Annex 6

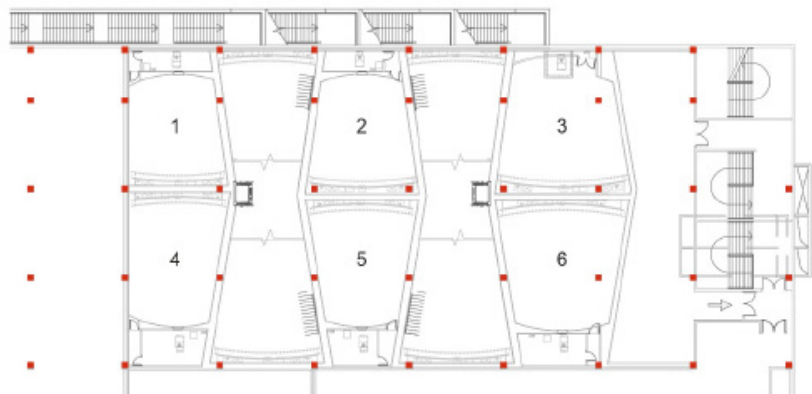# HOW WE DISCOVERED THE MODEL'S TRAPEZOIDAL LAYOUT

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HOW WE DISCOVERED THE MODEL'S TRAPEZOIDAL LAYOUT

We will now explain how we discovered the key feature of our layout patents: alternating trapezoidal rooms. In 2013, the shopping mall in which FC was located offered us the opportunity to lease an additional 1,500 m². This space could easily be connected to the rest of the existing cinemas and enabled us to build 10 more small rooms. However, there was a big drawback: the entire space was occupied by a dense grid of pillars spaced out at eight-metre intervals, which is a common feature of shopping malls as it is a very economical building structure. This compact grid of columns drastically restricted the maximum size of the rooms and their screens. It was impossible to eliminate some of these pillars, as there were three floors of the shopping mall below the future rooms and the cost of resting the structure on bearing frames and reinforcing foundations would have been astronomical. After a lot of deliberation, we opted for an innovate room shape and layout that enabled us to increase the screen size considerably without losing many seats. In the following diagram, the red dots indicate the location of the pillars.

Figure 47. The 10 small rooms at FC (alternating trapeziums).

With our trapezoidal Layout we maximized the size of the screens within a given grid of columns (see columns highlighted in red).

When we analysed the distribution of these rooms, we realized that an alternating trapezoidal layout would maximize both the screen size and the number of rooms. We also discovered that this layout ensured that the rooms were not too big. These were precisely the characteristics required by a multiplex of the near future to optimize its profitability: screens just as big as in a traditional rectangular room, but with fewer seats.

Applying this logic to a theoretical redistribution of the bigger rooms at FC, we found that this new trapezoidal layout would have transformed our medium-sized rooms into big immersive rooms with huge screens of the same quality as the best conventional PLFs. Moreover, we calculated that the overall number of seats would have been very similar to the current total. Subsequently, in the prototype room, we discovered how to achieve a technically perfect projection. We had found an efficient way to build a big, technically impeccable immersive multiplex with reasonable construction costs.

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