Lehrstuhl für Tragwerksplanung Fakultät für Architektur Technische Universität München

ТΠ



group 6 The Waves

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View from Arnulfstraße

site map 1-5000



Elevation 1-500



Section A-A 1-200



Inner view

Wave from inside



Concept

The concept of the wave was born thinking of the train stations' atmosphere. People running to catch the train, people ready to leave for a vacation or for travelling, people starting a new life. Thus, looking for a shape which could mean movement, we arrived at the wave, a perfect metaphor of the lively flow of the train stations.





Wave from outside

The objective was to make the movement clear from the city's. Taking one wave and moving it forward for two meters the flow became visible also from outside. All of five main waves (beams of the primary structure) have been moved forward for two meters from the starting point of the previous curve.



The second phase was to move from the concept to a precise geometric shape. To do that two constrains

had to be taken into account: offices on the buildings just behind the roof and the desire to feel the wave form inside and outside of the roof. Through several 3D models and sketches it became clear that with

a lower inclination of the single curve it would have been possible to achieve a greater view of the entire wave from inside. The low inclination helped also to not block the sun light directed at the offices.



Static-system

The third step was to find a static system and a bracing solution for the structure. Portal frame with rigid

joints and hinges at the foot point were chosen. This solution allowed a free space on the railway and a slenderer structure. For one direction (parallel to the railway) the structure is made stiff by the V columns while in the other direction (perpendicular to the railways) a bigwger section of the columns helps to brace the roof.



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