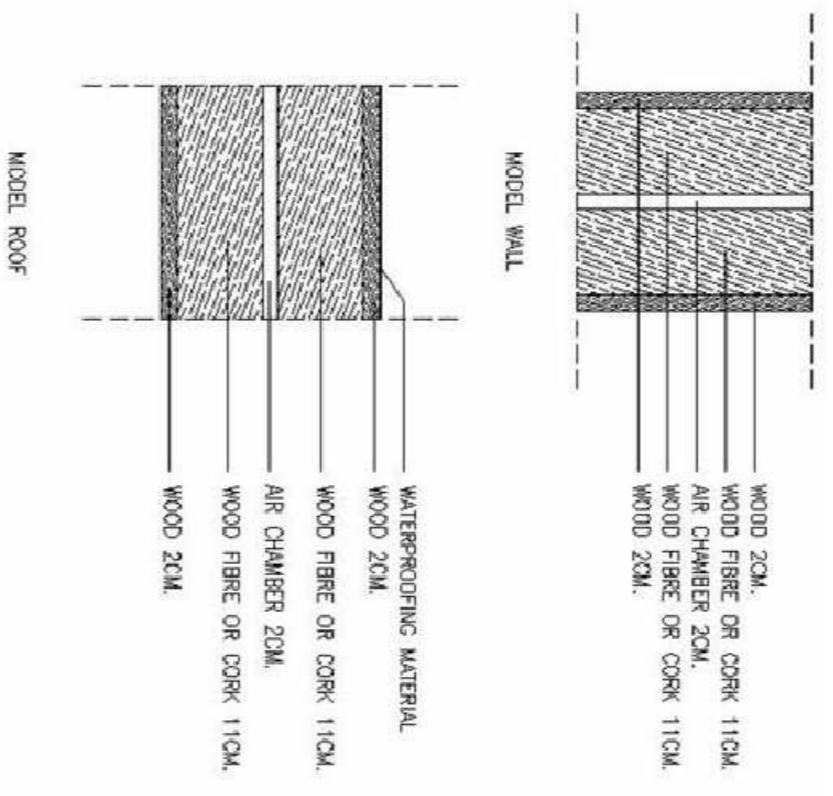


# Foundation of a floating building in Groningen (Netherlands)

## MATERIALS (Forés)

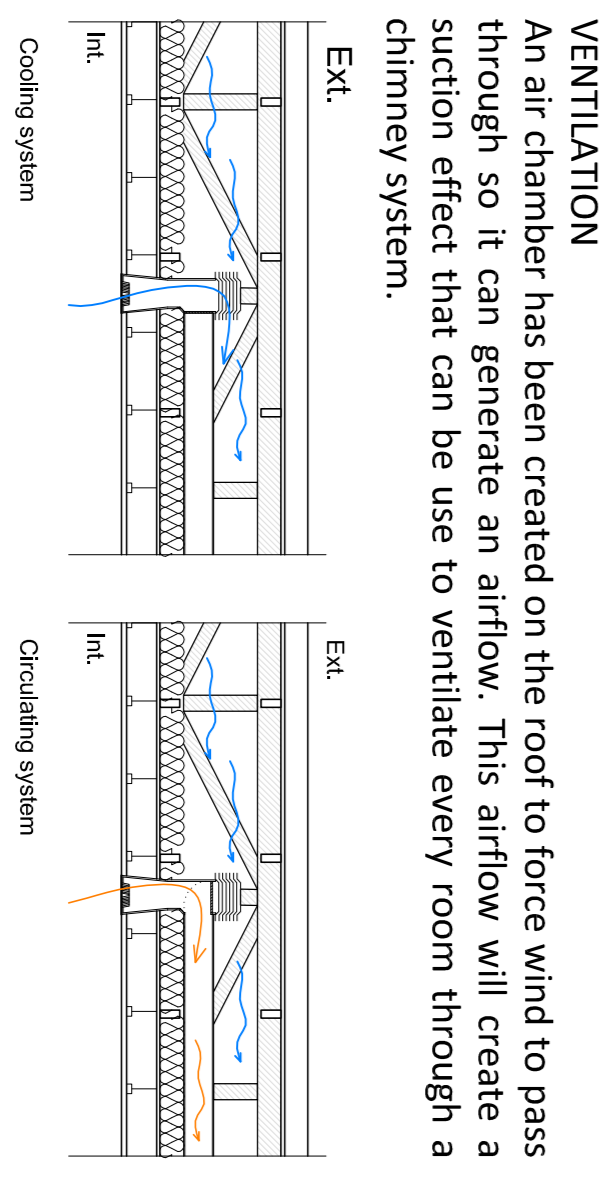
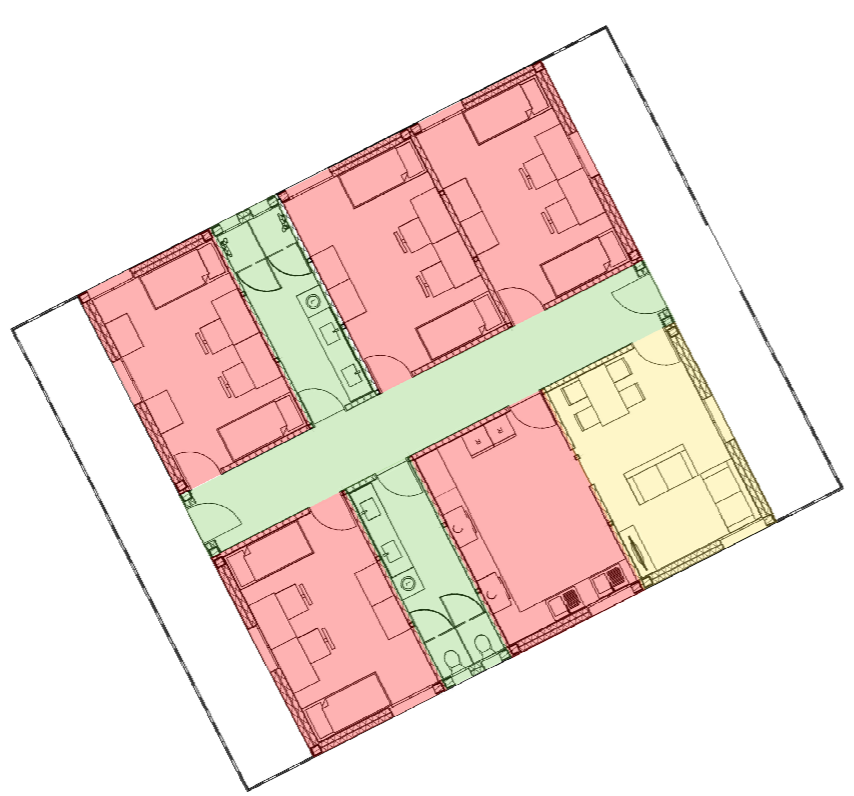
The wood is the main material in the execution of the upper structure, it is the material that best meets the criteria required by the client. The wood is a material that is used almost in its natural state and also has other qualities that make it very sustainable, its mechanical capabilities allow to apply it perfectly to any design, it is very adaptable and very advisable for a modular system because its dry set up allows assembly and disassembly very easy, besides it is a very light material to work, is very comfortable and fast. This quality also contributes to the buoyancy of the complete system, since it is a floating system the weight of the structure must be as light as possible. This is a design requirement that must be taken into account, it is very important.



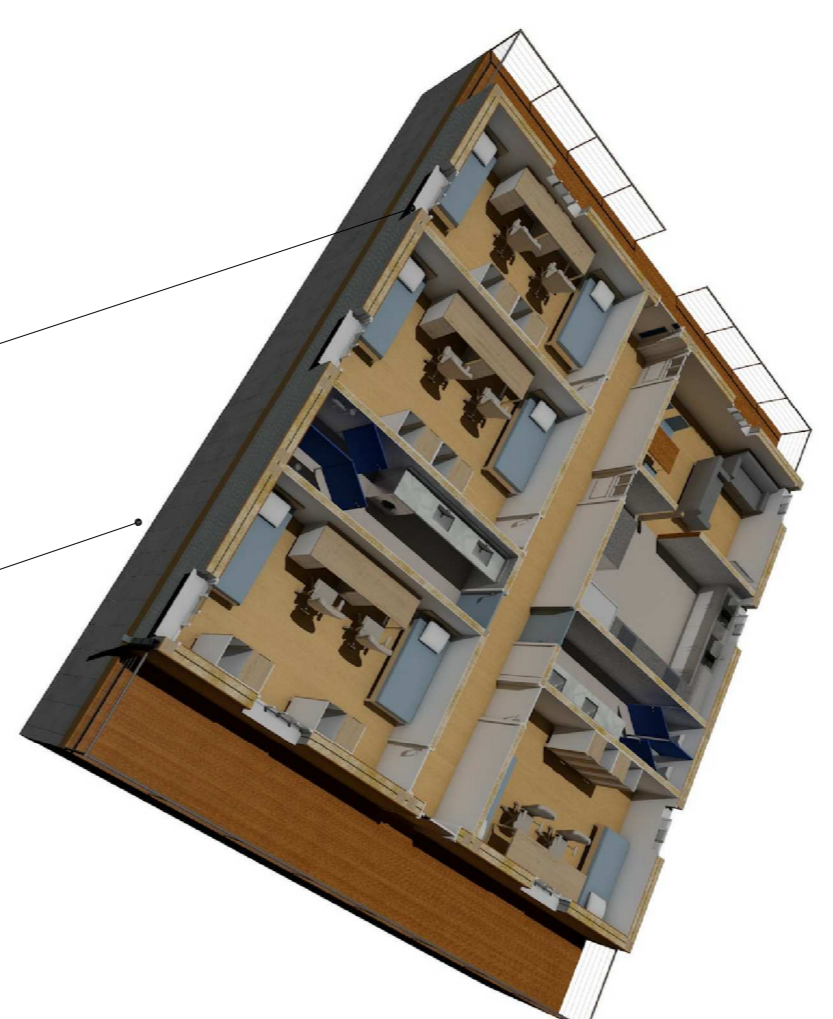
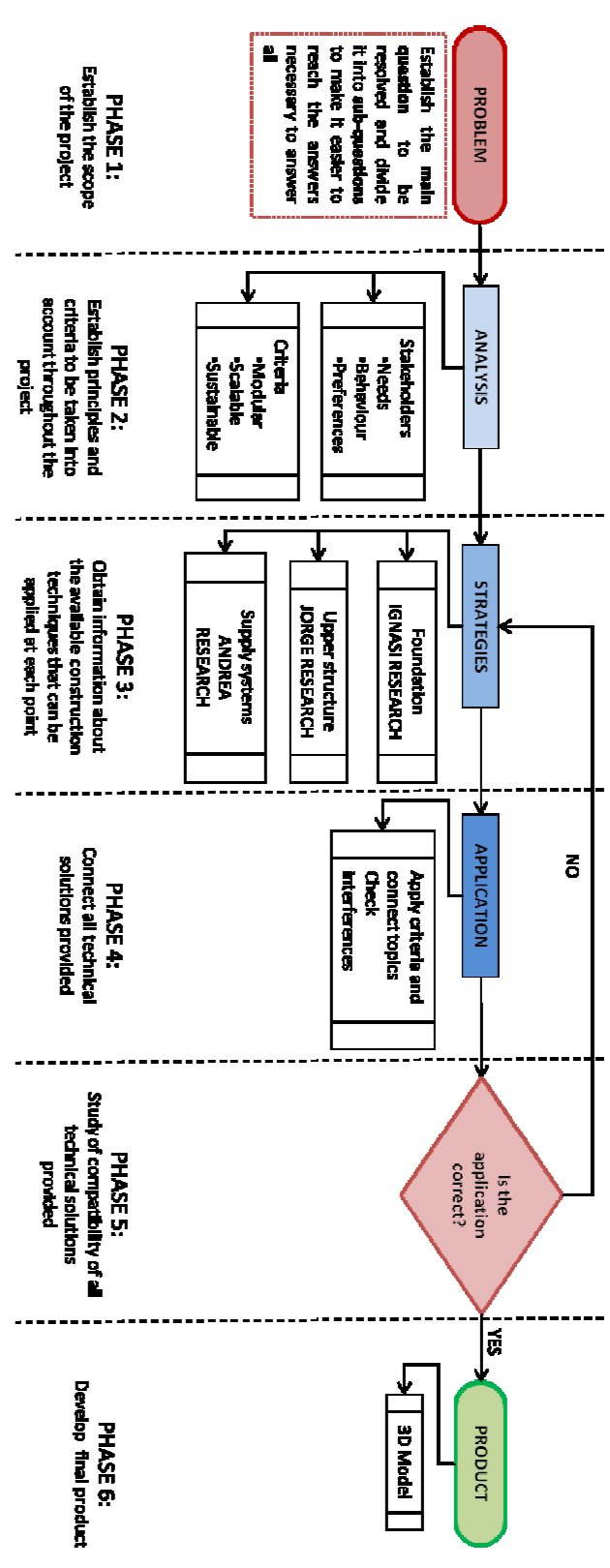
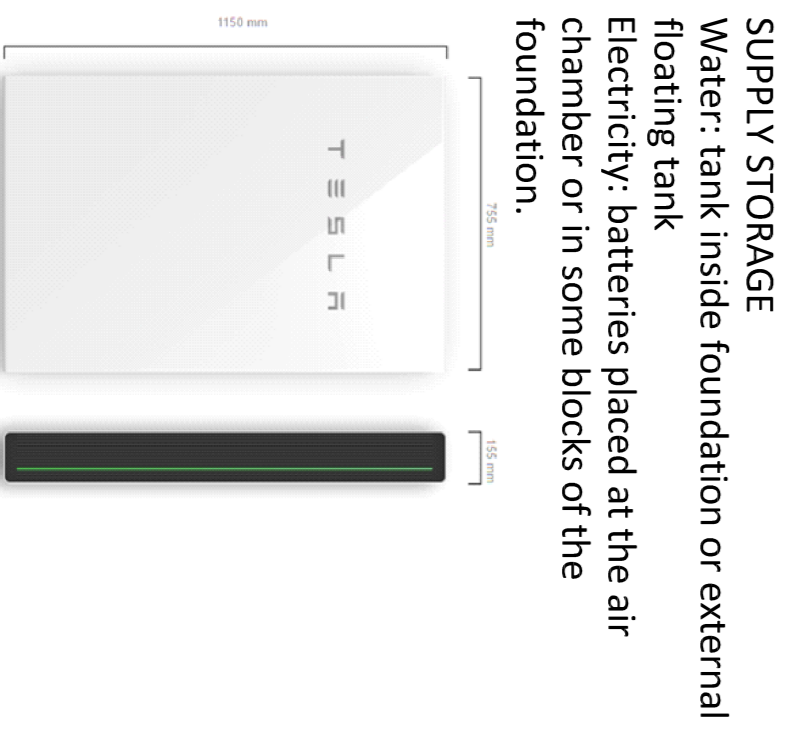
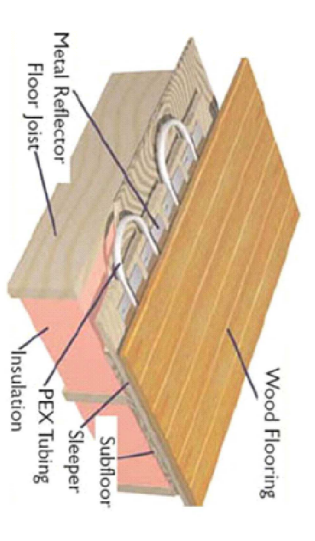
The facade is made by prefabricated panels. This panelled systems allows the constructor to cut execution times and assure quality. The structure is made of wood. The requirements followed by the structure will be the same as for the facade in terms of sustainability, life cycle and environmental impact.

## SUPPLY SYSTEMS (Morant)

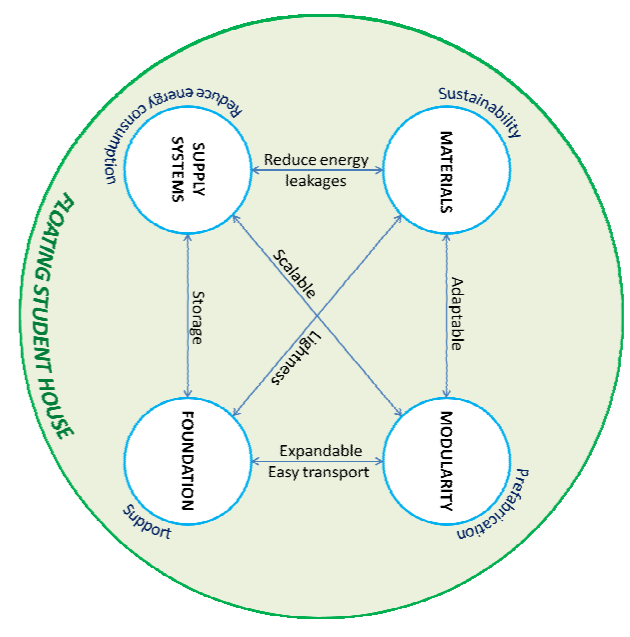
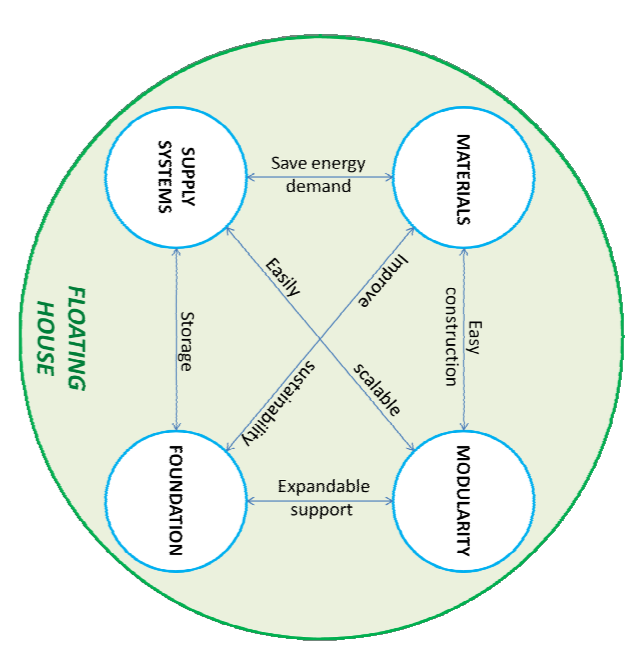
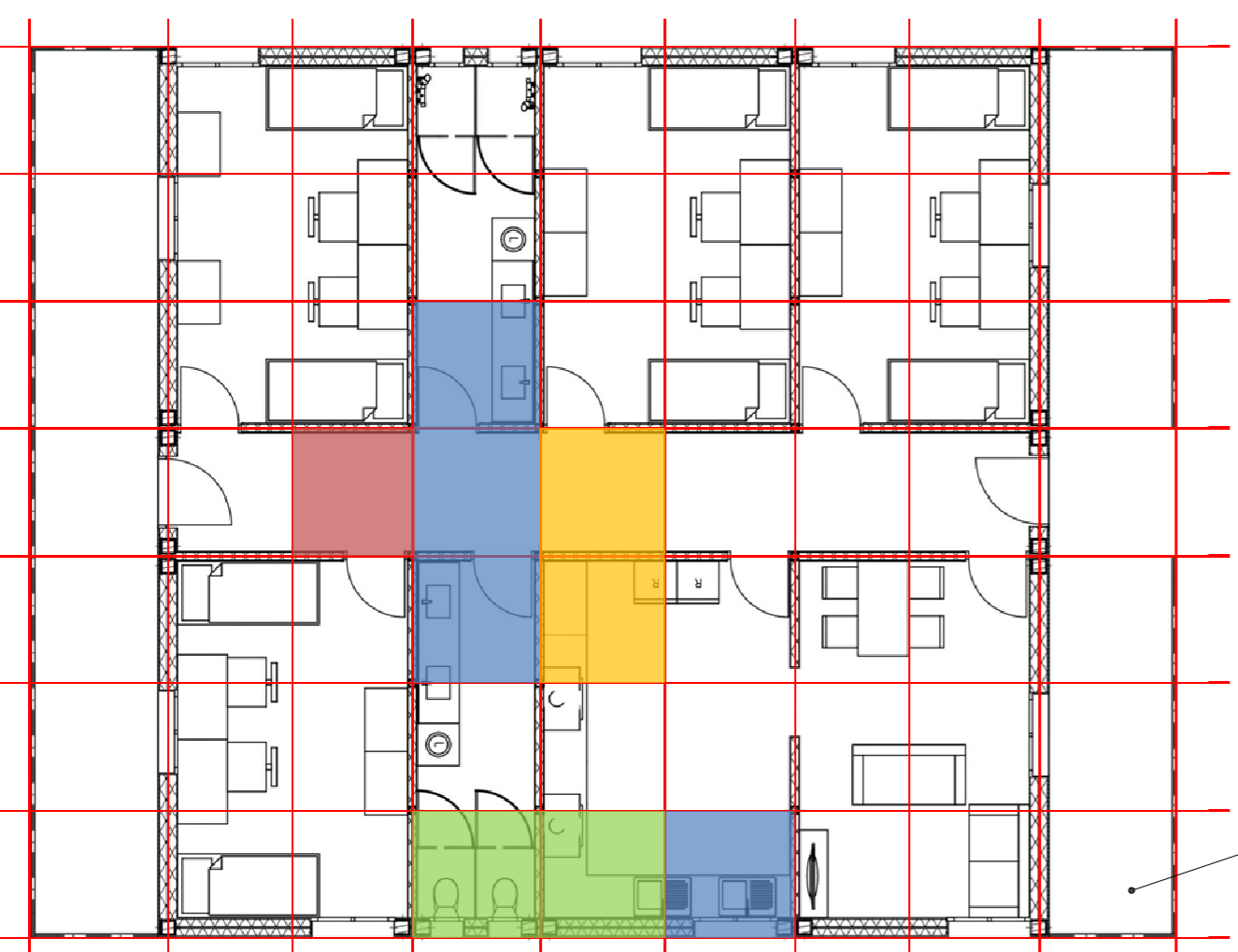
**ORIENTATION**  
 For the specific location in Groningen, the perfect orientation is South with 30º maximum deviation.  
 Common spaces have been placed to the North.



**HEAT**  
 Underfloor system supplied by reused water.

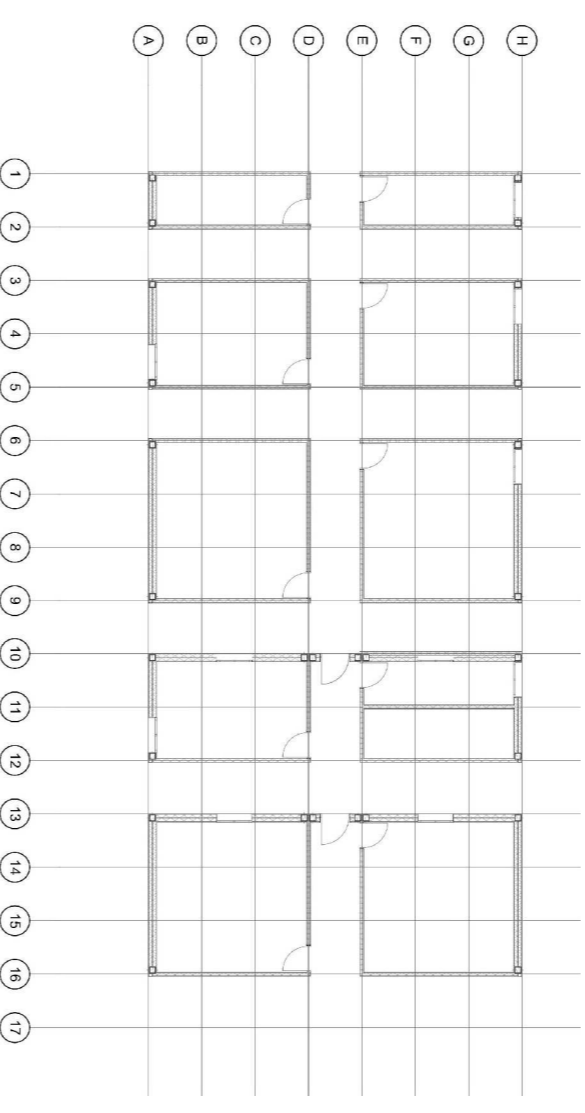


**FOUNDATION STORAGE**  
 Blue: water storage  
 Yellow: batteries storage  
 Red: heating system storage  
 Green: waste storage



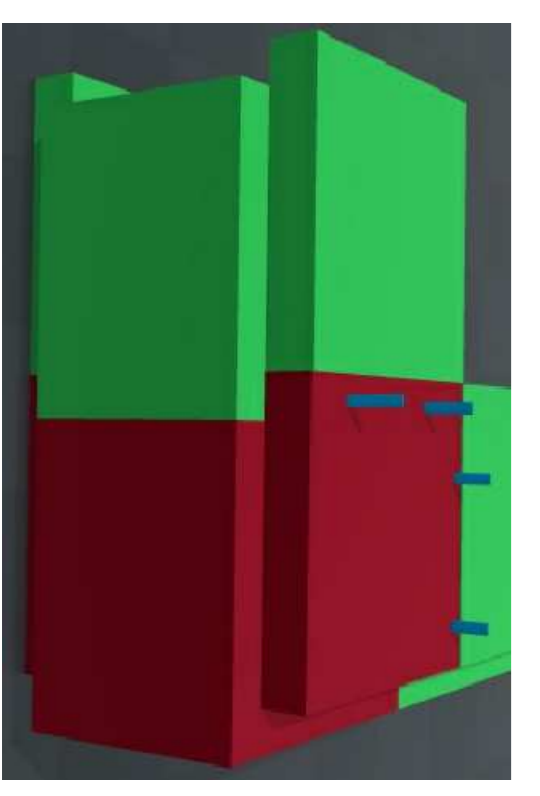
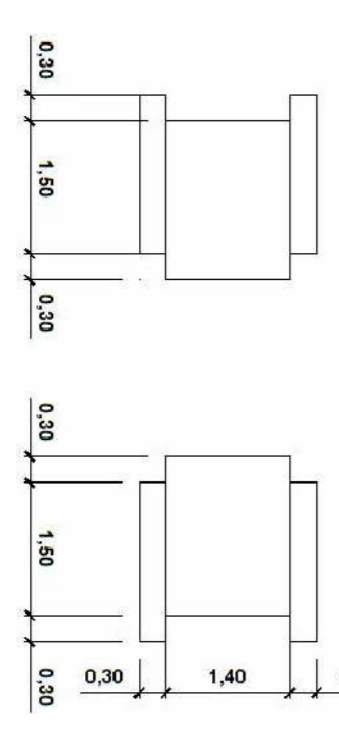
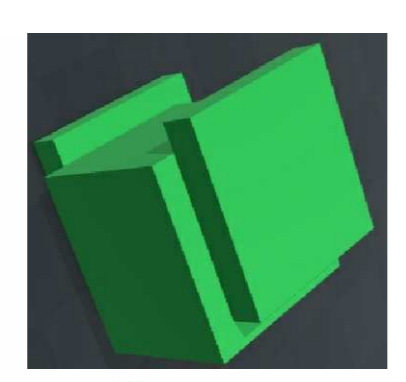
## MODULARITY

Modular design is an attempt to combine the advantages of industrialization with customization in a construction system. The modular design is the design based on the reticular modulation of spaces that allow optimising the construction process in different degrees.



## FOUNDATION (Gironès)

EPS is a light material that can be found worldwide with great lifespan and possibility to recycle. With EPS, and its lightness, the connection between foundations and materials is accomplished. For this project it is aimed to find sustainable and light materials. Rectangular blocks are the easiest to produce, transport and collocate. Also, with this kind of blocks, it links the foundations and modularity. Those blocks can be easily transported by road and also, easy to add. The shape of the blocks has been decided so they can collaborate and form a whole unit and being united by vertical unions.



Unions made out of steel bars placed vertically as the image shows are resistant and durable. Moreover, with the selected shape, blocks and steel bars work uniformly which helps to redistribute efforts.