

Rain Atrium

Sustainable Mall Project



Rain Atrium



This initial conceptual sketch explores the idea of transforming a commercial atrium into a living environmental core inspired by natural ecosystems. The central tree symbolizes growth, sustainability, and the connection between architecture and nature, while the surrounding water feature represents the collection and circulation of rainwater throughout the building. The open roof structure above allows daylight and rainfall to enter the space, creating a dynamic atmosphere shaped by changing weather and natural light conditions.



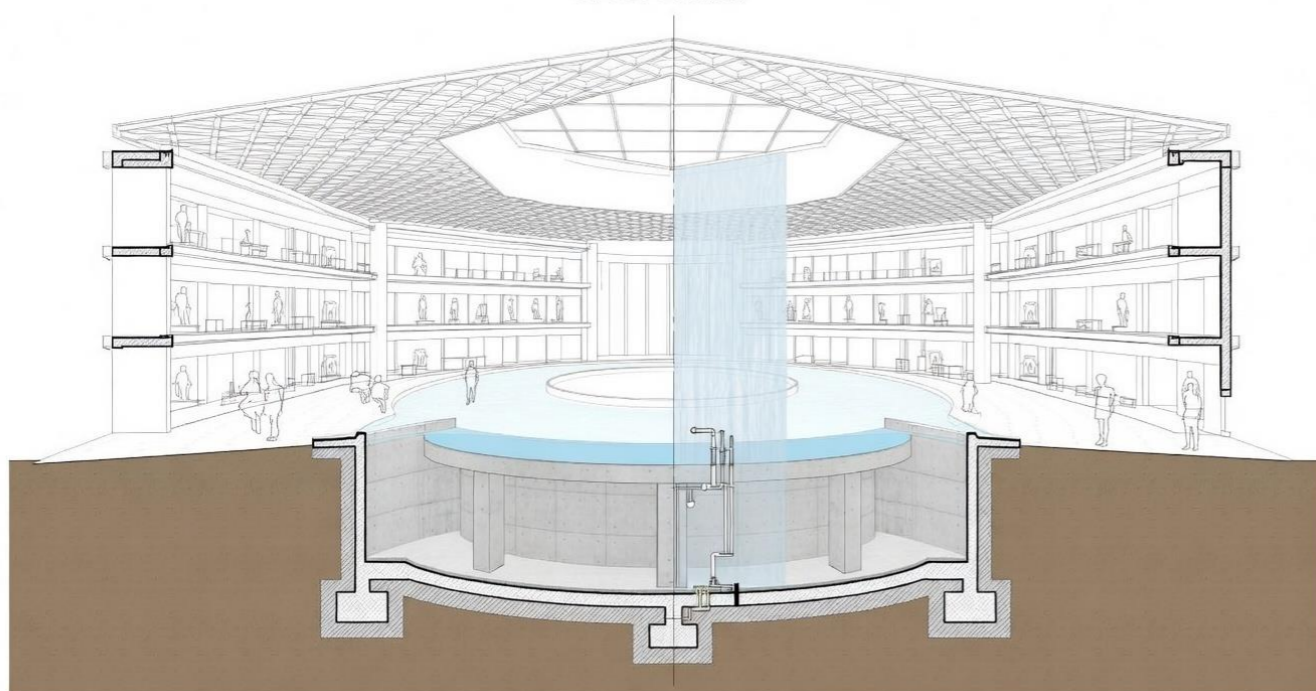
PERSPECTIVES



Rain Atrium



Cross Section

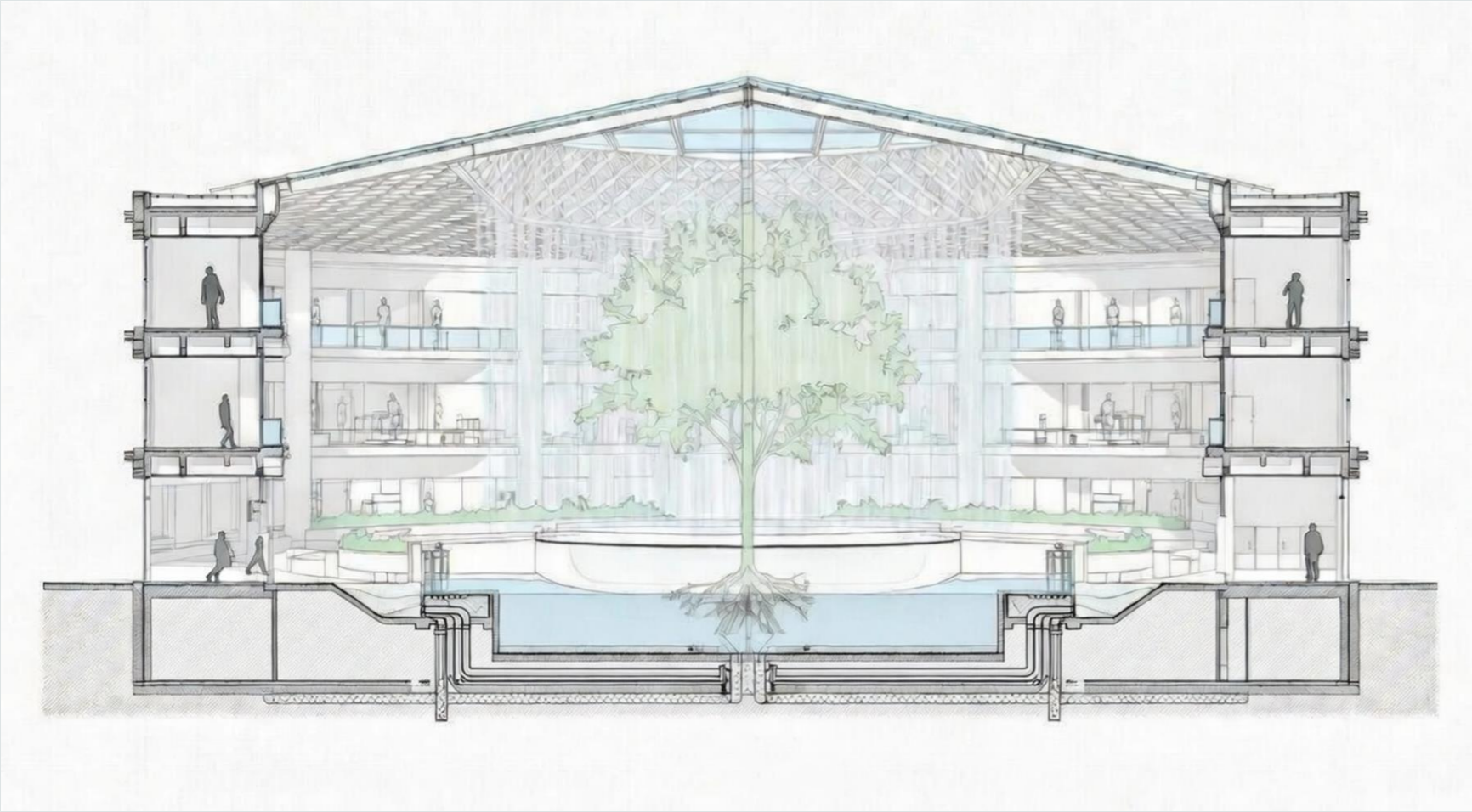


The rainwater cycle in this project is designed as an integrated architectural and environmental system that combines sustainability, aesthetics, and climate control. Rainwater is first collected through the large lattice roof structure, which is shaped to naturally direct water toward the central opening of the atrium. During rainfall, water flows downward through a controlled vertical cascade surrounding the central tree, making the rain cycle visible as part of the spatial experience rather than hiding it within technical infrastructure.

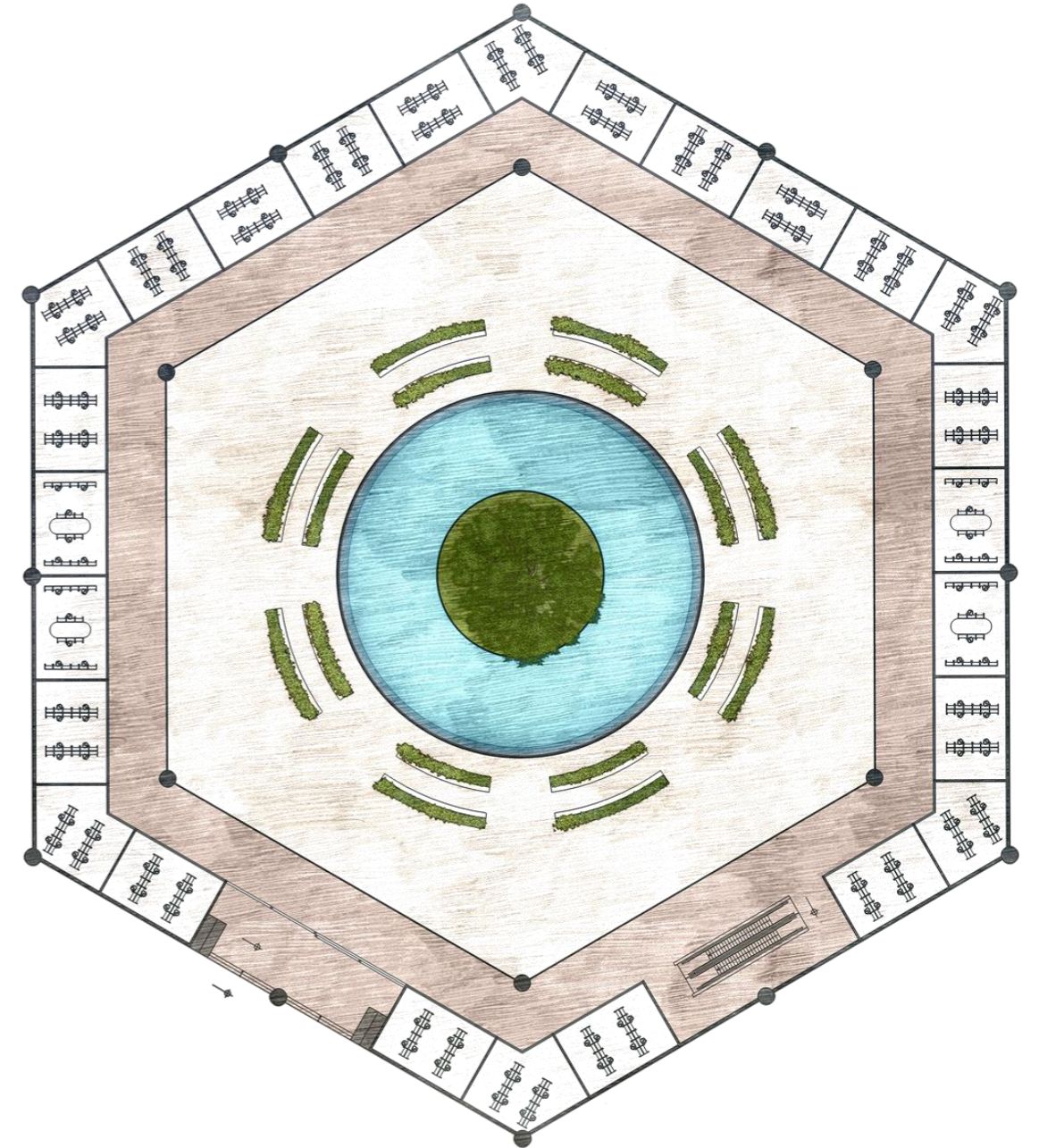
The collected water is transferred into the circular reflecting pool at the center of the atrium and then directed to an underground storage tank located beneath the basin. Inside this technical reservoir, the water passes through filtration and purification systems before being reused. Mechanical pumps recirculate the filtered water back to the roof discharge system, creating a continuous closed-loop circulation process.

Part of the stored rainwater is also redistributed for irrigating the interior landscape and maintaining the planted areas throughout the complex. In addition to water conservation, the circulation system contributes to passive environmental performance: the falling water and central pool create evaporative cooling, improving thermal comfort and humidity levels within the atrium.

Rain Atrium



PLAN



Curved seating and landscaped edges are designed to encourage social interaction and relaxation, turning the atrium into more than a circulation space — a communal urban oasis within the shopping complex. The sketch establishes the project's primary vision: integrating water, greenery, and public activity into a unified spatial experience. Through this cycle, rainwater becomes both a sustainable resource and a defining architectural element, connecting the building's environmental performance with the sensory experience of its users.