Module
Close Cover

[1] - Load-bearing wall made of standard ISO bricks - 5.5 cm, 12 cm, 25 cm - constructed using a three-course block bond

[2] - Reinforced concrete beams with fiberglass mesh -Omega section- dimensions 63 cm, 25 cm, 240 cm.

[3] - Valley concrete 10 cm

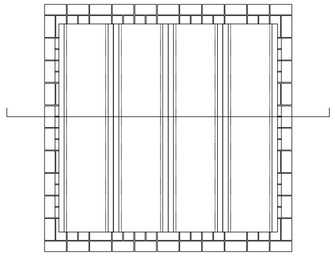
[4] - Fiberglass reinforced concrete slab - thickness 4.5 cm

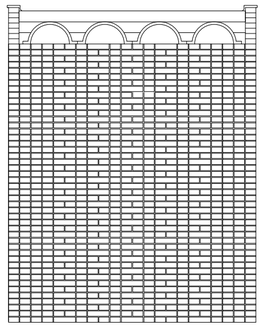
[5] - Thermal insulation panel - SINTHERM FR - thickness 5.0 cm

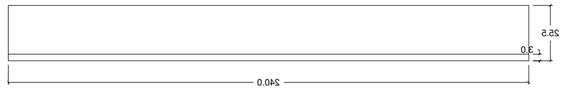
[6] - Water-proofing layer

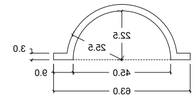
[7] - Finishing layer - Cement wood - thickness 3.0 cm

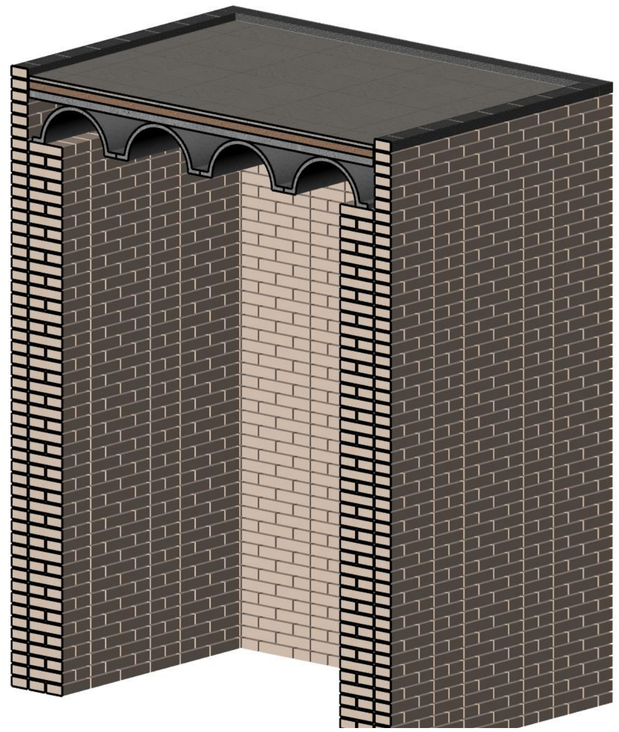
The beams are arranged side by side to balance the mutual horizontal forces. On top of the beams, a concrete slab- tickness 4.5 cm - is placed, reinforced with a fiberglass mesh and potentially self-made on-site, serving as a support base for the upper layers. On top of the concrete slab, a layer of insulation with a thickness of 5.0 cm has been placed. Subsequently, a waterproofing membrane is installed, Finally, there is a 3.0 cm of finishing layer of cement wood.

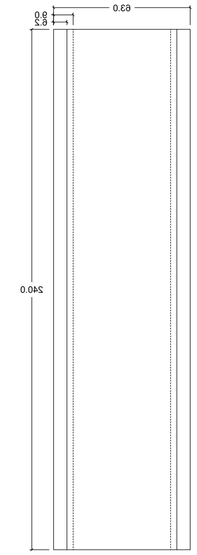


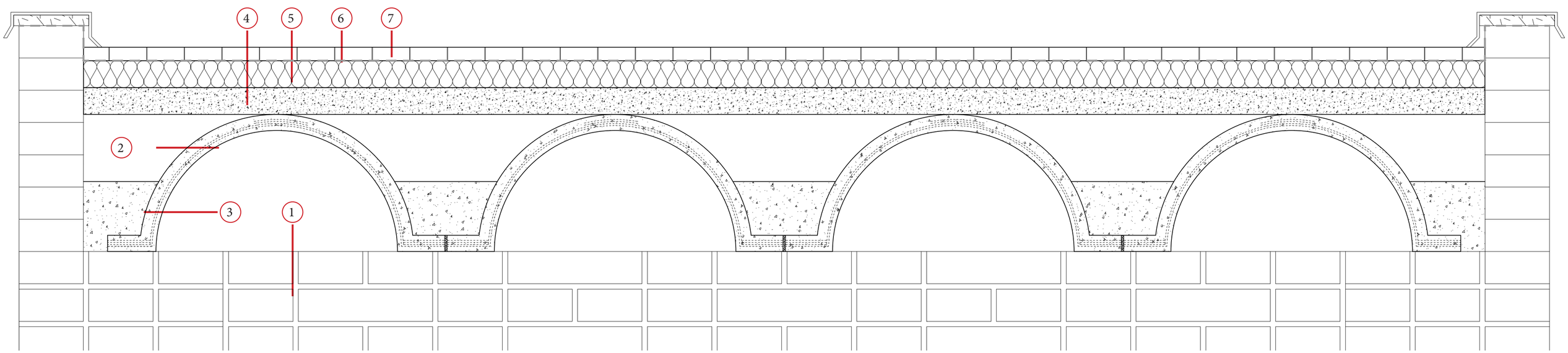












Pavillion
Open Cover

The second application project proposed is an exhibition pavilion with the goal of trying to introduce an innovative construction approach.

For this project the fiberglass net reinforced concrete elements not only serve as load-bearing elements but also function as pillars, creating a beam-to-column connection. Its design, given the temporary nature of the pavilion, takes into account the need to create a cool and semi-open environment for visitors. As such, the decision was made to leave the roof beams exposed, devoid of any conventional coverings or roofing materials.

The choice to expose the beams provides an aesthetic appeal that harmonizes with the overall design concept, while also allowing for efficient air circulation and a sense of openness within the pavilion. Also, to ensure a visually pleasing and uniform surface finish, a thin layer of finishing plaster has been carefully applied, resulting in an aesthetically captivating and harmonious visual experience.

When it comes to the critical connection points between the beams and pillars, a meticulous and well-thought-out approach has been employed.