



## **FACADE CONCEPT - GFRF Panels**

The proposed design integrates Glass Fiber Reinforced Concrete (GFRF) panels as a key solar shading element, ensuring both aesthetic elegance and functional performance. The undulating form of the building façade is enhanced by these lightweight, precisely fabricated off-site panels, which contribute to the efficiency and ease of construction while maintaining design integrity.

### **Performance and Efficiency:**

GFRF panels are strategically designed and positioned to mitigate solar heat gain, reducing thermal loads on the building envelope. Their form and orientation allow for optimal shading by deflecting direct sunlight while permitting diffused daylight to penetrate indoor spaces. This balance enhances occupant comfort and significantly lowers energy demands for cooling.

### **Fabrication and Installation Advantages:**

Manufactured off-site under controlled conditions, the panels ensure high-quality consistency, reducing material waste and construction time. The lightweight nature of GFRF enables efficient transportation and handling, simplifying on-site installation and reducing structural loads compared to conventional concrete systems.

### **Architectural Expression:**

Beyond their functional role, GFRF panels contribute to the building's architectural identity. Their rhythmic placement across the façade establishes a dynamic interplay of light and shadow, reinforcing the contemporary aesthetic. The material's versatility in texture and finish further allows for seamless integration into the overall design language.

By leveraging GFRF technology, this project embraces sustainability, efficiency, and innovation, ensuring a high-performance building envelope that responds intelligently to its environmental context.