



# CASE STUDY SYMMETRY PARK, ASTON CLINTON



## GI

### CLIENT

Readie Construction Ltd

### SCOPE OF WORKS

Vibro Stone Columns

### ACHIEVEMENTS

Early engagement allowed  
RB to offer a more cost  
effective VE solution

## Project Brief

Roger Bullivant (RB) adopted a ground improvement solution to an area of former agricultural land that had been prepared for development, adjacent to 'Plot B' of the wider Symmetry Park development in Aston Clinton.

The proposed industrial site, located just off Samian Way, would see a welcome transformation of the 12.89-hectare former agricultural site to provide 3no. new industrial warehouses.

The plan was to extend the already established Symmetry Park Industrial area of Aston Clinton.



ROGER BULLIVANT LIMITED

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# GROUND IMPROVEMENT



## Key Issues/Requirements

- RB provided a design methodology to suit the underlying ground conditions using both information provided by the developer, combined with local knowledge and extensive experience working in the area. The ground conditions comprised of made ground consisting of gravelly, sandy clay, underlain by soft to firm, slightly gravelly clay (Head Deposits). The soils further transitioned to firm, becoming stiff with increased depth, fissured clay (Gault Formation) typical for this area.
- Ground improvement capabilities and various systems were considered to ensure installation was achievable whilst maintaining a cost-effective system, compared with conventional piling. Engaging with Readie Construction Ltd at an early stage was paramount due to the ground conditions.

## Solution

- RB adopted a ground improvement solution comprising the installation of 8,357no. vibro stone columns to depths ranging between 2.6 to 4 metres over 1no. visit to support the foundations to 3no. commercial units.
- The object of the ground treatment was to improve the bearing capacity and settlement characteristics of the made ground and underlying soils thus permitting the adoption of suitably reinforced foundations whilst restricting total settlements to within 25mm. The treatment proposal has been designed to provide a minimum allowable bearing pressure of 150kN/m<sup>2</sup> beneath reinforced pad/strip foundations and 50kN/m<sup>2</sup> beneath the internal floor slab areas.

