



KNIGHTS

CONSTRUCTION GROUP

*"Design and Construction
for Performance"*



Agricultural Division



Welcome to Knights

Knights Agricultural Division provides successful construction solutions for farming projects of all sizes throughout the UK.

Our reputation has been built on a wide array of successful diversification builds throughout the UK where demand for quality and precision has always been achieved.

We deliver efficient and precise work direct to client, ensuring that you receive the highest standard of service, from the pre-planning and design stage through to closing the gate behind us.

As a family-owned business with a strong background in agricultural construction - coupled with pioneering techniques - we are the UK's leading provider of full turn-key services.

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- Livestock & Dairy
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 - Broiler
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 - Breeder & Rearing

*...professional,
knowledgable and
easy to talk to...*



Call us: 01978 846 841 or Email us: info@knightsconstruction.co.uk

- Multi Discipline Principle Contractor
- Design & Planning
- CDM Project Management

- Earthworks, Civils & Drainage
- Robotic Station Guided Stone Trim
- Laser Screed Concrete

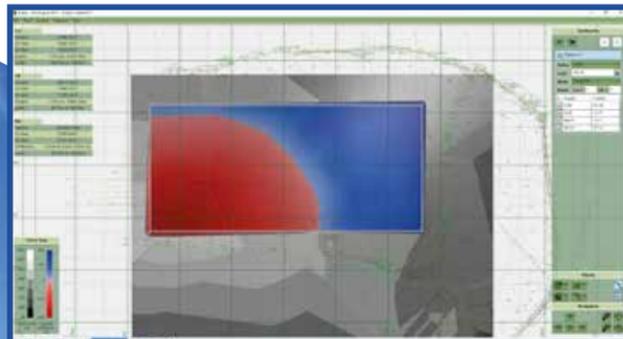
Earthworks



With an ever increasing client base, we believe that our working methods and construction techniques are what sets us apart from our competitors.

We aim to achieve a completed build which not only meets - but surpasses your expectations. After all, the results will have a direct influence on your day-to-day livelihood.

By the time our excavators arrive on site, our engineers would have already completed an extremely detailed GPS-based topographical survey which enables us to precisely plan out the most efficient and cost-effective earthworks.



- Accurate calculation of material quantities, including those for cut-and-fill situations
- Bespoke engineering solutions to earthwork problems by utilising in-house expertise to redesign finished levels and surface drainage
- 3D surveying technology integration with site machinery to achieve high-level accuracy

- 130,000 tonnes of earth shifted
- Landscaped 'bunds' formed to screen site
- Utilised the latest technology in earth-moving equipment:
 - CAT D7E 'Dozer
 - CAT 313FL - with Grade Control
 - CAT 345 DL VG
 - CAT 740B - 40-tonne Dump Truck



Case Study

Four Broiler Units & Biomass Centre Location: Bridgnorth, Shropshire

Throughout the design stages of this project, many considerations were weighed up by our team - in particular the challenging geographical elements that were associated with this particular project. Due to this site being overlooked by a popular walking/hiking throughfare, the formation level was required to be a great deal lower than at other sites of this type.

The depth into the land at which the sheds were laid - coupled with large landscaped 'bunds' meant that we were able to minimise the visual effects of the site on the local landscape.

During the dig, our excavators turned up a very large quantity of rock but this was no issue for our experienced earthworks team. We were able to crush the existing rock that was found, utilising it in the formation of the site's foundations - meaning that material costs were cut.



Drainage & Civils



Whether it is a simple Carrier line with manholes or the most intricate multi-layer system, Knights Agricultural Division will provide you with a highly-skilled specialist team. We work closely with you at all stages of the build and tailor the services to meet your requirements.

Drawing on decades of drainage contracting experience, we can overcome any challenging condition. Our considerable expertise in this field enables identification of many possible challenges that can occur.

A major component of our continued success is clear and consistent communication with clients and stakeholders.

With new and existing sites, entrances and accesses need to conform with the local highways authority. Whether it is a new S278 plan or widening an existing entrance, we have an in-house team who liaise directly with the local authorities to achieve an agreed specification and design. This includes all traffic management and permits.



- Site Access and Splays
- Associated Minor / Major Civil Works
- Culvert Construction / Maintenance
- Interceptor Installation
- Deep Drainage

Case Study



Six Broiler Units & Biomass Centre
Location: Market Drayton

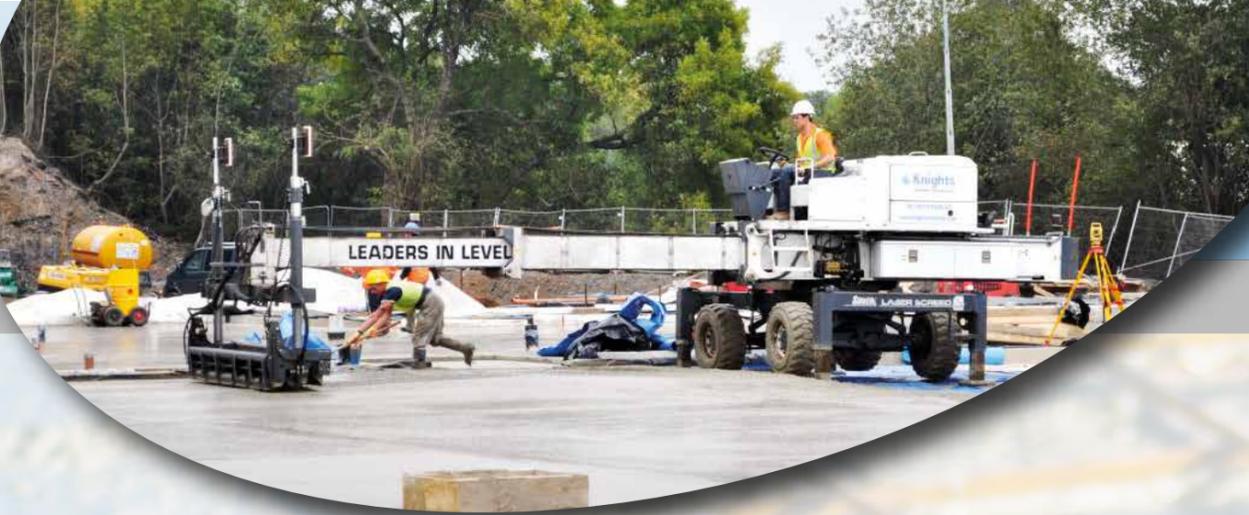
- 60,000 cubic metres of earth moved
- 121,000 litre dirty water tank
- 4,376 cubic metres of concrete
- 5,500 metres of ducts installed
- 3,042 metres of drainage laid
- 500kva HV connection
- Capacity for 400,000 birds

Our people are motivated by providing ever higher levels of expertise and the relations we develop with our customers lead on to becoming long-standing friendships.

Matt Jones, Managing Director



Concrete Works



- Laser-guided stone trim
- Laser Screed installation
- Power-float (Swirl/Matte/Gloss)
- External yards/access roads
- Pattern-print finish



We have always been highly passionate about creating breath-taking results with our concrete finishes and to enable us to continue doing so, the technology we employ has also had to develop. Our Somero S240 Laser Screeds and Laser-Graders are utilised to achieve extremely high quality concrete finishes.



Whether you want to build a new dairy unit or a modern pig rearing unit with double layer mesh and fibres, from 50 m² to 50,000 m², we have the perfect solution for your needs.

Our specialist concrete laying teams are highly skilled and proficient with the latest in concrete laying technologies. Regardless of which finish you require, be it the floor of a potato store or a highly polished broiler floor, our finishing teams are the best, with their attention to detail making us the forerunners within the industry.

Case Study



Grain Store Building

Location: Llanymynech, Powys

A defining feature of this grain store build was a particularly large external concrete apron. This apron was required to allow for a sufficient turning area for large wagons that would be loading and unloading.

- 600m³ internal floor area
- 400m³ external floor area
- 175mm slab with mesh
- Concrete poured over two days

Arable

Case Study

Grain Store Building

Location: Shawbury, Market Drayton

For this client in Shawbury, we completed the full construction of a new grain store building. Our teams laid the foundations, installed services and drainage, installed the concrete walls and internal and external floors and over-saw the construction of the Powells steel-framed canopy.

- Pre-cast concrete walls - reinforced with mesh and fibres
- Dimensions: 60 metres x 30 metres x 22 metres
- Internal floor - 450 cubic metres concrete with re-inforced mesh
- Customisable segregating walls
- External apron - 196 cubic metres concrete with re-inforced mesh
- Matching fan House



Grain Stores



We understand that arable farming requires hard graft day and night - and that successful crop production is the reward for such efforts.

Once crops have been reaped, they need to be stored in the right way to ensure that their quality is maintained. These are among the main factors that we consider when designing new storage buildings.

Whether you would be looking for a 10,000 tonne capacity grain store with integrated stirrer system, a grain drying floor with heavy machinery-loading strength or a crop store with class-leading ventilation, we can take control of every aspect of the project.

Crop Stores



Drying Floors



Storage Buildings



Case Study

When you work so hard everyday to develop and grow your business, you don't want for all that effort to be let down by your facilities.

Your tractors, trailers, balers, combines and forage-harvesters are all vital components in your arsenal and naturally they need to be stored securely.

Whether it's general machinery, chemicals, wood chippings or feeds, we can supply you with a bespoke storage solutions that meet your needs.



- 2,855 m² 7MW Biomass Facility
- 7 Boilers & 7 Heat Exchangers
- 500mm Capping Stone
- Over 1000 stone column piles
- 200mm re-inforced concrete flooring slab
- Completed two-and-a-half weeks ahead of schedule
- Stabilisation of poor load-bearing capacity of ground

7MW Energy Centre
Location: Ellesmere, Shropshire

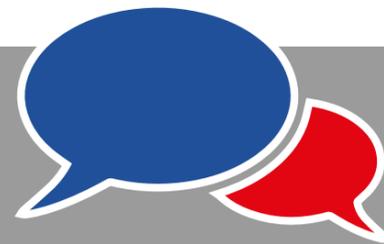


The initial geotechnical investigation discovered that the original ground conditions were unstable due to the site being a backfilled silt pond from early quarry workings. This brought its own engineering challenges with improvements required to rectify the poor load-bearing capacity of the ground. The building footprint and foundations were stabilised with two metres of granular fill with 500mm of stone capping bringing the foot-print to sub formation.

Over a thousand stone column piles were then installed to an average depth of 3.5 meters in order to create a weight bearing platform to allow our Concrete Flooring Division to install a 200mm reinforced concrete ground bearing slab upon it.

Renewable and sustainable energy is a key objective for the TG Group and we are delighted to see the new Biomass plant up and running. We have been very impressed with the work carried out by Knights Construction and with their professional and committed approach to the project. We received constant feedback on the build's progress and each critical stage was completed on time. This is a new facility for our company and it will now give us the opportunity to expand the renewable energy side of our business even further.

Tudor Griffiths, Managing Director - TG Group



In our opinion - clear, open and honest communication with our customers is absolutely vital to any successful build.

We'd love to hear your ideas for moving your business forward and enjoy tackling these new concepts alongside you.

Call us now: 01978 846 841





Livestock & Dairy



- Full construction of state-of-the-art DeLaval milking parlour and livestock housing for 300+ herd
- Various concrete finishes utilised - e.g. brush finish in milking parlour area, patterned finish in general livestock area
- Slot-drainage incorporated into concrete design to ease washing out and reduce standing water
- Constructed three silage clamps, one milking parlour, a general store building and a cubicle building

Case Study

Milking Parlour & Livestock House

Location: Tattenhall, Cheshire

This local farm had recently been selected to supply milk to one of the UK's largest supermarket chains throughout the North West. As a result, the client decided that he wanted to modernise his facilities in the aim of ensuring that his animals were in the best possible health so that milk production could be maximised.

After researching several companies the client made the decision that Knights were the perfect choice to complete the upgrade. We went on to construct a brand new building to house a DeLaval milking parlour as well as a general livestock building. Handling all stages of the build from the initial earthworks through to full drainage installation and of course the concrete flooring, we were able to tailor the entire works to the client's requirements and ensure full customer satisfaction.

From the planning stage, Knights were exceptional to deal with. I received detailed drawings of the parlour which enabled for a stress-free transition to DeLaval for parlour installation arrangements. I was kept informed at all stages and I felt fully-involved throughout the whole build.

Robin Langford - Owl Farm - Bolesworth Estate, Tattenhall

Knights Agricultural Division is fast-becoming the UK's premier choice for managing the full design and implementation of Dairy Farm projects.

Our history of working alongside manufacturers such as DeLaval, Fullwood and Dairy-master amongst many others helps us to deliver the construction of state-of-the-art milking parlours and other dairy livestock facilities which will not only make life easier for you but will allow your herd to feel as comfortable as possible.

Some examples of what we offer in Livestock & Dairy builds:



Pig Housing



Milking Parlours



Livestock Sheds



Silage Clamps

Poultry

Broiler Housing



Case Study

Four Broiler Units & Ancillaries

Location: Woodseaves, Shropshire

A farmer and the CEO of International Energy Crops (IEC) decided to diversify his business and venture into chicken production. Maximum bio security was the driving force behind the design of four brand new broiler sheds.

Practices were adopted from the broiler breeder sector and other high bio-security units in Europe to provide not only a site that will protect and optimise bird performance but also be aesthetic and comfortable for the staff that work in it.

Noticeably different to traditional agricultural builds - all the infrastructure went in first followed by the external concrete aprons which were laid prior to the shed floors. Two hundred and fifty thousand tonnes of earth was moved, seven kilometres of ducting, three and a half kilometres of drainage installed and 3,450 cubic metres of concrete was poured.

- Four 116m x 24m broiler sheds to house 58,000 birds
- Sited 2 x 2 in parallel with linking central corridor
- Two dead bird cool stores accessible from all sheds
- Shower in and out at entrance/exit to central corridor
- Fenced perimeter with concrete 'clean' area around sheds and concrete access roadway
- 8 feed bins at outer ends of sheds. Feed delivered to sheds by augers under concrete slab
- Dedicated facilities for catching staff
- Whole site CCTV monitored



The poultry industry has seen many advances in technology in recent years and we pride ourselves on staying ahead of the curve.

Doug Wellington, Director

When it comes to building broiler housing, simply put - we are the industry leaders.

For many clients looking to diversify into broiler production, the decision may not be a swift one. The scale of such a project requires the consideration of many various factors.

From sensitive environmental planning concerns and the impact of the sacrifice of the required land to of course - the all-important turnaround on the investment. It may seem daunting.

With Knights in your corner, these types of concerns are instantly reduced. One of our experienced Project Managers will meet with you to carry out a no-obligation initial site visit and will be happy to discuss any queries that you may have.

Knights Construction make your Poultry Housing build a breeze. From start to finish, we take control of all aspects of the project such as (but not limited to):

- Initial Site Survey & Design
- Earthworks
- Underground Services
- Drainage Plans & Installation
- Internal Concrete Flooring
- Staffing Facilities
- External Apron and Access
- Underfloor Heating Systems
- Shed Construction
- Water Treatment Systems
- Renewable Energy
- Feed Systems



Underfloor Heating Installation



A newly-laid concrete apron with feed-bin bases and outbuilding

Poultry

Free - Range & Breeder/Rearing



ABOVE: 'Pop-holes' in the free-range unit walls allow the birds access to the exterior



- Multi-tier build housing
- Adjoining egg-packing rooms
- Incorporated Muck Belts
- Fan or Natural Ventilation
- Bespoke Nesting Arrangement

Whether you are diversifying into free-range production for the first time or you simply want to modernise your current facilities, we can manage the whole process so that you can concentrate on optimising your flock management.



Case Study

64,000 Bird Free Range Unit
Location: Cranbrook, Kent

For this client, we built a 260 metre-long free-range unit with an egg-packing room at the centre. The client was delighted with the outcome - with Knights delivering all aspects of the build from design through to concreting.

We were very impressed with the quality and attitude of Knights Construction and the safe working practices shown by their team. I would fully recommend them and will be using them again for future projects.

Graham Fuller, Assistant Production Manager - Fridays Ltd, Chequer Tree Farm, Kent

Case Study

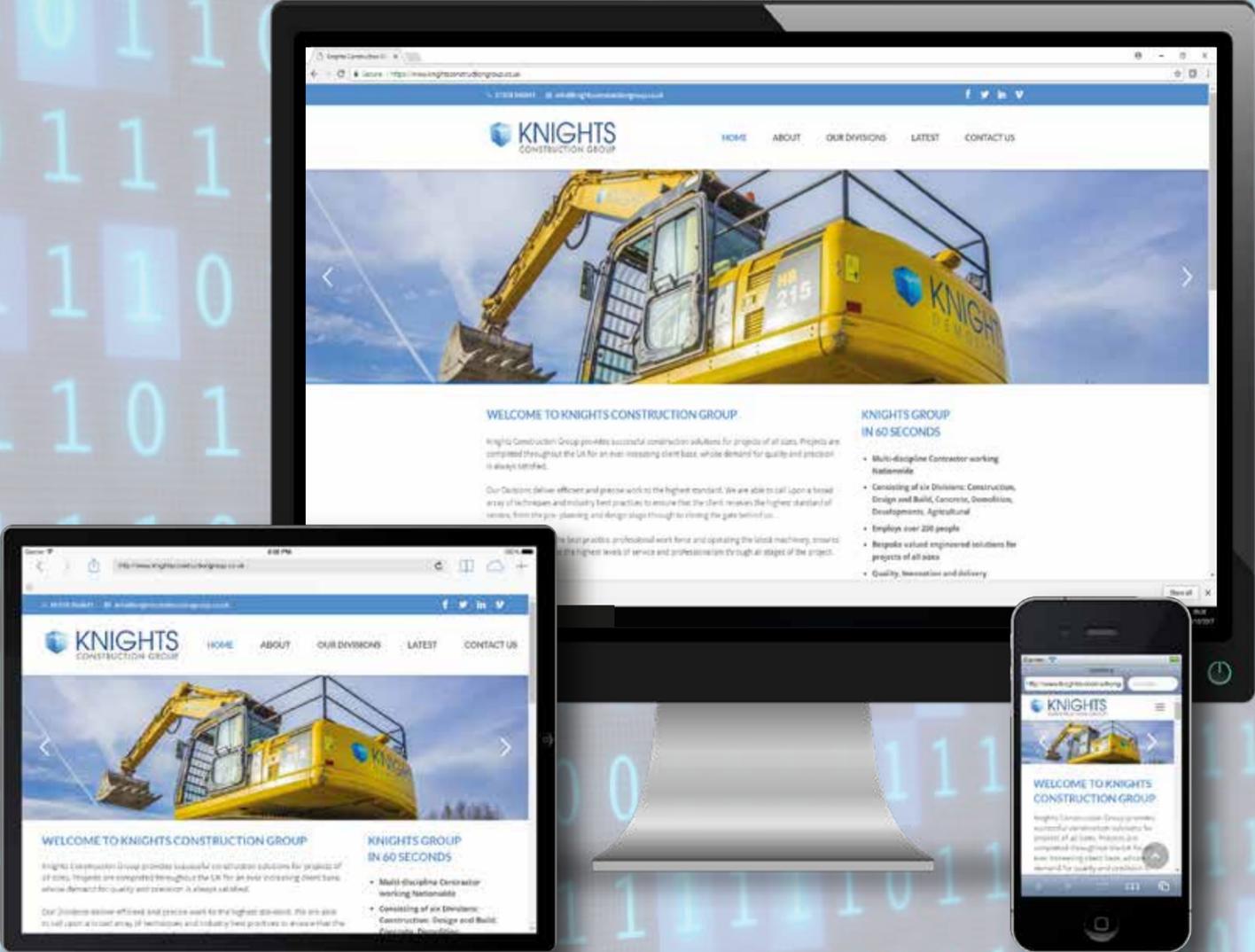
Six Breeder Rearing Units
Location: Aston, Flintshire

During the pre-construction phase of this project, we met with the client to discuss industry standards that would need to be met. Bio-security at this site was of extreme importance due to housing the grandparent stock which produces the parent stock of breeders for supply to the Northern Hemisphere.

The units were built in an attractive timber finish that was designed to help them integrate into their natural surroundings. Ten silo-bins were installed along with an automated feed delivery system.



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