



## **Waterfront Reggio Calabria**

Type of Work: **Museum**

Value of Works: **€97.135.000**

Year: **2012 - In Progress**

Design State: **Completed**

Construction State: **In Progress**

Services: **Structural Design -Direction of Structural Works**

Architectural firm: **Zaha Hadid Associates**

## **Project Description:**

The project entails the construction of a complex shaped museum building with irregular geometry in both plan (approx. 200 x 80 m) and elevation. It consists of a basement level and two floors above ground. The structure features a modern architectural design and large open spans. Due to the seismic context, base isolation was adopted to improve structural performance and reduce reinforcement requirements.

## **Roles / Responsibilities:**

- Performed structural verification of various secondary and non structural elements, including parapet walls, staircases, and architectural interfaces, ensuring compliance with Eurocode and NTC2018 standards.
- Developed a detailed numerical model of the steel frame structure located beneath the internal pedestrian bridge, designed to support architectural cladding and connect different areas (ALA) within the building.
- Designed retaining walls along the perimeter of the basement level, accounting for soil pressure, surcharge loads, and hydrostatic conditions.
- Prepared construction level structural drawings for both concrete and steel components, coordinating with the architectural team to ensure seamless integration.
- Collaborated with senior engineers to review calculations and provide inputs for structural optimization.

**Global Numerical Model:**

