PORTLAND CONSULTING ENGINEERS

HOUGHTON COLLIERY RETAIL PARK

CLIENT: **UK Land Estates**

PROJECT VALUE: **£14 million**

PROJECT DETAILS: The redevelopment of the disused site at the former Houghton Colliery, which had remained disused for over 40 years. The new site comprises two industrial units, one occupied by a Tesco superstore and the other by Home Bargains, alongide various car parks, service yards and landscaped areas.

Portland attended a series of up front meetings with the architect to agreee on the size and location of pertinent steelwork. Portland was introduced to the contractor and worked collaboratively with them to select the appropriate materials & techniques within their knowledge and supply chain. This ensured that all parties involved were aligned in order to achieve the client's aspirations.

During a ground investigation it was determined that existing mine shafts were located on the proposed site of Unit 1. Following discussions with the Coal Authority it was agreed to pile foundations adjacent to the mine shaft. The piles were taken through the collapse zone of the mine shaft, ensuring that in the unlikely event of a collapse that the building would remain stable and unaffected.

For Unit 2 the presence of deep made ground was discovered but no mine shafts were present. The ground improvement solution here was to adopt vibro stone columns. The steel frames for both Units were designed in line with the relevant developers specifications to the building envelopes proposed by the architect.

As part of the development, a piece of artwork was created, a sculpture which symbolised and celebrated the sites' previous mining heritage. Portland sense checked the connections on the sculpture and designed its' foundations.

Our decision to vary the foundation solution on Unit 2 made a saving on time and cost, along with the reducing the building's carbon footprint in comparison to adopting a piled solution throughout. In addition, from adoopting ground improvement instead of specifying mass fill concrete a further saving would have been achieved

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