

The building as a tool facing the pandemic: The Emergency Hospital of Madrid



Stage 0

**Co-Vid 19 crisis and immediate actions
A building to respond: IFEMA**

The regional government of Madrid decided to organize an emergency building, with the **Madrid IFEMA Exhibition Centre** as the faster location to set up a building response. Pavilions 3, 5, 7 and 9 were available to locate the different hospitalization areas and pavilion 10 was used to store the necessary logistics. The performance of these large spaces was a success in terms of time, patient relationship and medical care.

The existence of a **large volume of air** in the different spaces and hospitalizations contributed decisively. The level of air renewal was sufficient to breathe clean air. The scale of the building resolved and ordered the users circulations effectively without requiring alternative interventions.

The modular organization resolves the large interior space of the pavilions by means of an organization chart based on a module that is made to coincide with the hospitalization unit.



Cafeteria - Restaurante
Cafeteria - Restaura



B

C

D

E

INFORMACION DE FAMILIARES
02

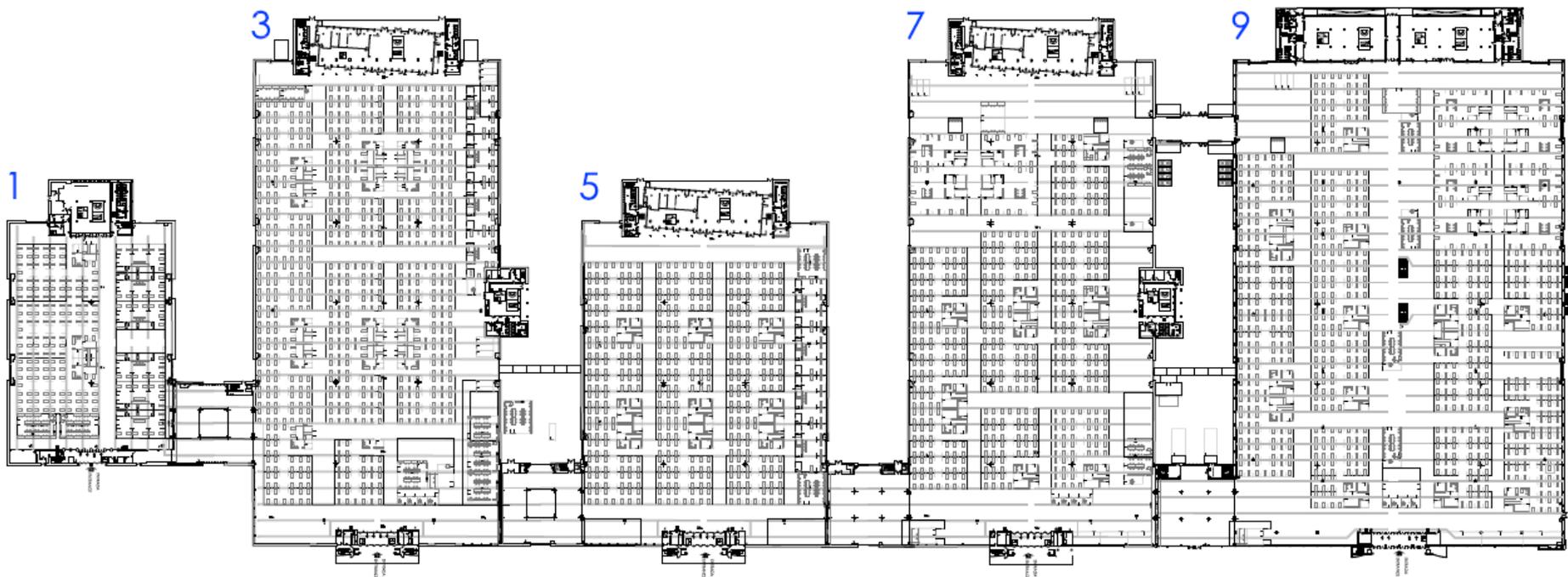
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INFORMACION DE FAMILIARES
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9.10
UE

Auto 2

ENTRADA
A LA SALA
→

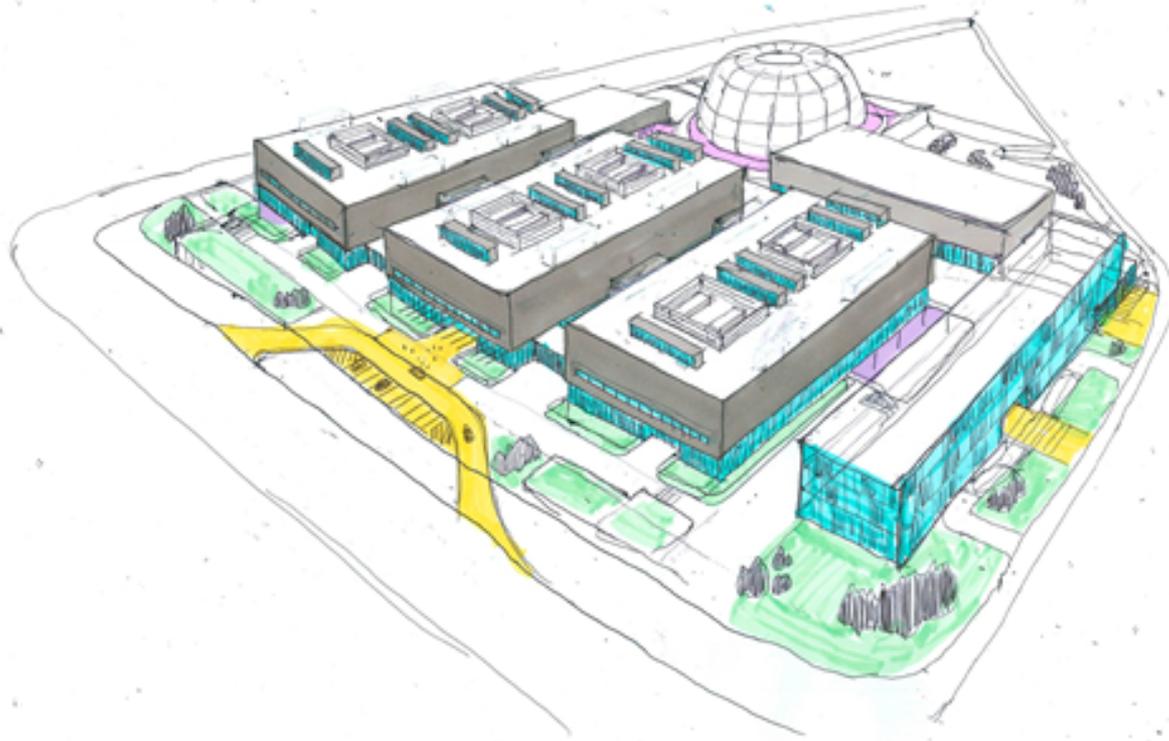


Stage 1

An new era: Living with the CoVid 19
Emergency Hospital of Madrid Isabel Zendal

As a result, in response to the need detected after the COVID-19 virus pandemic, with a particularly relevant impact on the city of Madrid and promoted by the General Director of Infrastructure of the Regional Department of Health of the Community of Madrid, the building has been designed to meet these needs:

- Dispose of a building for future emergency situations**
- Coordination and engage against other medical alarms or catastrophes.**
- The complex will work as well as hospitality and logistic centre for medical resources**



The location of the hospital is proposed on a plot of land in the City of Justice currently occupied in part by the Institute of Legal Medicine, a building designed by Alejandro Zaera. In addition to this building, there is a network of subway galleries that were used at the time to solve the interior communications of the different buildings that were to complete the City of Justice. Next to the IFEMA fairgrounds and the new Terminal 4 at Madrid-Barajas Airport.





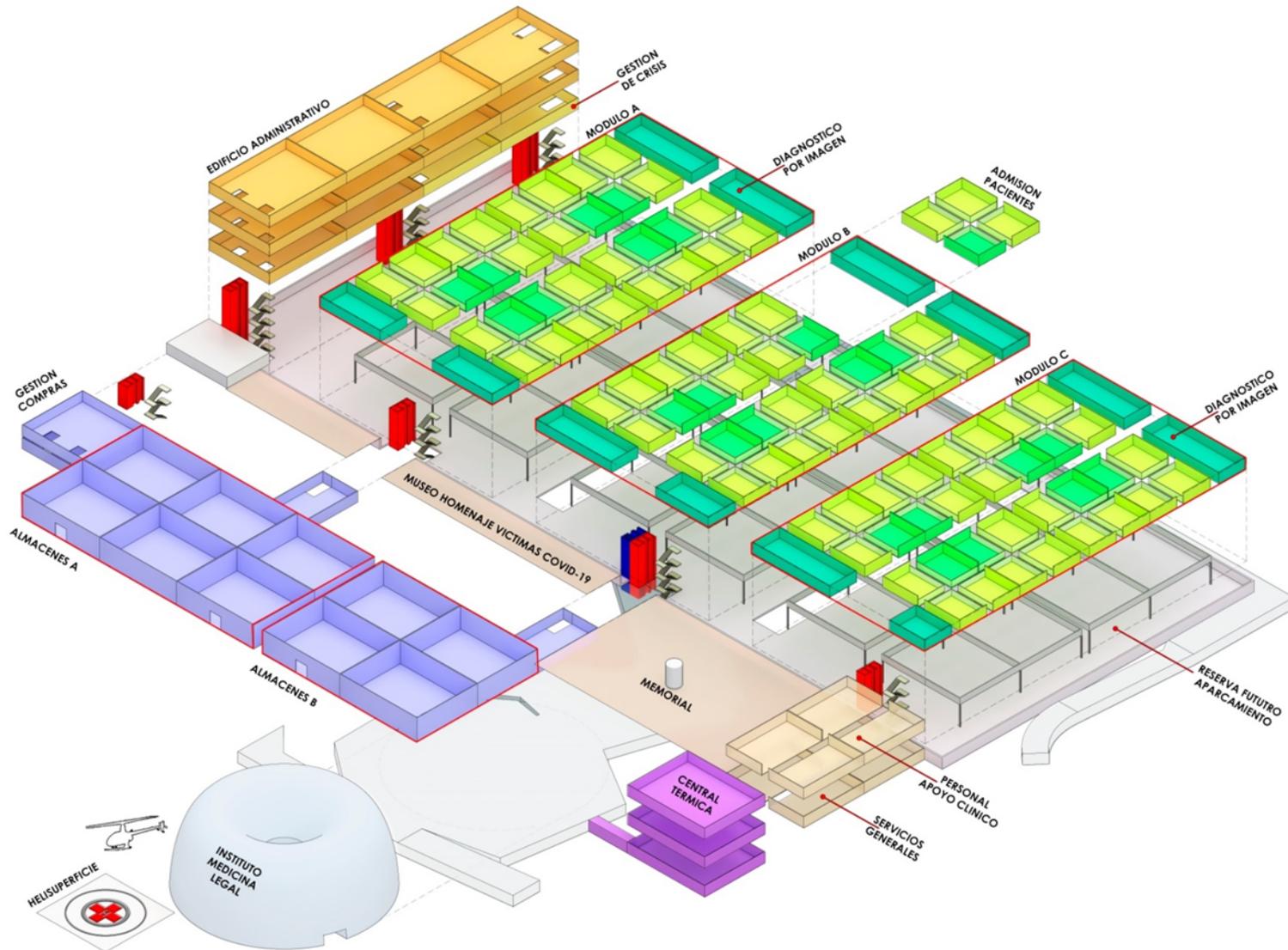
-Definition of a module

-Modular construction versatility

Module capable of accommodating 48 beds and a control

-Differentiation of sick/personal circulation. It is articulated around a large diaphanous avenue that serves the nursing units on the one hand and logistical storage services on the other.

Beginning the design:





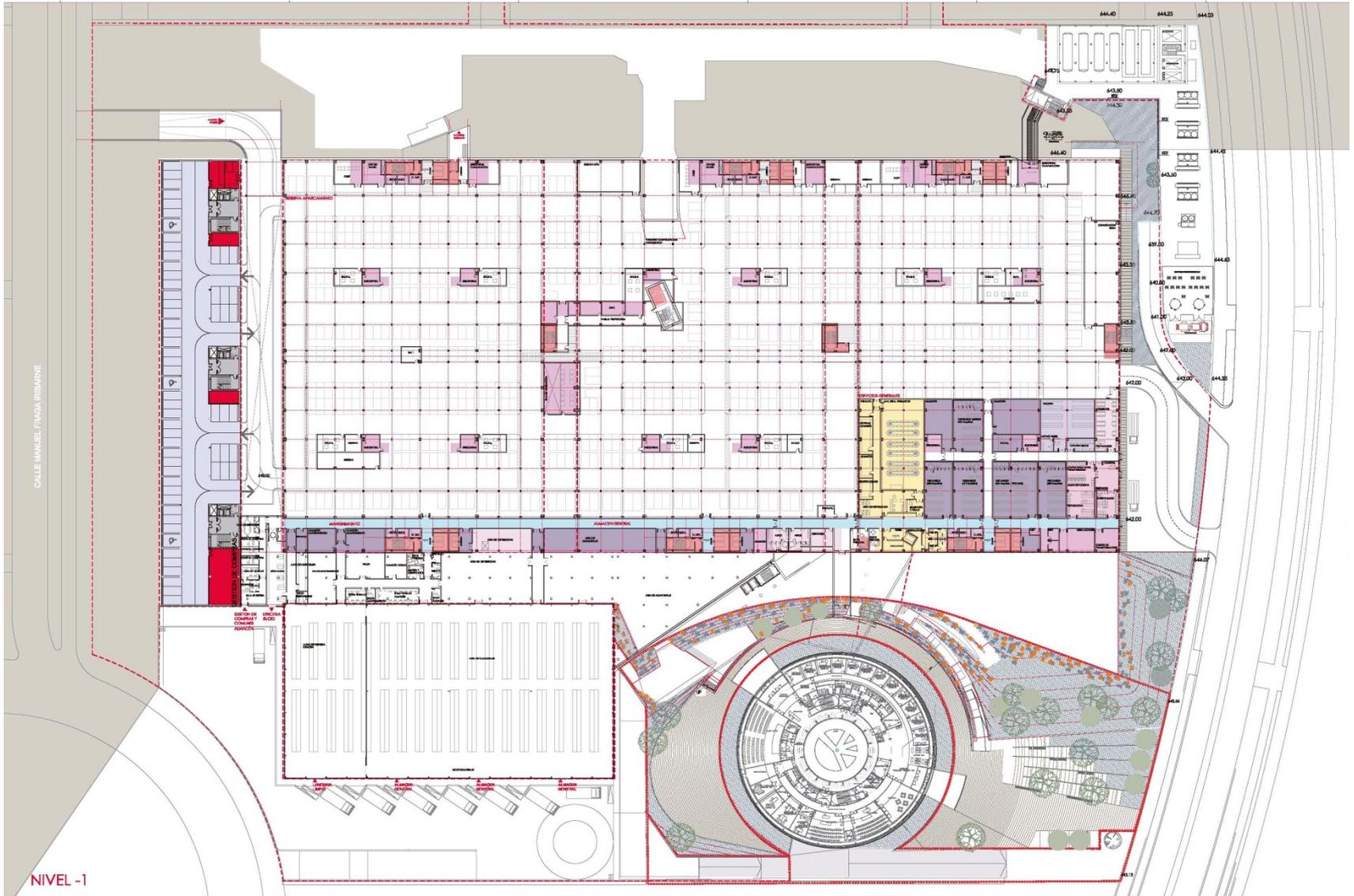
Stage 2

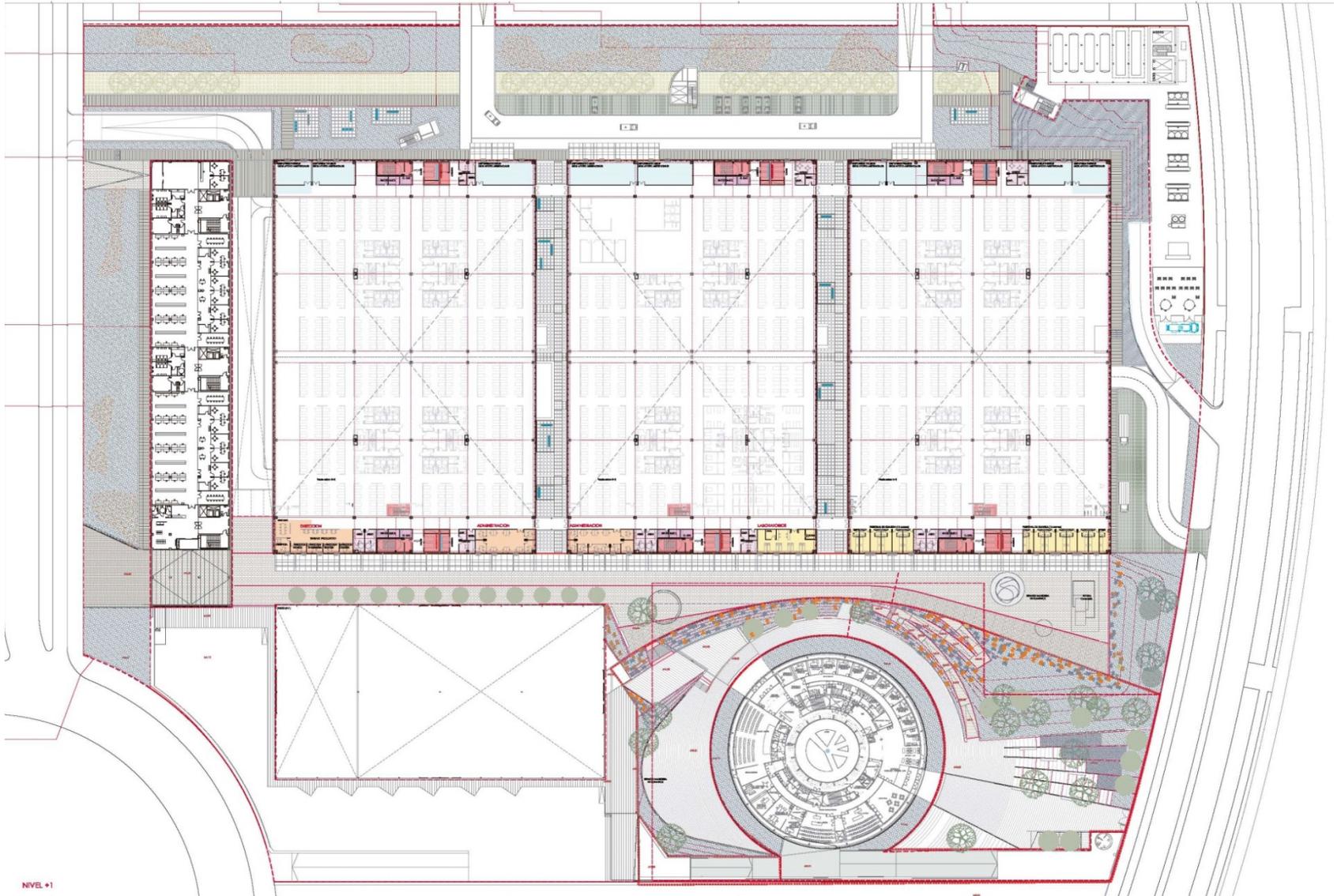
Building against the odds

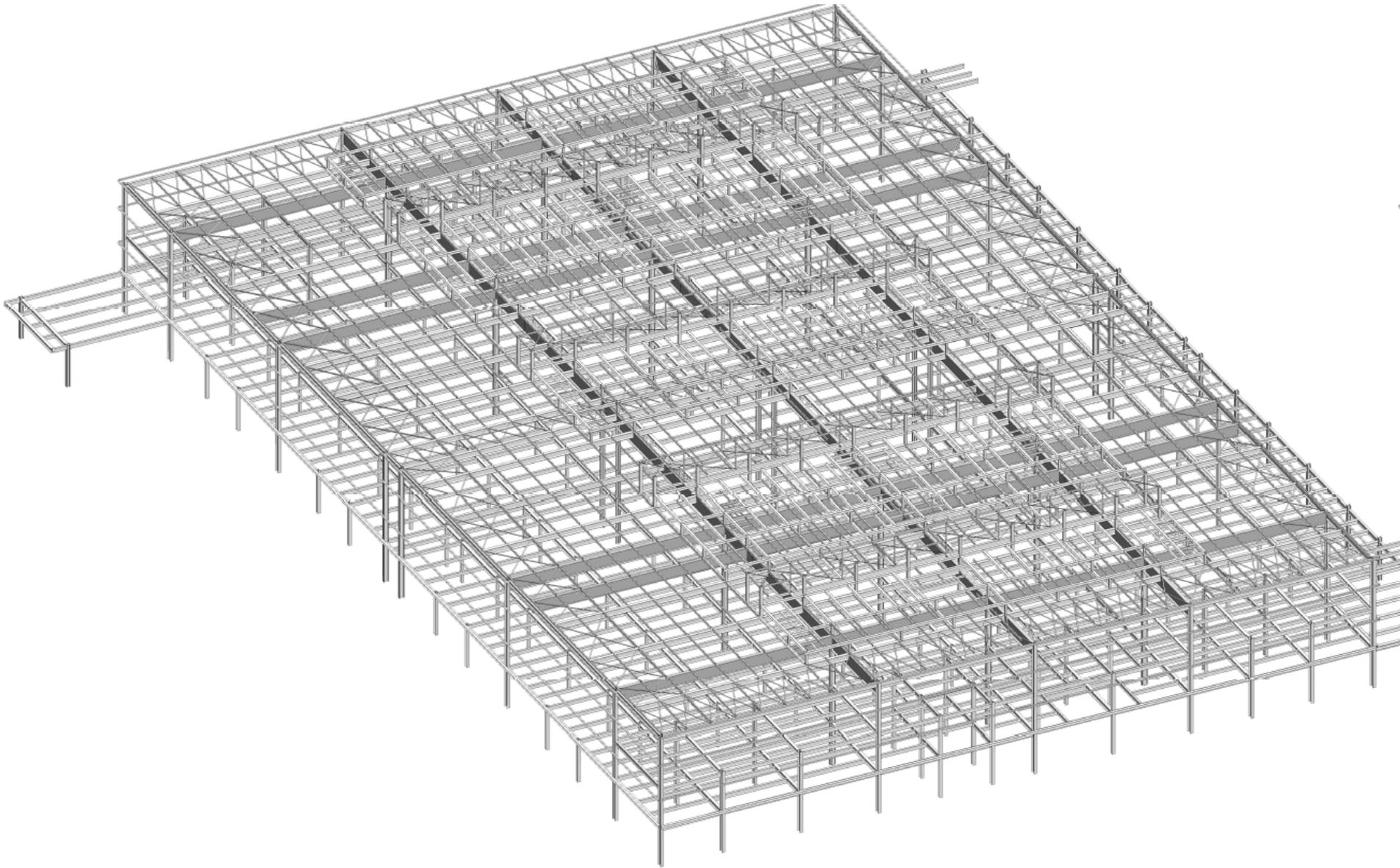
Construction of an Emergency Hospital

2.1-Fast Track

The main idea on the table to develop this kind of building was to assume by all the contractors the challenge of building what is being designed. This idea of Fast Track is proposed for a short construction period (6 months) where the project is changing and developing making a day to day contact between all the agents.

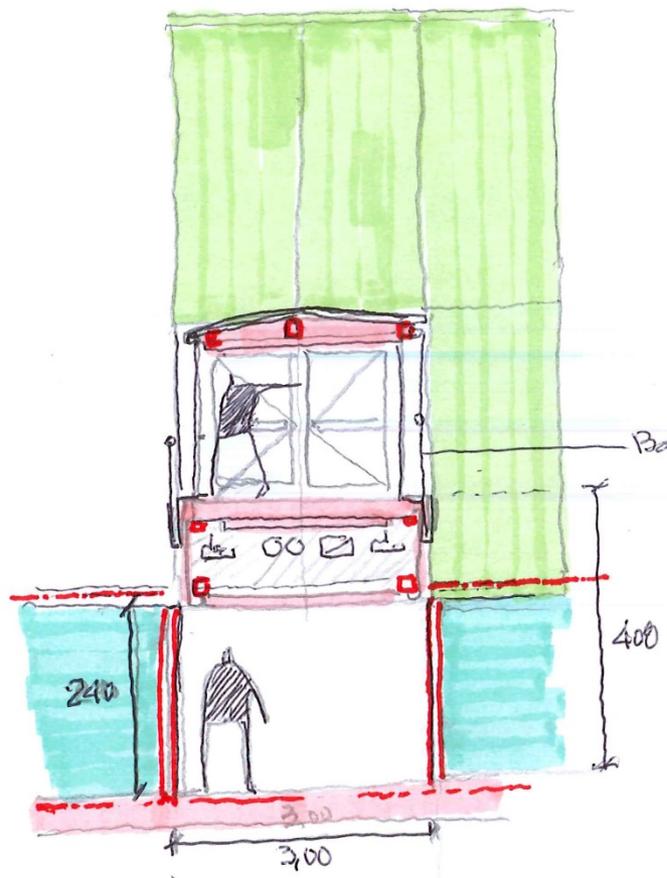




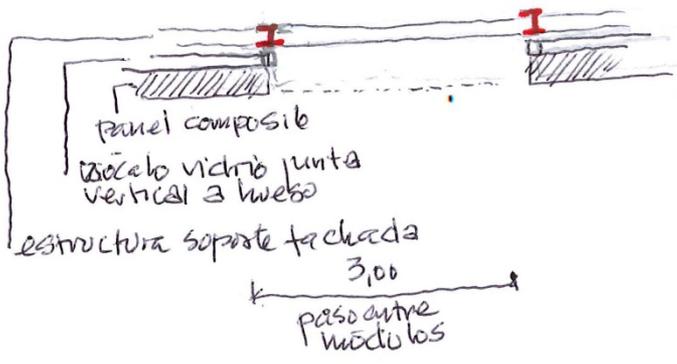


LOTE A1. ESTRUCTURA METALICA. ESQUEMA
GENERAL 3D
(SIN ESCALA)

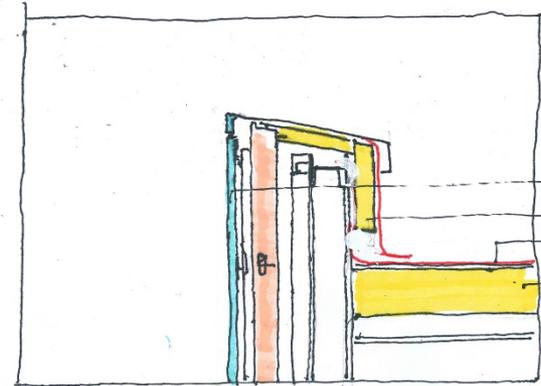
150 150



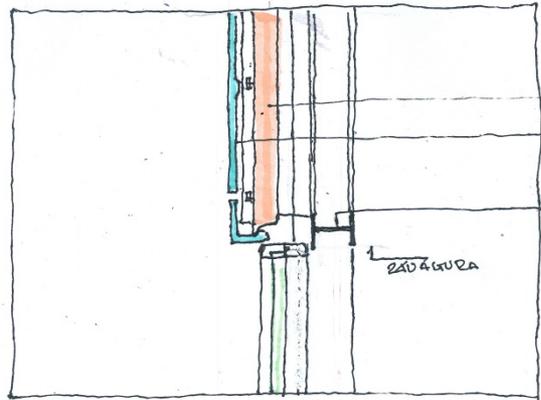
Barrido de la vidrio



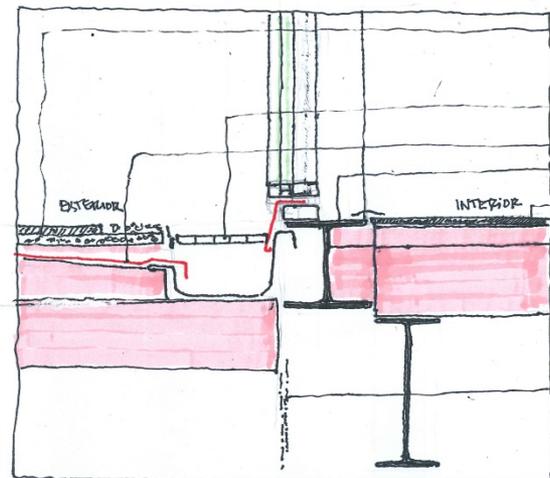
ESTRUCTURA SOPORTE +
CARPINTERIA
PROTECCION FACHADA



ALBARDILLA DE PANEL
COMPOSITO
PANEL SANDWICH
IMPERMEABILIZACION
CUBIERTA DECK



PANEL SANDWICH
PANEL COMPOSITO
HEB. SOPORTE ESTRUCTURAL
FACHADA



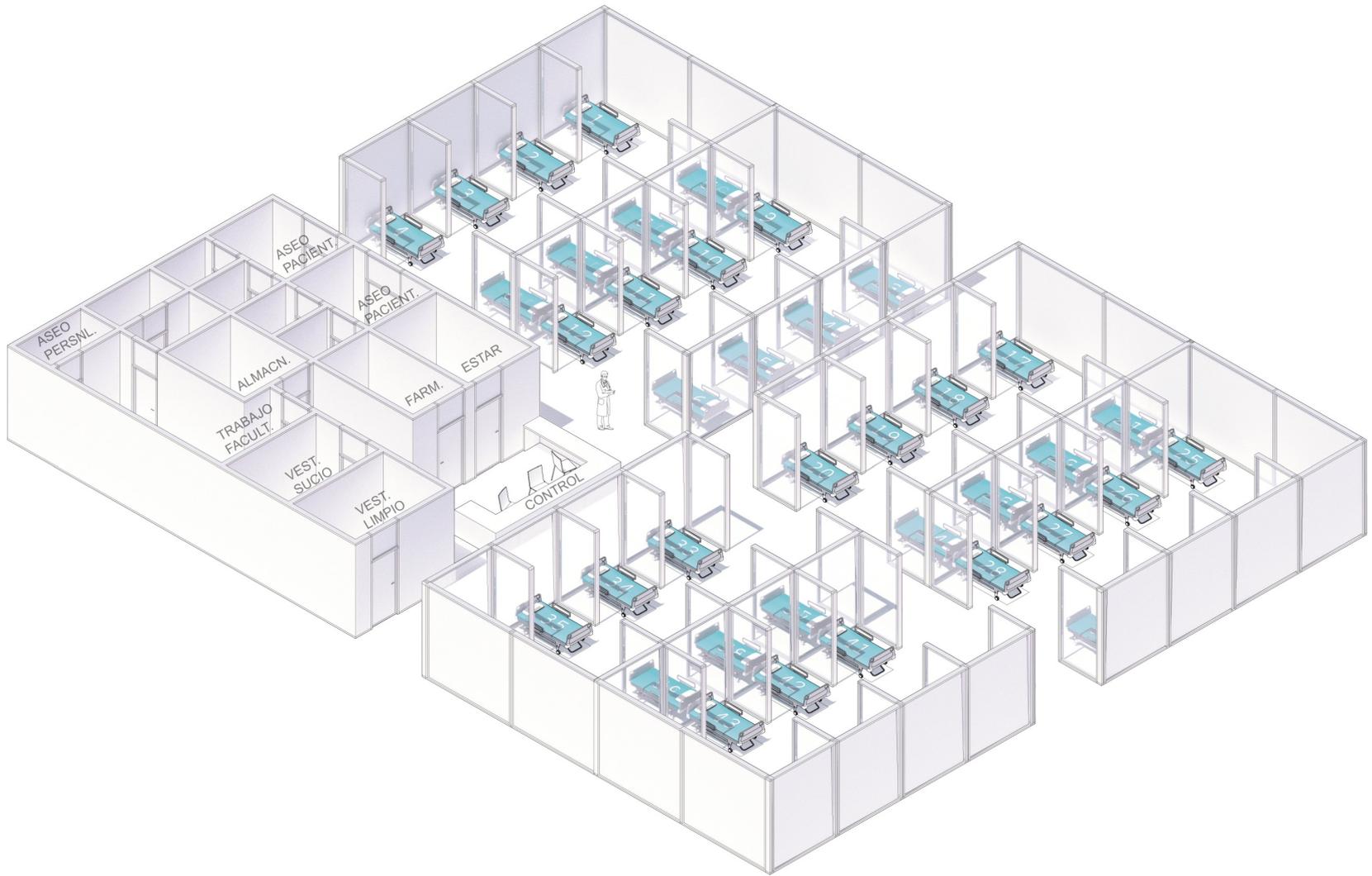
SOLADO BARRIOSA
HOMOGENA ENLACE
SOBRE CANA DE
GRAVA BLANCA
CANALISTA LINEAL
ACCESO REGAJERA
AGUA
IMPERMEABILIZACION
PERFIL HEB. 240
SOBRE
PVC SOBRE PERSADO
JUNTA DILATACION

HEB.
240 GURA
240

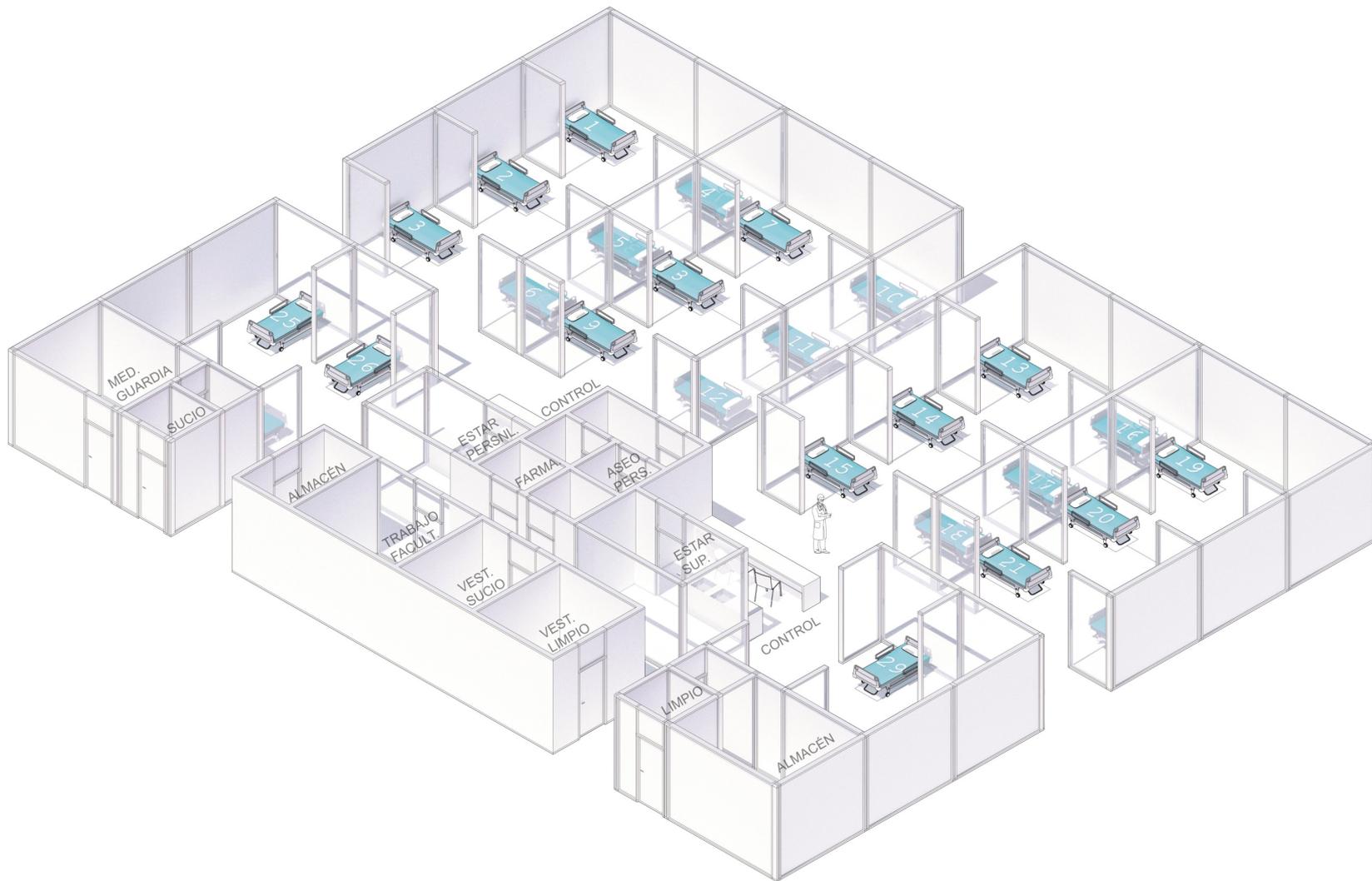


2.2-Modular and cell design

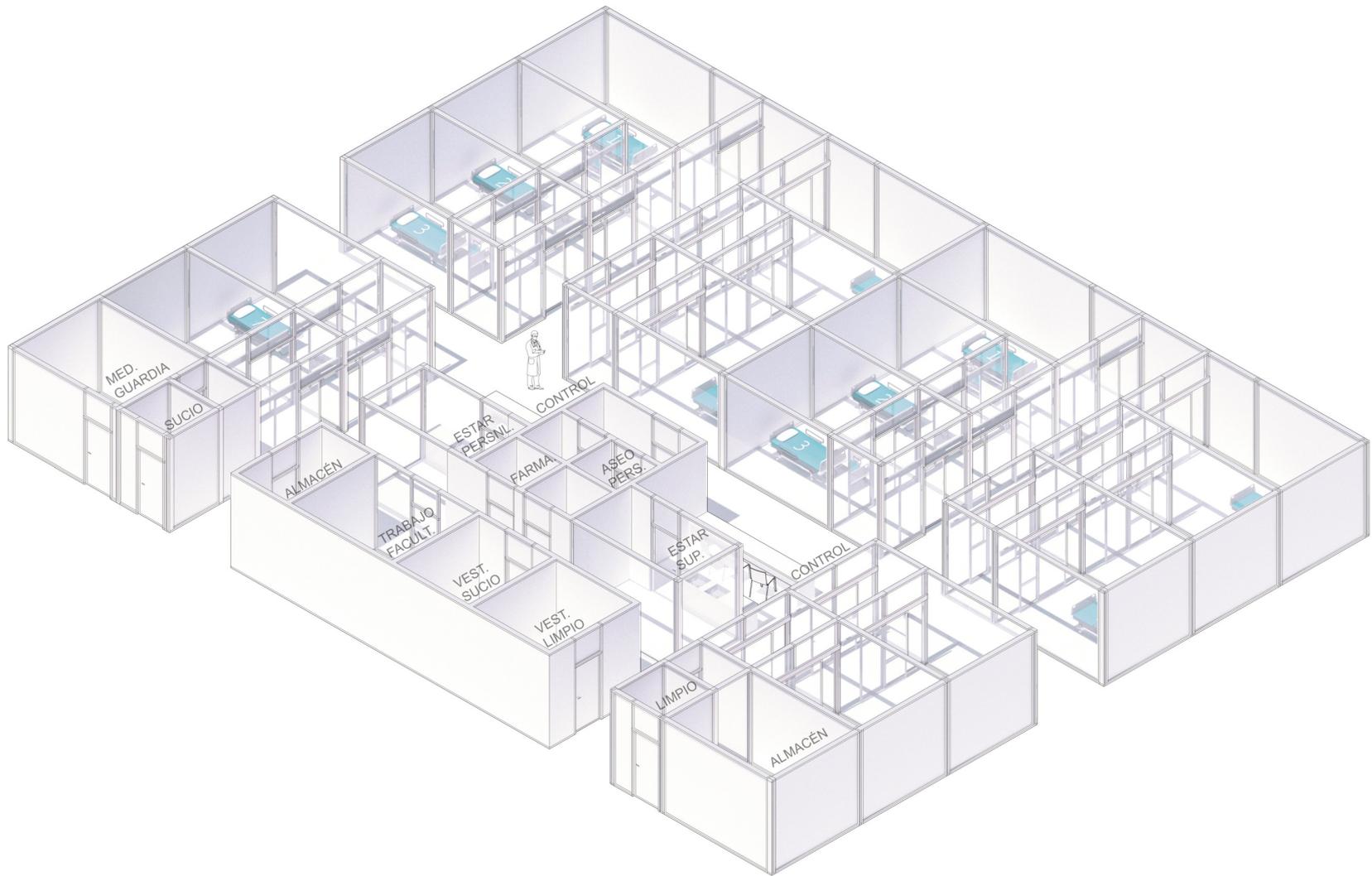
In order to achieve the calendar goals, the project need to be conceived as a joint of different cells that have a common sense together. The main role of these parts are to provide medical care to all patients as well as to be integrated into the global actions happening inside.



Nursery Cell – 48 patients



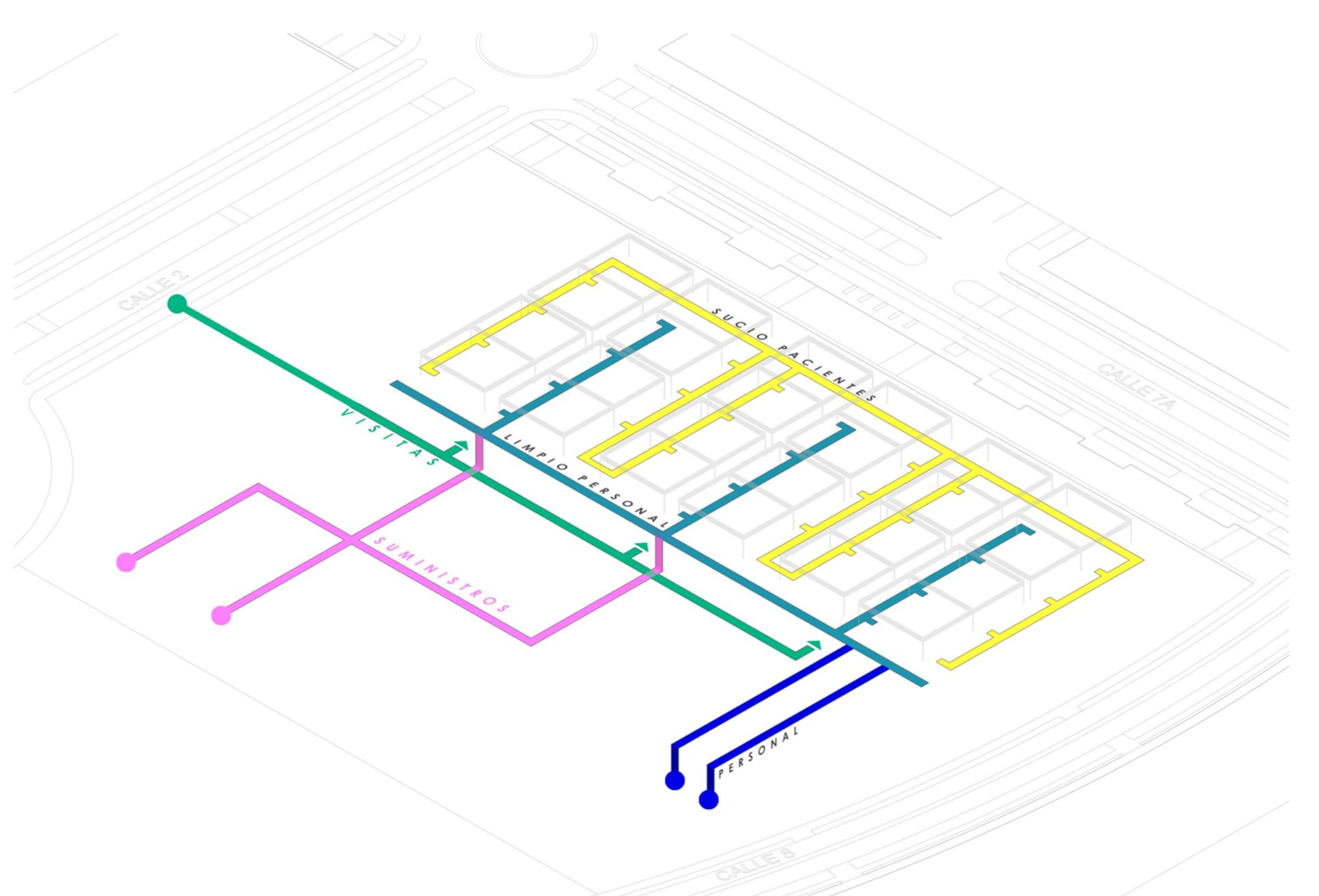
Intermediate Care– 32 patients



Intensive Care– 16 patients

2.3-Divided circulation system

In order to respond to the medical necessities of the Hospital, the indoor circulations are divided becoming the natural tool for design. The south part of the hospitality area has the **Clean circulations whereas the north holds the **Dirty** pathway.**



2.4-Industrialization and speed construction

As part of the common coherence between all the agents, one capable solution to bring the Hospital in time to society is relay on fast industrial processes providing useful solutions for a wide range of areas of the building.

















Starting June 2020

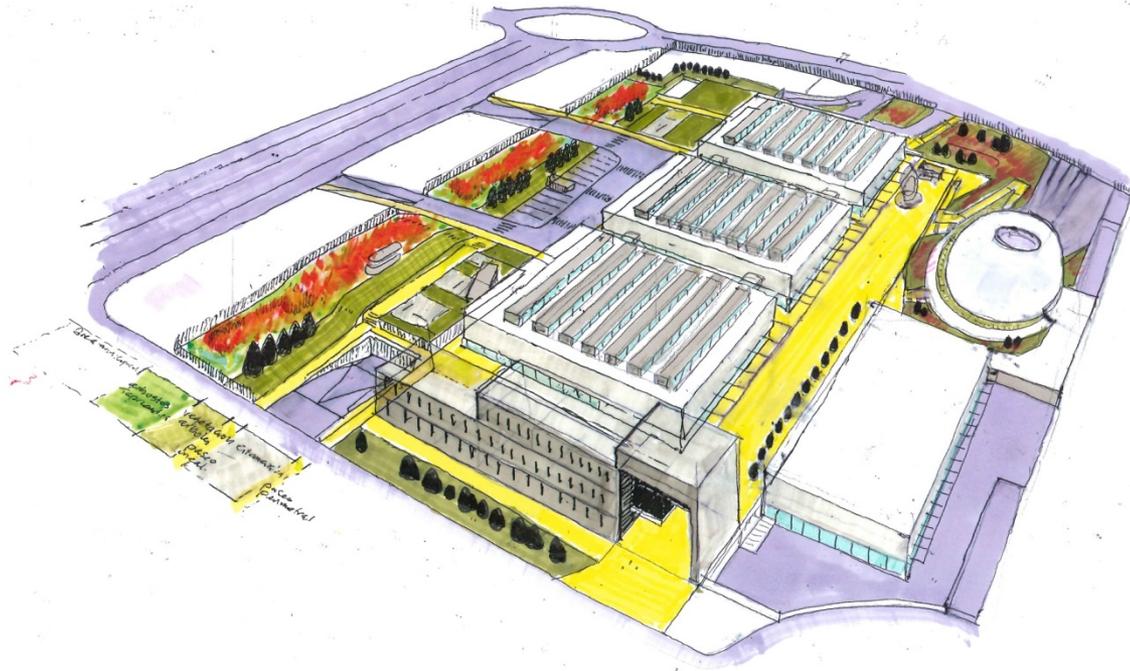


4 months later



CHILE 15 [ARQUITECTOS]

alberto jorge camacho
jaime lópez valdés
arquitectos madrid



Many thanks

