



ABBAY PYNFORD

CASE STUDY

Goodwood Education Centre



THAKEHAM



Name: Goodwood Education Centre

Location: Chichester, Sussex

Value: £40,000

Site size: 1 units / 154m²

Duration: 4 weeks

Client: Thakeham



Having worked with Thakeham on many previous projects, we were pleased to be asked to support them on this charity project. Set in the Goodwood Estate, this new building aimed to create a purpose-built ecological hub and study centre for children.

Protecting the surrounding woodland

Set in a woodland, this site was surrounded by trees, with an extensive root system that covered the entire site. Protecting these trees was a vital part of The Goodwood Trust gaining planning permission for this project. As Thakeham is familiar with our foundation systems, they approached us to design and build our Treesafe voided foundation system. This system protects the tree roots and ensures the longevity of the structure against future ground movement.

Our Treesafe system protected the tree roots in a few different ways. The first stage was protecting



Aerial view of pile installation

them from pressure damage caused by the piling rig. A significant feature of the Treesafe design is our ability to install the piles with a lightweight midi rig. Due to the weight, the wide tracks and the low footprint pressure, we were able to operate it from a Concrete Working Surface (CWS). The CWS displaced the weight and prevented the rig from sinking without the need for a thick piling mat. A piling mat would be the traditional choice for rig operation, however, it requires 300-600mm of excavation which would have caused extensive damage to tree roots and not been granted by planning. Alternatively, our CWS is 50mm thick and only requires a minimal reduced level dig.

The second stage in protecting the roots was opting for a piled raft design. Again, this avoided



Completed rebar installation. Raft ready for concrete pour.

extensive excavation. Alternative piled foundations, such as ground beams, require trench excavation that would sever roots in the process. As our piled raft scheme does not require excavation, we limited any damage caused by construction to an absolute minimum. As our raft is not ground bearing, it also avoids any future clashes with the roots and foundations as the trees continue to grow.

The latter is an important feature for the longevity of the structure. As the tree roots grow and the ground moves, the building will remain secure and unaffected by any ground movement.

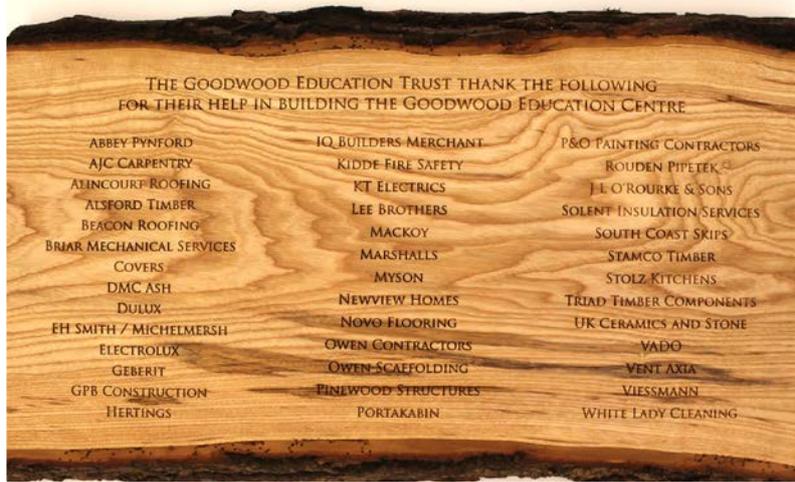
Site Access

One of the main obstacles of this site was the access. Due to being located in the woods, the plant access was challenging. As our design only required a midi rig for piling, we overcame this issue with relative ease. This rig is significantly lighter than traditional piling rigs, keeping the plant and vehicle





Contractor's acknowledgement plaque



weight to a minimum, avoiding transport sinking into the earth track that led to the site.

“Abbey Pynford’s foundation system was ideal for this project; it allowed us to preserve the surrounding woodland while protecting against ground movement, ensuring the longevity of the building for generations of use.”

Adam Eaton, Commercial Director, Thakeham



Get in touch to discuss your project requirements:

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