



ABBAY PYNFORD

CASE STUDY

# Luxury Private Home

OCTAGON

**HOUSEDECK**

**Name:** Luxury Private Home

**Location:** Epping, Essex

**Value:** £678,000

**Site size:** 1 units / 584m<sup>2</sup>

**Duration:** 12 weeks

**Client:** Octagon Developments



This project in Essex was a large detached home for Octagon Developments who produce exceptionally high-quality private homes. Therefore, the project focus was on quality and facilitating the Architect's luxury design features.

## Housedeck - not just for flat slabs

As the site is based on London Clay, a piled foundation was required. Housedeck not only performs well against Pile and Beam when the design calls for a flat finished floor level, but it outperforms when complex design features need to be incorporated; such as the swimming pool, various in-slab steps, upstands and retaining walls. If opting for Pile and Beam, an RC structure would need to be designed and built on top to meet the needs of the design. This would be time consuming, costly and unnecessarily complex, however, with our piled raft design, these features could be incorporated into the raft design with relative ease.



## Shuttering

The most technically challenging features of this build were the swimming pool, plant room and upstands. Unlike the rest of the slab, where we used our patented steel shuttering, we opted for timber shuttering. As we have extensive experience of complex basement projects, our teams (on and off-site) took this challenge in their stride and designed and installed these features to a high level of finish.

In other areas, we used a combination of our straight edge and BSU (Brick Support Unit) steel shuttering. This provided our client with the ideal surface to start brickwork, without the need for brickwork underbuild, traditionally seen with Pile and Beam foundations.



Construction of swimming pool



Construction of retaining wall

## London Clay

As London Clay poses a significant heave risk due to its plasticity, piling was required to allow the foundations to reach a depth to bypass higher-level swelling and shrinkage. Due to the risk of heave, we opted for our voided Housedeck system. This allows the superstructure to sit above the changing surface soil while securely grounded by piles up to 11.5m deep.

## Limiting client risk

As a full design and build solution, our foundations are fully underwritten, BBA certified and warranty provider approved. When working with high-level clients this is an important feature for Octagon and guaranteeing high-quality is a priority.





**“To sum up Abbey Pynford’s system: it’s efficient clean, cost effective.”**

John Pope, Director, Octagon



Get in touch to discuss your project requirements:

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