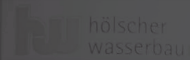


GEORGIAN BASEMENT EXTENSION IN ST JAMES PARK SELWYN HOUSE

CLIENT ENGEL CONSTRUCTION | **DURATION** 3 MONTHS | **VALUE** £35,000

PROJECT INVOLVEMENT

INSTALLATION OF A SUCTION WELL BASED SYSTEM IN A CONFINED BASEMENT EXCAVATION



INTRODUCTION

In 2017, Project Dewatering Limited (PDL) were appointed by Engel Construction, to install a perimeter wellpoint system in the basement of a prestigious Georgian House redevelopment. The dewatering system was to allow the vertical extension of the basement to install a basement swimming pool, during a major redevelopment of the Grade II listed building in St James Park.

THE WORKS

Based on the provided soil logs and PSD data, identifying the site to be sandy silt, PDL proposed and subsequently installed a traditional well point system comprising 35 no. well points installed on 2 m centres together with a further 16 no. self-jetted well points in space constrained locations. The traditional well points were installed using a mini tracked rig which was lowered into the basement excavation. The pumps used were electric, rather than the traditional diesel, in order to reduce the amount of noise generated in this highly sensitive location.



During the installation of the initial well points PDL began to suspect that the geology was more permeable than the data indicated and advised the client accordingly. This concern was confirmed during initial commissioning tests with the clarification that inflow would be too great to be managed by the well point system (the soils were subsequently confirmed to be coarse sands). At this point PDL proposed an innovative, pragmatic and cost effective solution to the problem and switched to a 'suction' well system capable of achieving the required dewatered levels.

The system achieved the drawdown required and allowed the client to continue on schedule. The project showed that, even when presented with incorrect data, PDL are able to be flexible, and have the experience, to allow the objectives to be achieved.



**PROJECT
DEWATERING**

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