



 Woods Hardwick
Architecture | **Engineering** | Planning | Surveying



Site Appraisals
Transport Assessments
Flood Risk Assessments
Highway Design
Drainage Design
SUDs
Levels, Earthworks & Retaining
Utility Assessments



Who we are

Woods Hardwick specialises in the design of infrastructure, including roads, drainage and sewerage systems. All our projects are led by one of our experienced directors or associates.

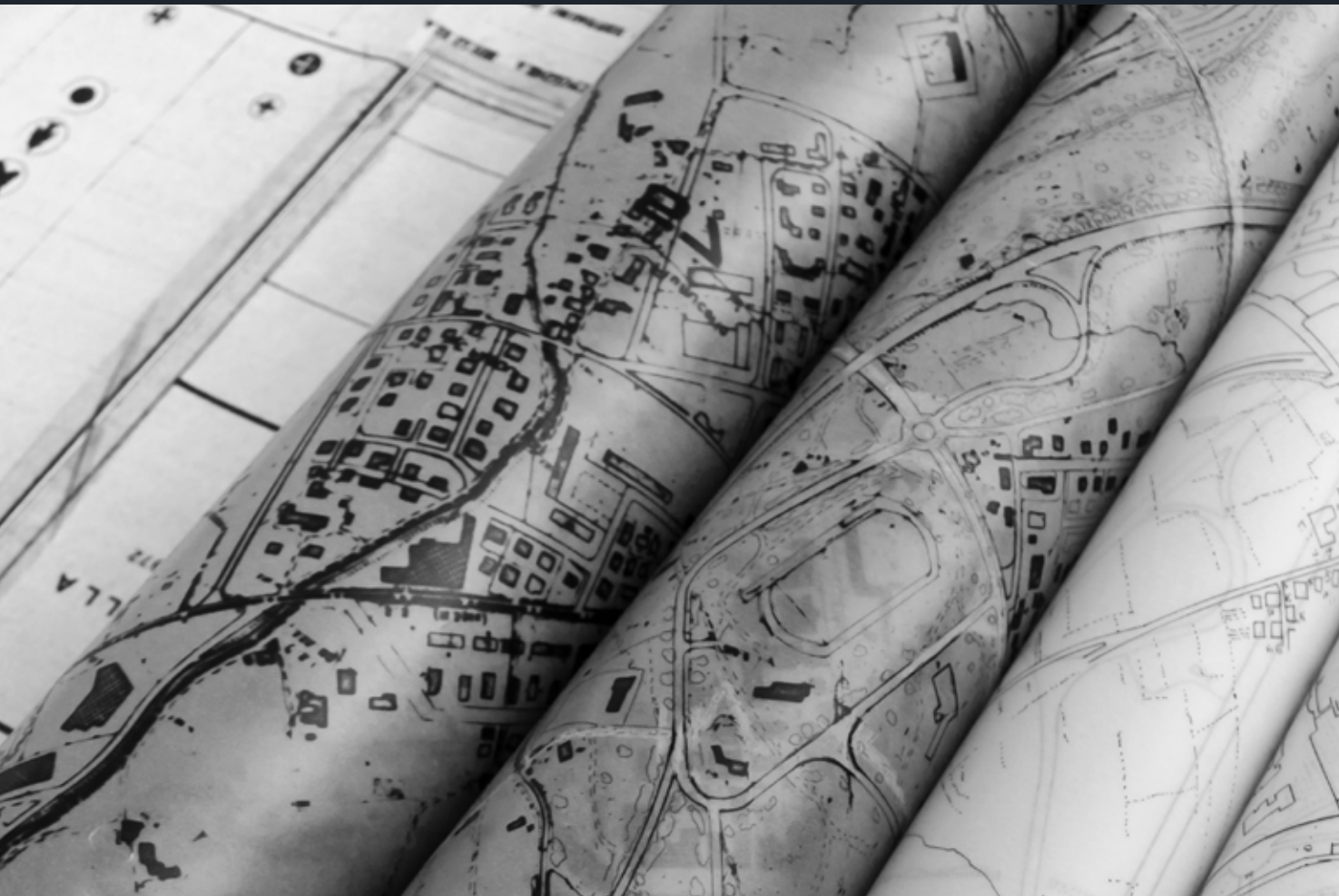
Our engineers are able to provide a broad spectrum of experience applicable to all elements of engineering design, meaning you can be assured that all design aspects will knit together. We are involved in sites of all sizes and can demonstrate particular strength in the residential sector due to our success in this field.

Our civil engineers often work hand in hand with our in-house architects, planners and surveyors, helping us to produce effective and cost efficient solutions. This collaborative approach extends to external consultants and client 'in-house' teams, where our understanding of the architectural discipline allows robust and affordable implementation of important design aesthetics.



Our vision

We provide efficient, responsive advice to a range of clients. Being part of a multidisciplinary practice means that we understand the broader issues around projects and designs. This helps us to provide an outstanding service to our clients.



What makes us different?

The senior staff are intimately involved in every project. This means that all clients benefit from the wealth of experience we are able to bring. Our understanding of the commercial pressures allows us to optimise our designs to ensure innovative yet economically viable solutions, be it from earthworks strategy to finding the right SUDs solution.

Our involvement on schemes from pre-purchase through to construction means we understand not only our own area of expertise but how different workstreams interact, enabling us to guide clients across a broad range of subjects, not only our specialisms.

Infrastructure Planning



Our Infrastructure Planning team is the first port of call for site appraisals and due diligence. These particular aspects are dealt with only at senior level.

We are experts in the preparation of flood risk assessments, transport assessments, travel plans and waste management plans. Our team fully understand the time and financial pressures of the current development industry and factor this in to all aspects of their work.

Specialists often attend public consultation events on behalf of our clients, and are therefore experienced in dealing with members of the public in relation to particularly emotive subjects.

Site Appraisals

Site appraisals are only undertaken by our most experienced staff. Site appraisals are usually undertaken in two forms:

Sites that have an existing outline or full consent we will review the relevant technical documents and identify abnormal costs and/or potential cost savings.

Sites that do not have the benefit of existing technical documents we will develop a drainage and utilities strategy and identify the best point of access into the site. Our teams can overlay title plans to identify possible land ownership issues.





Other Supporting Documents

- › Utility Appraisals
- › Green Travel Plans
- › Travel Packs & Travel Plan Co-ordinator Role
- › Waste Management Plans
 - › ES Chapters
- › Parking Strategies
- › Attendance at Public Consultations

Transport Assessments

We are experts in the preparation of Transport Assessments and Transport Statements.

The team will start from first principles, obtaining traffic flow data and liaising with the highway authority to identify and minimise the scope.

We will then undertake a robust and technically astute assessment of traffic impact and only where required, propose and provide details of mitigation measures.

The reports are presented in a clear and concise manner and are always underpinned by our commercial awareness.

Flood Risk Assessments

Our engineers are experts in assessing the risk of flooding to sites and developing strategies to drain new and existing sites.

We have the software to assess the risk of flooding from watercourses of varying size, overland flows and other features.

Engineers have the skill to balance the requirements of the various stakeholders with the commercial pressures our clients often face.

We are creative and think outside of the box to achieve workable drainage solutions.



Infrastructure Design

Civil Engineering

Highway Design

The team is fully experienced in the design of s38 roads serving residential developments and associated s278 works. We will design these in line with current requirements and liaise with the highway authority from the outset to get early buy-in.

The practice has also designed a number of more significant highway schemes, including the recently opened Western Relief Road in Aylesbury.

We provide designs for private roads and even individual drive specifications where required.

Our team provides detailed design for permeable pavements and were the first to get a length of permeable paving adopted in Buckinghamshire.

Drainage Design

The team is experienced in all aspects of drainage design including s102, s104, s106, s30 (Anglian Water), s98, and s185.

Our team will liaise with drainage authorities from the outset to fully understand their requirements and to gain early agreement in principle to our designs.

We will instruct sewer impact studies and challenge when necessary, to ensure our clients are getting value for money and only paying for what is justifiable.

We will also liaise with Lead Local Flood Authorities (LLFA) and Internal Drainage Boards (IDB) to obtain the necessary consents to construct headwalls and other outfalls.

The team will also assist with sewer requisitions where 3rd parties are involved.





SUDs

We can design all aspects of SUDs systems from planning submissions to the detailed design and maintenance schedules.

The engineers use the latest software packages to model and optimise the performance of each SUDs feature and design them in 3D to ensure they fit the site constraints.

Our innovative and forward thinking on SUDs is helping developers keep land take to a minimum, while satisfying the needs of LLFAs and other interested parties.

Levels, Earthworks & Retaining

The importance of good level design is often overlooked but never by our team. We understand the importance of minimising earthworks and retaining features.

Our engineers often start with pen and paper, identifying constraints and looking at the bigger picture. This is then transferred to the specialist software to allow detailed calculation and interrogation.

The teams have dealt with a variety of very challenging sites, including split level units to accommodate a 1 in 8 slope, balanced earthworks to accommodate contaminated soils, and borrow pits to accommodate challenging ground conditions.



Additional Design Services

We can also provide the following:

- Setting Out
- Conveyancing
- Principal Designer Role
- Co-ordination of Road Safety Audits
- Co-ordination of Pumping Station Design





Why Woods Hardwick?

Our aim is to provide a high-quality, personal service to all our clients. Our directors and associates are available to discuss projects whenever clients need that senior level input. These senior staff oversee and are intimately involved in all projects so that every scheme benefits from our high level of experience, particularly when advice on strategic matters is required.

Working as part of an integrated design practice means we understand and take an interest in the wider context of projects, and in the work of other professionals. We find this background often allows us to contribute more creatively in finding solutions to complex problems. We are also practical. Many of our staff have worked on site so we understand the realities of construction and design accordingly. We communicate these ideas to our clients and contractors with whom we work. By thinking about how designs are implemented on site we help to smooth the construction process and reduce delays and queries on site. ☒☒



