

**FOR WHEN  
IT HAS TO BE  
ACCURATE**



**THE SURVEY SPECIALISTS**



CENTRAL ALLIANCE  
**SURVEY**



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Survey Central has a fast-growing customer base with a reputation for providing integrated and innovative surveying services. Our crews of highly trained professional surveyors can tackle a project of any size, supported in-house with the latest AutoCAD and survey software, providing accurate and timely results every time. In addition, our recently expanded resources enable us to ensure surveying crews are onsite quickly and your project can be delivered on time.

## Topographical Surveying

Our surveyors are highly skilled and efficient in producing topographical surveys, ensuring all the necessary information is recorded and plotted to the correct accuracy, quality, quantity and to our clients' exact specification. We have a very strong client base built up through repeat business and pride ourselves on our ability to understand and evaluate client requirements. We use the latest survey technologies which include reflector-less and robotic total stations together with highly accurate GNSS receivers. Where appropriate, we use 3D laser scanners and mobile mapping systems, ensuring our surveys meet the highest possible standards, whilst ensuring optimum efficiency.

Our land surveyors have experience in the following sectors:

- Railway surveys
- Green/Brownfield Development sites
- Global Navigation Satellite System (GNSS) / Global Positioning System (GPS) surveys
- Highway surveys
- Flood plain surveys
- Watercourse channel surveys
- Water treatment works
- Pipeline surveys
- Measured building surveys
- HV Substations

**Project Name:** Hampton in Arden Station to Birmingham Int Station- Embankment Earthworks

**Client:** J Murphy & Sons

**Project Description:** Survey of 3.5km of track detail, cess, rail embankment and adjacent land to facilitate earth works remediation to alleviate drainage concerns.



**Project Name:** Hungate Development, York

**Client:** Lend Lease

**Project Description:** Topographical and Utility survey of proposed development areas and adjacent existing highways infrastructure to aid design and construction works for this high-profile project in the centre of York.



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*“Survey Central are a pleasure to do business with. On projects where there have been extra works to consider and necessary weekend working, they have met the challenge without issue. We consider them an important survey partner for P.J Careys”.* **Jason Fairbrother, Project Manager, P.J.Careys**

## Utility Surveying

Our in-house utilities division offer a range of utilities mapping solutions and have a comprehensive understanding of what lies below the ground. We're able to trace, identify and map underground utilities and service routes and using the latest in RD technology, locate metallic services such as power cables, cast iron mains and various telecommunication cables.

Ground penetrating radar (GPR) systems allow us to confirm the actual position of utilities and to locate the non-metallic utilities that can go undetected by the use of electromagnetic locators. The technology is also sensitive to geophysical changes which can allow detection of buried structures, voids or other such anomalies. This information is then mapped and a CAD file is produced which clearly show all the utilities present, including the production of 3D extended models where required.

We have over 15 years of experience in locating and mapping buried services and our senior surveyors are NVQ Level 5/3 qualified. All our surveys are compliant with PAS 128 guidance in utility surveying, and drawings include information on the location, depth and alignment of all buried services in order to try and establish the location of the following:

- Gas, water, electric and telecommunication services
- Non-metallic services, e.g. PK/PE pipes
- Voids, tunnels, cellars and foundations
- Disturbed and/or saturated soil
- Other potential hazards or obstructions

**Project Name:** J Sainsbury Facilities Nationwide

**Client:** P J Carey

**Project Description:** Ongoing programme of underground utility detection and mapping surveys to chart buried services for avoidance during construction and car park developments. Over 100 sites surveyed to June 2017 with more to follow.



**Project Name:** Peel East Quay Area

**Client:** Manx Utilities

**Project Description:** Utility mapping survey of quayside areas, adjacent highways and proposed pipeline routes as part of the Peel Regional Sewerage Treatment Strategy on behalf of Manx Utilities. Survey works undertaken in accordance with PAS128 to allow production of full drawings and report of results.



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## Laser Scanning

High definition 3D laser scanning surveys are fast replacing traditional survey methods due to its fast data capture and high accuracy, particularly for building and civil engineering projects and especially now that BIM is being used more widely.

3D laser scanning surveys allows us to analyse objects or the environment and to record its shape and location in real-time. The resulting point cloud data, which comprises millions of data points, can be used to construct three-dimensional models. Each scan takes just minutes, gathering millions of points with a single point accuracy of 3mm and modelled surface accuracy of 1mm.

The versatility of laser scanning combined with our experience and ability to work in complex environments ensures we can provide accurate digital drawings in a variety of sectors, including:

- Highway surveys
- Railway structures
- Electricity HV Substations
- Water treatment works
- Measured building surveys

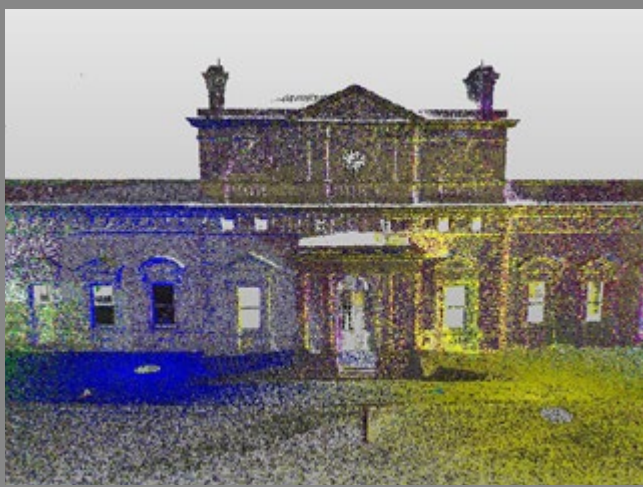
### Equipment

Survey Central use a range of 3D laser scanners with varying capabilities. The particular project may require a specific solution relating to the final output requirements.

**Project Name:** Halifax Station Developments

**Client:** WSP

**Project Description:** Laser scan survey of Halifax station and surrounding areas and approach which will be used as part of the detailed design and construction plans for the 'Halifax Station Gateway Masterplan'.



**Project Name:** Winchester and Woodthorpe Towers

**Client:** Willmott Partnership Homes

**Project Description:** 3D Laser Scan of external building facades to produce elevation plans and point cloud prior to building dressing and refurbishment works.



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*"Everyone I have met at Survey Central have a real 'can-do' attitude and we look forward to working with them closely in the future". Adam Monkhouse, Site Manager, Story Contracting*

## Mobile Mapping

Central Alliance is the first surveying company to offer the ground-breaking ROBIN LiDAR mapping system that provides three alternative mounting options rolled into one solution, allowing the user to map a variety of areas via walking, driving or flying.

ROBIN captures millions of measurable points that can then be used to map the environment in 3D and extract information suitable for your needs. Mobile Mapping systems are extremely versatile and can be used in many sectors including: rail; highways; energy; environment and construction.

Mobile mapping using the ROBIN will benefit our customers in a number of ways:

- Time Saving
- Remote Location work
- Improved Health & Safety
- Fast data capture
- Benefits clients looking for production of BIM compliant 3D models

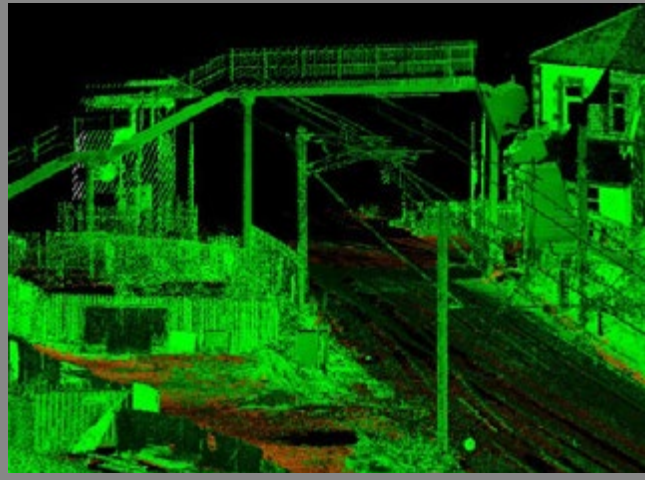
*"With the challenges of acquiring data in often difficult to access locations that pose a severe safety risk, gathering LiDAR data quickly and accurately becomes invaluable where an accurate representation of geomorphological features is required. Central Alliance were able to deploy the ROBIN quickly to site and we have been very impressed with the quality of the data gathered in such a small amount of time - we'll definitely be using the ROBIN again"*

**Marc Armstrong, Project Agent, Story Contracting**

**Project Name:** Hest Bank

**Client:** Story Contracting

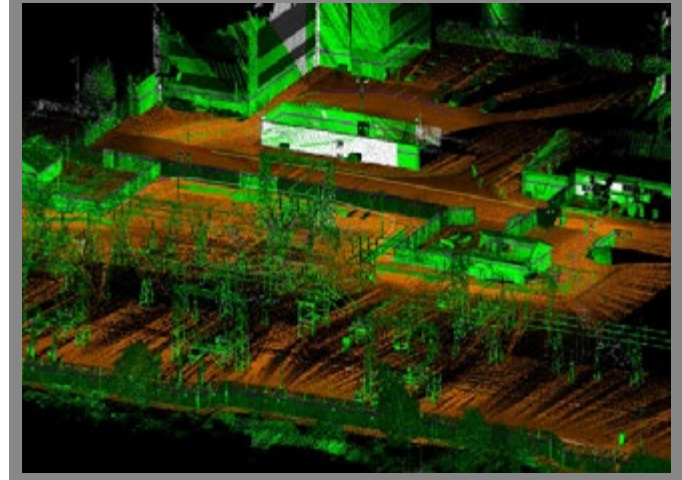
**Project Description:** The ROBIN Mobile Mapping solution was used on this difficult to access coastal rail project as we could traverse the whole area (approx 225,000m<sup>2</sup>) along safe routes, capturing data on the rock formations, slopes and tidal flats without direct access on hazardous surfaces.



**Project Name:** Elland Substation

**Client:** Mott Macdonald / National Grid Transmission

**Project Description:** MobileMapping data acquisition required at substations to provide full 3d Pointcloud as part of wider surveying activities for flood defences.



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*"My experience has been that Central Alliance ensure their customers' requirements are fulfilled and will consistently go the extra mile to deliver a professional service. A great service from a great team!"*

**Matt Barnett, Operations Supervisor, OnSite Central Ltd.**

## UAV/Aerial Surveying and HD Aerial Inspections

Survey Central combine the latest advances in unmanned aerial vehicles (UAVs) with innovative uses of imaging equipment to perform a wide range of high quality mapping and aerial surveys.

UAVs provide up-to-date high resolution imaging, filling in the gaps from other survey methods, with the ability to cover large areas and access hard-to-reach locations.

UAVs are fast becoming the system of choice for:

- The mapping of large areas of land.
- Production of high quality aerial photography of land, property and infrastructure.
- The inspection of land and extent of vegetation coverage.

UAV surveys provide high quality data including LiDAR, photogrammetry, 3D point cloud data and thermal imaging only possible from the air.

HD aerial inspections via UAV also offer high resolution images and video of hard to reach structures.

Survey Central use a combination of fixed wing and multi-rotor UAV's and have in-house PFCO approved UAV pilots.

**Project Name:** Darrington Quarry

**Client:** FCC Environmental

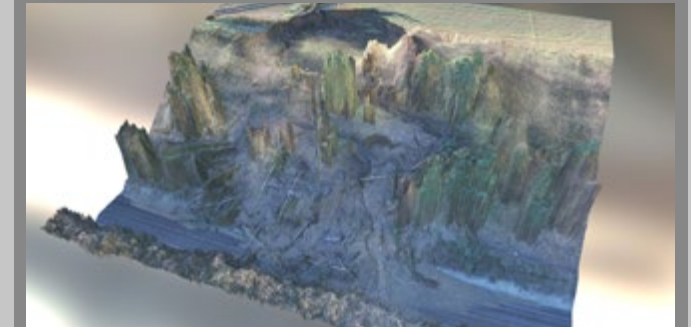
**Project Description:** We carried out the quarry survey using UAV to HD aerial video/site mapping and 3D modelling for volumetric analysis and production of up to date site drawings and orthomosaic imaging.



**Project Name:** Emergency Response at Farnley Haugh

**Client:** CML

**Project Description:** Various surveying techniques deployed at this emergency response project after the embankment failed including topographical/UAV surveys and aerial photography. Due to the instability of the embankment, a 3D model was created using photogrammetry to assist with the remedial design of the project and enabled the client to calculate the amount of spoil removed from the landslide.



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# Additional Services

## Desktop Surveys

Survey Central offer a comprehensive bureau service that will obtain these records for you and present them in a composite AutoCAD plan. This data can then be verified on site and adjustments made so they show 'actual' rather than 'recorded' positions by conducting a full utility survey which will highlight any unrecorded services as well as significant differences in recorded position.



## Measured Building Surveys

Using a wide range of the latest innovative surveying technology and software, our surveys can be tailored to very specific requirements to provide a complete solution for all your building measurement and planning needs.



## Subsurface Laser Scanning

Survey Central provide geo referenced subsurface morphology and volumetric data on any voids and cavities.



## CCTV Surveys

CCTV camera technology allows full investigation and condition surveys of pipes, drains and sewers.



## Bathymetric Surveys

A remote control survey boat equipped with echosounder (sonar) technology is used to measure bed depths and to measure and identify the physical features of lakes, rivers and other waterways.



## Satellite Monitoring

Satellite monitoring services use a combination of satellite imagery but also rely on image processing and interpretation skills to deliver specific geo-information. Survey Central can interpret this data and provide recommendations for more conventional surveying and investigation.



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# Competencies

Our in-house surveying teams are qualified in a wide range of specialisms and hold the following competency's

**CSCS**

**CCNSG Safety Passport**

**SMSTS**

**Personal Track Safety (PTS)**

**First Aid**

**PAS: 128 (Utility Mapping Surveys NVQ level 3&5)**

**PASMA**

**BESC/SHEA**

**Streetworks (Chapter 8)**

**IOSH**

**CAT & Genny**

**RD8000**

**PfCO approved UAV Pilots**

## Contact

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