

# **SCÍA ENGINEER**

# CASE STUDY



# THE PROJECT

Admiral's Quay is a development of three high-rise residential buildings built over commercial and retail outlets as well as car parking facilities. The buildings form part of a regeneration project which aimed to reconnect the waterfront area with the city centre while making the waterfront a vibrant place to live, work or spend leisure time.

The tallest of the three towers is 80m high and has become a landmark in the city and the beginning of a new skyline.

The development focuses on the marina frontage and was designed and developed to maximise the views and location. The development was completed in 2015 and has since become a much sought after residential location.

# REUBY & STAGG AND SCIA ENGINEER

Reuby & Stagg are based in Hampshire and have over forty years' experience providing civil and structural engineering expertise to developers, contractors, government departments and local authorities.

Reuby & Stagg were appointed as the civil and structural engineers on the Admiral's Quay development. The team assigned to the project utilised SCIA Engineer software to complete the analysis and design of the reinforced concrete elements of the development.

The development consisting of 299 private residential apartments was constructed from reinforced concrete flat slabs, columns and walls over CFA piled foundations. External walls and internal dividing walls were both constructed using proprietary cold rolled structural framing systems and specialist glazing systems. Stability was provided by the concrete walls located within lift and stair core areas.

The project presented some challenges due to its location. The development is right on the quayside and as a result the ground conditions were poor. There were restrictions on pile capacities and a key element of the design was the use of large transfer slabs. SCIA Engineer software was used to help resolve the load pile restrictions and to calculate accurate reinforcement requirements.

#### CADS CUSTOMER:

**Reuby & Stagg** 

#### OWNER:

Allied Developments

# LOCATION:

Southampton

# SIZE:

Three high rise buildings

# COMPLETION DATE :

2015

#### **ARCHITECTS:**

**HGP** Architects

# AWARDS:

LABC Building Excellence Awards 2015 Winner, Best High Volume New Housing Development (South East Region)

Solent Design Awards 2016 - Shortlisted

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#### THE ADVANTAGES OF USING CADS AND SCIA ENGINEER ON THIS PROJECT

- SCIA Engineer is compatible with other software. It links well with Revit and the RC detailing software used on this project
- Open BIM the ability to model and share
- The power of the software and the functionality it offers
- The flexibility to model any shape and replicate the architectural requirements
- Reuby & Stagg have been using SCIA for 15 years as it helps to ensure projects run smoothly

"We have been working with CADS for fifteen years. They are local to us and over the years we have built a really good, strong working relationship with them. We don't often have questions as we now have vast experience using the software but if we ever need anything they are always very helpful. We will certainly continue to use them and SCIA Engineer software."

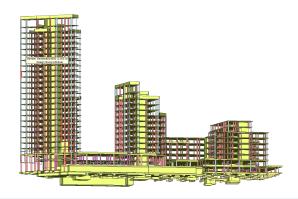
Graham Bedford, Director, Reuby & Stagg

#### CADS

Established in 1974, CADS is a leading software developer specialising in solutions for civil & structural engineering design and detailing. CADS has an installed base of 6,000 customers using 60,000 licences in 90+ countries. CADS are SCIA's only UK partner and have also developed the Revit link and other functionality. CADS have been supplying their specialist software to civil engineering experts Reuby & Stagg for 15 years.

#### SCIA

SCIA Engineer is a leading FE structural analysis software used to design all kinds of structures to UK, EC and International building codes. SCIA Engineer perfectly plugs into BIM workflows via a seamless link to Revit, developed by CADS. More and more structural engineers are being asked to participate in collaborative, model-based workflows, and SCIA provides a practical solution to this type of collaborative working.





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