



ABBAY PYNFORD

CASE STUDY

Cooks Lane



HOUSEDECK

Name: Cooks Lane

Location: Sittingbourne, Kent

Value: 1.7m

Site size: 243 units / 9,500^m2

Duration: 46 weeks

Client: Engie



Cooks Lane is a large new build housing project by Engie, hosting 155 new houses and 88 apartments in Kent. Previously used as a concrete factory and gas works this site had complex Brownfield ground conditions.

Our approach to Brownfield

The main challenge of developing a Brownfield site, such as this, is tackling the contaminated ground from its former industrial use without incurring high costs, as excavation and disposal of this spoil can be expensive and time-consuming. One of the key aims of our client, Engie, was to minimise the export of contaminated spoil off site, to tackle this issue they were looking for a more innovative solution than traditional pile and beam to overcome the highlighted challenges.



Following an approach from Engie looking for innovative foundation solutions for this complex site we were able to provide our value engineered Housedeck foundation solution. A key benefit of the Housedeck system is by utilising lightweight low track pressure midi rigs we were able to offer a 50mm engineered concrete working surface, instead of a traditional piling mat, allowed Engie to minimise their spoil off site.

We were so successful in reducing the volume of spoil it left our client with a situation were to achieve the proposed site levels would necessitate the import of fill. To overcome this Abbey Pynford were able to provide a voided slab using our patented deck support units to the housing units.



Plywood decking
laid to form slab soffit

Our approach to gas strategy

The site investigation classified the site as having CS2 ground gas regime. As we were proposing our voided Housedeck system to the housing units this was easily overcome by the incorporation of underslab ventilation. This was achieved by using periscope vents through the cavity walls and overslab gas membrane which was installed by an independent gas specialist.

For the apartment blocks, which utilised a non voided suspended Housedeck slab, an alternative gas venting stagey was proposed utilising gas venting mats in lieu of the clear void.

Site Levels

Due to the sloping nature of the site with necessitated changes in finish floor levels within adjoining units. The Housedeck system was also able to cater to the changing levels through the incorporation of steps in the slabs.





Temporary Deck Support Units to support soffit formwork

In conjunction with the changes in finished floor levels it was required to accommodate underbuild in excess of two brick work courses below structural slab level. We achieved this by incorporating downstands to allow for the underbuild requirements on site.

“By using the Housedeck system, we greatly simplified what would have been a complex and expensive approach to the foundations. We look forward to working with Abbey Pynford in the future.”

Andrew Crouch, Senior Project Manager, Engie



Get in touch to discuss your project requirements:

e: info@abbeypynford.co.uk

t: 01442 212112

abbeypynford.co.uk

