



#### Customer;

Tudor Griffiths Group

#### Location;

Ellesmere, Shropshire

#### Value:

£2.5m

#### Contract;

JCT Design & Build

#### Completion Date;

February 2017

#### Project Highlights;

Knights were chosen as the Principal Contractor to design and build a facility for drying and storing virgin wood chip and shred which would then be sold as Biomass fuel.

With a tight programme and operating within the confines of shorter winter working hours, there were plenty of challenges to overcome.

Planning was key, co-ordinating multiple sub-contractors along side direct labour. Fast and efficient delivery was key while adhering to Knights Health and Safety, Quality and Environmental policies.

Working together in a professional and collaborative manner resulted in the project being completed within programme and to budget.







### Biomass & Drying Facility



#### The Solution;

The main requirements were for the plant to house seven 1 megawatt boilers and the provision for efficient delivery and collections by HGV's.

When we carried out the initial geo-technical investigation we discovered that ground conditions at the proposed site were unstable, due to the proposed building's location being a backfilled silt pond from early quarry workings.



This brought its own unique engineering challenges and – working alongside structural engineers – we planned out what steps would be required to improve the poor bearing capacity of the ground. As a result, the building footprint and foundations were stabilised with two metres of granular fill with 500mm of stone capping bringing the footprint to sub formation.

Over a thousand stone column piles were then installed to an average depth of 3.5 metres in order to create a weight bearing platform that would allow for the steel-frame building construction and our concrete flooring teams to install a 200mm reinforced ground bearing slab. All associated drainage and service ducts were also installed prior to boiler installation by the manufacturer engineers.

