

BRIGG

Enabling Earthworks

VertaseFLI were appointed by M&J Evans to undertake enabling works to facilitate the onward residential development of a site in Brigg, comprising agricultural fields.

The site extended to an area of 12.3ha segmented by cross cutting drainage ditches. The proposal was to redevelop the site with domestic dwellings, associated gardens, public open space and adopted roads and sewers.

CLIENT: M&J EVANS
LOCATION: BRIGG, NORTH LINCOLNSHIRE
PROJECT VALUE: CONFIDENTIAL
DURATION: 6 WEEKS
SERVICES PROVIDED: TOPSOIL STRIP, EARTHWORKS REPROFILING, CONSTRUCTION OF A TREATMENT POND INCLUDING PLACEMENT OF A GEOSYNTHETIC CLAY LINER, IMPORTATION OF AGGREGATE AND PLACEMENT AS ROAD STARTER LAYER.



VertaseFLI Role:

Vertase undertook bulk earthworks and site preparations works to facilitate the construction of site roads and sewers as well as construction of plot foundations.

Prior to works the site has always been agricultural land, overlain by a thick layer of topsoil. 13,500m³ of topsoil averaging 400mm thick was stripped using a dozer and stockpiled onsite for future re-use within the gardens and public open space.

Earthworks were undertaken to cut and fill the existing ground contours to create the development platform. Materials were placed in layers and compacted in accordance with the Specification of Highways Works Series 600.

The bearing capacity of the formation level below future road corridors was determined by plate bearing test providing an equivalent CBR result. A capping layer comprising 40mm stone was imported and placed within the road footprint extending to an area of 4,700m².

The site has an overall deficit of materials requiring the import of material to achieve

finished level. A Materials Management Plan was declared allowing the sustainable re-use of materials originating from other sites in the local area, thereby provided a cost saving on importing quarry products, diverting waste away from landfill.

As part of the Sustainable Urban Drainage scheme for the future development a treatment pond was formed to collect and discharge the surface water to an existing watercourse.

The treatment pond was lined with a geosynthetic clay liner over an area of 1,600m². Reclaimed topsoil from the stripping works was placed over the liner to a depth of a 300mm to contour the finished surface.

The works were completed within a short period of favorable weather conditions allowing the earthworks to be completed prior to winter and more problematic weather and site conditions.



PLATE BEARING TESTING ON ROAD FORMATION



CAPPING STONE PLACED ON ROAD CORRIDOR



EARTHWORKS FILL TO DEVELOPMENT PLATFORM



TOPSOIL STRIPPING



LINED TREATMENT POND



TOPSOILED TREATMENT POND