



External Works, Drainage & Ground Floor Concrete Slab

BUS Industrial Tools Warehouse, Great Yarmouth

170 High Street
Gorleston
Great Yarmouth
Norfolk
NR31 6RG

T: 01493 800 655
e: info@technicus.uk.com

Sector: Civil Engineering
Client: Munnings Construction Ltd
Value: Undisclosed
Completion: December 2017

BUS Industrial Tools based in the Netherlands are looking to locate a warehouse / office unit within Great Yarmouth.

The industrial unit comprises combined offices with adjoining open warehousing. A service yard and separate car park are located on the site.

Technicus Consulting provided consultancy services to the Munnings Construction Ltd to design the external hard standings, including interface with the existing highways. The foul water system was designed to fall by gravity and connect to a nearby public foul sewer.

The surface water drainage has been designed to be dealt with on site using applicable Sustainable Urban Drainage techniques (SuDs). The roof and external hard standings are drained via permeable paving.

Due to client budget constraints, value engineering became essential, extensive design refinement was carried out to achieve an optimised sub-base thickness for the service yard which still satisfied the structural and hydraulic criteria.

A full design services package was provided to Munnings for the ground floor concrete ground bearing slab. The slab was designed to industrial floor loading specifications and Concrete Society Industrial Ground Floor TR34 design guidance. A reduced slab thickness of 150mm for the offices was designed compared with 200mm for the warehouse to reduce costs for the construction.

