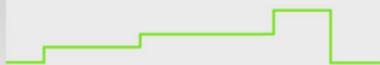


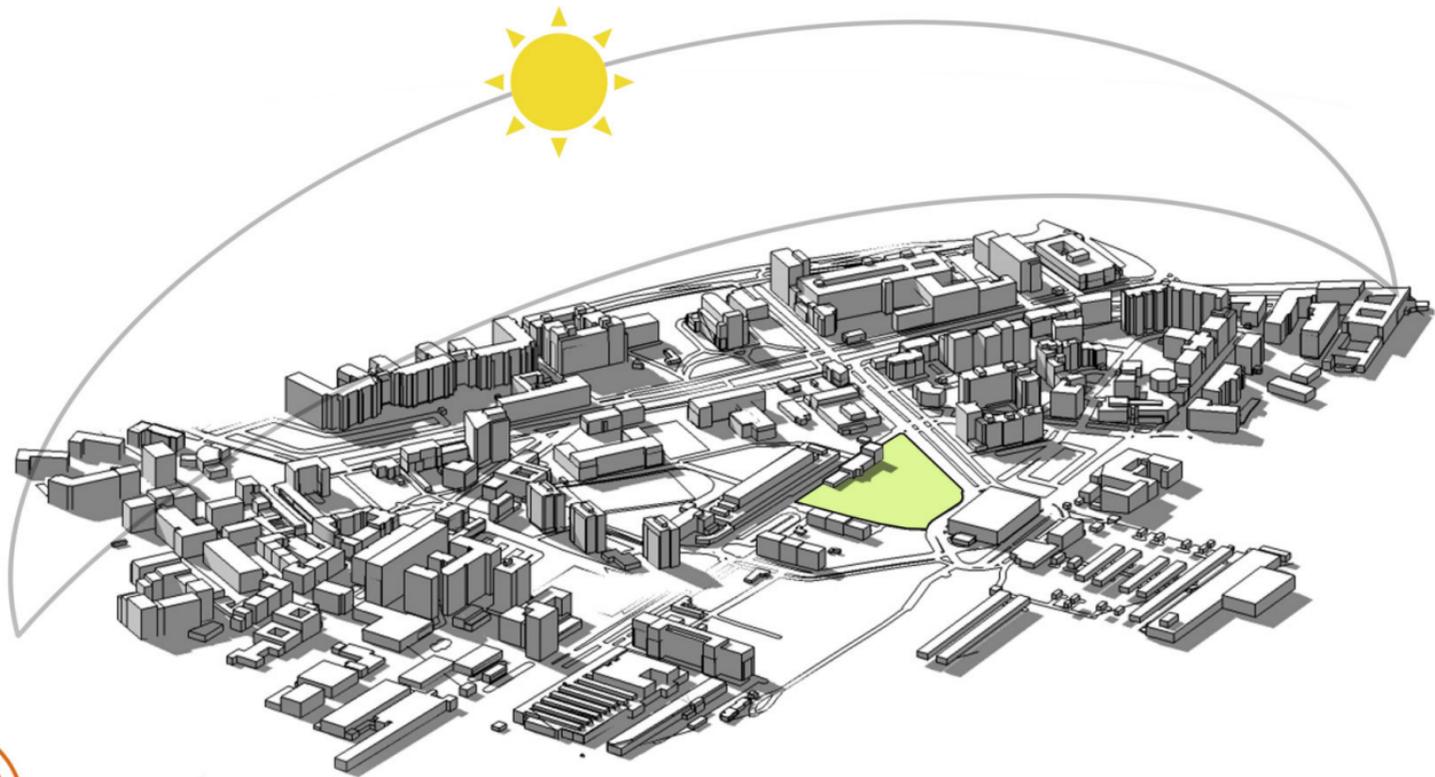
BOTANIC



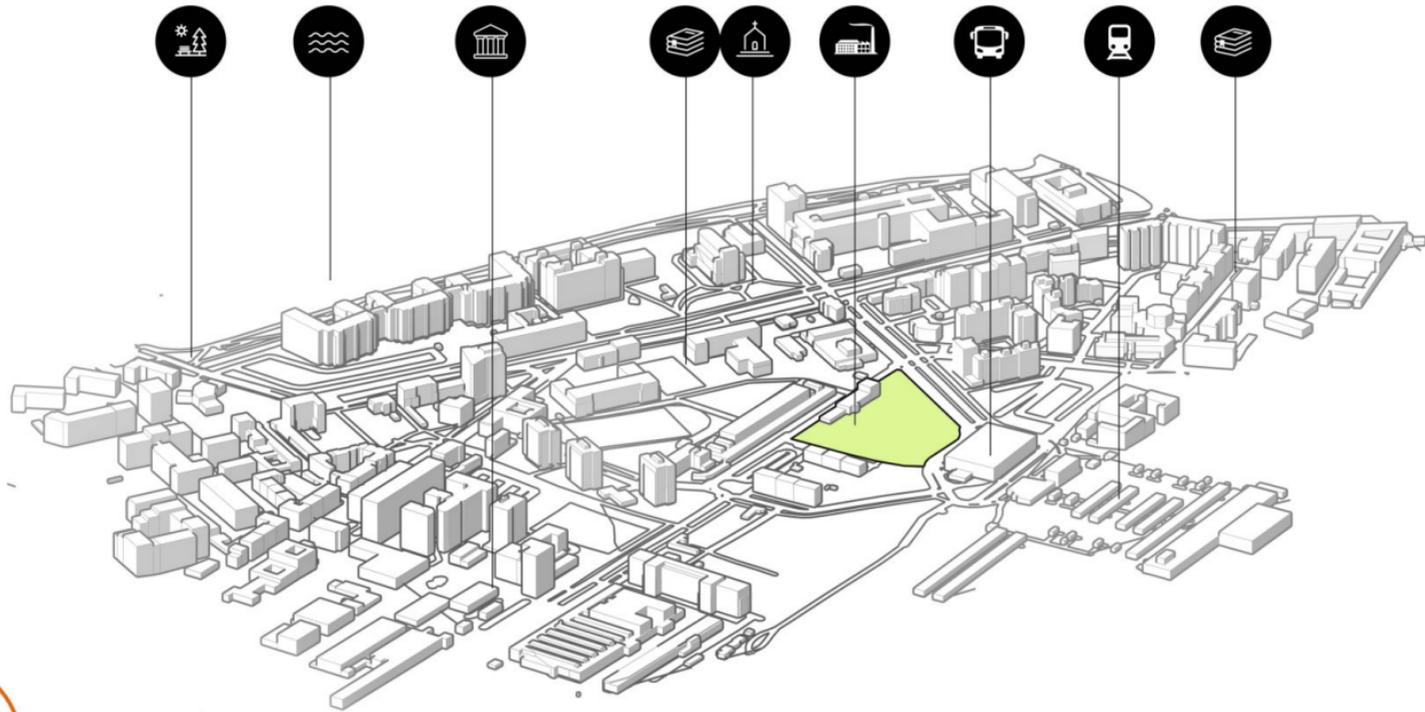
FRAME







SHADING ANALYSIS



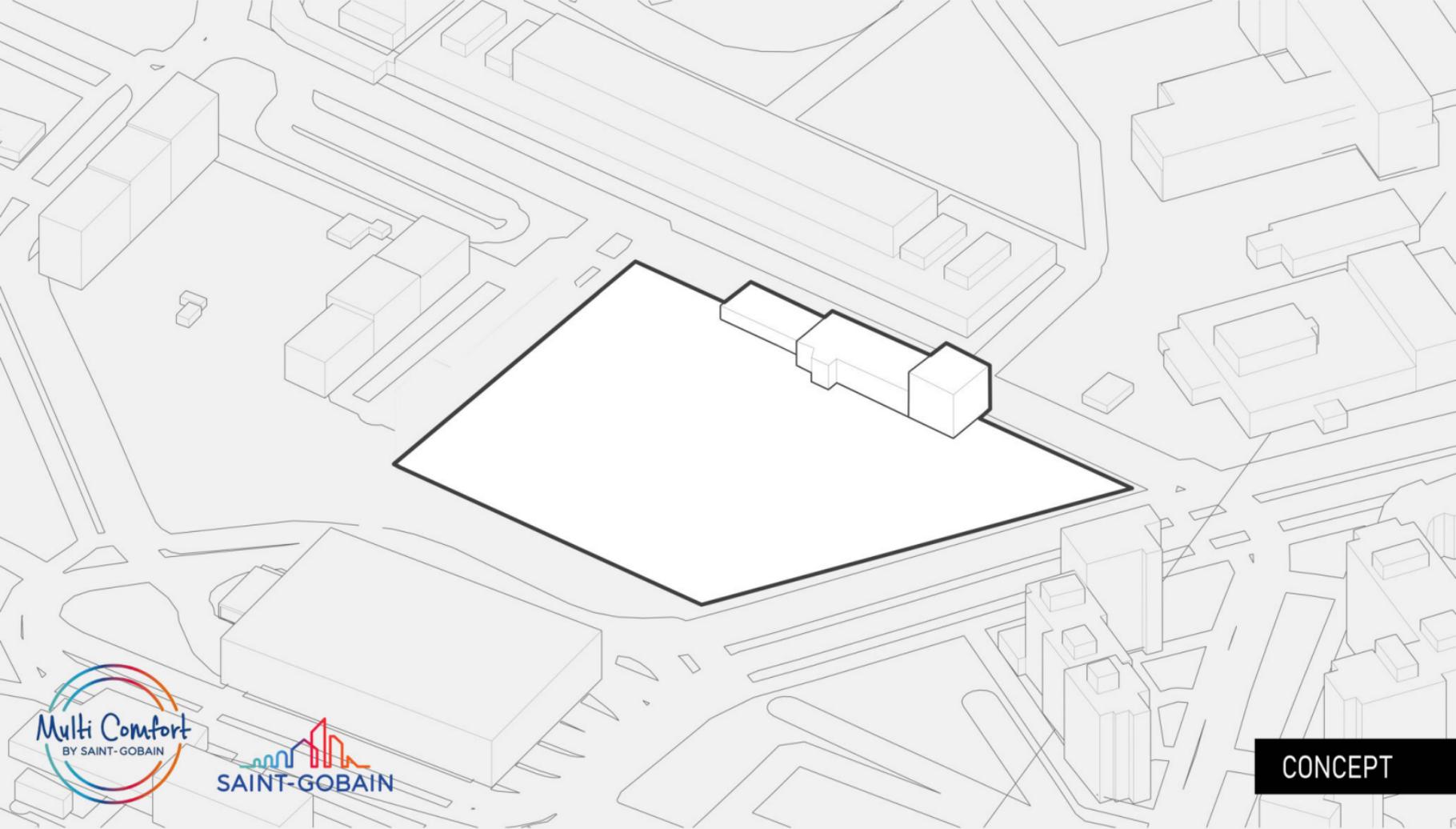
URBAN CONTEXT ANALYSIS



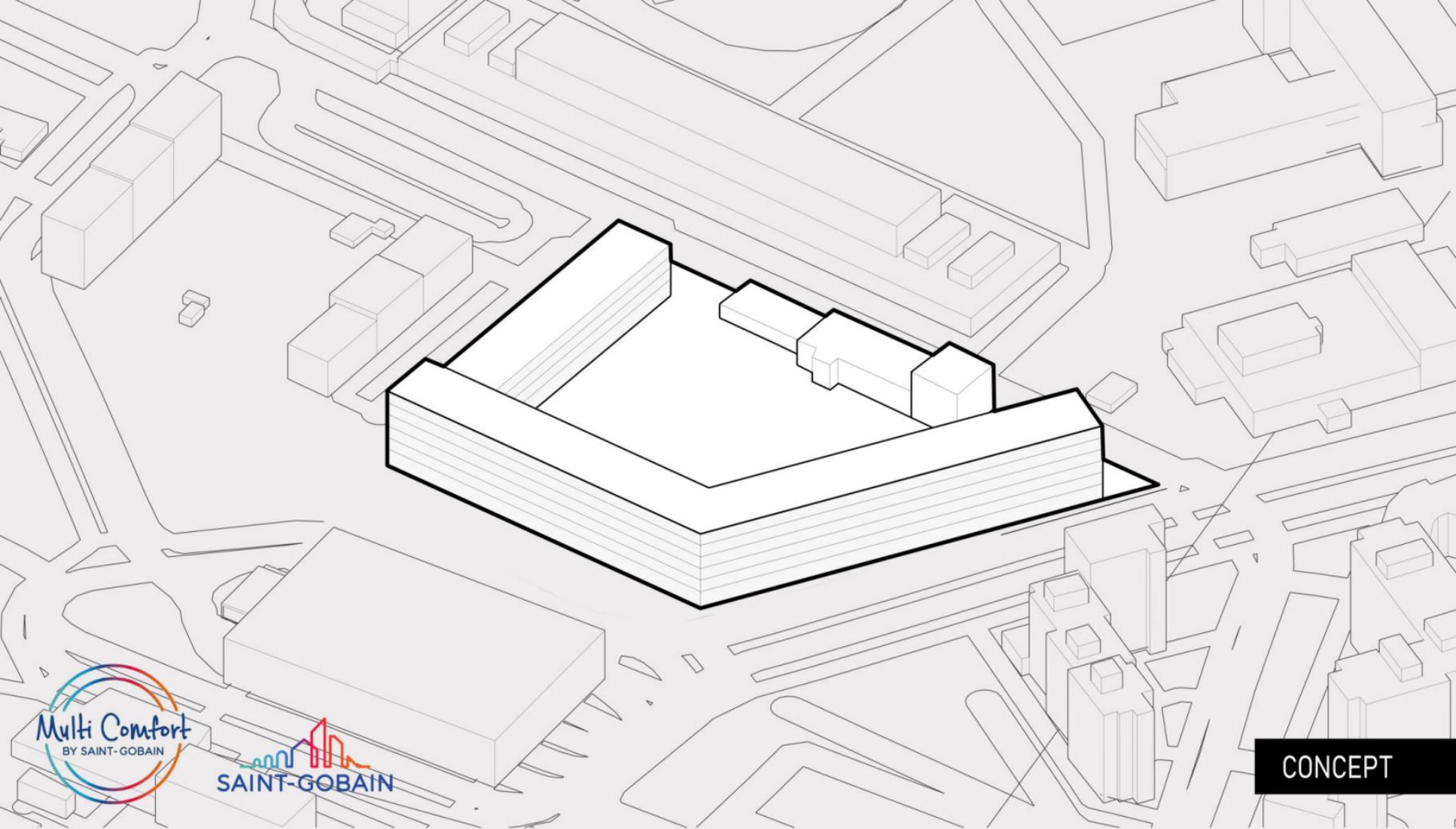
2 000 000

16 500 000

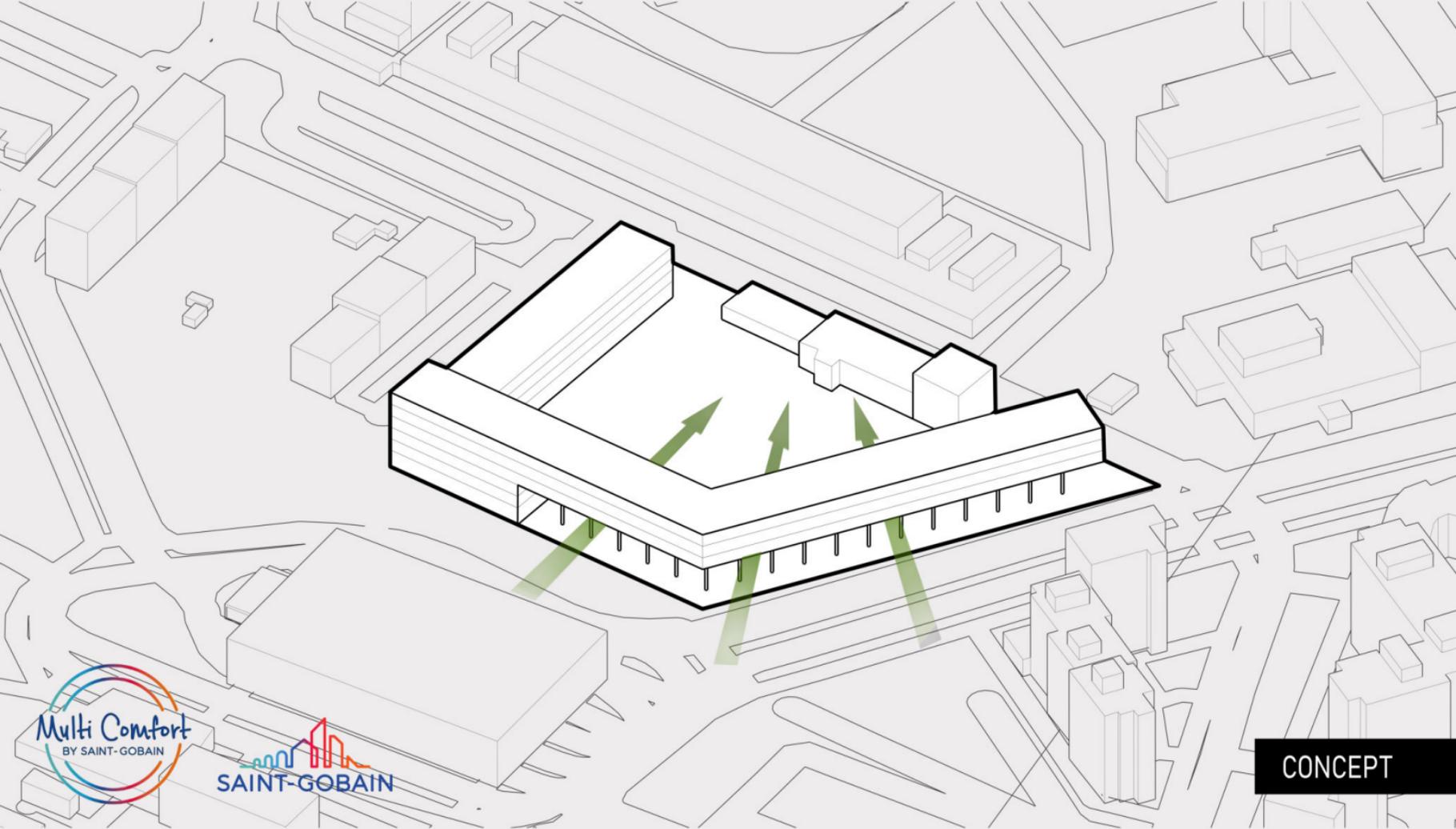
ANNUAL NUMBER OF VISITORS



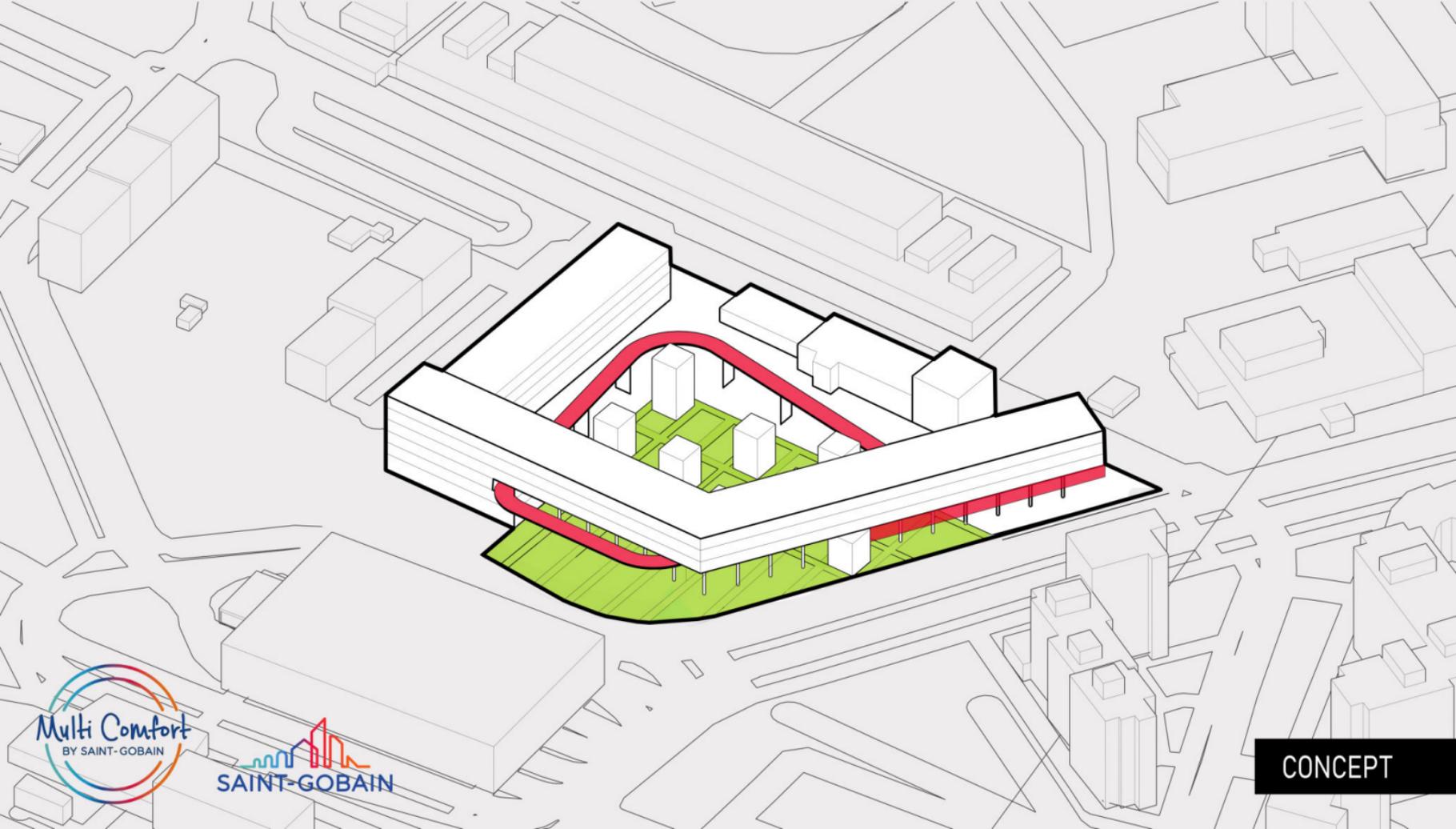
CONCEPT



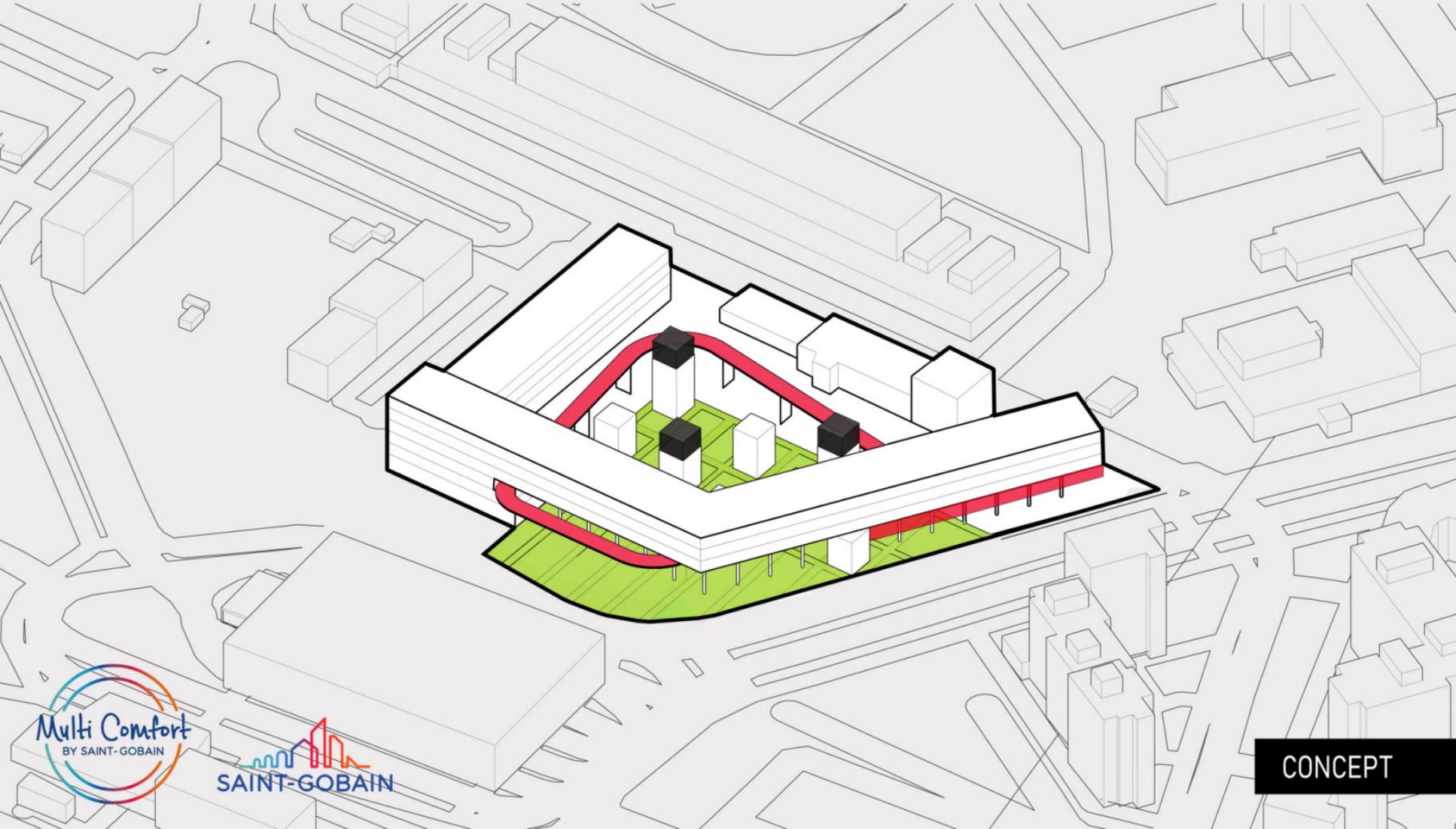
CONCEPT



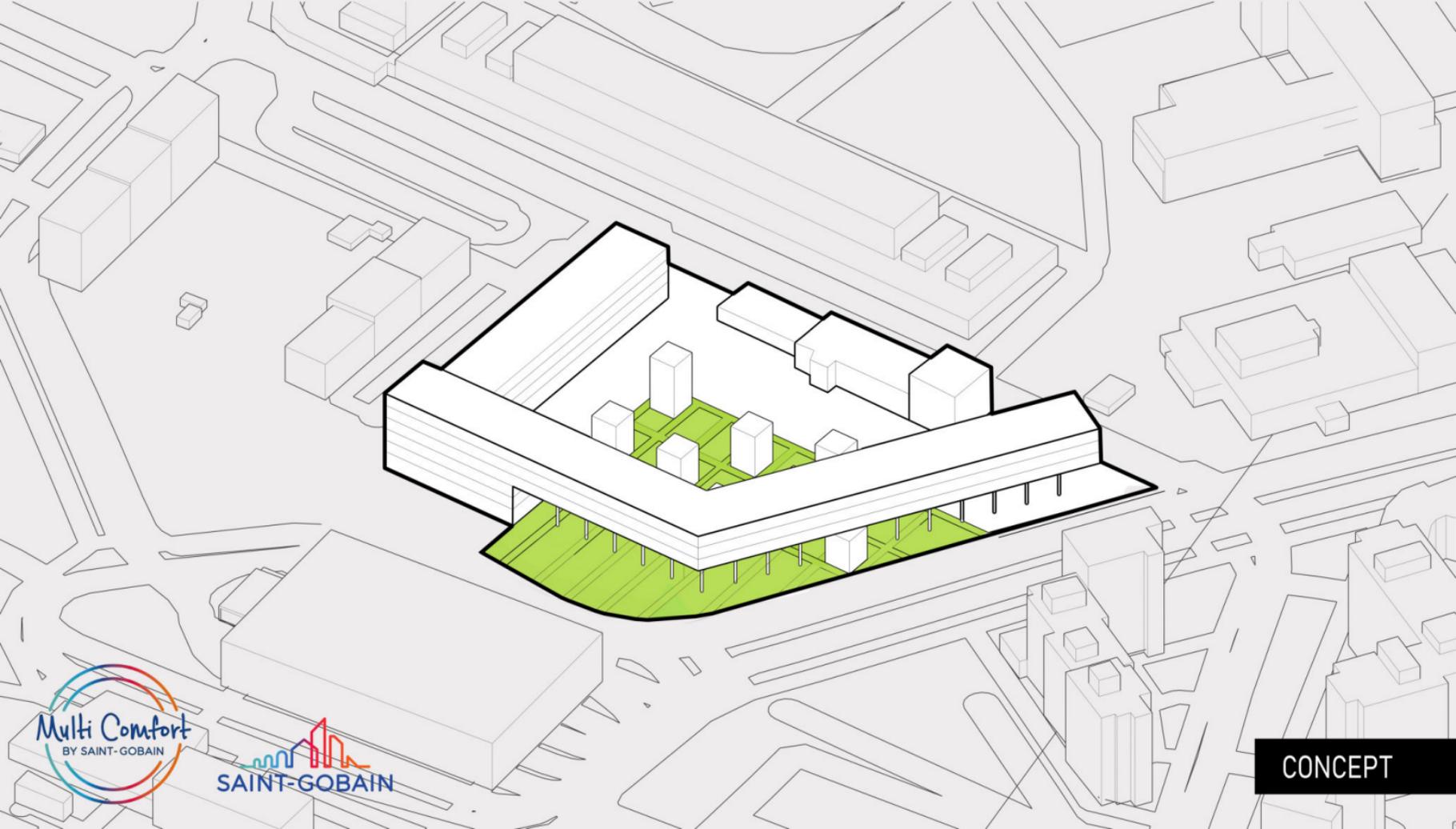
CONCEPT



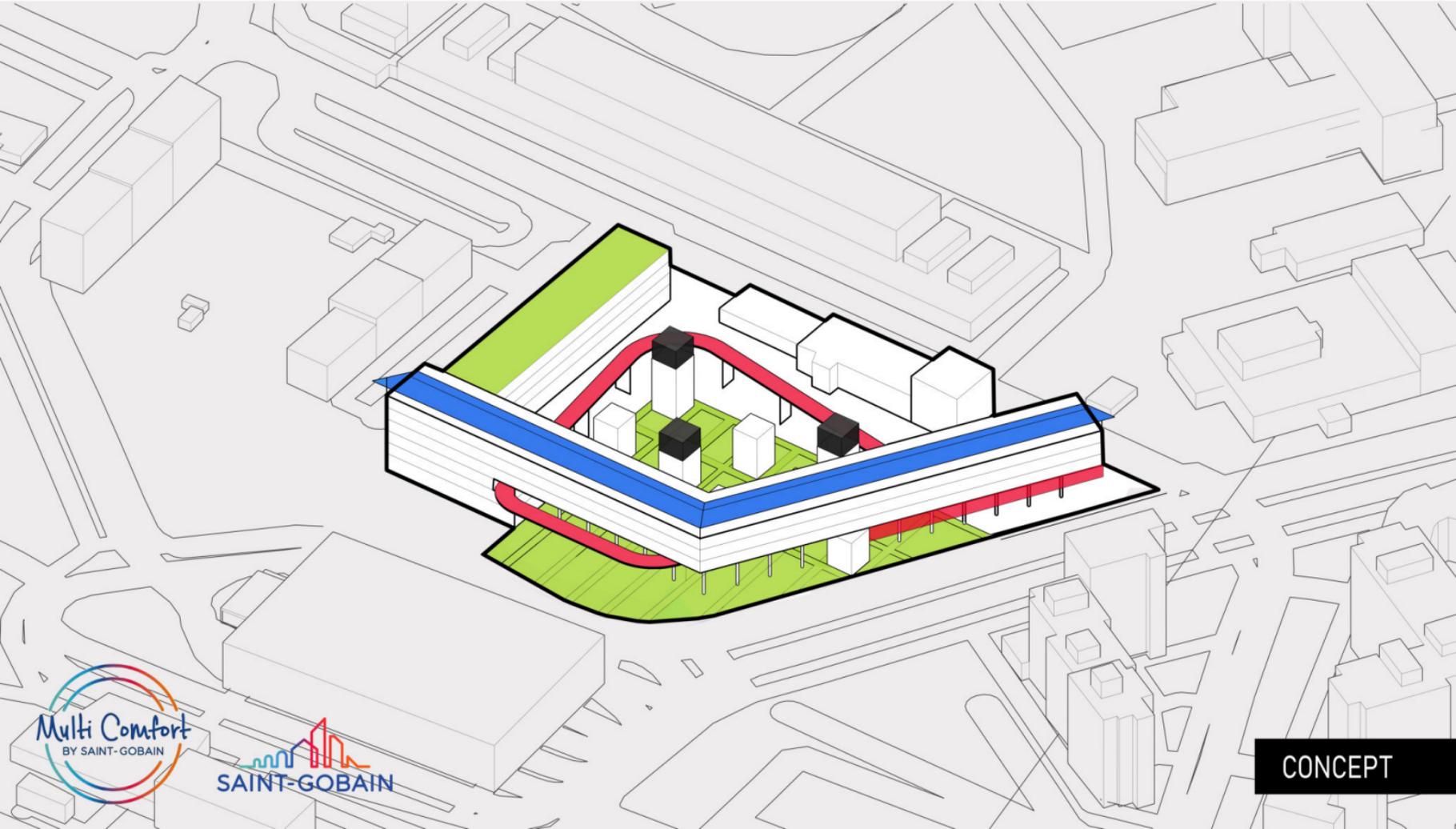
CONCEPT



CONCEPT



CONCEPT



CONCEPT

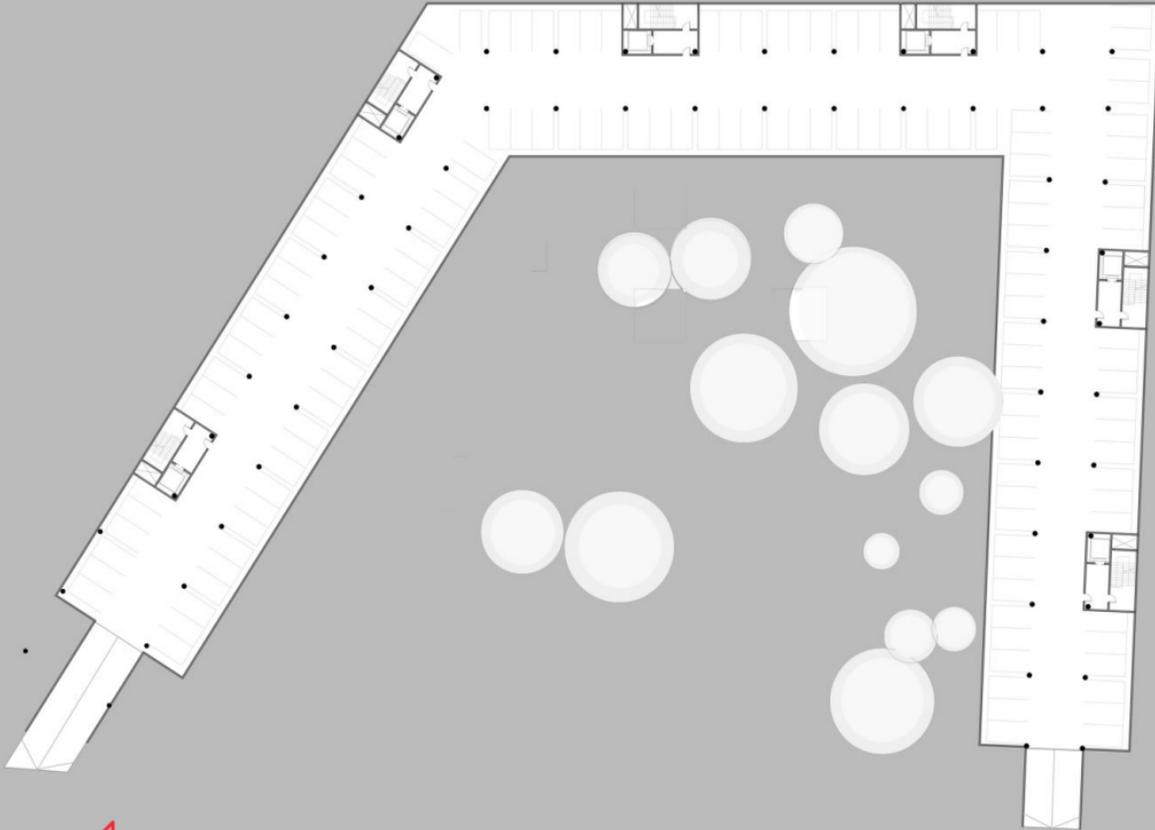


MASTERPLAN

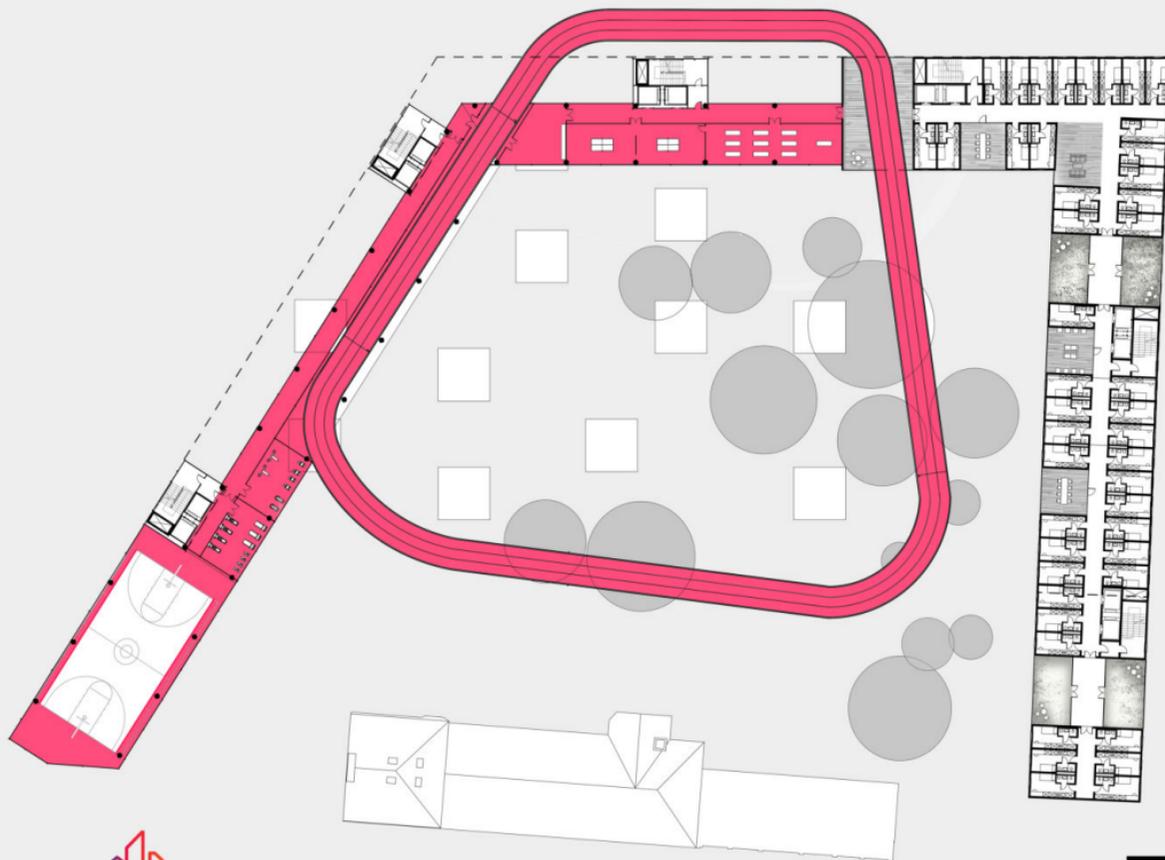




GROUND FLOOR



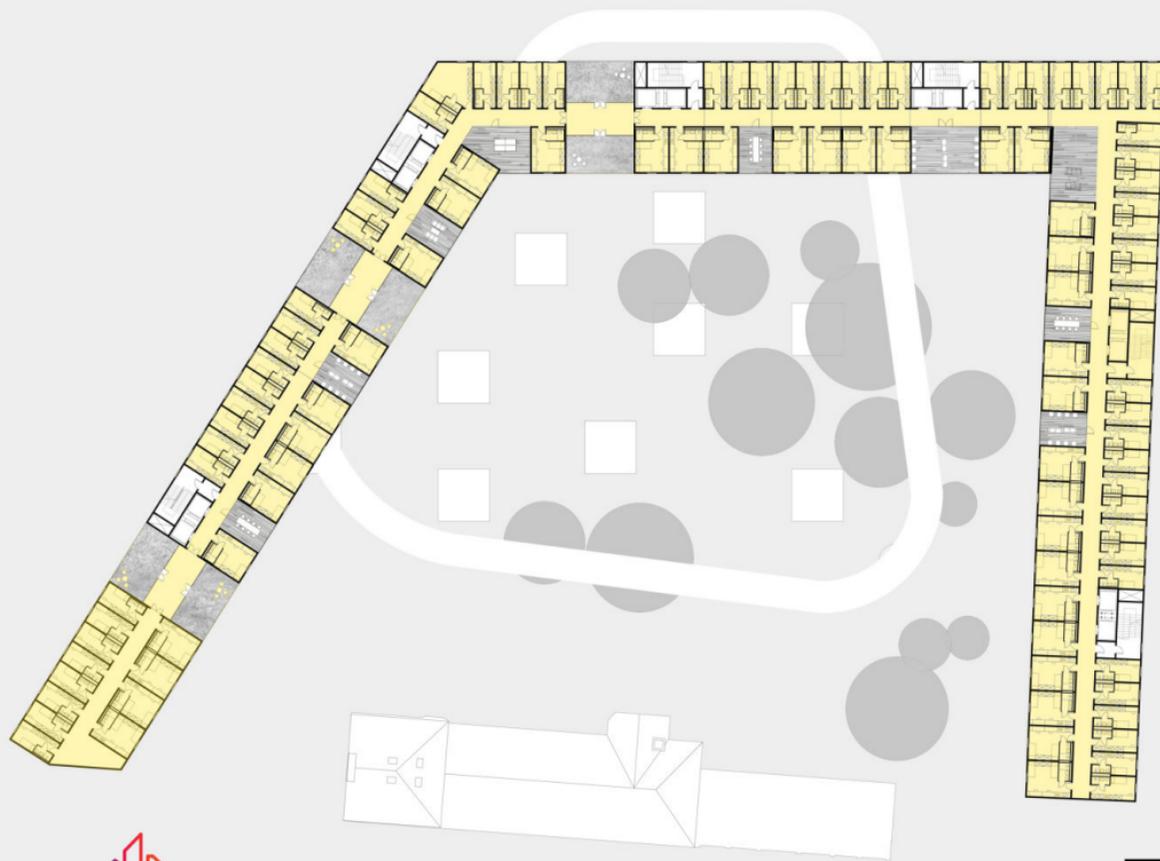
UNDERGROUND CAR PARK



SPORT SPACE FLOOR

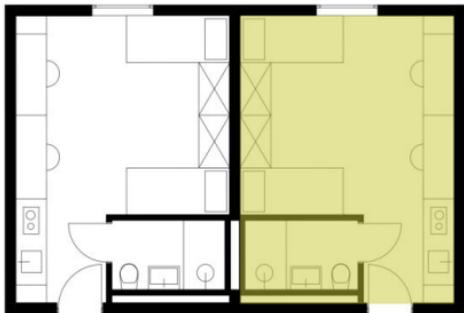




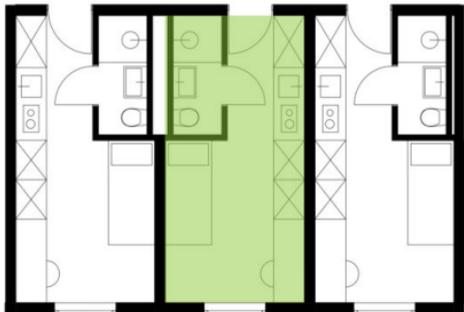


RESIDENTIAL FLOOR

TWO-PERSON ROOM

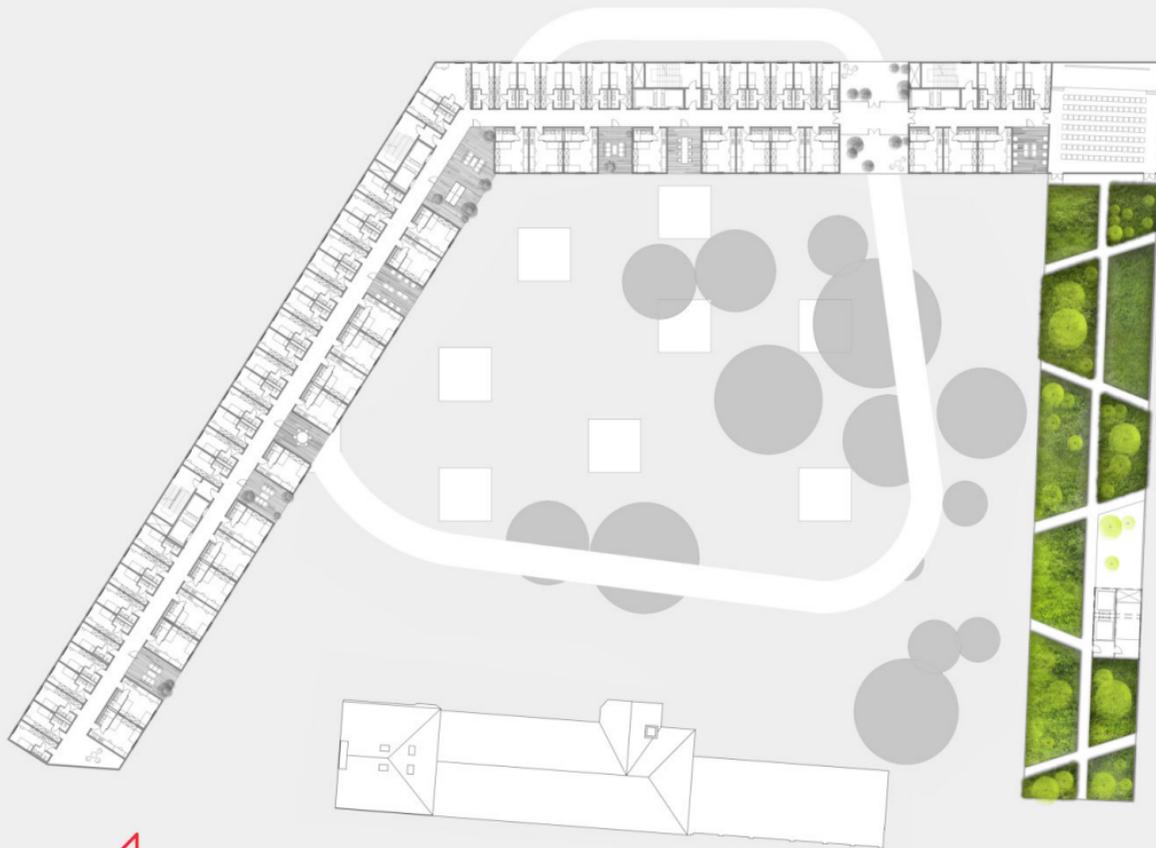


SINGLE ROOM

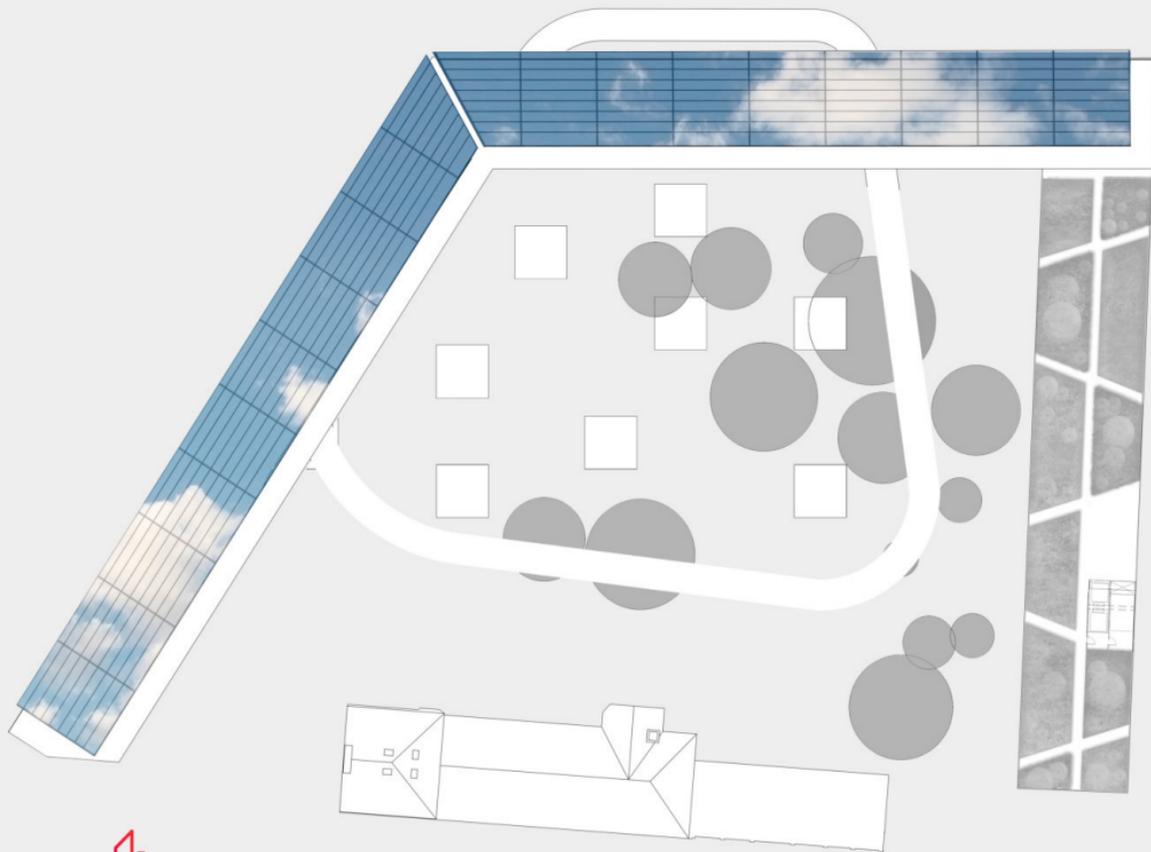


ROOM VIEWS

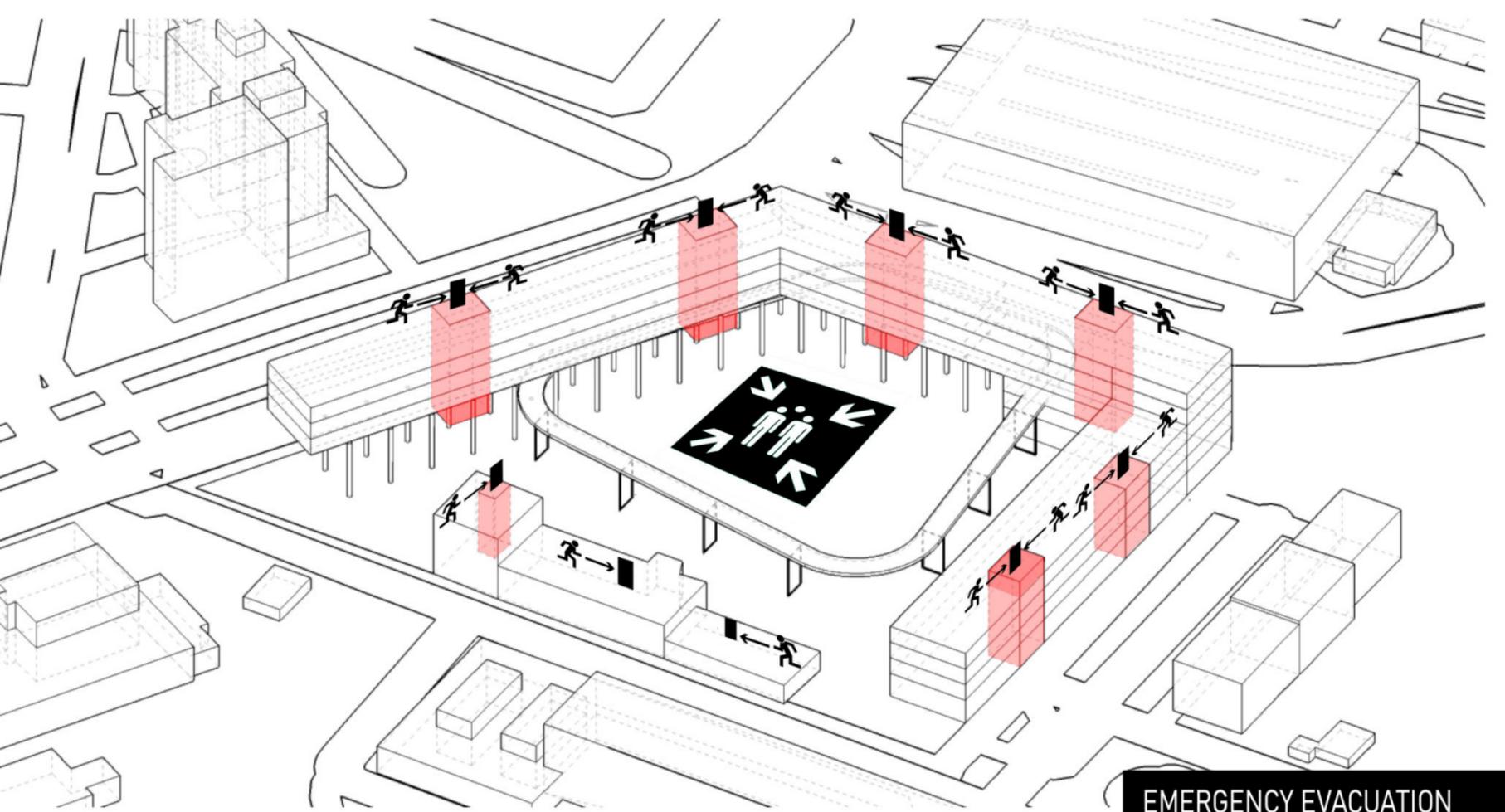




ROOF GARDEN FLOOR



SOLAR SYSTEM FLOOR



EMERGENCY EVACUATION



THE FRAME



SECTION



Hear

silence acoustics
appropriate sound environment
isolate from bothersome
sounds
reduce reverberation



light
attention to the right
amount of daylight
design
color

See

providing an outside view

Multi Comfort
BY SAINT-GOBAIN



air quality
cleanliness
humidity

Breathe

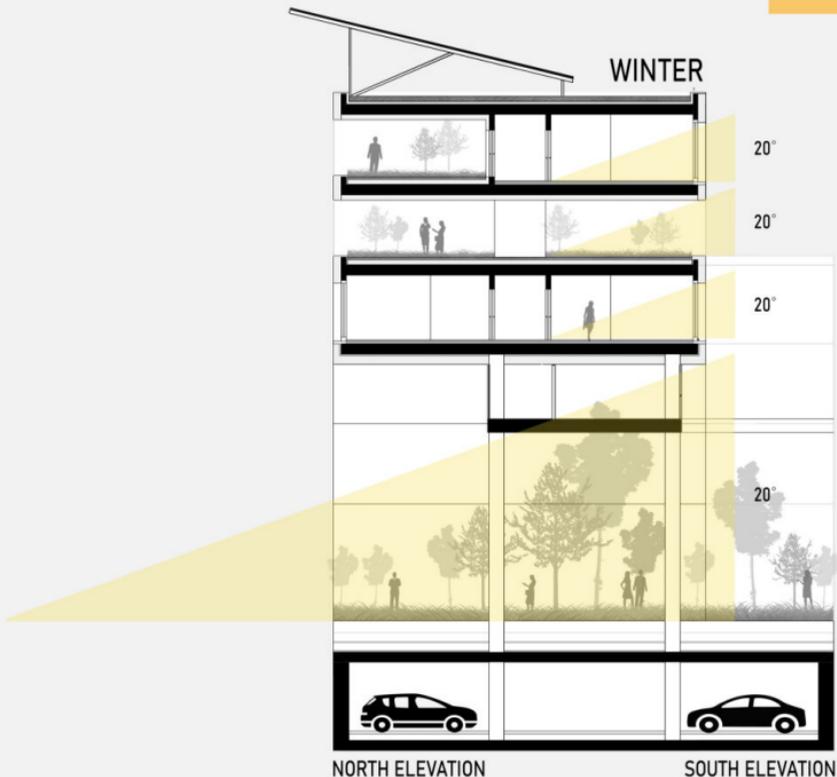
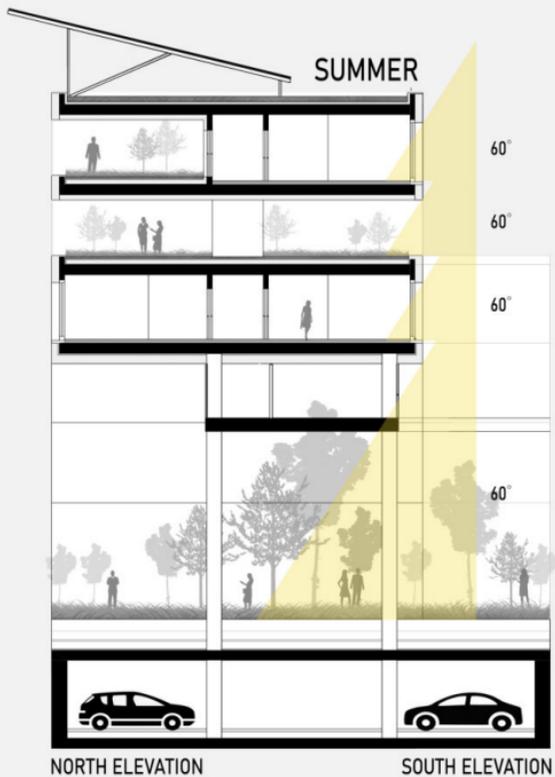
healthy microclimate
ventilation and ensuring
adequate air exchange

Feel

pleasant temperature in both
winter and summer
adequate thermal insulation



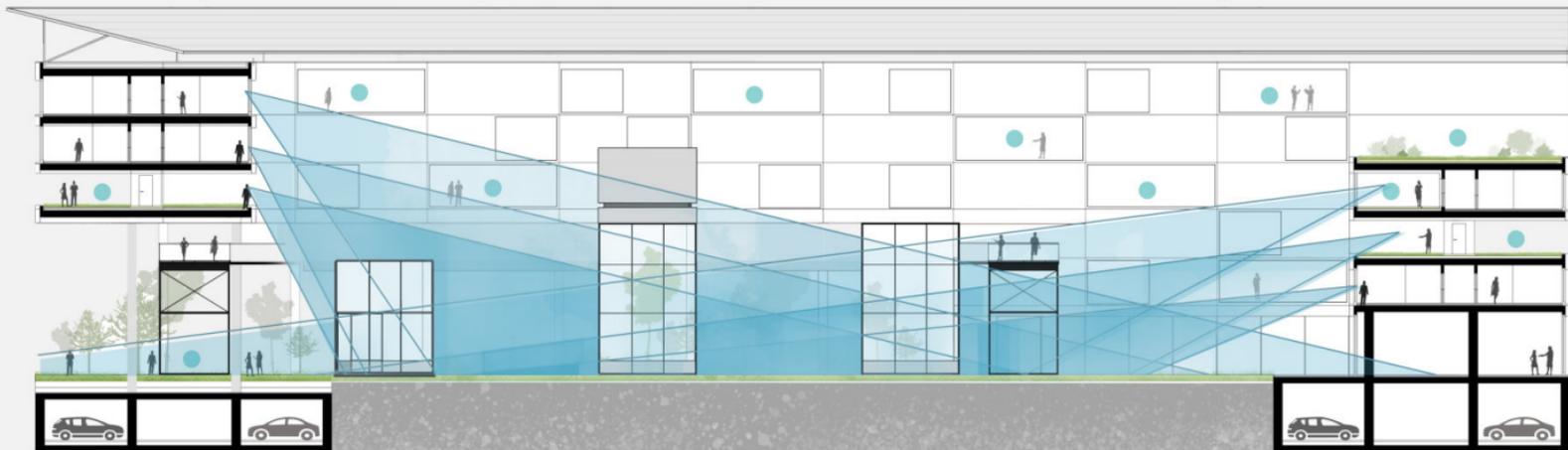
SEE



INSOLATION



SEE



- THE CENTRAL BOTANICAL GARDEN HAS BEEN DESIGNED IN A WAY THAT THE COLLECTION OF THE SPACE FROM UPPER FLOORS IS SIMILAR TO THE SENSATION ON THE GROUND FLOOR. THIS HAPPENS THROUGH THE CUBATURES "GROWING UP" AT DIFFERENT HEIGHT THANKS TO WHY, EVEN FROM THE RESIDENTIAL STOVES, I FEEL THE CLIMATE OF THE COURTYARD

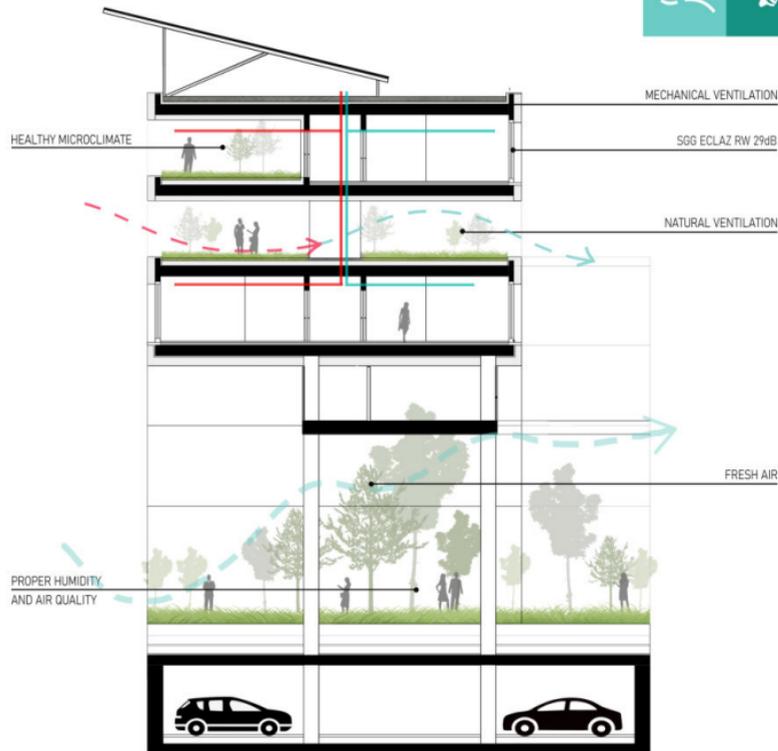
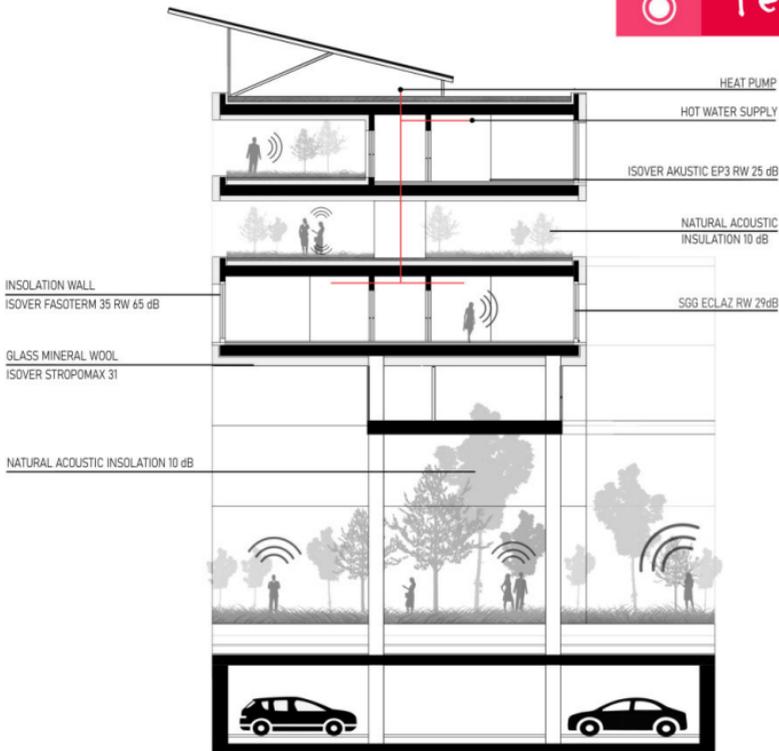
- INTERESTING GREEN SPACES, DESIGNED AND REPRODUCED ON EACH FLOOR, ATTRACT THE EYE OF THE FACILITY USERS AND EXTERNAL PEOPLE. STRONGLY AFFECT THE POSITIVE RECEPTION OF THE SPACE

- ATTRACTIVE VIEW AVAILABLE FROM EVERY LEVEL OF THE BUILDING AS WELL AS A TREADMILL FOR GREEN COMMON SPACES



VISUAL COMFORT

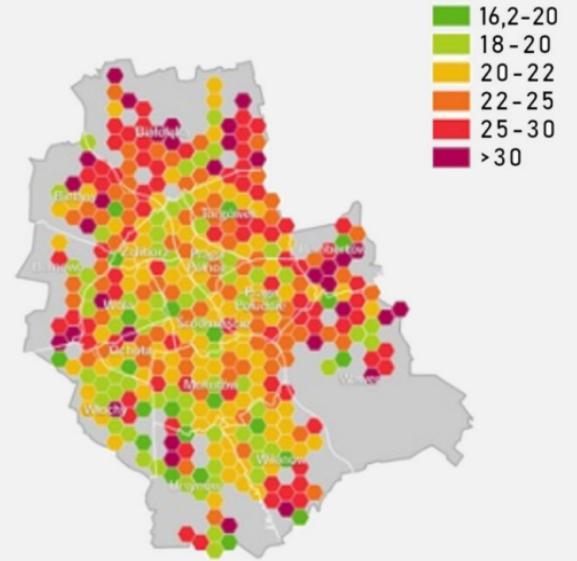
ACOUSTIC COMFORT



VENTILATION SYSTEM

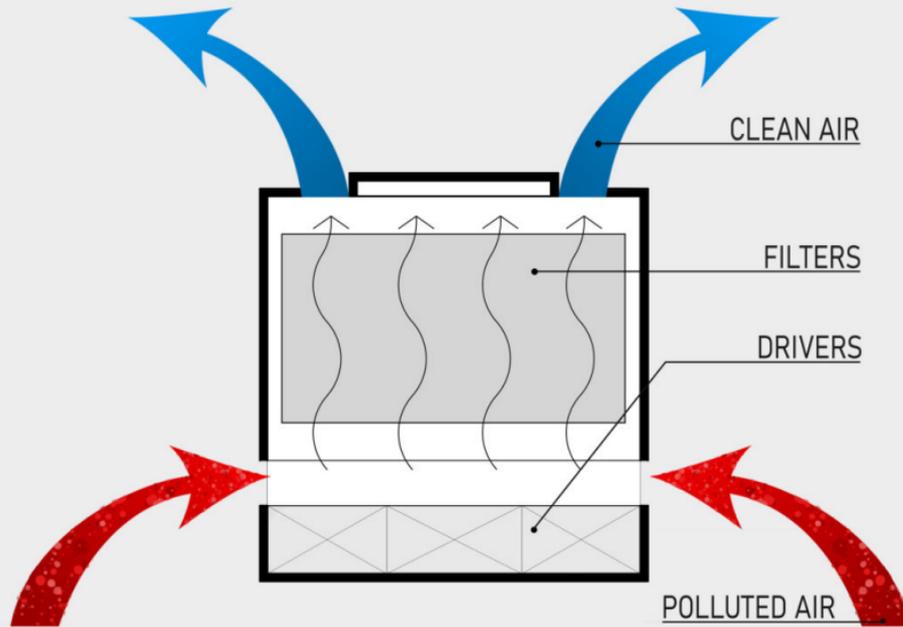


Average concentration of PM 2.5 in the period
March 5 - May 25 2020

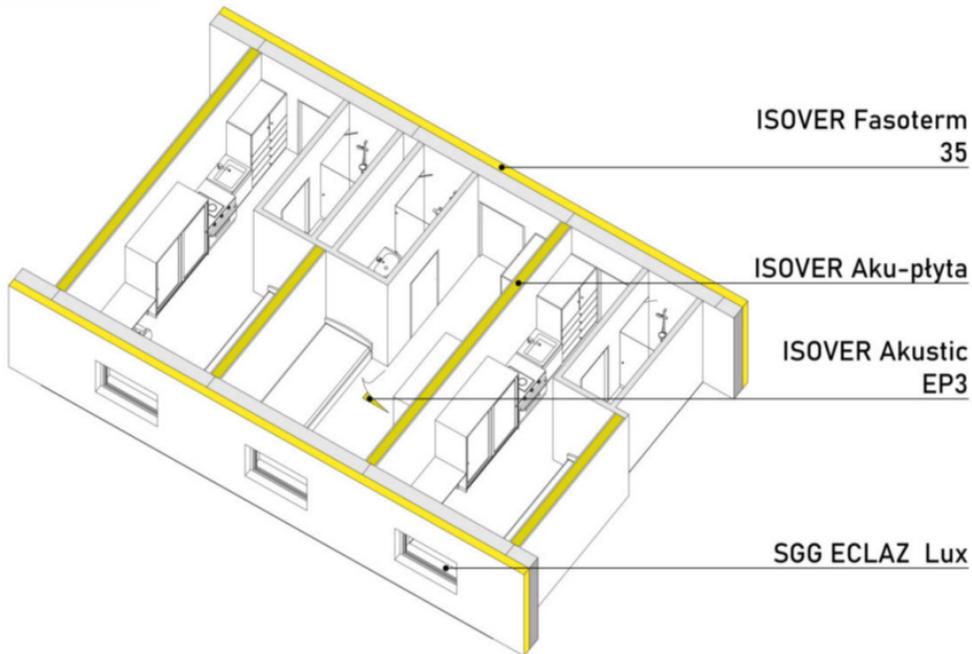


Smog map measurements
 $\mu\text{g} / \text{m}^3$

DUST AIR PURIFIERS







CALCULATIONS

Specific Heat Demand

Transmission Heat Losses: 51357.83 kWh

Ventilation Heat Losses: 5661.74 kWh

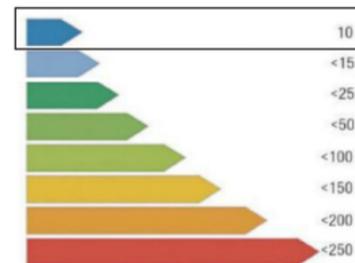
Total Heat Losses: 57019.62

Internal Heat Gains: 8760.95 kWh

Solar Heat Gains: 41068.75 kWh

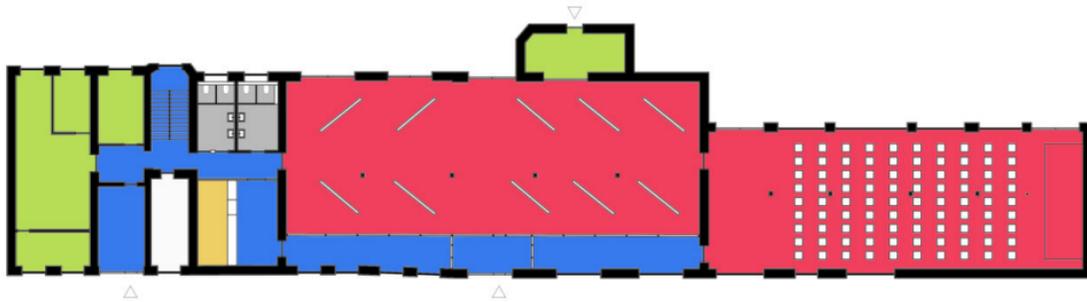
Total Heat Gains: 44054.67 kWh

Annual Heat Demand: 12 964.95 kWh

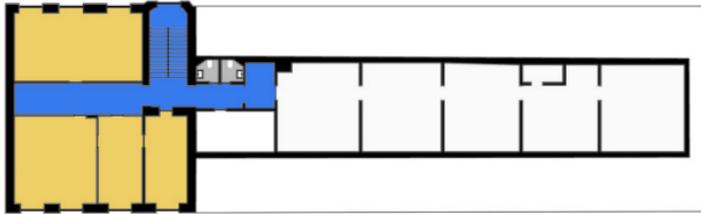


Specific Heat Demand: 9.81kWh/m²a

Energy Efficiency Classes



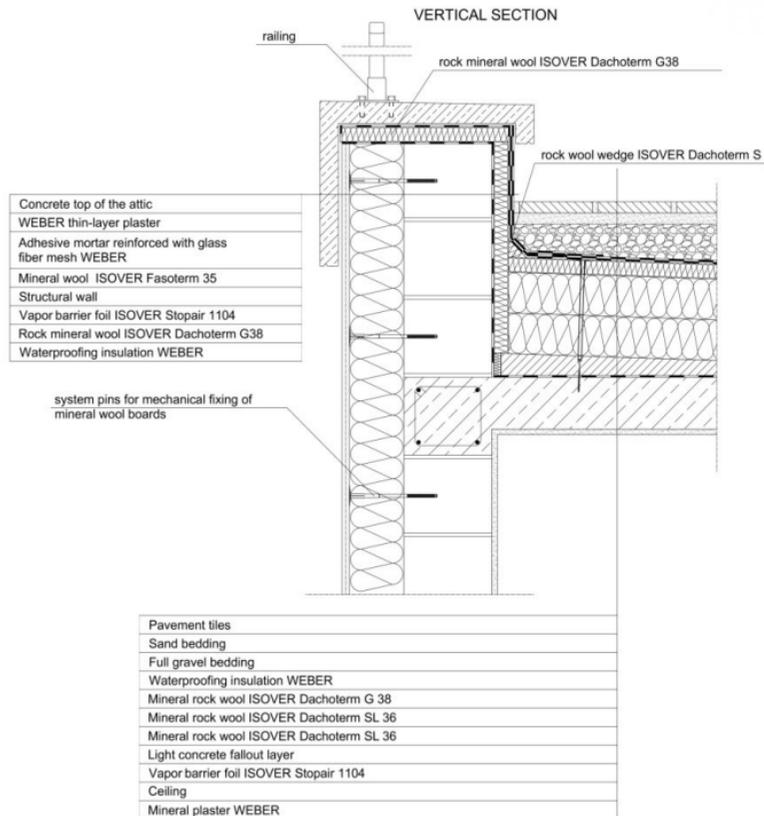
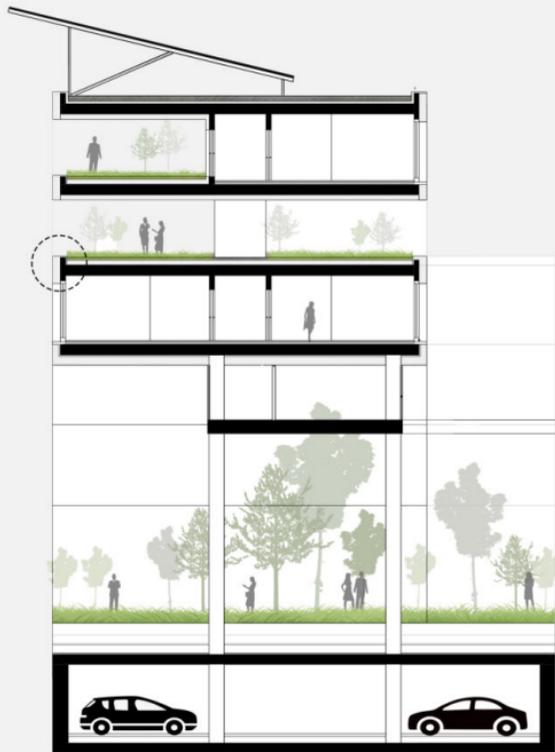
- EXHIBITION / CONFERENCE HALL
- COMMUNICATION
- GASTRONOMY
- ADMINISTRATION
- TOILETS
- STORAGE



In the historic building of the Józef Rosenthal Metal Products Factory, we proposed to open two halls, replacing the existing walls with pillars supporting the ceiling. In the newly created, spacious and well-lit rooms on both sides, we have proposed a design museum focused on the presentation of metal objects. In the second room, we proposed a multifunctional space, adapted to conferences, workshops and meetings of local communities. On the ground floor of the main, two-story part, we have located gastronomy and toilets. The administration offices and the museum's warehouse are located on the first floor. The exterior of the old plaster was removed, revealing historic brick that had been sandblasted. Inside, the building has been finished with white plaster. To better organize communication in the main hall, we have set up a glass wall, which acts as a vestibule of the main entrance, which does not take light from the exhibits and allows for the parallel organization of events in both rooms.



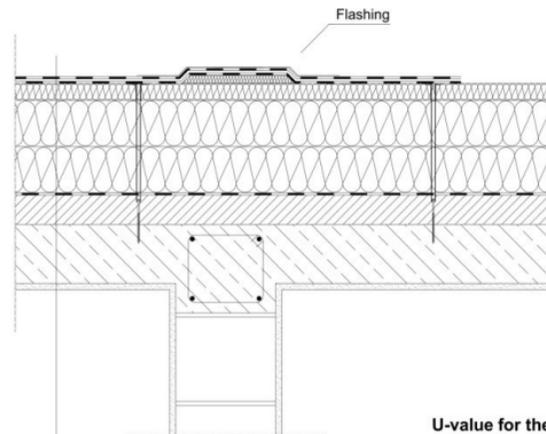
MUSEUM OF DESIGN IN THE OLD FACTORY



EXTERNAL WALL AND TERRACE FLOOR DETAIL



VERTICAL SECTION

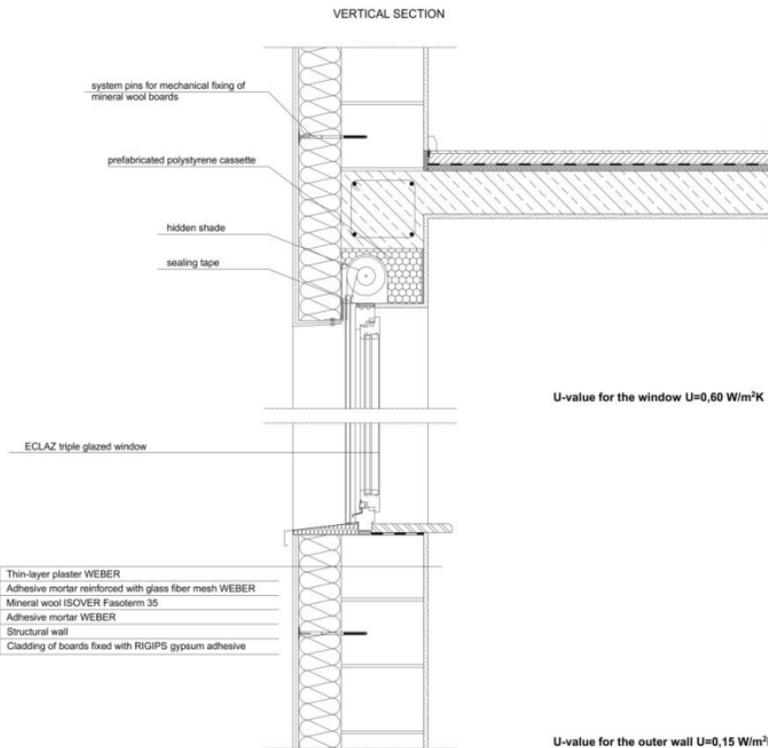
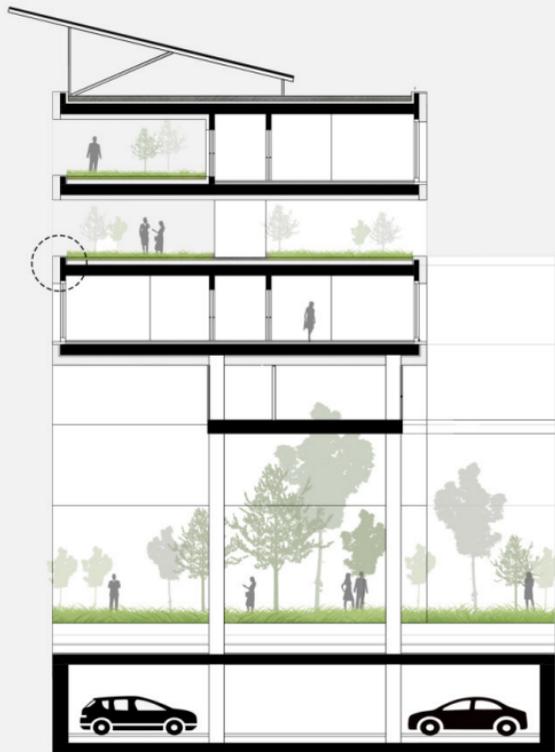


U-value for the roof $U=0,11 \text{ W/m}^2\text{K}$

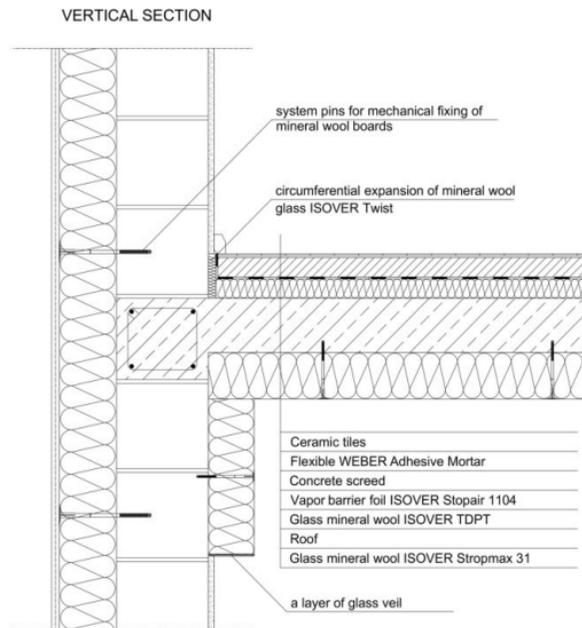
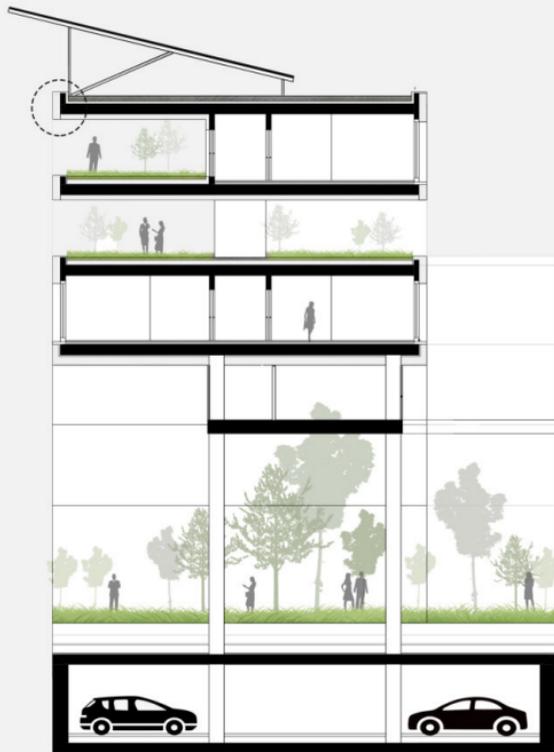
Waterproofing insulation WEBER
Rock mineral wool ISOVER Dachoterm G 38
Rock mineral wool ISOVER Dachoterm SL 36
Rock mineral wool ISOVER Dachoterm SL 36
Vapor barrier foil Isover Stopair 1104
Light concrete fallout layer
Ceiling
Mineral plaster WEBER



DETAIL OF THE SOLID CEILING



WALL-WINDOW JOINING DETAIL



DETAIL OF WARMING THE FLOOR ABOVE THE UNHEATED ROOM

