

Sittingbourne, Kent

Driving of precast piles for a new relief road.



AARSLEFF

Kent County Council in the UK is building a new section of road on the outskirts of Sittingbourne in south east England, which is aimed at removing congestion in the town centre and improving access to the existing Eurolink Business Park and East Hall Farm housing estate.

The single carriageway Sittingbourne Northern Relief Road will link and connect to the existing Swale Way distributor road that joins the A249 dual carriageway to the north of the town and to the existing Eurolink and East Hall Farm road to the south.

Aarsleff Ground Engineering were awarded the US\$1.2 million contract to supply and install the 350mm square section piles. The piling contract also included some trial piling and static and dynamic load testing to confirm and corroborate with the design.

Aarsleff used two of its own piling rigs on the project with the smaller Banut 700, equipped with a free fall drop weight, working on part of the northern section of the embankment. It had to drive about 240 of the shorter piles, all 11.5m long and predominantly in rows of 23 on an approximate 2m grid. The company's largest Junttan PM26 LC worked on the southern section installing around 1,250 of the longer piles up to 17.5m. These are in rows of seven and on a larger 3m grid pattern.

The PM26LC, with accelerated impact hammer, has an adjustable stroke of up to 1.2m. It is operated from the rig's hydraulic system and hydraulically accelerates the drop weight during the fall, boosting the impact energy and increasing by up to 20% the efficiency at full stroke over a conventional free fall drop hammer of the same weight. The hammer with its heaviest 9t weight produces maximum impact energy of 106kJ at full stroke. Impact energy, stroke and blow rate can be infinitely adjusted by the rig operator to suit ground conditions and pile type, as the accelerated hammer is suitable for driving all types of precast concrete, steel tube, sheet and timber piles.

Scope of Works

Trial Piling and Static and Dynamic Load Testing
1500no 350mm square section piles

Client

Kent County Council

Equipment

Banut 700 Junttan PM26 LC with accelerated impact hammer

Construction period

June 2010



Aarsleff Ground Engineering Ltd, is the UK trading arm of Danish contracting giant Per Aarsleff A/S, and is one of the UK's leading piling and geotechnical design and installation specialist contractors; actively promoting early consultation to ensure each scheme can be Value Engineered to give clients the best service, quality design, safety and value. Aarsleff's strategy and philosophy of investment into the future has resulted in its wholly owned subsidiary Centrum Pile Ltd having the most advanced precast pile production facilities in the UK, producing segmentally jointed precast concrete piles to BS En12794 to Class 1A.

Contact

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