



£40M Rifle Street, Poplar, London

Client

Bellway Homes

Duration

2015-2017

Value

£40M

Services

Civil & Structural
Engineering

Contract

Bellway Bespoke
Contract

Funding

Private

calfordseaden carried out a due diligence review of the available data for this large development located within a Flood Zone. Issues highlighted included the Docklands Light Railway which adjoins the site, the associated risks for crange, and issues with drainage capacity.

calfordseaden was subsequently appointed to provide Civil and Structural Engineering services and is responsible for designing the piled foundations, substructure, rc framed superstructure, adoptable road and SuDS drainage.

The site, which is bounded by public highways and the Docklands Light Railway, will provide 254 mixed tenure residential units across three reinforced concrete blocks varying in height from four to twelve storeys with undercroft parking. The site will consist of houses and flats of which 52 will be for affordable rent, 28 for shared ownership and 174 for private sale.

Block 1 will be a U shaped building, with a podium area and green space for residents at first floor and car parking for 20 cars. Block 2 will consist of ten to twelve storeys running parallel to the DLR, with a private road running between the blocks.

The sites location provided a complication with respect to clearing conditions prior to demolition and construction; the production of additional documents was necessary to obtain approval from the rail company.

A large storm water attenuation tank was required for the site as there was restricted flow of only 51/s allowed into the public sewer; the attenuation was located under the car park surface. The public sewers outside the site have the capacity to take the full foul and surface water flows, but the limited depth of the existing drains to the north of the site meant that all drainage had to be connected to the public sewer to the south, necessitating a complex solution.

The design and draughting has been undertaken using full 3D software to BIM level 2.

The scheme will also include sustainable technologies including PV panels and a green roof.

