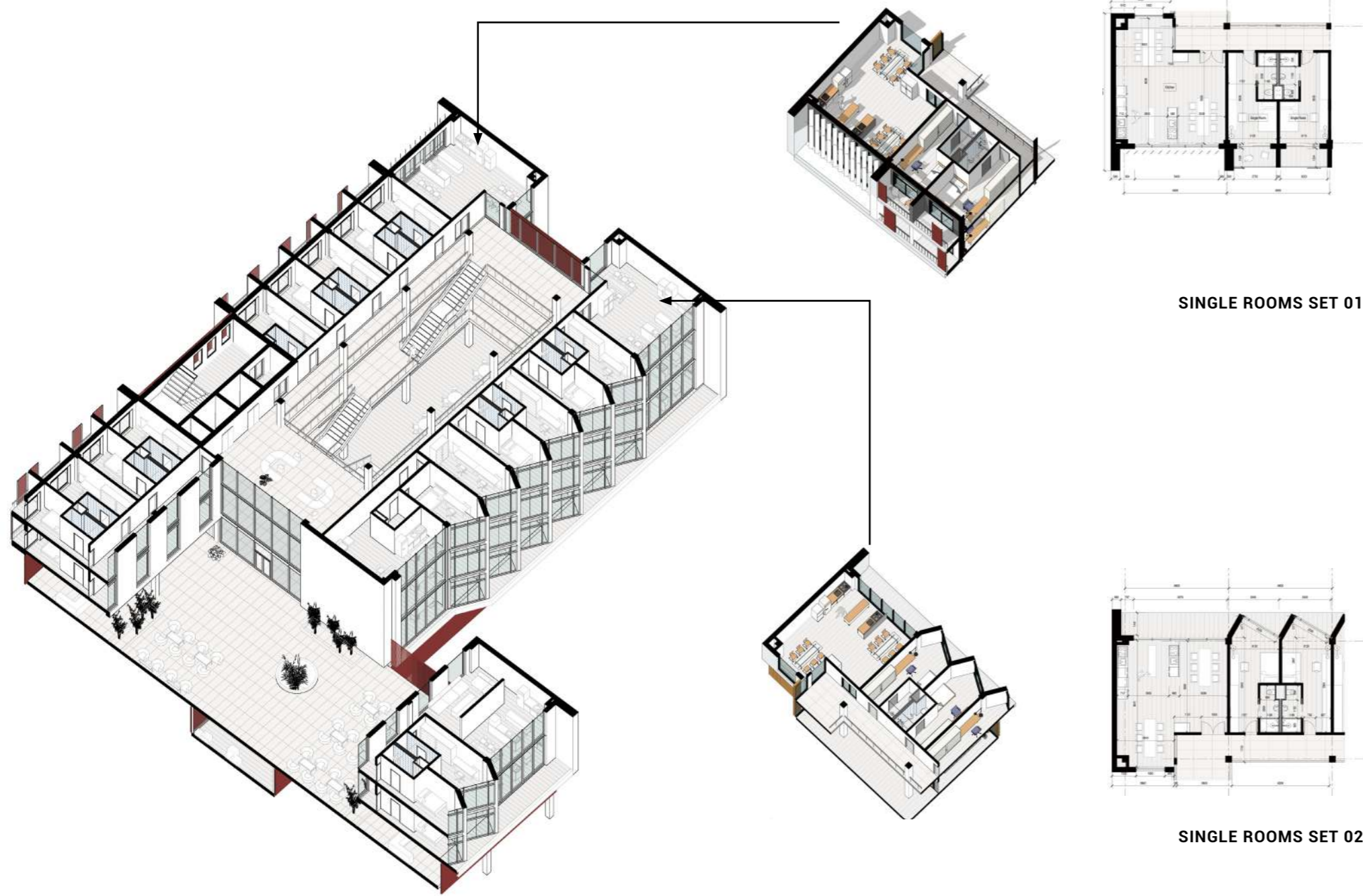


SHARED PATIO - BLOCK 02



SHARED PATIO - BLOCK 03

AXONOMETRIC VIEW



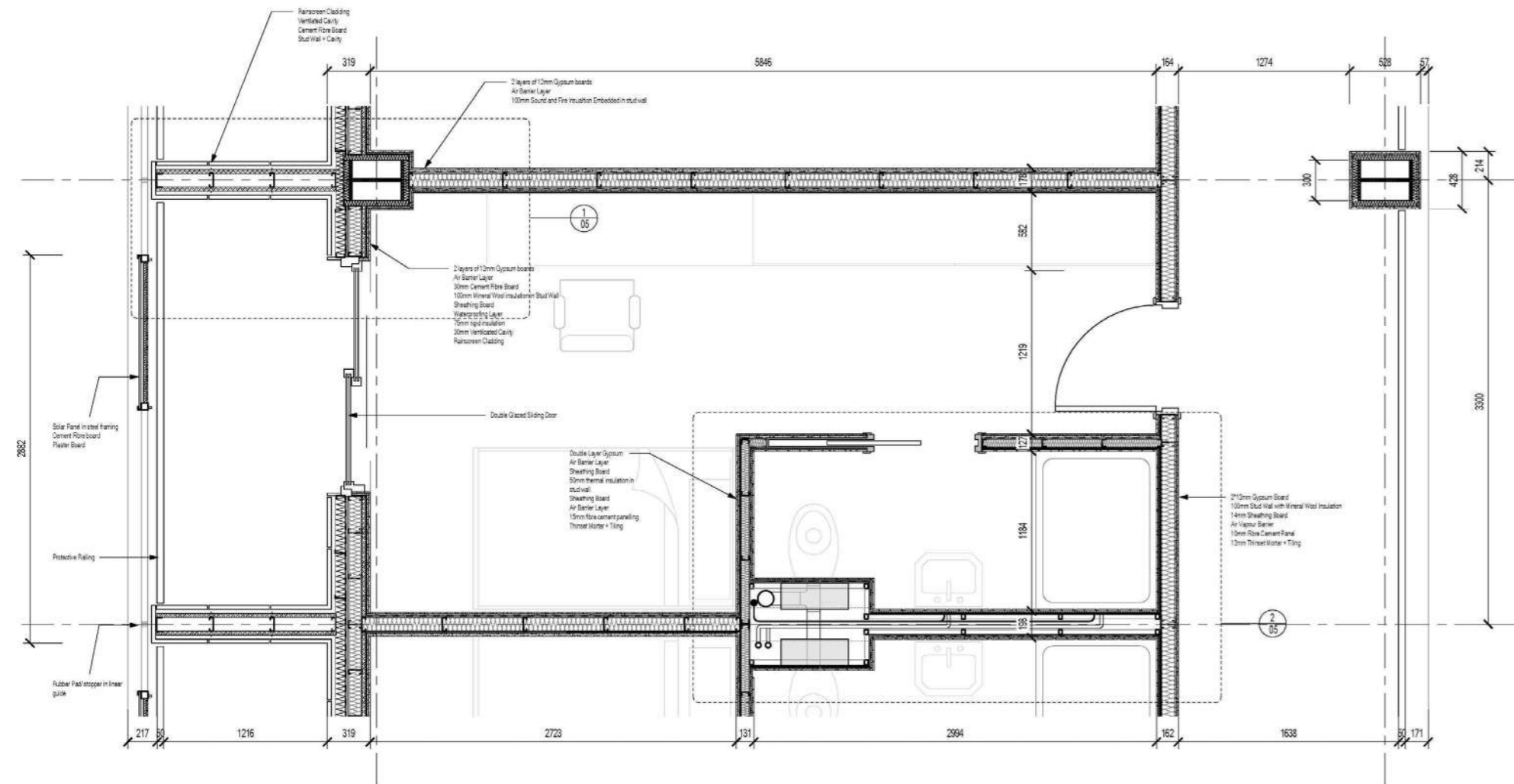
SINGLE ROOMS SET 01

SINGLE ROOMS SET 02

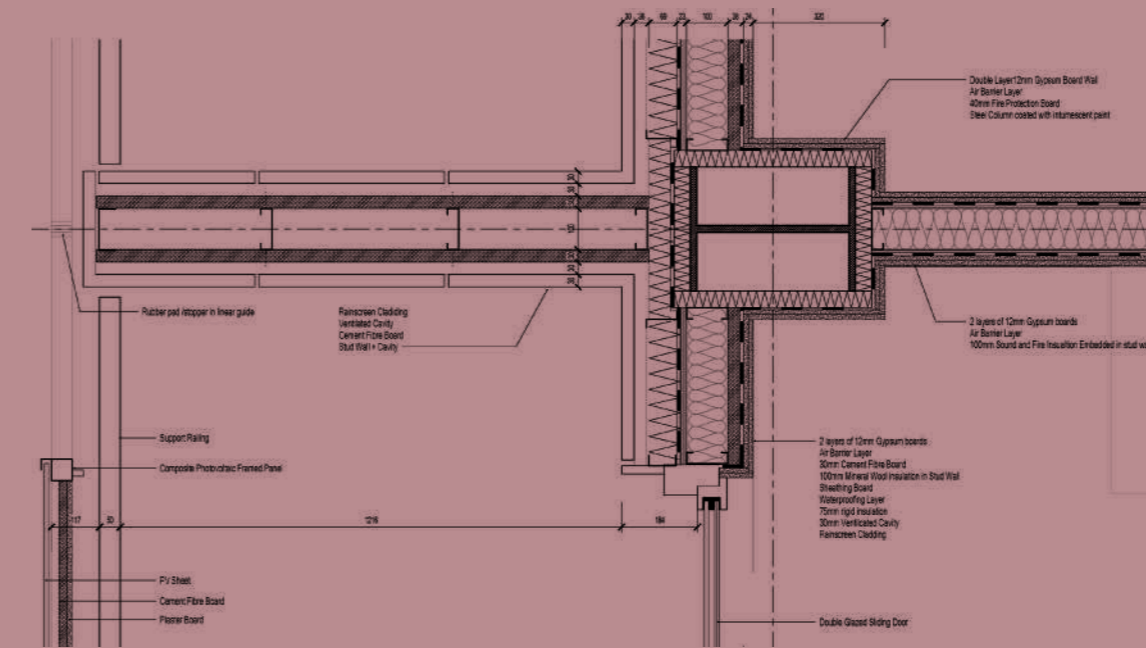


DETAILS

ROOM PLAN DETAIL



ROOM PLAN CALLOUT DETAIL



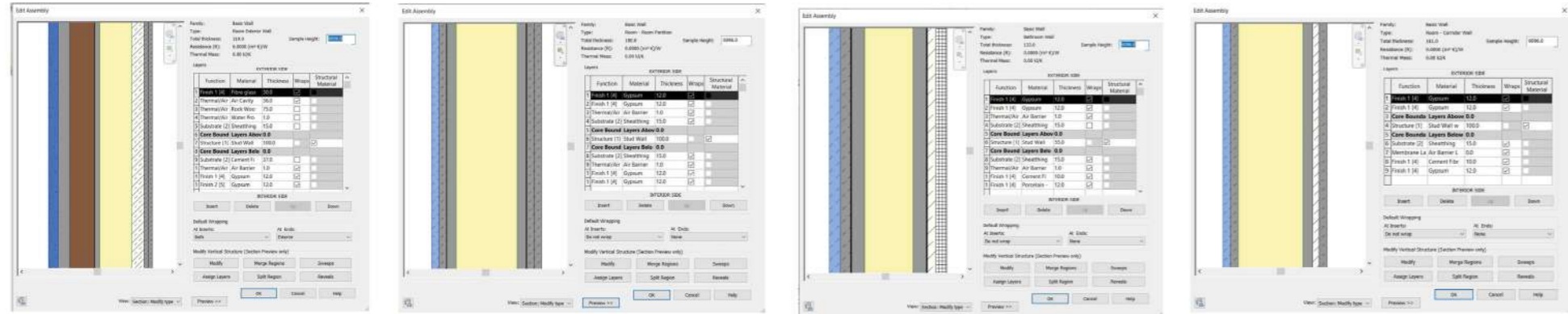
STANDING ON BRIDGE PLATFORM



BLOCK TO BRIDGE PLATFORM

SINGLE ROOMS COMPOSITION

PLAN

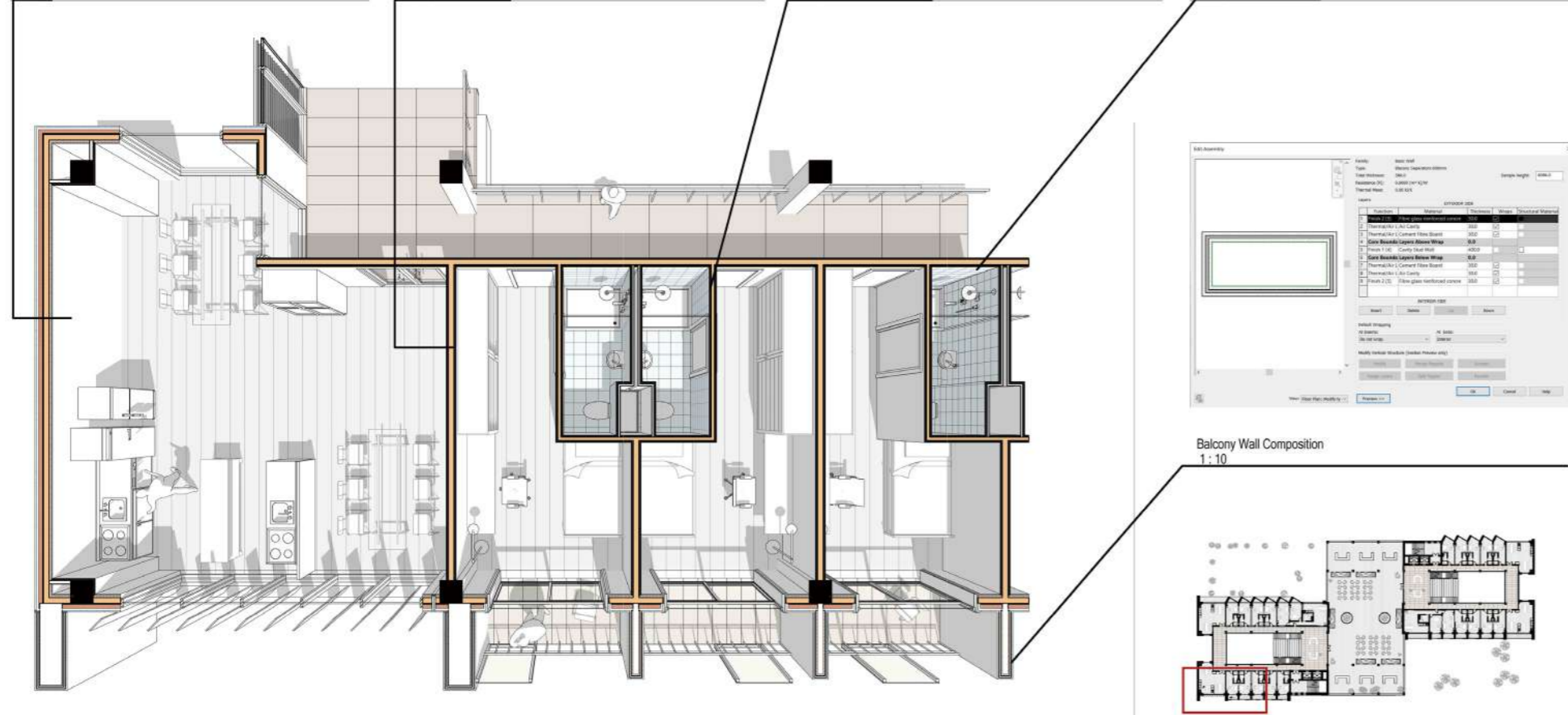


Exterior Wall Composition
1:10

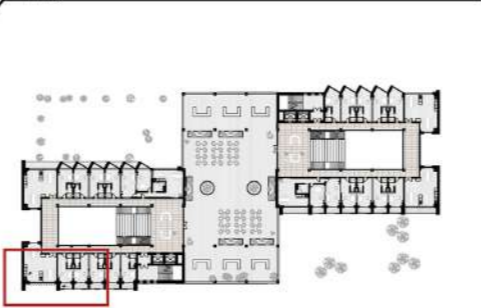
Room-Room Partition
1:10

Bathroom Wall Composition
1:10

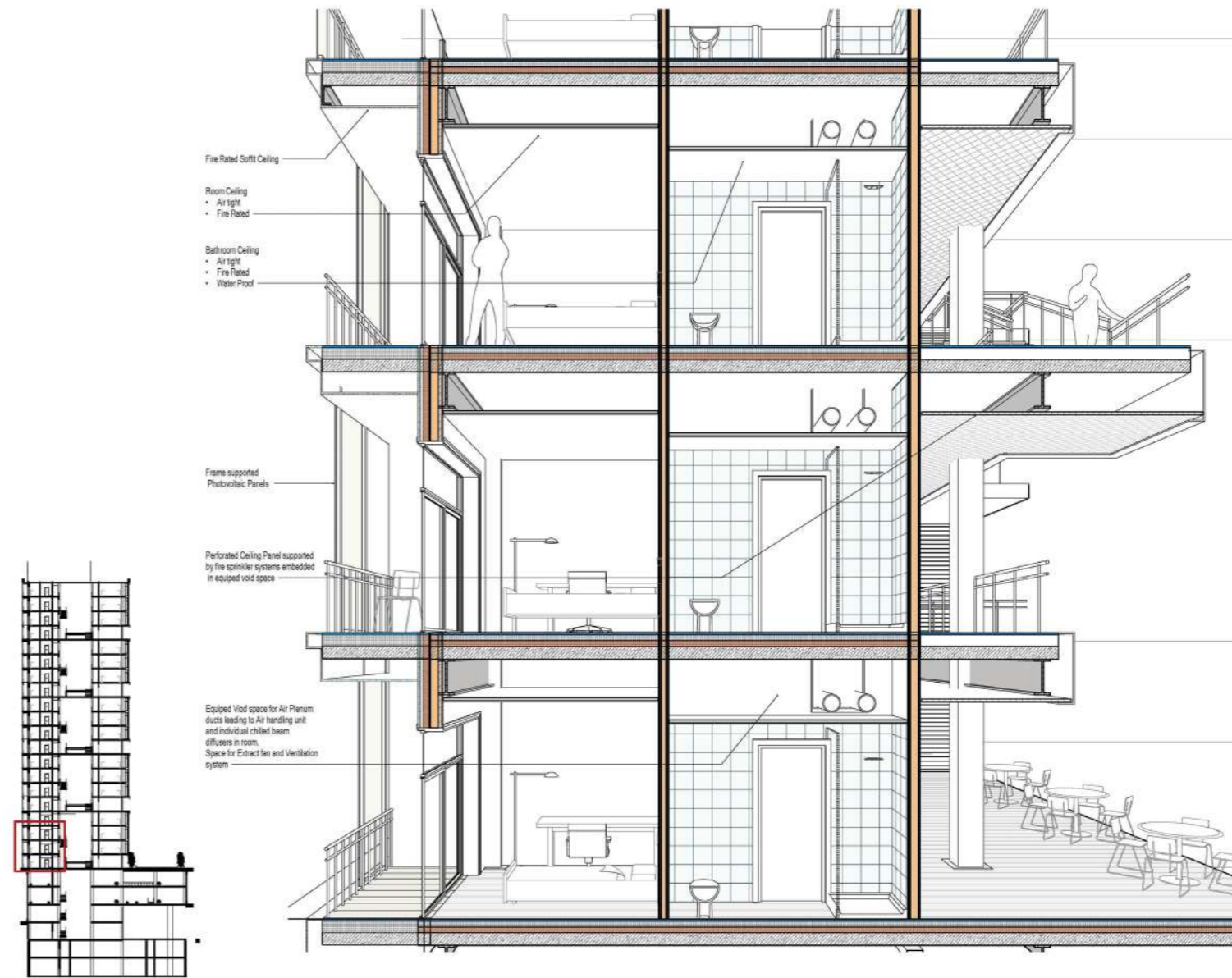
Room/Corridor Wall
1:10



Balcony Wall Composition
1:10



SECTION



Fire Rated Soft Ceiling

Room Ceiling

• Air light

• Fire Rated

Bathroom Ceiling

• Air light

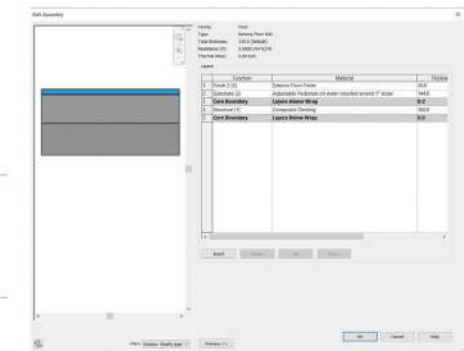
• Fire Rated

• Water Proof

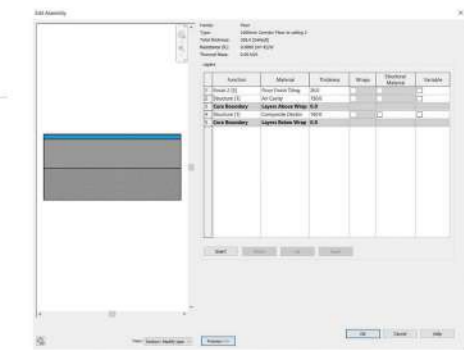
Frame supported Photovoltaic Panels

Perforated Ceiling Panel supported by fire sprinkler systems embedded in equipped void space

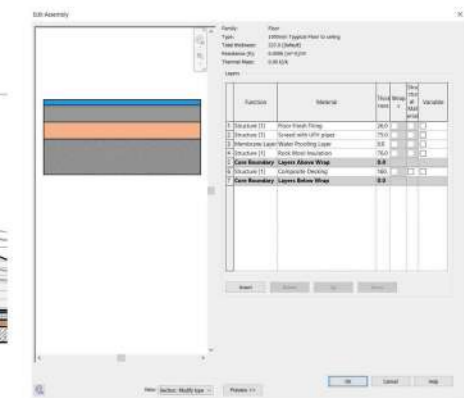
Equipped Void space for Air Plenum ducts leading to Air handling unit and individual chilled beam diffusers in rooms. Space for Extract fan and Ventilation system



Typical Balcony Floor



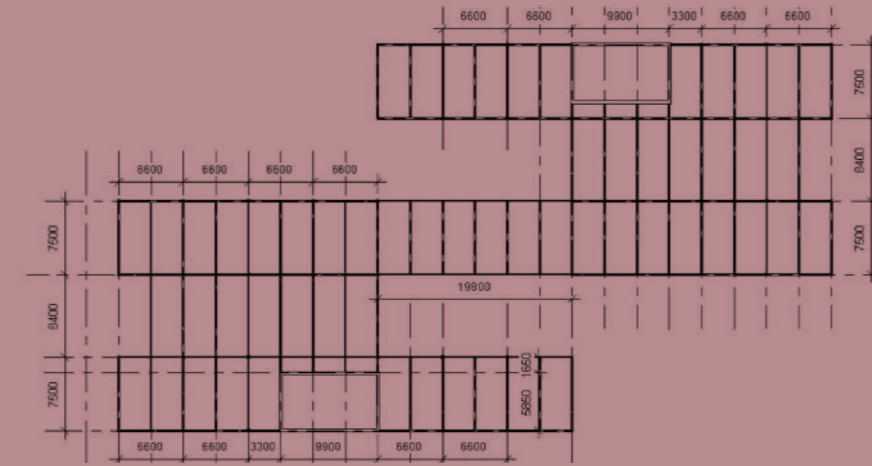
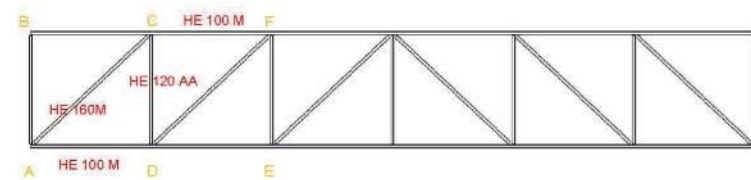
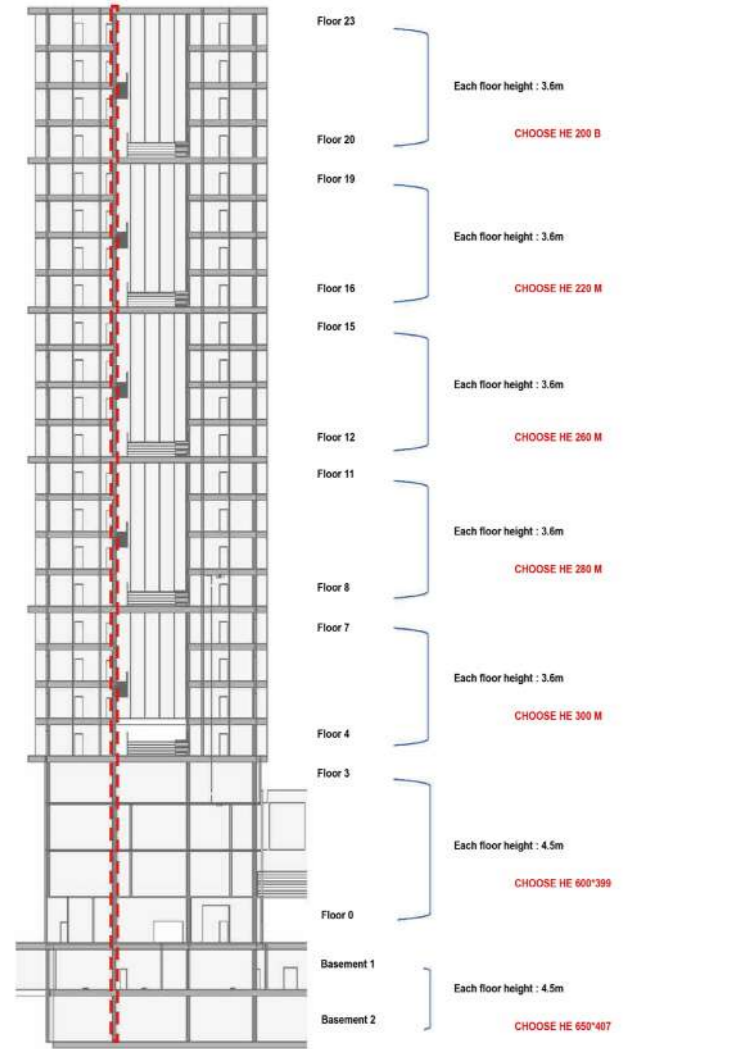
Typical Corridor Floor



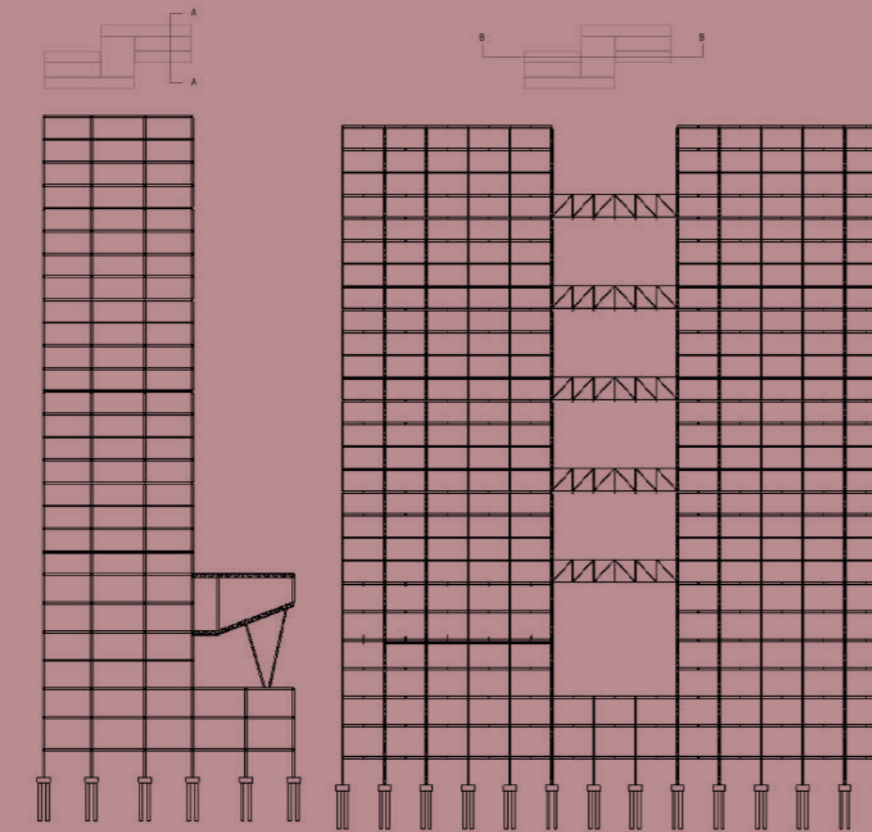
Typical Room Floor

STRUCTURE

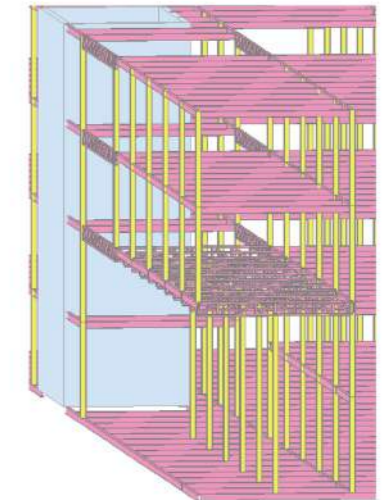
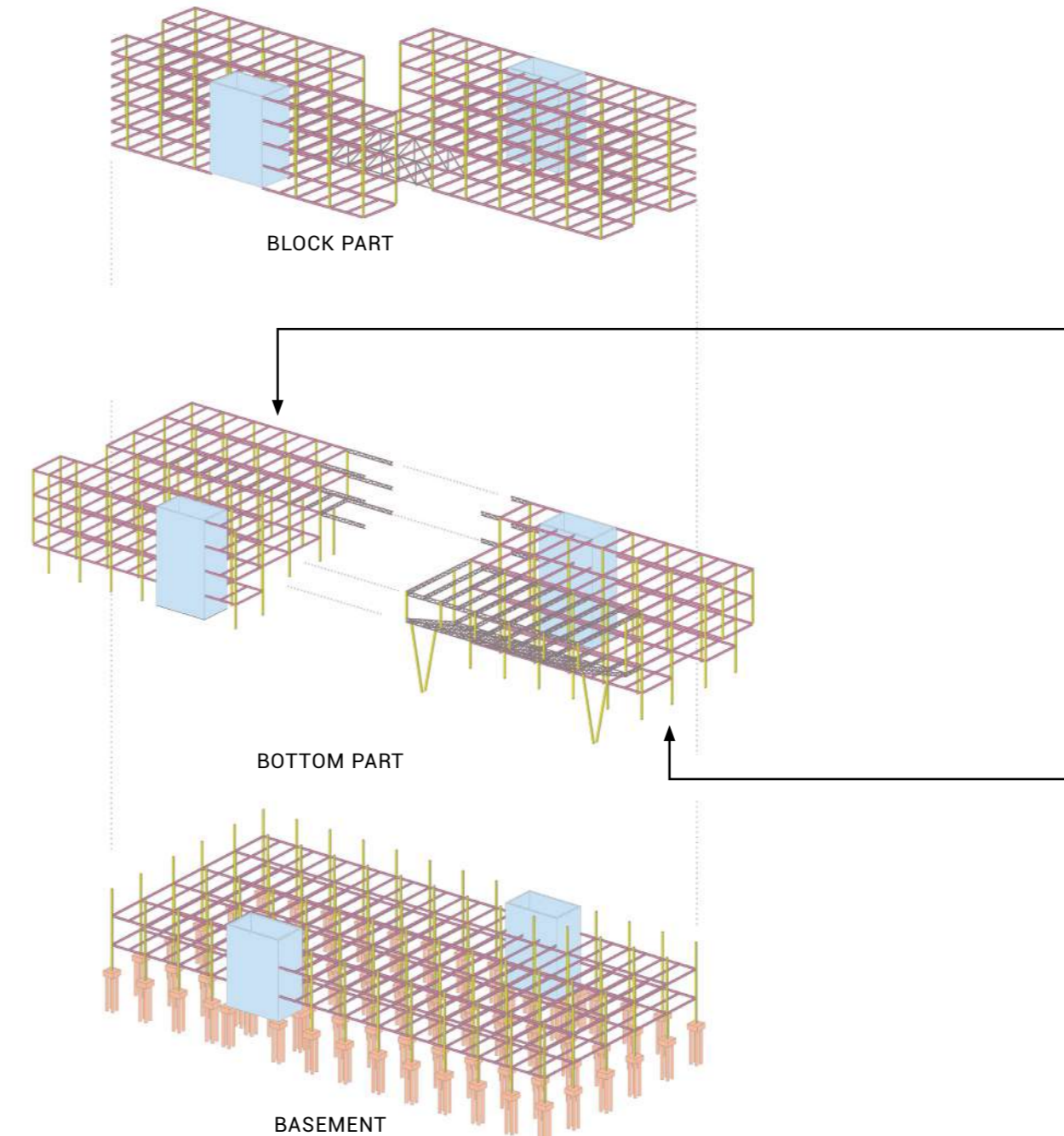
COLUMN SIZING



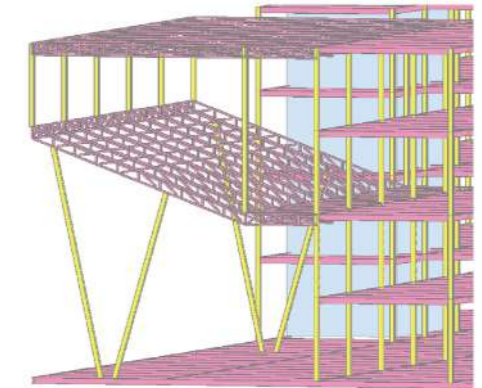
FLOOR 4 STRUCTURE PLAN



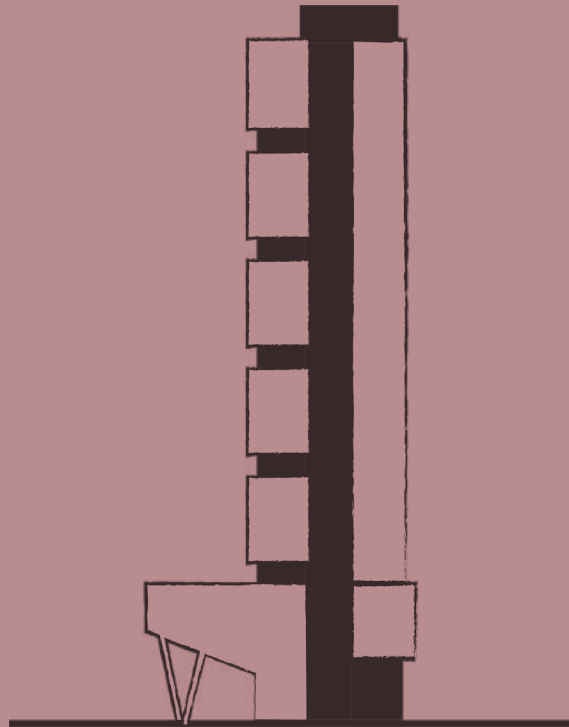
STRUCTURAL SECTIONS



LIBRARY PART



THEATRE PART



MILANO STUDENT HOUSING