



Roucas Blanc's Marina gets a makeover

This summer, some 330 sailors from all over the world will compete in the Marina of the Phocaean city.

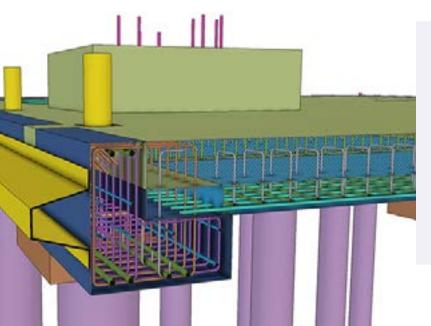
Between new construction and renovation of a historic aera dating back to the 70s, the famous Prado is getting ready for the sporting event of the decade.

Sud Études Équipements takes a look at this modernization project between land and the mediterranean.



Located at the nothern end of the Prado beaches, the Roucas Blanc nautical stadium is being modernized both and land and at the sea. Six buildings are under construction and rehabilitation, while marine works are being undertaken to modernize the nautical evolution basin. The goal? To provide the best training conditions for athletes from the Marseille's Sailing Pôle France, as well as sailors of all level.





The Marina in figures

• Total project area: 49 000 m²

• North quay area: 350 m²

• Internal breakwater : 750 m²

• Concrete volume: 630 m3

• Weight of reinforcement : 80 Tonnes



SEE is a design office specializing in **civil engineering** and **steel structures**. It was
commissioned to carry out EXE studies for
the reinforced concrete structures of several
structures: the **new inner breakwater** (and its
accesses), **the new technical quay** - including a
careening area, a lifting crane and a fuelling station
- and the new pontoons.

« The technical difficulty of this project lay in the design of a prefabricated structure on offshore piles, interfacing with the existing quay. This was a specific request from our customer, which enabled us to perfect our 3D precast design skills »



Gilles DeslousSEE Executive Assistant

Identifying BIM requirements

3D modeling was chosen by SEE for this project, enabling:

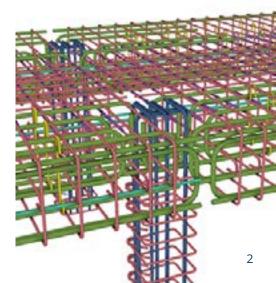
- facilitate project visualization and technical exchanges;
- Ensure proper integration of prefabricated parts with other structures on site, as well as with existing buildings.

Project progress

- Solicitation of SEE by the construction and prefabrication company.
- Lanch of all reinforced **EXE studies** by SEE.
- Lanch of the 1st 3D **structural models** and sharing with the
 customer via **Trimble Connect** in
 order to discuss the design.
- Integration of all 2D drawings in **Tekla Structures**: topographies of the existing structures and studies from other design offices (networks, steel footbridges, etc.).
- Lanch of the **modeling of all parts** with Tekla Structures.

- 3D re-modeling of key elements of the **reinforced concrete structure**.
- For the most complex structures: refinement of prefabricated elements and further discussion with the customer and prefabricator to ensure **technical feasibility** (dimensions, weight, construction company preferences, etc.).
- Once the parts have been fixed, lanch of the 3D reinforcementement with Tekla Structures.
- Output of formworks **drawings**
- layout drawings
- part by part and reinforcement.

- Transmission of drawings to subcontractors and launch of **fabrication** parts
- Adjustment of models during the fabrication phase.
- Avaibility of the models for the **erection team** via Trimble Connect.





Trimble's advantage for SEE



- 3D models allow you to better visualize your parts during production
- These models facilate understanding between the customer and all project stakeholders.



| Helpfull for quantity take-off

- Simplifies volume and weight calculations of prefabricated parts.
- Facilitates lifting and transport of prefabricated elements.
- · Automatic quantity take-off via Tekla Structures.
- Allows to justify quantity take-off to the final customer.



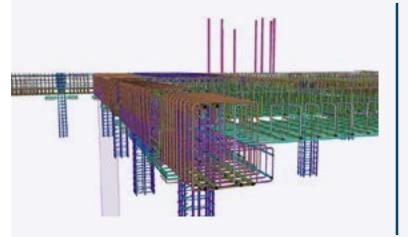
Synthesis tool

- Integrates 3D models and 2D drawings from other project stakeholders.
- Tekla Structures enable remote collaboration on the same project.



Easy erection on site

- Makes model exploration accessible to erection team via Trimble Connect, facilitating their understanding of the drawings.
- Promote exchanges with on-site **construction team** and better responds to their needs.



« On site erection went well and the fact that we were able to model everything in 3D including reinforcement – and being able to share this model thanks to Trimble Connect was a great help to the site teams. We had no unpleasant surprises during the erection on site.»



Gilles Deslous SEE Executive Assistant

The world's best sailors will set sail from a brand-new Marina in the summer of 2024!

See our other projects

