

A TRUSTED RAIL PARTNER



CENTRAL ALLIANCE

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Who we are

Central Alliance helps organisations to realise the power of integrated pre-construction services. Through experienced people who understand the importance of precise site information, we ensure our customers are fully informed and able to move things forward into a successful construction phase. We continuously invest in our equipment, in training our people, and in providing technology-led products and services, so that we can support our customers to achieve their project goals.

Our in-house divisions include:



CENTRAL ALLIANCE
SURVEY

Survey Central

Survey Central has a fast-growing customer base with a reputation for providing practical and innovative surveying solutions for the rail sector including; desktop surveys; topographical surveys; utility surveys; laser scanning; UAV/aerial surveys; 'mobile mapping, CCTV drainage surveys and vacuum excavation.



CENTRAL ALLIANCE
GEO

Geo Central

Geo Central has a wide range of expertise in the geotechnical and geo-environmental fields, offering everything from site and structural investigative work to instrumentation and monitoring, in-situ testing, soil, rock and materials testing and factual reporting.



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TRAINING

Training Central

Training Central provides cable avoidance training to Tier1 Network Rail contractors. Our experienced team of manufacturer certified trainers provide comprehensive and structured training courses that fill gaps in skills and knowledge at various levels from ground worker to construction manager.



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Experience keeps projects on track

More than ever before, pre-construction companies working on the railways need a solid background of experience, efficiency and expertise. Central Alliance and its people have decades of collective experience in delivering varied rail projects - our teams are PTS trained and we are RISQS registered and audit approved.

We have the ability to mobilise a considerable workforce, often at short notice and because we are committed to using the latest equipment, we ensure production rates are maximized and staff can complete large amounts of work in a limited period.

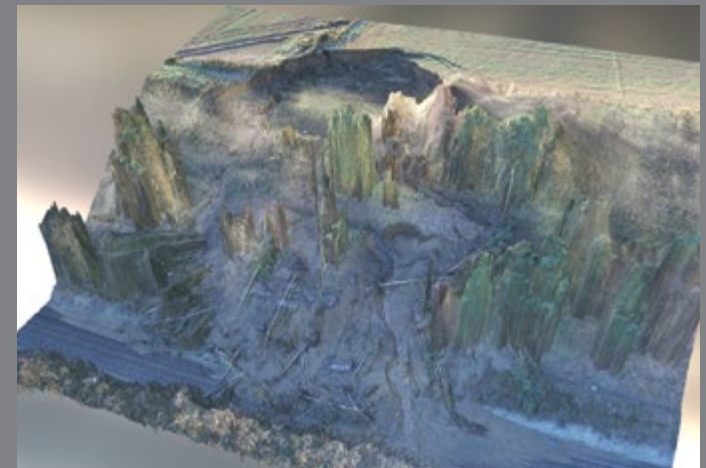
Recent rail projects include:

1. Strategic pre-construction partner at Harbury Cutting & Harbury East Cutting

J Murphy use Central Alliance as a strategic pre-construction partner, brought in to accelerate the progress of the slope stability project and install ground movement and ground water monitoring instruments. After the large landslide, the project scope widened and accurate geo-referenced survey data was required. Our senior team were also part of the Harbury emergency working party, contributing and consulting from a GI and geology perspective. Central Alliance are currently working on Harbury East Cutting, installing permanent monitoring instruments to monitor ground movement and ground water levels

2. Emergency Response at Farnley Haugh

Surveying techniques including topographical/UAV surveys and aerial photography were deployed at this site as part of an emergency response programme of work after the embankment failed following severe weather. 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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Experience keeps projects on track

Recent rail projects continued:

3. Specialist pre-construction services provided at Eden Brows

Central Alliance provided a variety of specialist pre-construction services to Story Contracting in this difficult to access location. Geo Central carried out detailed ground investigations including rotary boreholes using a special platform drill mounted on a long reach excavator that safely carried out investigations on steep embankments. In addition, Survey Central carried out topographical surveys of the embankment and adjacent land, including a river bed level survey using remote sonar technology. Laser scanning technology was used to capture information around the scour area where access was not possible and drones were used for aerial inspections that delivered images and video footage that clearly showed the extent of the embankment failure.

“We feel confident using pre-construction services from Central Alliance - they demonstrate an impressive level of technical understanding as well as essential site experience and their ability to work as part of a team is excellent. We expect our partnership to continue to grow.”

Ian Purdham, Head of Region (LNW / LNE) at Story Contracting Limited

4. Cable Avoidance for Network Rail Tier1 Contractors

Training Central provides training programmes for all operational staff who are working on track, from ground workers to scheme project managers. The main aim of our courses is to improve staff knowledge and understanding of the techniques associated with locating underground services using Network Rail approved cable avoidance equipment. This gives staff the confidence to challenge site personnel with regard to their working procedures during the construction phase and when signing off permits to break ground.



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Experience keeps projects on track

Recent rail projects continued:

5. Surveying and Monitoring at Arcow Quarry for Settle to Carlisle line electrification

Central Alliance carried out a ground investigation in order to establish strata, ascertain geotechnical properties and install vibrating wire piezometers at Arcow quarry. Additional monitoring instrumentation including rod and plate settlement markers, permanent ground markers and structure targets were also installed on site in order to provide a comprehensive solution for observing settlement during the construction of a new earthwork embankment. The embankment was required in order to construct three new railway sidings within the quarry providing an improved connection on to the Settle to Carlisle railway line. Following completion of the ground investigation and installation of monitoring points, Central Alliance undertook regular monitoring in order to provide real time information to the client, Story Contracting, allowing for construction works to be expedited.

“Accurate measurement of the ground water pressure was vital. The technique, provided for us by Central Alliance, involved drilling boreholes down to between four and seven metres below ground level. Vibrating wire piezometers were lowered into the holes to the level of the natural water table, where they were then encased in sand cells.”

Chris Sidwell, Project Manager, Story Contracting



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The right kit for the job

In addition to our fleet of traditional ground investigation rigs, our specialist geo equipment including modular dynamic sampling and rotary rigs, long reach excavator or telehandler mounted platform rigs and slope climbing rigs enable us to reach the places other can't! Our clients have been impressed by the ease of access, quality of data capture and high quality instrument installation capabilities that require no scaffolding, no possessions and no expensive equipment hire!

Our survey teams offer fast, efficient and accurate data capture for track geometry and associated features in accordance with Network Rail specifications, using a combination of conventional methods, track measuring devices and IMU technologies. Following further advancement to such technologies we are keenly awaiting the impending Network Rail approvals, which when in place will allow unrivalled survey efficiencies, resulting in further reduction in on-site durations (both the number of possessions and headcount required).

LiDAR Mobile Mapping System

With a reputation for providing innovative solutions for challenging projects, Central Alliance is gaining a reputation as the 'go-to' provider of pre-construction services when disaster strikes! Our 'Emergency Response' teams have been called in to assist some of the larger contractors on major landslide sites that have seriously affected rail routes over the last year such as Harbury Cutting, Eden Brows and Farnley Haugh. With the challenges of acquiring data in these often difficult to access locations that pose a severe safety risk, gathering LiDAR data quickly and accurately becomes invaluable for this type of emergency work where an accurate representation of geomorphological features for assessing slope stability is key. It's with these kind of emergency projects in mind that we now offer LiDAR mobile mapping using ROBIN technology.

"When making assessments on a failing slope, we need to know exact information about the existing condition of the slope so that we can assess how it has failed, what the mechanism of failure is and how to tackle this in remediation. It helps immensely in this situation to have a detailed 3D model of the site which we can provide using the ROBIN - the multi-platform laser scanning capability of the technology means that we can capture all required mobile mapping data on any site by driving, walking or flying over it".

Richard Pidcock, Technical Director, Central Alliance Pre-construction Services Limited.



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Committed to health & safety

Our teams work on customer projects all over the country and as we continue to grow the business we continue to invest in our people and their development to ensure they bring best value to customer projects. Our **in-house** geotechnical, surveying and training teams are qualified in a wide range of specialisms including:

H&S

Our teams hold a variety of H&S certifications including CSCS, PTS, CCNSG, First Aid, Manual Handling and IOSH certifications including Managing Safely and Working Safely.

Quality & Professional

We are committed to providing professional development at all levels, to capture the talent we need for the future.

- Lead drillers are NVQ level 2 land drilling qualified
- Senior surveyors and Survey Managers hold NVQ Level 5 'Senior Utility Mapping Surveyor' status
- Senior Site Staff are CITB Site Management Safety Training Scheme (SMSTS) qualified

Specialist

PfCO approved UAV Pilots

Health & Safety

Central Alliance is RISQS via audit accredited and our investment in training means our staff are PTS qualified so operate safely within this environment and operate within a culture that is aligned with the Lifesaving Rules standard.

Our experienced SHEQ Director provides leadership in health and safety matters by engaging and training our workforce in the achievement of safe and healthy working conditions and promoting best practice - as a result, our RIDDOR record is at 0.



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