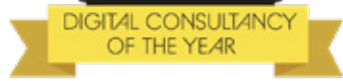




# DRONE SURVEYING

YOUR PARTNER IN PRECISION





Founded in 2016 by Jim Morris, **Drone Surveying** works with many of the UK's largest house builders, delivering highly accurate survey data that opens up new perspectives for effective site management.

Utilising the latest high specification drones, we collect a dataset of geo-tagged imagery, which is then processed with industry leading software that enables our clients to make and analyse measurements, perform volumetric calculations and overlay CAD designs of their sites from initial purchase through to completion - catching build errors before they become a costly headache.

We understand the importance of accuracy in the data we supply. Our workflows, methodology, and support ensure that you can trust our results every time.





# Value Engineering

**Realise your VE strategies with measured site intelligence, not assumptions**

Value Engineering: achieving the best possible outcome at the lowest possible cost – without compromising quality or safety. For UK housebuilders, this means reducing unnecessary spend on earthworks, materials, and time on site, while ensuring developments remain efficient, compliant, and profitable.

Our surveying solutions provide centimetre-level accuracy and fast data turnaround, enabling your teams to make smarter decisions from day one:

- |  |   |  |   |
|--|---|--|---|
| <b>Cut &amp; Fill Analysis</b><br>Identify and balance earthworks with precision, reducing expensive haulage and disposal costs.             | <b>Stockpile Measurement</b><br>Monitor aggregates and topsoil volumes in minutes, helping you control budgets and avoid costly disputes. | <b>Surface Comparisons</b><br>Track progress against design models, spotting issues before they escalate into delays or overspend. | <b>Design File Integration</b><br>Seamlessly overlay accurate survey data with your engineering plans for transparent, actionable insights. |
| <b>Real Cost Savings</b><br>Up to £180,000 saved on a single project, with potential for hundreds of millions across the house build sector. | <b>Fewer Surprises</b><br>Early visibility prevents rework and keeps projects on track, reducing on-site issues before they impact.       | <b>Smarter Decisions</b><br>Instant, accurate data supports Value Engineering reviews and cost-benefit decisions.                  | <b>Safe &amp; Sound</b><br>An impeccable safety record and no-nonsense approach to site safety and compliance.                              |



“Having worked with Drone Surveying for a number of years on multiple sites, their services now form an integral part of our engineering team’s decision-making process on a daily basis. Team collaboration is imperative and having access to the online portal and mobile data enables our teams to make data-driven, smarter decisions, saving us time and money”

**Luke Hopkins**  
Engineering Manager  
Barratt Redrow

**Value Engineering isn’t just a concept – it’s a measurable reality for our clients. Through innovation and accuracy, we enable UK housebuilders to build better, faster, and more cost-effectively.**



Overlay site designs,  
CAD surfaces and PDFs,  
verifying the position of  
roads, driveways and plots,  
comparing the as-built  
against the 3D design

Manage Cut and Fill analysis accurately before commencing construction and after every subsequent survey with just a few clicks, ensuring earthwork operations stay on course... and on budget



Surface Comparison

From Surface  
Previous Survey (Sep 13, 2024 | B ▾)

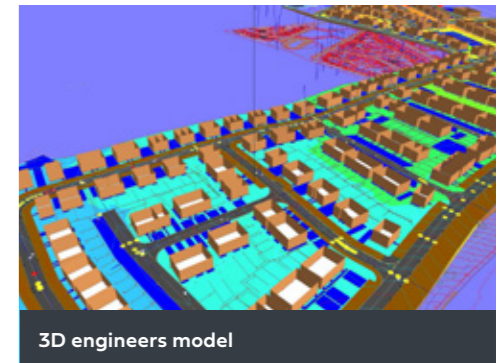
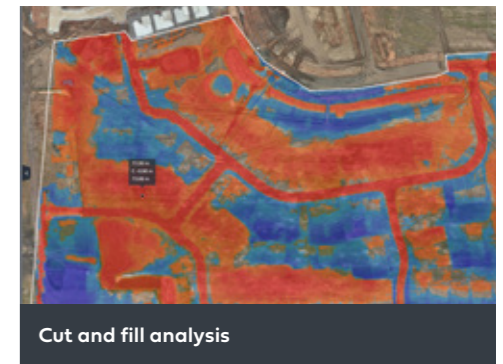
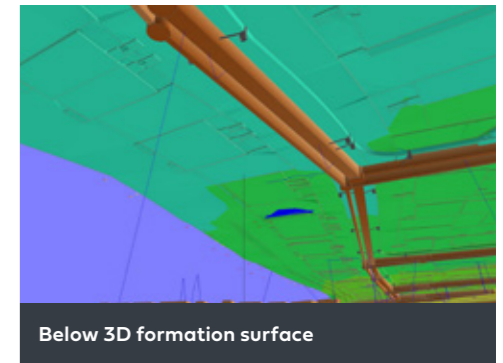
To Surface  
Current Surface (Nov 20, 2024) ▾

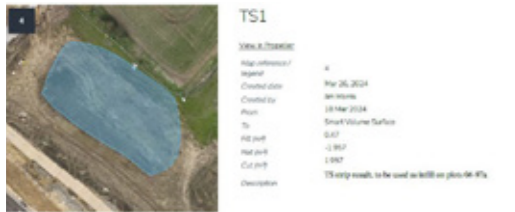
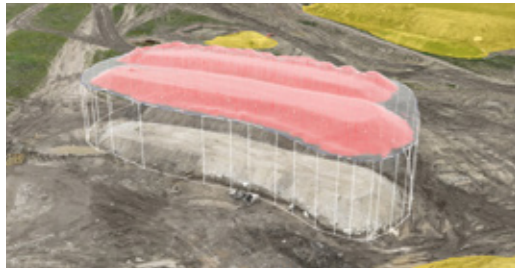
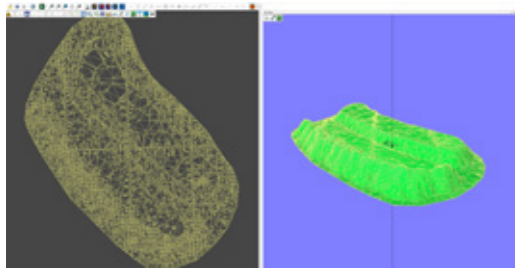
3D CUT/FILL 2D CUT/FILL CONTOURS

CUT	4,161.8 m <sup>3</sup>
NET	3,727.4 m <sup>3</sup>
FILL	7,889.2 m <sup>3</sup>
TOTAL	12,051 m <sup>3</sup>

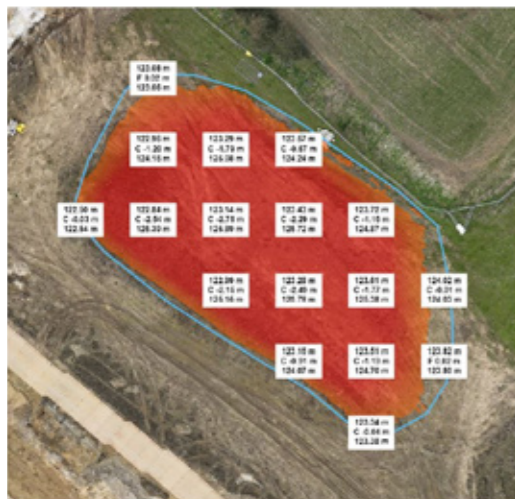
Shrink/swell ⓘ +

Weight +





**Avoid ambiguity between measurements provided by civils teams when negotiating costs against the contractor's calculations**



*"Using aerial imagery from drone surveys allows us to identify potential issues in upcoming development stages before work begins on-site. This proactive approach has saved us hundreds of thousands of pounds - highlighting just how expensive a reactive strategy can be"*

**James Watson**  
Engineer  
Taylor Wimpey

**Facilitated by Drone Surveying's technology, stockpile measurements have transformed the way UK housebuilders manage their site operations.**

100 million points of accurate data are captured from each survey with the accurate measuring of earth and earth movements across the whole site.

Post-survey, measurements of all stockpiles on site are generated using online portal tools.

Each stockpile is accurately measured to a baseline calculation which gives the cubic volume; in-house engineers will then rename each stockpile with a description of its make-up (top-soil, sub-soil) including additional information to define the current location and direction as to where the earth will be used.

This fully supports the Material Management Plan (MMP) for the site.



Innovative hydrology tools within our client portal enable you to quickly visualise how heavy rainfall or flowing water will affect the ground, based on the current topography and terrain.

Hydrology analysis tools contribute to significant cost savings for your site

- improved planning, maintenance and operation of drainage systems
- correction of standing water areas
- mitigation of costs attached to clarifying after-sale customer care matters regarding flooding

Surface Runoff Simulation shows water flow across a site during rainfall or spills

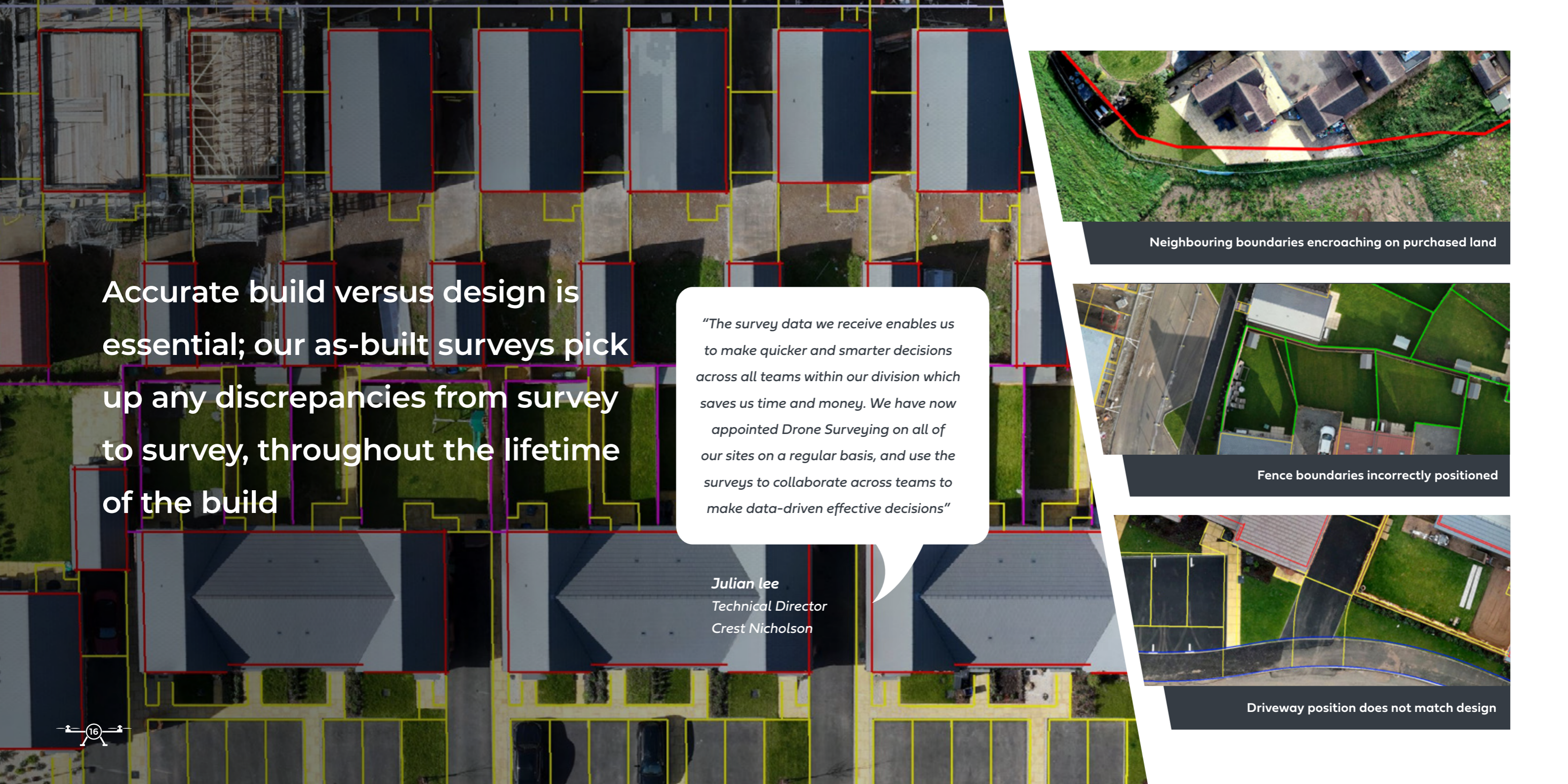
Flood to Level Analysis helps visualise the potential impact of a flood at specified water levels

Preferential Flow Path identifies areas where standing water may occur or drainage is incorrect

Liquid Drop Analysis aids in understanding the size and shape of the catchment area that feeds into a stream or dam on your worksite

“We use Drone Surveying on all of our sites to support our cut and fill strategy, with regular surveys and their cutting-edge software, we are able to manage our sites much more effectively. Managing budgets across projects is challenging, but Drone Surveying’s reliable data consistently saves us time and money. Their online portal - accessible both in the office and on-site - lets us export stockpile reports and accurately analyse earth movements”

*Iain Hamilton, Technical Director, Taylor Wimpey*



Accurate build versus design is essential; our as-built surveys pick up any discrepancies from survey to survey, throughout the lifetime of the build

*"The survey data we receive enables us to make quicker and smarter decisions across all teams within our division which saves us time and money. We have now appointed Drone Surveying on all of our sites on a regular basis, and use the surveys to collaborate across teams to make data-driven effective decisions"*

Julian lee  
Technical Director  
Crest Nicholson



Neighbouring boundaries encroaching on purchased land



Fence boundaries incorrectly positioned



Driveway position does not match design



## **Drone Surveying** have transformed the land surveying process for UK housebuilders.

By providing real-time data and high-resolution imaging, we enable commercial, technical and construction teams to gather in-depth information on topography and infrastructure, which can identify errors, guide decision-making and enhance project workflows, in turn providing numerous cost savings on their developments.

In addition, the use of advanced technologies like LiDAR and photogrammetry in drone surveys produces a wealth of data that was previously unattainable through traditional surveying methods.

### **In conclusion: Take control of your sites!**

Early detection of problems/errors allows for proactive, timely adjustments preventing potential cost overruns associated with rectifying issues later in the construction process.

**Can you afford to put a price on the reputation of your company?**

# GROUND-BREAKING TOOLS...

Action via portal using drone data	Impact
Produce accurate engineering measurements	Ensure civils team is working to design
Overlay designs, CAD surfaces and PDFs, verifying the position of roads, driveways and plots when comparing the as-built against the CAD design.	All teams can check as-built against design making accurate and responsive decisions
Check invoices against completed works	Ensure accuracy with invoice quotations, avoiding ambiguity of third-party cost projections
Export volumetric reports as PDFs or Excel	Efficient management of earth movements
Export CAD files of all measurements	Evidence to be saved or shared with contractors
Export 3D surfaces	Importing current CAD files into current workflow
Carry out as-built checks against the design to query the accuracy of road/driveway layouts	Avoid costs in rectifying errors in works carried out
Compare previous to current surveys	Tracking the groundworkers' progress to ensure that earth movements are monitored removing unnecessary works on site
Monitor the progress of work	Provide evidence to validate unnecessary invoices
Check as-built gradients	Ensure the design is adhered to
Detailed formation surface against current levels	Full cut and fill monitoring throughout the entirety of the project
Checking levels against the finished floor level	Ensure the design is adhered to
Regular, accurate stockpile measurements across site	Accurate earthworks strategy/MMP across the site
Identify catchment zones using flow routes	Avoid costs correcting flooding on customers' gardens/properties
Check for efficient water runoff	Avoid costs correcting collection of water on roads and driveways
Measurements of SUDS drainage features	Identify catchment zones using flow routes and check drainage is adequate, and gather measurements of sustainable drainage systems  Visualise how heavy rainfall or flowing water will affect the worksite above and below the ground checking the effectiveness of drainage



Action via portal using drone data	Impact
Make comparisons against previous surveys	Ensure earthwork operations stay on track and align with budget constraints
PDF map exports	Instant exports of site with the CAD overlaid which can be circulated to teams and contractors
Checking fence and boundary lines against the design	Be one step ahead of costly litigation by identifying potential legal discrepancies/customer care issues with inaccurate site boundary lines
Check the accuracy of material quantities	Ensure accuracy with invoice quotations, avoiding ambiguity of third-party cost projections
Quantify earth movements on site	Make significant cost-savings by producing in-house MMP, producing detailed reports including measurements and full visualisation of material onsite
Calculate cut and fill	Continuously monitor progress throughout the project
Solve customer care queries by accessing survey data to prove the quality of work carried out/disprove claims of errors	Maintain positive relationships with customers, and eliminate costs to rectify issues once the customer has moved in
Produce live snagging reports from the mobile app	Avoid additional costs from checks carried out by QS/Solicitors querying work on site.
Remote surveys carried out by Drone Surveying	Eliminate risks working on-site surveying land

**Being able to explore the drone data in a multitude of ways removes the guesswork and reliance upon accuracy from third parties**

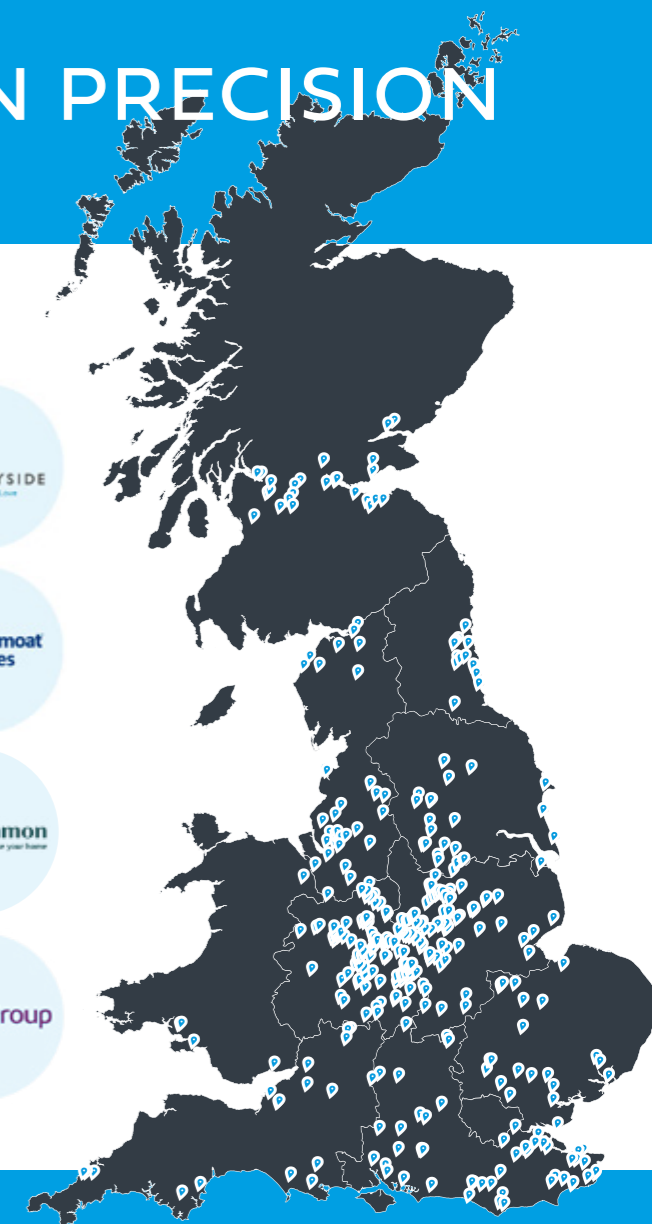
For example: Civils teams not working to design | Inaccurate invoicing; inflation of costs | Costs to rectify errors Relocation/redesign of drainage systems | Inflated invoices | Reputation | Reduce third-party expenses  
Legal and Health & Safety ramifications

**Utilising services from Drone Surveying will inevitably save you time and money**



# YOUR PARTNER IN PRECISION

The provider of choice for the housebuild sector



STOCKPILE SURVEYS • 3D MODELLING INSPECTION • CAD OVERLAYS • CUT & FILL ANALYSIS • LIDAR INSPECTION • PHOTOGRAMMETRY • POINT CLOUD SURVEY  
RTK DATA • TOPOGRAPHICAL SURVEYS • FLOOD ANALYSIS

[dronesurveying.co.uk](http://dronesurveying.co.uk)



YOUR PARTNER IN PRECISION



**LAUNCHPAD**  
CLIENT PORTAL

All Drone Surveying clients have access to our Launchpad Client Portal, containing step-by-step training guides, tips and advice to make the most of their Drone Survey data.

[dronesurveying.co.uk/launchpad](https://dronesurveying.co.uk/launchpad)

Call **01922 214910**

Email [info@dronesurveying.co.uk](mailto:info@dronesurveying.co.uk)

Visit [dronesurveying.co.uk](https://dronesurveying.co.uk)





# DRONE SURVEYING

YOUR PARTNER IN PRECISION

