

Cascais Bay (Bayview)

Cascais, PT



Case Study



Property Owner

Grand Bay Residences - Sicafi, S.a.



Main Contractor

Teixeira Duarte



Architect

Fragmentos De Arquitectura



Acoustic Consultant

Quadrante



Structural Engineer

Quadrante

Stravifloor Deck

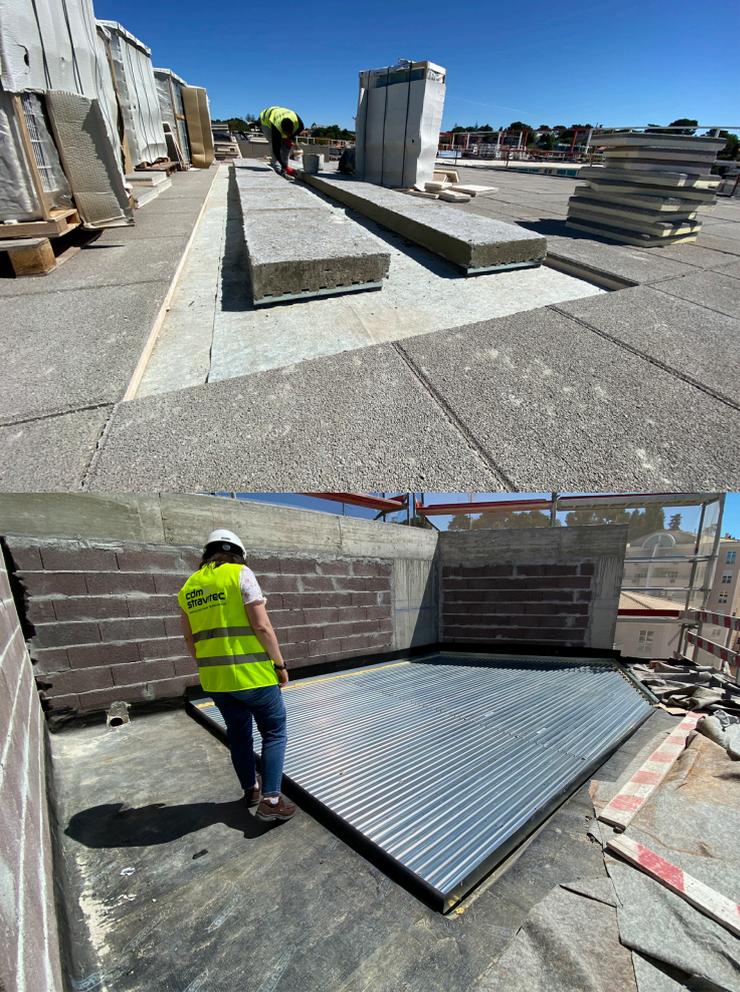
- High-performance low-profile deck floor system with high bending stiffness for lightweight concrete constructions
- Allows for large support spans

OVERVIEW

Cascais, once a charming little fishing town is now a premier holiday destination with thousands of tourists and locals visiting each year, attracted by the gorgeous beaches, luxury shops, golf courses, and of course, its mild climate all year round.

The Bayview development is a unique real estate project transforming the entrance to Cascais. Bayview covers an area of approximately 21,700 sqm and features many green areas, in addition to a commercial area with a food court.

Cascais Bay, part of the larger Bayview development project, consists in turn of four buildings each named after a beach in Cascais. The apartments offer stunning views of the Atlantic Ocean and are only a few meters from the bay of Cascais.



SOLUTION

From the outset of the project, great importance was attached to acoustic comfort. The technical rooftop areas and the three swimming pools inside of the apartment complex needed to be acoustically treated in order to meet the high acoustic standards.

An inertia block made of a **Stravifloor Deck** concrete floating floor system with a natural frequency of 6-8 Hz was installed under the rooftop technical equipment, preventing vibrations from these heavy machines to travel throughout the building structure.

The same type of floor system adapted to reach a natural frequency of 7-9 Hz was used to acoustically decouple the indoor swimming pools. Resilient **Stravibase Lateral** mat solutions installed on the pool perimeters prevent vibrations from various pool activities to propagate sideways and create a noise problem in the adjoining apartments.

AT A GLANCE

CHALLENGES

- Need of customized vibrations isolation solutions for the equipment inertia blocks and the complete swimming pool structure, adapted to different load specs

BENEFITS

- Pre-designed complete modular floating floor solutions
- Excellent structure-borne and airborne noise isolation
- Concrete floating systems using moisture resistant formwork, free of autochthonous parasites or other harmful organisms
- Lightweight, making the system easy to handle and quick to install

52 m²

Pool Isolation
Stravifloor Deck
covering bottom
of the pool shell

9

Stravifloor Deck
Inertia Blocks

