

## FACTORY EXTENSION

CLIENT:	AF SWITCHGEAR
SECTOR:	INDUSTRIAL
LOCATION:	SUTTON-IN-ASHFIELD
VALUE:	£0.5m
DATE:	2008



**The scheme was to build an extension to an existing industrial unit containing a crane.**

A previous extension had used the remaining levelled site leaving only a steeply sloping site for a proposed additional extension.

During meetings with the architect and client a number of alternative structural solutions and dismissed due to the costs. The final solution adopted used sleeper walls at approximately 3.5m centres with pre-cast planks spanning between. By adopting 200mm deep planks we were able to obtain in excess of 30kN/m<sup>2</sup> for imposed load on the new suspended slab.

Stepped foundations were used for external walls and column pads and the crane was extended into the new extension. In addition to our structural involvement with the scheme we designed the external works and drainage. Following discussions with Severn Trent, we were informed that new discharge rates would be limited and a scheme combining soakaways and attenuation was designed in combination with a drip brake control into the sewers.

**In summary, an economic low-tech solution was adopted to avoid retaining walls and significantly backfilling of the slab which simplified construction on site.**